ISQua Accreditation ORGANISATION

IEEA

NABH

NATIONAL ACCREDITATION BOARD FOR HOSPITALS AND HEALTHCARE PROVIDERS (NABH)

3rd EDITION

AUGUST 2022

# NABH ACCREDITATION STANDARDS FOR SMALL HEALTHCARE ORGANIZATIONS

# FOREWORD

National Accreditation Board for Hospitals and Healthcare Providers (NABH), is in its 15th year of creating an ecosystem of quality in healthcare in India. NABH standards focus on patient safety and quality of the delivery of services by the hospitals in the changing healthcare environment. Without being prescriptive, the objective elements remain informative and guide the organisation in conducting its operations with a focus on patient safety.

Over the years, successive NABH standards have brought about not only paradigm shifts in the hospitals' approach towards delivering the healthcare services to the patients but have equally sensitised the healthcare workers and patients towards their rights and responsibilities.

It is my privilege and pride to release and dedicate this 3rd Edition of Small Healthcare Organization Accreditation Standards of NABH to all healthcare workers. This edition is unique in its approach and has been presented based entirely on the suggestions made by various stakeholders. For the first time, the Objective Elements have been designed to be assessed as Core, Commitment, Achievement and Excellence.

The NABH hallmark methodology of ten Standards Chapters approach has been retained; There are a total of 408 objective elements out of which 100 are in Core category which will be mandatorily assessed during each assessment, 257 are in Commitment category which will be assessed during the final assessment, 35 are in Achievement category to be assessed during surveillance and 16 are in Excellence category which will be assessed during re-accreditation.

This objective methodology will aid any healthcare organisation in a stepwise progression to mature quality system covering the full accreditation cycle. The scoring methodology has been modified to a graded scheme to help recognise every progressive effort by the organisation in the implementation of the standards. The chapter on Continuous Quality Improvement is now replaced with Patient Safety and Quality Improvement to increase the focus on this critical aspect of healthcare. Each chapter now has a bibliography for reference, and this will provide organisations with a resource for taking quality beyond the requirements of the objective elements. Another important incentive to adopt these is the move towards a four-year cycle with a midterm surveillance at two years.

These standards along with the key Performance Indicator and Guidance on Monitoring Medication Errors as Annexures have been made available free of charge as a downloadable document on NABH website. I sincerely hope that all healthcare organisations will certainly benefit from the collective efforts of Technical committee of NABH and practical suggestions of thousands of Quality Champions from India and abroad.

NABH remains committed to its mission of taking Quality Safety and Wellness to the last man in the line.

Jai Hind

**Dr. Atul Mohan Kochhar**
**CEO, NABH**

# ACKNOWLEDGEMENT

I acknowledge the contributions of the following in preparing this 3rd Edition of Small Healthcare Organization Accreditation Standards of NABH.

Dr. Mahesh Verma, Chairman NABH, has been the guiding light throughout the development of this edition. I thank him for his active participation, support and invaluable suggestions despite his busy clinical schedule.

I sincerely thank Dr Ravi P Singh, Secretary General of Quality Council of India for his succinct guidance and continuous support by making adequate resources available for this process.

I thank all board members of NABH in giving significant suggestions for betterment of the standards and the guidebook.

The Technical Committee of NABH worked relentlessly and meticulously to accommodate the best practices in patient safety and healthcare quality, referred to innumerable academic references and incorporated suggestions made by all of the stakeholders in bringing this standard to reality. It was, indeed, a mammoth task. I profoundly thank all the members for playing a pivotal role in the development of this edition.

I thank all our passionate assessors, management of the hospitals, quality managers, clinicians, nurses and paramedics who gave us extensive feedback to improve upon the standards and their exhaustive interpretation.

I thank the officers at NABH Secretariat for working round the clock, to complete the work within time.

It is entirely due to the overwhelming participation, dedication, and diligence of all concerned that we could present this guidebook in the current detail and format.

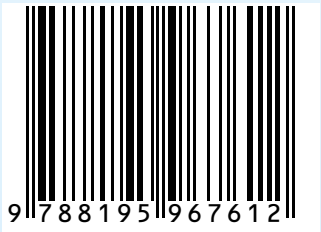
To all of you a sincere, heartfelt and, profound - Thank you.

**Dr. Atul Mohan Kochhar**
**CEO, NABH**


# National Accreditation Board For Hospitals and Healthcare Providers (NABH)

Accreditation Standards for Small Healthcare Organizations
(3rd Edition) August 2022

ISBN 978-81-959676-1-2






3rd Edition August 2022

# Table of Contents

# About NABH

National Accreditation Board for Hospitals and Healthcare Providers (NABH) is a constituent board of the Quality Council of India (QCI), set up to establish and operate accreditation programs for healthcare organisations. NABH has been established with the objective of enhancing the health system & promoting continuous quality improvement and patient safety. The board, while being supported by all stakeholders, including industry, consumers, government, has full functional autonomy in its operation.

NABH provides accreditation to hospitals in a non-discriminatory manner regardless of their ownership, size, and degree of independence.

International Society for Quality in Healthcare (ISQua) has accredited NABH.

**Vision:** To be apex national healthcare accreditation and quality improvement body, functioning at par with global benchmarks.

**Mission:** To operate accreditation and allied programs in collaboration with stakeholders focusing on patient safety and quality of healthcare based upon national/international standards, through process of self and external evaluation.

## NABH ACTIVITIES:

**NABH Accreditation Programmes:** NABH offers accreditation to Hospitals, Small Healthcare Organisations/Nursing Homes, Blood Banks, Eye Care hospitals/clinics, Oral Substitution Therapy Centres, Community Health Centres/Primary Health Centres, AYUSH (Ayurveda, Homeopathy, Unani, Siddha and Yoga & Naturopathy) hospitals, Wellness Centres, Medical Imaging Services, Dental Centres, Allopathic Clinics, Ethics Committees and Panchkarma Clinics.

**NABH Certification Programmes:** NABH offers certification to Medical Laboratory, Nursing Excellence, Emergency Department, Medical Value Travel Facilitator (MVTF), Entry Level for Hospitals, Entry Level for Small Healthcare Organisation, Entry Level AYUSH Hospitals and Entry Level AYUSH Centres.

**NABH International:** NABH has started its operations overseas under NABH International (NABH I). It offers all accreditation programs as being offered in India. The program is unique as in addition to the accreditation standards it requires compliance with local regulatory requirements.

**Training & Education:** NABH conducts Education/Interactive Workshops, Awareness Programmes, and Programme on Implementation (POI).

# Scope and Purpose of the Standards

## SCOPE OF THE STANDARDS

These standards are applicable to any small health care organization (SHCO) provided the SHCO fulfils the following requirements:

- The SHCO is currently in operation as a healthcare provider.
- The organisation commits to comply with NABH standards and applicable legal/statutory/regulatory requirements.

These standards are to be used by the whole organisation and not for a specific service within the organisation. Organisations may have different services and it is equally applicable to all services and both public and private hospitals.

## PURPOSE OF THE STANDARDS

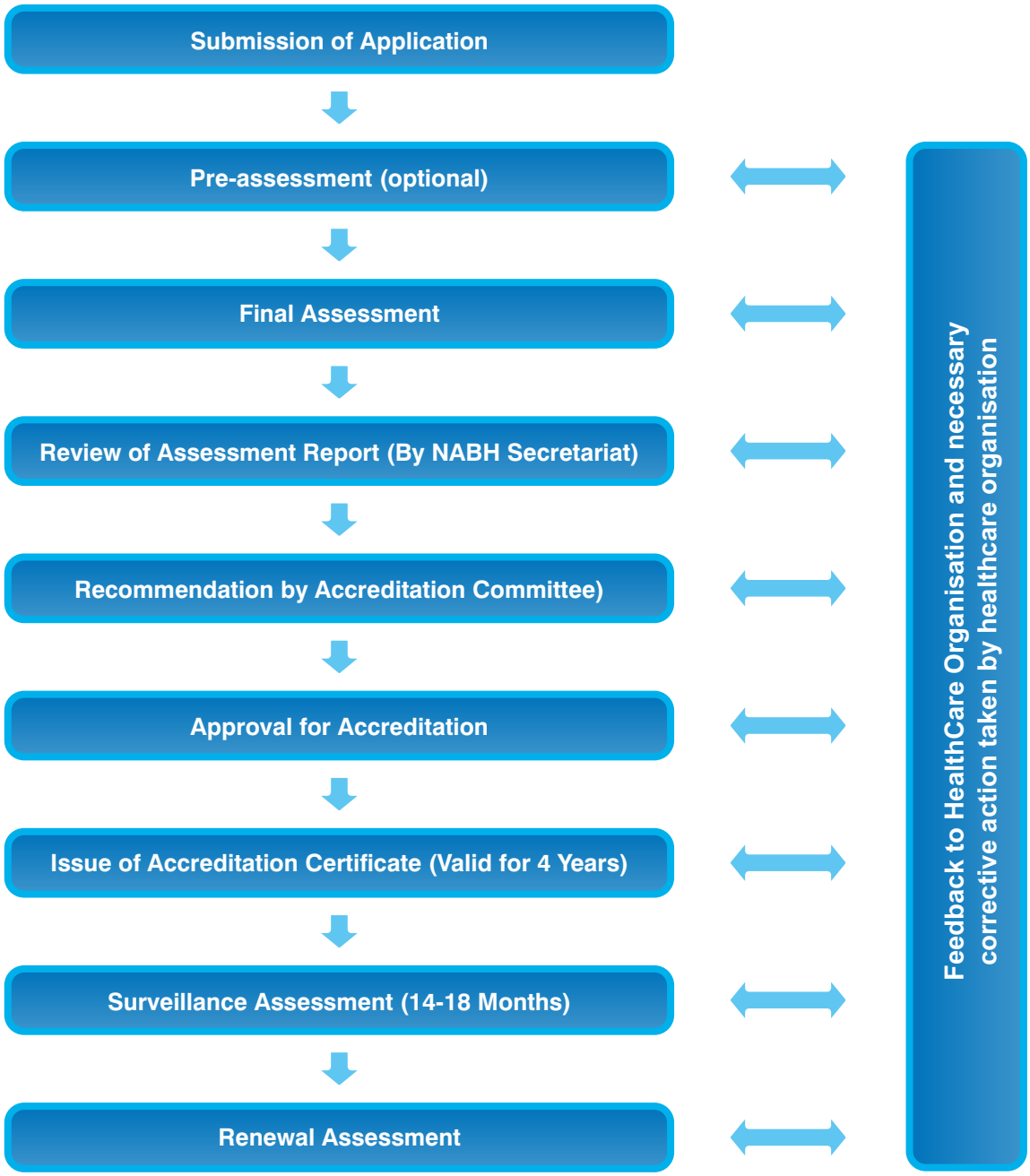
**The aim of the standards is to achieve an acceptable level of performance with a view to:**

- Improve public trust and community confidence that the organisation is concerned for patient safety and the quality of care;
- Ensure that they listen to patients and their families, respect their rights, and involve them in the care process as partners;
- Ensure that they provide a safe and efficient work environment that contributes to staff satisfaction and improves overall professional development;
- Provide an objective system of empanelment by insurance companies and other third parties;

**In addition, these standards can also be used to:**

- Guide the efficient and effective management of a SHCO;
- Guide the organisation in the delivery of patient care services and in their efforts to improve the quality and efficiency of those services;
- Review the important functions of an SHCO;
- Provide an opportunity to explore compliance expectations of standards and the additional requirements related to safety and regulation.

# Overview of the NABH Accreditation Process




* For Renewal Assessment, the accredited hospital must apply six months prior to the expiry of the validity of accreditation

# How to read the standard?

The standard focuses on the key points required for providing patient-centred, safe, high-quality care. The interests of various stakeholders have been incorporated into the standard. They provide a framework for quality assurance and quality improvement. The focus is on patient safety and quality of patient care. It sets forth the basic standards that organisations must achieve to improve the quality of care. The requirements have been divided into ten chapters. The first five chapters are "patient centric" and the last five chapters are "organization centric". The ten chapters are:

1. Access, Assessment and Care of Patient (AAC)
2. Care of Patients (COP)
3. Management of Medication (MOM)
4. Patient Rights and Education (PRE)
5. Hospital Infection Prevention and Control (HIC)
6. Patient Safety and Quality Improvement (PSQ)
7. Responsibility of Management (ROM)
8. Facility Management and Safety (FMS)
9. Human Resource Management (HRM)
10. Information Management System (IMS)

Every chapter begins with an 'intent'. The intent states the broad requirements of what the organisation needs to put in place and implement to improve the quality of care. This is followed by the 'summary of standards' which lists all the standards of that chapter. The standards and objective elements are explained after the summary. A list of references is provided at the end of all chapters.

## WHAT IS A STANDARD?

A standard is a statement of expectation that defines the structures and processes that must be substantially in place in an organisation to enhance the quality of care. The standards are numbered serially, and a uniform system is followed for numbering. The first three letters reflect the name of the chapter and the number following this reflects the order of the standard in the chapter. For example, AAC.1. would mean that it is the first standard of the chapter titled 'Access, Assessment and Care of patient'.

## WHAT IS AN OBJECTIVE ELEMENT?

It is that component of standard which can be measured objectively on a rating scale. Acceptable compliance with objective elements determines the overall compliance with a standard. The objective element is scored during assessments to arrive at the compliance. The objective element is numbered alphabetically in a serial order. For example, AAPC.1.c. would mean that it is the third objective element of the first standard of the chapter titled 'Access, Assessment, and Care of patient'.

## WHAT IS AN INTERPRETATION?

The interpretation provides guidance on what the organisation needs to do to ensure that the requirement(s) of the objective element is met. Where applicable, it provides references and suggests a specific methodology that the organisation needs to adhere to. The word 'shall/should' or 'will/would' is used to reflect a mandatory requirement. The interpretation also lists out desirable aspects for the organisation to implement, and the word 'can/could' is used to reflect this. During scoring, the desirable aspects are not considered, and they are only used to reflect on the overall achievement of the standard, which is reflected in the assessment report. At places, the interpretation would not be specific and would have used the words like 'adequate/appropriate'. This has been done keeping in mind the diverse nature of healthcare delivery and adhering to the intent of this standard which is to improve the quality of healthcare and at the same time, be feasible. The expectation is that whenever such a phrase has been used in the interpretation/objective element, the organisation shall base its practice on evidence-based/best practice. In some places, the interpretation has listed out examples. The examples are only illustrative in nature, and the organisation has the liberty to decide what/how to implement. However, the requirement of the objective element would have to be adhered.

## CORE STANDARD

Certain standards in the standard have been designated as Core Standard. These are standards that the organisation should have in place to ensure the quality of care or the safety of people within the organisation. CORE has been used to identify such standards.

## LEVELS

The rest of the standards have been divided into three levels, namely commitment, achievement, and excellence. This has been done keeping in mind the fact that quality is a journey and that accredited organisations need to improve constantly. Most of the objective elements would be at the commitment level, and these would form the basis for accreditation at the end of the final assessment. The level of compliance with the standards placed at the achievement and excellence level would also count towards continued accreditation.

## OTHER SECTIONS INCLUDED IN THE STANDARD BOOK

- About NABH
- Scope and purpose of the standards
- Overview of the NABH accreditation process
- Scoring
- Accreditation decision and maintenance of same
- Abbreviations
- Glossary
- Index

**In the book, certain objective elements require mandatory system documentation. The same have been identified by the * (asterisk) mark.** A detailed guide on documentation is provided in the next section.

# System Documentation

## INTRODUCTION

Documentation for systems is complicated and best left to specialists in this line, is a perception that is wrongly carried by even the organisations which have well established, functioning, and externally assessed quality systems. It is a notion that is far removed from the truth. An attempt is made here to clear the concepts of documentation and make it simple enough to be carried out by the staff who is responsible for executing various tasks in the organisation without depending on anyone else. This will keep the documentation closer to reality and flexible in the hands of the organisation and will also reduce the dependence on external sources for creating documents that are many times far removed from reality.

## WHY DO WE NEED DOCUMENTATION?

The fundamental purpose of documentation is the standardisation of actions across various departments and functional units in the organisation. Documentation is required for clarity on actions, continuity of systems, and information on the established system that is common to all levels of staff. Therefore the documentation has various components:

- **Operation System Documentation:** It defines the procedures and processes that are required to be carried out in a standardised manner.
- **Quality system documentation:** The actions that are specifically required for activities that are related to the quality system and are not covered under operation system documentation.
- **Specialised documents:** Safety System Documentation, business continuity documentation.

## TYPE OF DOCUMENTS

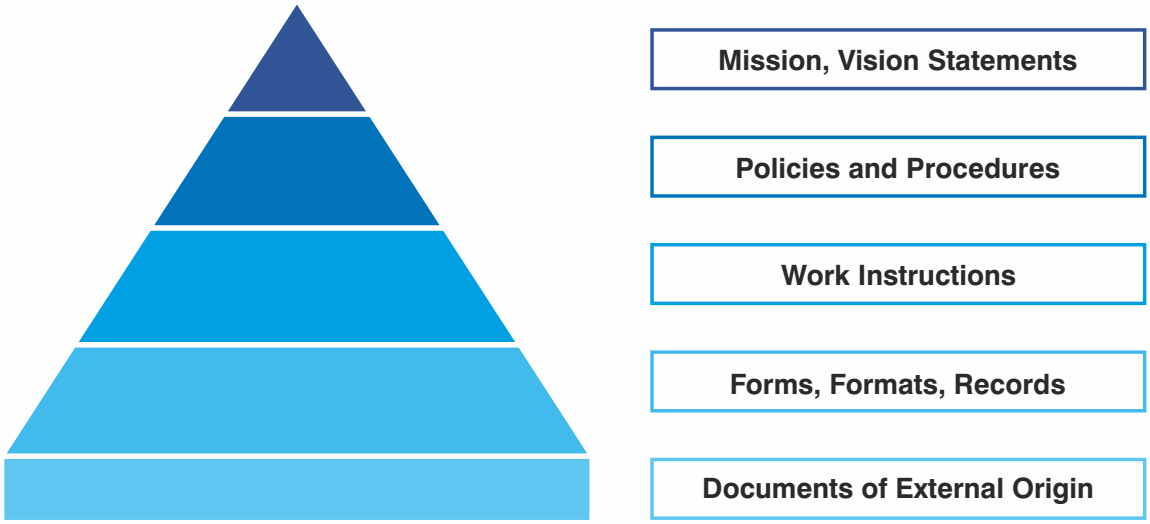
From the top level of planning to the level of maintaining records of activities, the documentation follows a general principle as below:

1. **Policy Documents:** Mission Statement, Vision Statement, Strategic plans, Policies which transcend time and act as guidance in the changing scenarios of the operational, legal, technologically changing environment in which the organisation conducts its activities. They are the principles on which planning is based while adapting to the changes.

2. **System Documentation:** Operational and quality system documentation to carry out the activities in conformance with the mission and vision statement. This includes what is commonly known as Standard Operating Procedures or SOPs.
3. **Work Instructions:** These are instructions in a detailed manner for executing tasks, including the physical steps to be carried out.
4. **Forms and Formats:** These are various forms and formats to capture information as a record of the execution of various activities. The records are filled forms. The forms, formats, and records can be in a physical or electronic form. These can be entries as numerical, text, image, sound, etc.

Many organisations add a fifth category to this as Externally Acquired documents such as licenses, statutory clearances, Legal contracts and Memoranda of Understanding, etc.

The documentation structure, if visualised as a pyramid, appears as below:




**Vision Statement:** Vision statement defines the direction that the organisation wants to chart.

**Mission Statement:** Mission statement defines the purpose of the existence of the organisation.

**Policies:** These are statements that transcend time to decide on the way the activities of the organisation will be executed. These statements connect mission and vision statements with the processes and procedures of the organisation. These may change over a relatively moderate time frame of a few years. Whenever these are developed or altered, the focus of this activity will always be guided by the mission and value statements forming a link between the mission and value statements and the actions on the ground which are documented through the Standard Operating Procedures.

**Standard Operating Procedures:** These documents define the steps that will be carried out to complete tasks or parts of tasks. These are also known as Operations Documentation or Operations Manual. These can be multiple manuals specific to departments, a group of related tasks and will have documentation for the processes and procedures related to the concerned department, a section or activity. The term standard refers to its being standardised for the time being and does not mean that it cannot be altered. Most of the organisations with actively followed systems will address review of these documents for correctness and adaptation at least once a year and sometimes even twice a year. It is essential that these documents are kept relevant to the requirements of alteration to processes and procedures that are necessary from time to time due to the improvements, change in technology, and changes to statutory norms, etc. The term standard, therefore, refers to its current relevance rather than its permanent nature and everlasting non-alterability. This is important to understand because many organisations have the reluctance to alter these documentations mistaking the word standard for unalterable, sometimes even after the processes have changed.

**Forms and formats:** For the capture of information in a complete and relevant manner, this must be done in a standardised manner. This is achieved through various forms and formats to maintain the records of activities. The forms can be a single page, multipage or a register in which the entries are made. The purposes can be from just capturing whether an activity was carried out, to a very elaborate capture of values related to many parameters related to the activity. Example of the former being tick marking when some action was carried out and the example of the latter being an elaborate record of the initial assessment of the patient on arrival to the wards. Records are filled forms and formats. Forms and formats can be altered through the set alteration process, but records cannot be altered. Forms, formats, and registers are also a part of the system of controlled documents and must have their identity. It is not always necessary to number each form, and this will depend on whether the organisation wants to assign a separate identity to each filled form. Such is rarely required.

**Documents of External Origin:** For the sake of making the documentation system inclusive, some organisation include documents of external origin. These are licenses, statutory documents, Memoranda of Understanding with various organisations, etc. These are not alterable.

**Temporary Documents:** Many notes, documents, records in an informal manner get created during the execution of processes. These help in reducing errors or are intermediaries to further calculations. These are not necessarily maintained in a set format and can be rough entries on notepads, diaries, etc. They need not be preserved if the information content does not have lasting importance and the final entry is anyway going to be made in a set format. Such documents do not form a part of the formal documentation system

### Documentation related to processes and procedures

The documentation related to processes and procedures deals with operating procedures, quality system procedures, safety procedures, etc. This is the documentation that is commonly known as Standard Operating procedures or SOPs. This can be documented as steps which are numbered or bulleted or in the format of flow charts. Flowcharts use a method of commonly recognised symbols, such as a circle or ellipse for start or end of the process, rectangle for activity, diamond for decision making step, picture of rolled partially document for the steps where documentation is necessary, etc. Most word processing software applications have these symbols inbuilt for use.

**Which processes should be documented?**

The organisations sometimes fall into a dilemma about the extent of documentation that should be followed. There are some guidelines which can help. Though the list is not exhaustive, the following processes and procedures require documentation:

- Procedures which are required to be followed uniformly at various locations across the organisation
- Procedures which are required to be followed uniformly across time
- Procedures which, if not followed uniformly and correctly will increase the risk to patients, staff or visitors
- Procedures which, if not followed uniformly, can lead to serious consequences concerning the loss of material, time, physical damage, equipment, etc.
- Procedures which are complicated leading to either missing of some steps or risk of variation in their execution
- Procedures which are required to be followed uniformly in spite of high turnover of human resources
- Procedures which are specific to the organisation as against procedures which are universally accepted or that are part of standard curricula of those professionals who carry out these procedures.

## HOW TO DEVELOP DOCUMENTATION THAT IS EASY TO FOLLOW?

The following steps can help in developing documentation that is easy to follow:

- Providing a clear plan of documentation architecture. This can be as a print map or in electronic form
- Using the uniform format for the visual appearance of the documents to cover their appearance, fonts, symbols, page layout, etc.
- Adding colour codes, font changes for different documents
- Participation of the staff that is involved in carrying out the activities in the development process for documentation
- Using the same language and form of the structure of language as per the users
- Using a direct form of speech (active) than the indirect form (passive)
- Providing Chapter Index or Index of words
- Sequencing activities as per their actual sequence of execution in time
- If necessary replicate the documentation related to specific processes and procedures within all relevant documentation with a clear reference to the original document
- Making relevant documents available at the location of use
- Keeping relevant documents available all days of the year and all times of day and night as per the requirements of execution of the activities.
- Removing obsolete documents from all locations, other than those retained for archiving

**The term "written guidance" in the standards refers to either a documented policy, procedures and/or work instructions communicated to the stakeholders.**

## CONTROLLED DOCUMENTS

As mentioned before, the documents bring uniformity and clarity for the execution of activities in the organisation. It is, therefore, imperative that they are not altered without the knowledge of the creator or the staff who is specifically authorised for this. Such documents are known as Controlled Documents. All types of documents described above come under this category, except for the temporary document.

Characteristics of controlled documents:

- Each document is named
- The purpose of the document is defined
- There is a date of creation of the document
- There is a date of approval of the document
- There is a date of review of the document
- There may be a date of expiry of the document
- Signatory for creation is defined.
- Signatory for approval is defined.
- The signatory for alterations is defined. This may be the same or different from the creator.
- Each page is numbered.
- The document may have a number assigned to it.

This information about the identity of the document may be contained in the form of a box at the top of the document. If put in this way, such a box is known as Control Box. It may be put at the top of the document without any box format. It is just that this form is an integral part of each Controlled Document. The staff designation signing the document with the corresponding signature is maintained at the bottom of the page. The dates related to the document may be mentioned at the beginning page of the document and may not be there on each page, though most organisations put it on each page. The alphanumeric identity, if assigned to such document must form a system that may include department, a section of the department, purpose or activity referred in the document, version number of the document, page number. The purpose of this exercise is to create a unique identity for each page of the controlled document. It is not mandatory to have an expiry date for the document.

An example of the control box is given below:

| Name of Organisation | Document Code | Date of Issue | Date of next revision / validity |
|---|---|---|---|
| | | | |

A similar box appears at the bottom of the page for the signatory, an example of which is given below:

| Authorised by: Designation | Issue No./Version No./ | Issued by: Designation |
|---|---|---|
| Signature | | Signature |

## BODY OF DOCUMENT

There are many formats for the documentation of the contents. One of them is given below:

| Name of Organisation | Document Code | Date of Issue | Date of next revision / validity |
|---|---|---|---|
| Dept. Name/Process | | | |

Name of the Document:
Purpose of the Process that is documented
Start point
End Point
Procedure:
Step 1: XXXXXXXXXXXXX
Step 2: XXXXXXXXXXXXX
Step 3: XXXXXXXXXXXXX
Step n: XXXXXXXXXXXXX
Related Records

| Related documents Authorised by: Designation | Issue No./Version No./ | Issued by: Designation |
|---|---|---|
| Signature | | Signature |

## MANUALS

One category of controlled documents is manuals. Manuals are documents that are used by various departments as against the SOPs which pertain to a particular department. Some of the examples of manuals are which deal with various specific functions such as infection control, safety, quality, etc. If the departmental SOPs are vertical and restricted to a particular department, then the manuals are horizontal and are used across many departments. The format of the manual is similar to the SOPs but has reference or duplication of departmental SOPs that have relevance to the subject of the manual and are required to be duplicated for coherence and completeness.

# Scoring

The objective elements stated in the standards are scored during the assessment. The same is also used for scoring during the self-assessment. The scoring is to be done using a five-point scale. When applying a score, use the following rationale to determine the level of compliance.

| Score | Rationale |
|---|---|
| 1 | **No compliance**<br>• No systems in place and there is no evidence of working towards implementation<br>• None or little (≤ 20%) of the samples meet the requirement(s) of the objective element<br>• Non-conformity exists |
| 2 | **Poor compliance**<br>• Elementary (limited) systems in place and there is some evidence of working towards implementation<br>• Minimal (between 21-40%) of the samples meet requirement(s) of the objective element<br>• Non-conformity exists |
| 3 | **Partial compliance**<br>• Systems are partially in place, and there is evidence of working towards implementation<br>• Some (between 41-60%) of the samples meet the requirement(s) of the objective element<br>• Non-conformity exists |
| 4 | **Good compliance**<br>• Systems are in place, and there is evidence of working towards implementation<br>• The majority (between 61-80%) of the samples meet the requirement(s) of the objective element<br>• Non-conformity could exist |
| 5 | **Full compliance**<br>• Systems are in place, and there is evidence of implementation across the organisation<br>• Almost all (between 81-100%) of the samples meet the requirement(s) of the objective element<br>• No Non-conformity |

The basis for scoring shall be implementation. However, if there is inadequate/inappropriate system documentation, the score could be downgraded by one.

## NOT APPLICABLE (NA) CRITERIA

There could be a few standards/objective elements that may not be applicable to some organisations. A standard/objective element may be described as not applicable when the statement/content of the element would never occur in the organisation. The organisation has to identify such standard/objective element before the assessment and inform the NABH secretariat of the same. During the assessment, the assessment team shall discuss the same with the organisation and a final list shall be arrived at.

# Accreditation Decision and Maintenance of same

After the completion of the final assessment, the assessment team submits the report and the scoring sheet to the National Accreditation Board for Hospitals and Healthcare Providers (NABH). The organisation is expected to submit an action plan with timelines for rectifying the identified non-conformities. The action plan is reviewed by the assessment team, and a comment is placed indicating acceptance or non-acceptance.

The accreditation committee reviews the assessment report, the scoring sheet and the submitted action plan with timelines and the assessment team's comments regarding the same. Following the review, a decision is taken.

## ACCREDITATION DECISION CRITERIA FOLLOWING THE FINAL ASSESSMENT

For an organisation to be accredited by NABH, an overall compliance rate of at least 80% must be achieved, and the following rules must be met:

1. The score for every core objective element must not be less than 4.
2. No individual standard should have more than one objective element scored as 2 or less.
3. The average score for individual standards must not be less than 4.
4. The average score for an individual chapter must not be less than 4.
5. Every objective element with a score of 3 or below should have an accepted action plan with timelines.

**Note:** The cumulative score obtained for all objective elements is considered for calculating the overall compliance. At the end of the final assessment, only the objective elements marked at 'core and commitment' level are considered for scoring. Hence, the overall compliance of 80% corresponds to a score of numerator (357x4) and denominator (357x5) i.e. 1428/1785 = 80%. In case of the not applicable objective element(s), the scoring is modified accordingly by excluding them from the numerator and denominator.

## AWARD

If the organisation meets the criteria listed above, the organisation will be awarded accreditation status for four years with effect from the date of the Accreditation Committee meeting when the result is formally approved.

## MAINTAINING THE AWARD

The standards are designed to measure and support the continual improvement of an organisation's operation. Continuing accreditation status will be subject to the outcome of the surveillance assessment and the re-accreditation assessment. The criteria for maintaining accreditation following these assessments are listed below.

## ACCREDITATION DECISION CRITERIA FOLLOWING THE SURVEILLANCE ASSESSMENT

For an organisation to continue to be accredited by NABH, an overall compliance rate of at least 80% must be achieved, and the following rules must be met:

1. Overall compliance rate of at least 80% for objective elements at 'commitment' level.
2. Overall compliance rate of at least 80% for objective elements at 'achievement' level.
3. Improvement in the score of objective elements from the previous assessment, which were scored as 2 or less.
4. The score for every core objective element must not be less than 4.
5. No individual standard should have more than one objective element scored as 2 or less.
6. The average score for individual standards must not be less than 4.
7. The average score for an individual chapter must not be less than 4.
8. Every objective element with a score of 3 or below should have an accepted action plan with timelines.

**Note:** The cumulative score obtained for all objective elements is considered for calculating the overall compliance. At the end of the surveillance assessment, only the objective elements marked at 'core', commitment' and 'achievement' level are considered for scoring. The compliance of 80% of the 'core' and 'commitment' corresponds to a score of numerator (357x4) and denominator (357x5) i.e. 1428/1785 = 80%. In addition to the 'core' and 'commitment', the compliance of 80% of the achievement level corresponds to the score of numerator (35x4) and denominator (35x5) i.e. 140/175 = 80%. Hence, the cumulative score for 'core', 'commitment' and 'achievement' for surveillance assessment corresponds to the numerator (392x4) and denominator (392x5) i.e. 1568/1960 = 80%. In case of the not applicable objective element(s), the scoring is modified accordingly by excluding them from the numerator and denominator.

## ACCREDITATION DECISION CRITERIA FOLLOWING THE RENEWAL ASSESSMENT

For an organisation to continue to be accredited by NABH, an overall compliance rate of at least 80% must be achieved, and the following rules must be met:

1. Overall compliance rate of at least 80% for objective elements at 'commitment' level.
2. Overall compliance rate of at least 80% for objective elements at 'achievement' level.
3. Overall compliance rate of at least 80% for objective elements at 'excellence' level.
4. Improvement in the score of objective elements from the previous assessment, which were scored as 2 or less.
5. The score for every core objective element must not be less than 4.
6. No individual standard should have any objective element scored as 2 or less.
7. The average score for individual standards must not be less than 4.
8. The average score for an individual chapter must not be less than 4.
9. Every objective element with a score of 3 or below should have an accepted action plan with timelines.

**Note:** The cumulative score obtained for all objective elements is considered for calculating the overall compliance. At the end of the re-accreditation assessment, all the objective elements marked at 'core', commitment', 'achievement' and 'excellence' level are considered for scoring. The compliance of 80% of the 'core' and 'commitment' corresponds to a score of (357x4) and denominator (357x5) i.e. 1428/1785 = 80%. In addition to the 'core' and 'commitment', the compliance of 80% of the achievement level corresponds to the score of numerator (35x4) and denominator (35x5) i.e. 140/175 = 80% and compliance of 80% of the excellence level, corresponds to score of numerator (16x4) and denominator (16x5) i.e. 64/80 = 80%. Hence, the cumulative score for 'core', 'commitment', 'achievement' and 'excellence' for re-accreditation assessment corresponds to the numerator (408x4) and denominator (408x5) i.e. 1632/2040 = 80%. In case of the not applicable objective element(s), the scoring is modified accordingly by excluding them from the numerator and denominator.

The table below summarises the accreditation decision criteria.

| | Final | Surveillance | Re-accreditation |
|---|---|---|---|
| Overall compliance (cumulative score) | ≥80% | ≥80% | ≥80% |
| Commitment (cumulative score) | ≥80% | ≥80% | ≥80% |
| Achievement (cumulative score) | NA | ≥80% | ≥80% |
| Excellence (cumulative score) | NA | NA | ≥80% |
| Core Objective (individual Objective element score) | ≥ 4 | ≥ 4 | ≥ 4 |
| Average score for individual standard | ≥ 4 | ≥ 4 | ≥ 4 |
| Average score for individual chapter | ≥ 4 | ≥ 4 | ≥ 4 |
| Improvement in the score of Objective elements that have been scored ≤ 2 in the previous assessment | NA | Required | Required |
| Individual standard with Objective elements < 2 (number) | 1 | 1 | 1 |
| Closure for Objective elements with a score of ≤ 3 | Required | Required | Required |

Objective element = Objective Element NA = Not Applicable

# SUMMARY OF STANDARDS

**Total Standards: 71**

**Total Objective Elements: 408**

| | Standard | Objective Elements | Core | Commitment | Achievement | Excellence |
|---|---|---|---|---|---|---|
| **AAC** | 8 | 48 | 5 | 38 | 4 | 1 |
| **COP** | 13 | 82 | 12 | 61 | 6 | 3 |
| **MOM** | 9 | 52 | 12 | 34 | 4 | 2 |
| **PRE** | 6 | 39 | 11 | 21 | 5 | 2 |
| **HIC** | 6 | 36 | 12 | 20 | 3 | 1 |
| **PSQ** | 5 | 28 | 9 | 16 | 1 | 2 |
| **ROM** | 4 | 19 | 5 | 8 | 5 | 1 |
| **FMS** | 5 | 29 | 9 | 14 | 5 | 1 |
| **HRM** | 9 | 45 | 16 | 24 | 2 | 3 |
| **IMS** | 6 | 30 | 9 | 21 | 0 | 0 |
| **Total** | 71 | 408 | 100 | 257 | 35 | 16 |

# SUMMARY OF CHANGES

## ACCESS ASSESSMENT AND CONTINUITY OF CARE (AAC)

| 5th edition HCO | 3rd edition SHCO | 2nd edition SHCO | Remarks |
|---|---|---|---|
| AAC.1. | AAC.1 | AAC.1 | Minor modifications in the language |
| AAC.1.a. | AAC.1.a. | AAC.1.a | Content added in the Objective element |
| AAC.1.b. | AAC.1.b. | | New Objective element |
| AAC.1.c. | AAC.1.c. | | New Objective element |
| AAC.1.d. | AAC.1.d. | AAC.1.b. | Minor modification in the language |
| | | AAC.1.c. | Deleted and moved to HRM |
| AAC.2.<br>AAC.3. | AAC.2. | AAC.2 | Minor modifications in the language |
| AAC.2.a. | AAC.2.a. | AAC.2.a | Minor modifications in the language |
| AAC.2.b. | AAC.2.b. | | New Objective element |
| AAC.2.c. | AAC.2.c. | AAC.2.c. | No change |
| AAC.2.d. | AAC.2.d. | AAC.2.b. | Minor modifications in the language |
| AAC.2.e. | AAC.2.e. | | New Objective element |
| AAC.3.a.<br>AAC.3.b.<br>AAC.3.c.<br>AAC.3.d. | AAC.2.f. | AAC.2.d. | Minor modifications in the language |
| AAC.4.<br>AAC.5. | AAC.3. | AAC.3,4. | Two standards are combined |
| AAC.4.a.<br>AAC.4.c.<br>AAC.4.d. | AAC.3.a. | AAC.3.a,b,c,d. | Modified with emphasis on implementation. Made explicit in the interpretation |
| AAC 4 e | AAC.3.b. | | New Objective element |
| AAC 5 a | AAC.3.c. | AAC.4.b,c,d. | Made explicit in the interpretation |
| AAC 5 b | AAC.3.d. | | New Objective element |
| AAC 5 e | AAC.3.e. | | New Objective element |
| | | AAC.4.a. | Moved to AAC.7. |

| | | | |
|---|---|---|---|
| AAC.6.<br>AAC.7. | AAC.4. | AAC.5 | No change |
| AAC 6 a | AAC.4.a. | AAC.5.a. | No change |
| AAC.6.b.<br>AAC.6.c.<br>AAC.6.d. | AAC.4.b. | AAC.5.b. | Content added to the Objective element |
| AAC 6 e | AAC.4.c. | AAC.5.c. | Modified with emphasis on implementation. |
| AAC 6 f | AAC.4.d. | AAC.5.d. | This Objective element is split into two with emphasis on implementation. |
| AAC 6 g | AAC.4.e. | AAC.5.d. | This Objective element is split into two with emphasis on implementation. |
| AAC 6 j | AAC.4.f. | AAC.5.e. | No change |
| AAC 7 a | AAC.4.g. | AAC.5.g. | Modified with emphasis on implementation. Made explicit in the interpretation. |
| AAC 7 d | AAC.4.h. | | New Objective element |
| | | AAC.5.f | Moved to the new standard AAC.6 |

| | | | |
|---|---|---|---|
| AAC.9.<br>AAC.10. | AAC.5. | AAC.6. | No change |
| AAC 9 a | AAC.5.a. | AAC.6.a. | No change |
| AAC 9 b | AAC.5.b. | AAC.6.b. | No change |
| AAC.9 c.<br>AAC.9.d | AAC.5.c. | AAC.6.c. | Content added to the Objective element |
| AAC.9.f.<br>AAC.9.h. | AAC.5.d. | AAC.6.d. | This Objective element was split into two with emphasis on implementation. |
| AAC 9 g | AAC.5.e. | AAC.6.d. | This Objective element was split into two with emphasis on implementation. |
| AAC 9 j | AAC.5.f. | AAC.6.e. | No change |
| AAC.10.a.<br>AAC.10.b.<br>AAC.10.c. | AAC.5.g. | AAC.6.g. | Modified with emphasis on implementation. Made explicit in the interpretation |
| AAC 10 e | AAC.5.h. | | New Objective element |
| AAC 10 g | AAC.5.i. | | New Objective element |
| | | AAC.6.f. | Moved to the new standard AAC.6 |

| | | | |
|---|---|---|---|
| AAC.8.<br>AAC.11. | AAC.6. | | New standard |
| AAC.8.a.<br>AAC.8.b. | AAC.6.a. | | New Objective element |
| AAC.8.c.<br>AAC.8.d | AAC.6.b. | AAC.5.f. | |
| AAC 11 c | AAC.6.c. | | New Objective element |
| AAC.11.d.<br>AAC.11.e.<br>AAC.11. f. | AAC.6.d. | AAC.6.f. | Modified with emphasis on implementation. |
| AAC 11 g | AAC.6.e. | | New Objective element |

| | | | |
|---|---|---|---|
| AAC.12. | AAC.7. | | New standard |
| AAC 12 a | AAC.7.a. | AAC.4.a | No change |
| AAC 12 c | AAC.7.b. | | New Objective element |
| AAC 12 d | AAC.7.c. | | New Objective element |
| AAC 12 e | AAC.7.d. | | New Objective element |

| | | | |
|---|---|---|---|
| AAC.13.<br>AAC.14. | AAC.8. | AAC.7. | Contents added to the standard. |
| AAC 13 d | AAC.8.a | AAC.7.a,b | Modified with emphasis on implementation. |
| AAC 14 b | AAC.8.b | | New Objective element |
| AAC.14.c.<br>AAC.14.d. | AAC.8.c. | AAC.7.c. | Content added to Objective element with emphasis on implementation. |
| AAC 14 e | AAC.8.d. | AAC.7.d. | No change |
| AAC 14 f | AAC.8.e. | AAC.7.e. | No change |
| AAC 14 g | AAC.8.f. | AAC.7.f. | No change |
| AAC.13.e.<br>AAC.13.f. | AAC.8.g. | | New Objective element |

# CARE OF PATIENTS (COP)

| 5th edition HCO | 3rd edition SHCO | 2nd edition SHCO | Remarks |
|---|---|---|---|
| | COP.1. | COP.1. | Contents added to the standard |
| COP.1.b. | COP.1.a. | | New Objective element |
| COP.1.c. | COP.1.b. | | New Objective element |
| COP.1.d. | COP.1.c. | COP.1.e. | Minor modifications in the language |
| COP.1.f. | COP.1.d. | COP.1.a. | Minor modifications in the language |
| COP.1.h. | COP.1.e. | | New Objective element |
| | | COP.1.b. | Moved to new standard COP.11.b. |
| | | COP.1.c,d. | Moved to AAC.3.b. |

| | | | |
|---|---|---|---|
| | COP.2 | COP.2 | Content added to the standard |
| COP.2.a. | COP.2.a. | | New Objective element |
| COP.2.c,d. | COP.2.b. | COP.2.a. | Content added to Objective element. Modified with emphasis on implementation. |
| COP.2.e. | COP.2.c. | COP.2.b. | Modification in the language |
| COP.2.f. | COP.2.d. | COP.2.d. | Content added to Objective element |
| COP.2.g,h. | COP.2.e. | | New Objective element |
| COP.2.i. | COP.2.f. | | New Objective element |
| COP.2.j. | COP.2.g | | New Objective element |
| COP.3.a. | COP.2.h. | | New Objective element |
| COP.3.c, d,e,f,g, | COP.2.i. | COP.2.e. | Content added to Objective element |
| COP.3.i. | COP.2.j. | | New Objective element |
| COP.4.a,b,c,d. | COP.2.k. | | New Objective element |
| | | COP.2.c. | Moved to HRM |

| | | | |
|---|---|---|---|
| | COP.3 | COP.3 | Language modified with emphasis on implementation. |
| COP.5.a. | COP.3.a | COP.3.a. | Language changed with emphasis on implementation. |
| COP.5.b,d. | COP.3.b. | COP.3.c. | Content added to Objective element |
| COP.5.c. | COP.3.c. | | New Objective element |
| COP.5.e,f. | COP.3.d. | | New Objective element |
| | | COP.3.b. | Moved to HRM |

| | | | |
|---|---|---|---|
| | COP.4. | | New standard |
| COP.6.e,f. | COP.4.a. | | New Objective element |
| COP.6.c. | COP.4.b. | | New Objective element |
| COP.6.g. | COP.4.c. | | New Objective element |
| COP.6.b. | COP.4.d. | | New Objective element |

| | | | |
|---|---|---|---|
| | COP.5. | COP.4. | Language modified with emphasis on implementation. |
| COP.8.a. | COP.5.a. | COP.4.a. | Content added to Objective element |
| COP.8.b. | COP.5.b. | | New Objective element |
| COP.8.c. | COP.5.c. | | New Objective element |
| COP.8.d,e. | COP.5.d. | COP.4.b. | Minor modifications in the language |
| COP.8.f. | COP.5.e | | New Objective element |
| COP.8.g. | COP.5.f. | COP.4.c. | Content added to Objective element |

| | | | |
|---|---|---|---|
| | COP.6. | COP.5. | Language modified with emphasis on implementation. |
| COP.9.b,e. | COP.6.a. | COP.5.a. | Content added to Objective element |
| COP.9.a,c. | COP.6.b. | COP.5.c. | No change |
| COP.9.f. | COP.6.c. | | New Objective element |
| COP.9.g. | COP.6.d. | | New Objective element |
| COP.9.h. | COP.6.e. | | New Objective element |

| | | | |
|---|---|---|---|
| COP.20. | COP.6.f. | | New Objective element |
| | | COP.5.b. | Deleted |

| | | | |
|---|---|---|---|
| | COP.7. | COP.6. | Language modified with emphasis on implementation. |
| COP.10.a. | COP.7.a | COP.6.a. | Content added to Objective element with emphasis on implementation. |
| COP.10.b,c. | COP.7.b. | | New Objective element |
| COP.10.e. | COP.7.c. | COP.6.b. | This Objective element has been split and content added with emphasis on implementation. |
| COP.10.f. | COP.7.d. | COP.6.b. | This Objective element has been split and content added with emphasis on implementation. |
| COP.10.g. | COP.7.e. | COP.6.c | Content added to Objective element |

| | | | |
|---|---|---|---|
| | COP.8. | COP.7. | Language modified with emphasis on implementation. |
| COP.11.a. | COP.8.a | COP.7.a. | Content added to Objective element |
| COP.11.b. | COP.8.b. | | New Objective element |
| COP.11.c. | COP.8.c. | COP.7.b. | This Objective element has been split |
| COP.11.d. | COP.8.d. | COP.7.b. | This Objective element has been split |
| COP.11.e. | COP.8.e. | COP.7.c. | No change |
| COP.11.f. | COP.8.f. | COP.7.d. | No change |
| | | COP.7.e. | Deleted |

| | | | |
|---|---|---|---|
| | COP.9 | COP.8. | Language modified with emphasis on implementation. |
| COP.12.a,h. | COP.9.a | | New Objective element |
| COP.12.b. | COP.9.b | | New Objective element |
| COP.12.c,d. | COP.9.c | COP.8.a. | Content added to Objective element with emphasis on implementation. |
| COP.12.e. | COP.9.d | COP.8.b. | Split into two Objective elements and content added with emphasis on implementation. |

| | | | |
|---|---|---|---|
| COP.12.f,g. | COP.9.e | COP.8.b. | Split into two Objective elements and content added with emphasis on implementation. |
| | | COP.8.c. | Deleted and content added to interpretation of COP.9.a with emphasis on implementation. |

| | | | |
|---|---|---|---|
| | COP.10. | COP.9. | Language modified with emphasis on implementation. |
| COP.13.a. | COP.10.a | COP.9.a. | Language modified with emphasis on implementation. |
| COP.13.b. | COP.10.b | COP.9.b,c. | Two Objective elements have been combined |
| COP.13.c. | COP.10.c | COP.9.d. | Changes in the language with emphasis on implementation. |
| COP.13.d. | COP.10.d | COP.9.e. | No change |
| COP.13.e. | COP.10.e | COP.9.f. | Changes in the language |
| COP.13.f,g. | COP.10.f | COP.9.g,h. | Two Objective elements have been combined |
| COP.13.h. | COP.10.g | | New Objective element |
| COP.13.j. | COP.10.h | COP.9.i. | Changes in the language |

| | | | |
|---|---|---|---|
| | COP.11. | COP.10. | Content added to standard |
| COP.7.a,b,c.<br>COP.14.a. | COP.11.a | COP.10.d. | Content added to Objective element with emphasis on implementation. |
| COP.14.b. | COP.11.b | COP.10.a. | Content added to Objective element with emphasis on implementation. |
| COP.7.e.<br>COP.14.c. | COP.11.c | COP.10.b | Minor changes in the language |
| COP.7.d.<br>COP.14.d. | COP.11.d | COP.10.c | Minor changes in the language |
| COP.7.f.<br>COP.14.g. | COP.11.e | | New Objective element |
| COP.7.g,h.<br>COP.14.e,f. | COP.11.f | COP.10.e,f. | Content added to Objective element with emphasis on implementation. |
| COP.14.h. | COP.11.g | Part of COP.10.g. | Language modified with emphasis on implementation. |
| COP.14.i,j. | COP.11.h | | New Objective element |

| | | | |
|---|---|---|---|
| COP.15.a,b,c. | COP.11.i | | New Objective element |
| COP.15.d. | COP.11.j. | | New Objective element |

| | | | |
|---|---|---|---|
| | COP.12. | | New standard |
| COP.16.a. | COP.12.a. | | New Objective element |
| COP.16.b. | COP.12.b. | COP.1.b. | Content added to Objective element |
| COP.16.c. | COP.12.c. | | New Objective element |
| COP.16.d. | COP.12.d. | | New Objective element |
| COP.16.e. | COP.12.e. | | New Objective element |
| COP.16.f. | COP.12.f. | | New Objective element |

| | | | |
|---|---|---|---|
| | COP.13. | | New standard |
| COP.17.a,b. | COP.13.a | | New Objective element |
| COP.17.c,d. | COP.13.b. | | New Objective element |
| COP.18.a,d. | COP.13.c. | | New Objective element |
| COP.18.c. | COP.13.d. | | New Objective element |
| COP.19.a,b. | COP.13.e. | | New Objective element |
| COP.19.c,e. | COP.13.f. | | New Objective element |

# MANAGEMENT OF MEDICATION (MOM)

| 5th edition HCO | 3rd edition SHCO | 2nd edition SHCO | Remarks |
|---|---|---|---|
| MOM.1.b. | MOM.1 | MOM.1 | This standard is split into two separate standards – Standard 1- services and usage Standard 2- Storage of medications |
| MOM.2.a., MOM.2.b. | MOM.1.a. | MOM.1.a. | Minor changes in the language |
| MOM.1.a., MOM.1.b. MOM.2.c. | MOM.1.b. | MOM.1.b. | Language modified with emphasis on implementation. |
| MOM.2.e. MOIM.2.f. | MOM.1.c. | MOM.1.c. | New Objective element |
| MOM.1.d. | MOM.1.d. | MOM.1.d. | New Objective element |
| MOM.10.a. MOM.10.b. MOM.10.c. MOM.10.d. | MOM.1.e | MOM.1.e | New Objective element |
| MOM.2.d. | MOM.1.f. | MOM.1.f | Language modified with emphasis on implementation. |

| | | | |
|---|---|---|---|
| MOM.3. | MOM.2. | MOM.2. | New Standard |
| MOM.3.a. | MOM.2.a. | MOM.2.a. | New Objective element |
| MOM.3.b. | MOM.2.b. | MOM.2.b. | New Objective element |
| MOM.3.c. MOM.3.e. | MOM.2.c. | MOM.2.c. | Language modified with emphasis on implementation. |
| MOM.3.d. | MOM.2.d. | MOM.2.d. | New Objective element |

| | | | |
|---|---|---|---|
| MOM.3.f. | MOM.2.e. | MOM.2.e. | New Objective element |
| MOM.3.g. | MOM.2.f. | | New Objective element |

| | | | |
|---|---|---|---|
| MOM.4. | MOM.3. | MOM.2. | Language modified with emphasis on implementation. |
| MOM.4.a. | MOM.3.a. | | New Objective element |
| MOM.4.b. | MOM.3.b. | | New Objective element |
| MOM.4.c. | MOM.3.c. | | New Objective element |
| MOM.4.d. | MOM.3.d. | | New Objective element |
| MOM.4.e. | MOM.3.e. | | New Objective element |
| MOM.4.f. | MOM.3.f. | | New Objective element |
| MOM.4.g. | MOM.3.g. | | New Objective element |
| MOM.4.h. | MOM.3.h. | | New Objective element |

| | | | |
|---|---|---|---|
| MOM.5. | MOM.4 | MOM.4. | Language modified with emphasis on implementation. |
| MOM.5.a. | MOM.4.a. | MOM.4.a. | Language modified with emphasis on implementation. |
| MOM.5.b. | MOM.4.b. | MOM.4.b. | Language modified with emphasis on implementation. |
| MOM.5.c. | MOM.4.c. | MOM.4.c. | Language modified with emphasis on implementation. |
| MOM.5.d. | MOM.4.d. | MOM.4.d. | New Objective element |
| | | MOM.4.e. | |

| | | | |
|---|---|---|---|
| | | MOM.4.f. | |
| | | MOM.4.g. | |

| | | | |
|---|---|---|---|
| MOM.6. | MOM.5. | MOM.3. | Minor modifications in the language |
| MOM.6.a. | MOM.5.a. | | New Objective element |
| MOM.6.b. | MOM.5.b. | MOM.3.a. | Language modified with emphasis on implementation. |
| MOM.6.c. | MOM.5.c. | MOM.3.b. | Language modified with emphasis on implementation. |
| MOM.6.d. | MOM.5.d. | | New Objective element |
| MOM.6.e. | MOM.5.e. | MOM.3.c. | Minor modifications in the language |
| MOM.6.f. | MOM.5.f. | | New Objective element |

| | | | |
|---|---|---|---|
| MOM.7. | MOM.6. | MOM.4. | Minor modifications in the language |
| MOM.7.a. | MOM.6.a. | MOM.4.a. | Minor modifications in the language |
| MOM.7.b. | MOM.6.b. | MOM.4.b. | New Objective element |
| MOM.7.c. | MOM.6.c. | MOM.4.c. | Language modified with emphasis on implementation. |
| MOM.7.d. | MOM.6.d. | | New Objective element |
| MOM.7.e.<br>MOM.7.f.<br>MOM.7.g. | MOM.6.e. | | Language modified with emphasis on implementation. |

| | | | |
|---|---|---|---|
| MOM.7.h. | MOM.6.f. | | New Objective element |
| MOM.7.i. | MOM.6.g. | | Language modified with emphasis on implementation. |
| MOM.7.j. | MOM.6.h. | | Language modified with emphasis on implementation. |
| MOM.7.k. | MOM.6.i. | | Language modified with emphasis on implementation. |

| | | | |
|---|---|---|---|
| MOM.8. | MOM.7. | | Language modified with emphasis on implementation. |
| MOM.8.a. | MOM.7.a. | | New Objective element |
| MOM.8.b. | MOM.7.b. | | New Objective element |
| MOM.8.c. | MOM.7.c. | | Language modified with emphasis on implementation. |
| MOM.8.d.<br>MOM.8.e. | MOM.7.d. | | Language modified with emphasis on implementation. |
| MOM.8.f. | MOM.7.e. | | New Objective element |
| MOM.9. | MOM.8. | | New standard |
| MOM.9.a | MOM.8.a. | | New Objective element |
| MOM.9.b. | MOM.8.b. | | New Objective element |
| MOM.9.c | MOM.8.c. | | New Objective element |
| MOM.9.d. | MOM.8.d. | | New Objective element |

| | | | |
|---|---|---|---|
| MOM.9.e. | MOM.8.e. | | Language modified with emphasis on implementation. |
| | | MOM.6. | Moved to FMS.4. |
| MOM.10 | MOM.9. | | New standard |
| MOM.10.a.<br>MOM.10.b. | MOM.9.a. | | New Objective element |
| MOM.10.c. | MOM.9.b. | | New Objective element |
| MOM.10.d.<br>MOM.10.e. | MOM.9.c. | | New Objective element |

# PATIENT RIGHTS AND EDUCATION (PRE)

| 5th edition HCO | 3rd edition SHCO | 2nd edition SHCO | Remarks |
|---|---|---|---|
| PRE.1. | PRE.1 | PRE.1 | Minor changes in Language and interpretation made explicit |
| PRE.1.a. | PRE.1.a | PRE.1.a. | Content added. |
| PRE.1.b. | PRE.1.b | PRE.1.b. | New Objective element |
| PRE.1.c. | PRE.1.c | PRE.1.c. | Minor changes in the language |
| PRE.1.d. | PRE.1.d. | PRE.1.d. | Minor changes in the language |
| PRE.1.e. | PRE.1.e. | | New Objective element |
| PRE.2. | PRE.2 | PRE.2. | Minor changes in the language |
| PRE.2.a. | PRE.2.a | PRE.2.a. | Minor changes in the language |
| PRE.2.b. | PRE.2.b. | PRE.2.b. | No change |
| PRE.2.c. | PRE.2.c. | PRE.2.c. | No change |
| PRE.2.d. | PRE.2.d. | PRE.2.d. | Minor changes in the language |
| PRE.2.e. | PRE.2.e. | PRE.2.e. | This Objective element was combined with emphasis on implementation. |
| PRE.2.f. | PRE.2.f. | PRE.2.f. | This Objective element was combined with emphasis on implementation. |
| PRE.2.g. | PRE.2.g. | PRE.2.g. | This Objective element was combined with emphasis on implementation. |
| PRE.2.h. | PRE.2.h. | PRE.2.h. | Language modified with emphasis on implementation. |
| PRE.2.i. | PRE.2.i. | PRE.2.i. | No change |
| PRE.2.j. | PRE.2.j. | | New Objective element |
| PRE.2.k. | PRE.2.k. | | New Objective element |
| PRE.2.l. | PRE.2.l. | | New Objective element |

| | | | |
|---|---|---|---|
| PRE.3.a. | PRE.2.m. | | New Objective element |
| PRE.3.b., PRE.3.c. | PRE.2.n. | | New Objective element |
| PRE.3.d. | PRE.2.o. | | New Objective element |
| PRE.3.g. | PRE 2.p | | New Objective element |
| PRE.4. | PRE.3. | PRE.3. | Minor change in the language |
| PRE.4.a, PRE.4.b. | PRE.3.a. | PRE.3.a. | Objective element modified to emphasize implementation. |
| PRE.4.c. | PRE.3.b. | PRE.3.b. | New Objective element |
| PRE.4.d. | PRE.3.c. | PRE.3.c. | Objective element modified to emphasize implementation. |
| PRE.4.e. | PRE.3.d. | PRE.3.d. | Objective element modified to emphasize implementation. |
| PRE.5.<br>PRE.8. | PRE.4 | PRE.4. | No change |
| PRE.5.a. | PRE.4.a. | PRE.4.a. | Objective element modified to emphasize implementation. |
| PRE.5.b. | PRE.4.b. | PRE.4.b. | No change |
| PRE.5.c., PRE.5.d., PRE.5.e. | PRE.4.c. | PRE.4.c. | Objective elements modified to add few more components. |
| PRE.5.g. | PRE.4.d. | | New Objective element |
| PRE.5.h. | PRE.4.e. | | New Objective element |
| PRE.8.a. | PRE.4.f. | | Objective element modified to emphasize implementation. |
| PRE.6. | PRE.5. | PRE.5. | No change |
| PRE.6.a. | PRE.5.a. | PRE.5.a. | Minor change in Language |
| PRE.6.b. | PRE.5.b. | PRE.5.b. | No change |
| PRE.6.c. | PRE.5.c. | PRE.5.c. | Minor change in language |
| PRE.6.d. | PRE.5.d. | PRE.5.d. | No change |
| PRE.7. | PRE.6. | | New Standard |
| PRE.7.a. | PRE.6.a. | | New Objective element |

| | | | |
|---|---|---|---|
| PRE.7.b. | PRE.6.b. | | New Objective element |
| PRE.7.c. PRE.7.d. | PRE.6.c. | | New Objective element |
| PRE.7.e.f. | PRE.6.d. | | New Objective element |

# HOSPITAL INFECTION CONTROL (HIC)

| 5th edition HCO | 3rd edition SHCO | 2nd edition SHCO | Remarks |
|---|---|---|---|
| HIC.1., HIC.2. | HIC.1 | HIC.1 | Minor change in language |
| HIC.1.a, b. c | HIC.1.a. | HIC.1.a. | Objective element modified to emphasize implementation. |
| HIC.1. d. e | HIC.1.b. | HIC.1.b. | New Objective element |
| HIC.1.e.f.g.h | HIC.1.c. | HIC.1.c. | This Objective element was combined with emphasis on implementation. |
| HIC.1.i.j. | HIC.1.d. | | New Objective element |
| HIC.2.a.b.c.d | HIC.1.e | | Objective element modified to emphasize implementation. |
| HIC.2.e. | HIC.1.f. | | Objective element modified to emphasize implementation. |
| HIC.3. | HIC .2. | HIC .2. | New standard |
| HIC.3.a. | HIC.2.a. | HIC.2.a. | Objective element modified to emphasize implementation. |
| HIC.3.b. | HIC.2.b. | HIC.2.b. | Objective element modified to emphasize implementation. |
| HIC.3.c. | HIC.2.c. | HIC.2.c. | New Objective element |
| HIC.3.d. | HIC.2.d. | HIC.2.d. | New Objective element |
| HIC.3.e. | HIC.2.e. | HIC.2.e. | New Objective element |
| HIC.3.f. | HIC.2.f. | HIC.2.f. | New Objective element |
| HIC.3.g. | HIC.2.g. | HIC.2.g. | New Objective element |
| | | HIC.2.h. | |
| | | HIC.2.i. | |
| | | HIC.2.j. | |

| | | | |
|---|---|---|---|
| HIC.4. | HIC .3. | HIC .3. | New standard |
| HIC.4.a. | HIC.3.a. | HIC.3.a. | Objective element modified to emphasize implementation. |
| HIC.4.b. | HIC.3.b. | HIC.3.b. | New Objective element |
| HIC.4.c. | HIC.3.c. | HIC.3.c. | New Objective element |
| HIC.4.d. | HIC.3.d. | HIC.3.d. | Various objective elements of the erstwhile standard incorporated. |
| HIC.4.e. | HIC.3.e. | HIC.3.e. | Objective element modified to emphasize implementation. |
| HIC.4.f. | HIC.3.f. | | Objective element modified to emphasize implementation. |
| HIC.5. HIC.8. | HIC .4. | HIC .3. | Standard have been modified to emphasize implementation |
| HIC.5.a. | HIC.4.a. | | New Objective element |
| HIC.5.b. | HIC.4.b. | | New Objective element |
| HIC.5.c. | HIC.4.c. | | New Objective element |
| HIC.5.d. | HIC.4.d. | | New Objective element |
| HIC.8.a., b. | HIC.4.e. | | New Objective element |
| HIC.8.e. | HIC.4.f. | | Objective element modified to emphasize implementation |
| HIC.6. | HIC.5. | | Standard have been modified to emphasize implementation |
| HIC.6.a. | HIC.5.a. | | New Objective element |
| HIC.6.d. | HIC.5.b. | | New Objective element |
| HIC.6.c.f. | HIC.5.c. | | New Objective element |
| HIC.6.h. | HIC.5.d. | | New Objective element |
| HIC.6.e. | HIC.5.e. | HIC.2.i. | Objective element modified to emphasize implementation |
| HIC.6.i. | HIC 5.f. | HIC.2.j. | Objective element modified to emphasize implementation |
| HIC.7. | HIC.6. | HIC.4. | Standard have been modified to emphasize implementation |

| | | | |
|---|---|---|---|
| HIC.7.a. | HIC.6.a. | HIC.4.a. | Objective element modified to emphasize implementation |
| HIC.7.b. | HIC.6.b. | | New Objective element |
| HIC.7.c. | HIC.6.c. | | New Objective element |
| HIC.7.d. | HIC.6.d. | HIC.4.b. | Objective element modified to emphasize implementation |
| HIC.7.e. | HIC.6.e. | HIC 4.c. | Objective element modified to emphasize implementation |

# PATIENT SAFETY AND QUALITY IMPROVEMENT (PSQ)

| 5th edition HCO | 3rd edition SHCO | 2nd edition SHCO | Remarks |
|---|---|---|---|
| PSQ.1.a + PSQ.1.b | PSQ.1 | CQI.1 | Content added to bring in more clarity |
| PSQ.1.a. | PSQ.1.a. | | New Objective element |
| PSQ.1.f. | PSQ.1.b. | | New Objective element |
| PSQ.1.g. | PSQ.1.c. | | New Objective element |
| PSQ.1.i. | PSQ.1.d. | | New Objective element |
| PSQ.2.a. | PSQ.1.e. | CQI.1.a,e | Minor Changes in the language |
| PSQ.2.d. | PSQ.1.f. | CQI.1.b. | |
| PSQ.2.e. | PSQ.1.g. | CQI.1.g. | Minor Changes in the language |
| PSQ.2.g. | PSQ.1.h. | | |
| PSQ.2.h. | PSQ.1.i. | | |
| | | CQI.1.c. | This Objective element was combined with emphasis on implementation |
| | | CQI.1.d. | Deleted |
| PSQ.3. | PSQ.2. | CQI.2. | No change |
| PSQ.3.a. | PSQ.2.a. | CQI.2.a. | Split into two Objective elements and content added with emphasis on implementation. |
| PSQ.3.b. | PSQ.2.b. | | New Objective element |
| PSQ.3.c. | PSQ.2.c. | CQI.2.a. | Split into two Objective elements and content added with emphasis on implementation. |
| PSQ.3.d. | PSQ.2.d. | CQI.2.g. | Minor change in language |
| PSQ.3.f.+PSQ.3.g. | PSQ.2.e. | CQI.2.h. | Content added to bring in more clarity |
| | | CQI.b,c,d,e,f. | Implied in PSQ.2.a,b,c,d. |
| PSQ.5.+points from PSQ.4. few words | PSQ.3. | CQI.4. | No change |
| PSQ.5.a. | PSQ.3.a. | PSQ.3.d. | Content added to Objective element to bring more clarity |
| PSQ.5.b. | PSQ.3.b. | CQI.4.b. | No change |
| PSQ.5.c. | PSQ.3.c. | CQI.4.a. | Content added to Objective element to bring more clarity |

| | | | |
|---|---|---|---|
| PSQ.5.f. | PSQ.3.d. | CQI.4.c. | No change |
| PSQ.4.a. | PSQ.3.e. | CQI.4.e. | No change |
| PSQ.6. | PSQ.4. | CQI.3. | Content added to standard to bring more clarity |
| PSQ.6.a. | PSQ.4.a. | | New Objective element |
| PSQ.6.b. | PSQ.4.b. | | New Objective element |
| PSQ.6.d. | PSQ.4.c. | CQI.3.a. | Content added to make it clearer |
| PSQ.6.g. | PSQ.4.d. | | New Objective element |
| | | CQI.3.b. | Deleted |
| PSQ.7. | PSQ.5. | CQI.5. | Content added to standard to bring more clarity |
| PSQ.7.a. | PSQ.5.a. | | New Objective element |
| PSQ.7.b. | PSQ.5.b. | CQI.5.a. | Minor changes in the language |
| PSQ.7.c. | PSQ.5.c. | CQI.5.b. | Minor changes in the language |
| PSQ.7.d. | PSQ.5.d. | CQI.5.c. | No change |
| PSQ.7.f. | PSQ.5.e. | | New Objective element |

# RESPONSIBILITIES OF MANAGEMENT (ROM)

| 5th edition HCO | 3rd edition SHCO | 2nd edition SHCO | Remarks |
|---|---|---|---|
| ROM.1. | ROM.1. | ROM.1 | Wording of the standard modified to improve the language |
| ROM.1.a. | ROM.1.e. | ROM.1.a. | New Objective element |
| ROM.1.b. | ROM.1.b. | ROM.1.b. | New Objective element |
| ROM.1.d. | ROM.1.c. | ROM.1.c. | New Objective element |
| ROM.1.e. | ROM.1.d. | ROM.1.d. | New Objective element |
| ROM.1.g. | ROM.1.e. | ROM.1.e. | Objective element modified to emphasize implementation |
| ROM.3. | ROM.2. | ROM.2. | New Standard |
| ROM.3.a. | ROM.2.a. | ROM.2.a. | New Objective element |
| ROM.3.b. | ROM.2.b. | ROM.2.b. | New Objective element |
| ROM.3.c. | ROM.2.c. | ROM.2.c. | New Objective element |
| ROM.3.f. | ROM.2.d. | ROM.2.d. | New Objective element |
| ROM.4. | ROM.3. | | New standard aligned with 5th edition hospitals |
| ROM.1.c. | ROM.3.a. | | New Objective element |
| ROM.4.b. | ROM.3.b. | | New Objective element |
| ROM.4.d. | ROM.3.c. | | New Objective element |
| ROM.4.f. | ROM.3.d. | . | New Objective element |
| ROM.4.e. | ROM.3.e. | ROM.1.c. | Objective element modified to emphasize implementation |
| ROM.5. | ROM.4. | ROM.3. | New standard old ROM 3 |
| ROM.5.a. | ROM.4.a. | | New Objective element |
| ROM.5.c. | ROM.4.b. | | New Objective element |
| ROM.5.d. | ROM.4.c. | ROM.3.c. | Minor change in language |
| ROM.5.e. | ROM.4.d. | | New Objective element |
| ROM.5.f. | ROM.4.e. | | New Objective element |

# FACILITY MANAGEMENT AND SAFETY (FMS)

| 5th edition HCO | 3rd edition SHCO | 2nd edition SHCO | Remarks |
|---|---|---|---|
| FMS.2. | FMS.1. | FMS.1 | Minor modification in the language Safety element separated with emphasis on implementation. |
| FMS.2.a. | FMS.1.a. | FMS.1.c. | Modified with emphasis on implementation. |
| FMS.2.b. | FMS.1.b. | FMS.1.b. | Modified with emphasis on implementation. |
| FMS.2.c. | FMS.1.c. | FMS.1.c. | New Objective element |
| FMS.2.d. | FMS.1.d. | FMS.3.a.. | Modified with emphasis on implementation. |
| FMS.2.e. | FMS.1.e. | FMS.3.b. | Modified with emphasis on implementation. |
| FMS.2.g. | FMS.1.f. | | New Objective element excellence level |
| FMS.1.<br>FMS.3. | FMS.2. | | New standard with emphasis on safety aspects for better implementation of the standard |
| FMS.1.a. | FMS.2.a | | New Objective element |
| FMS.1.b. | FMS.2.b. | | New Objective element |
| FMS.3.b. | FMS.2.c | | New Objective element |
| FMS.1.c.<br>FMS.1.d. | FMS.2.d. | | Modified FMS. 1.f. of 2nd edition SHCO for better implementation. |
| FMS.3.c. | FMS.2.e. | | New Objective element |
| FMS.3.d. | FMS.2.f. | . | New Objective element |
| FMS.3.e.<br>FMS.3.f. | FMS.2.g. | | New Objective element |
| FMS.4.<br>FMS.5. | FMS.3. | FMS.2. | Language modified with emphasis on implementation. |
| FMS.4.a.<br>FMS.5.a. | FMS.3.a. | FMS.2.a. | Modified with emphasis on implementation. Made explicit in the interpretation |

| | | | |
|---|---|---|---|
| FMS.4.b.<br>FMS.5.b. | FMS.3.b. | FMS.2.b. | No change |
| FMS.4.c.<br>FMS.5.c. | FMS.3.c. | FMS.2.e. | Modified PRE.3.d.<br>of 2nd edition SHCO for better implementation. |
| FMS.4.d.<br>FMS.5.d. | FMS.3.d. | FMS.2.d. | Minor modification in the language with emphasis on implementation. |
| FMS.4.e.<br>FMS.5.e. | FMS.3.e. | FMS.2.c. | Minor modification in the language with emphasis on implementation. |
| FMS.5.g. | FMS.3.f. | | New Objective element |
| FMS.5.h. | FMS.3.g. | | New Objective element |
| FMS.6. | FMS.4. | FMS.3. | Minor modification in the language with emphasis on implementation. |
| FMS.6.a. | FMS.4.a. | | New Objective element |
| FMS.6.b.<br>FMS.6.c. | FMS.4.b. | . | New Objective element |
| FMS.6.d. | FMS.4.c. | FMS.3.b. | Minor modification in the language with emphasis on implementation. |
| FMS.6.f. | FMS.4.d. | FMS.3.c. | Minor modification in the language with emphasis on implementation. |
| FMS.7. | FMS.5. | FMS.4. | No change |
| FMS.7.a. | FMS.5.a. | FMS.4.a. | No change |
| FMS.7.b. | FMS.5.b. | FMS.4.b. | No change |
| FMS.7.c. | FMS.5.c. | FMS.4.d. | No change |
| FMS.7.d. | FMS.5.d. | | New Objective element |
| FMS.7.e. | FMS.5.e. | | New Objective element |

# HUMAN RESOURCE MANAGEMENT (HRM)

| 5th edition HCO | 3rd edition SHCO | 2nd edition SHCO | Remarks |
|---|---|---|---|
| HRM.1 | HRM.1 | HRM.1 | Addition of promotion and changes in the language |
| HRM.1.a. | HRM.1.a. | HRM.1.a. | New Objective element to emphasize implementation |
| HRM.2.a | HRM.1.b. | HRM.1.b. | No change |
| HRM.1.b | HRM.1.c. | | New Objective element |
| HRM.1.c | HRM.1.d. | | New Objective element |
| HRM.1.d<br>HRM.1.f | HRM.1.e | | Objective element modified to emphasize implementation |
| HRM.1.e | HRM.1.f. | | New Objective element |
| HRM.2.c | HRM.1.g. | | New Objective element |
| HRM.1.g | HRM. 1.h. | | New Objective element |
| HRM.8.a | HRM.1.i | HRM.5. | Various objective elements of the erstwhile standard incorporated. |
| HRM.3<br>HRM.4 | HRM.2 | HRM.2 | Standard have been merged |
| HRM.3.a | HRM.2.a. | HRM.2.a. | Objective element modified to emphasize implementation |
| HRM.4.a.<br>HRM.4.f | HRM.2.b. | HRM.2.b. | Objective element modified to emphasize implementation |
| HRM. 5 | HRM.2.c. | HRM.2.c. | New Objective element |
| HRM.5.e | HRM.2.d. | | New Objective element |
| HRM.4.e | HRM.2.e | | |

| | | | |
|---|---|---|---|
| HRM.6 | HRM.3 | | New standard |
| HRM.6.a | HRM.3.a. | | New Objective element |
| HRM.6.b | HRM.3.b. | FMS.4.c. | Objective element modified to emphasize implementation |
| HRM.6.c | HRM.3.c. | | New Objective element |
| HRM.6.d | HRM.3.d. | | New Objective element |
| HRM.6.e | HRM.3.e. | | New Objective element |
| HRM.6.f | HRM.3.f. | | New Objective element |
| HRM.6.g | HRM.3.g. | | New Objective element |
| HRM.7 | HRM.4. | HRM.4. | Minor change in language |
| HRM.7.a | HRM.4.a. | HRM.4.a. | Objective element modified to emphasize implementation |
| HRM.7.c | HRM.4.b. | HRM.4.b. | Objective element modified to emphasize implementation |
| HRM.7.d | HRM.4.c. | HRM.4.c. | New Objective element |
| HRM.7.e | HRM.4.d. | HRM.4.d. | No change |
| HRM.9 | HRM.5. | HRM.6. | Language modified to add staff well-being |
| HRM.9.a<br>HRM.9.b | HRM.5.a. | | New Objective element |
| HRM.9.c | HRM.5.b. | HRM.6.a. | Objective element modified to emphasize implementation |
| HRM.9.d | HRM .5.c. | | New Objective element |
| HRM.9.e | HRM.5.d. | | New Objective element |

| | | | |
|---|---|---|---|
| HRM.10. | HRM.6. | HRM.7. | |
| HRM.10.a | HRM.6.a. | HRM.7.a. | Objective element modified to emphasize implementation |
| HRM.10.b | HRM.6.b. | HRM.7.b. | Objective element modified to emphasize implementation |
| HRM.10.c | HRM.6.c. | HRM.7.c. | Minor language modified |
| HRM.10.d | HRM.6.d. | HRM.7.d. | No change |
| HRM.11 | HRM.7. | HRM.8. | Objective element modified to add clarity |
| HRM.11.a | HRM.7.a. | HRM.8.a. | Minor Language modified |
| HRM.11.b | HRM.7.b. | HRM.8.b. | Objective element modified to add clarity |
| HRM.11.d | HRM.7.c. | HRM.8.c. | Objective element modified to emphasize implementation |
| HRM.11.e | HRM.7.d. | | New Objective element |
| HRM.12. | HRM.8. | HRM.9. | Objective element modified to emphasize implementation |
| HRM.12.a | HRM.8.a. | HRM.9.b. | Objective element modified to add clarity |
| HRM.12.b | HRM.8.b. | HRM.9.a. | Objective element modified to emphasize implementation |
| HRM.12.d | HRM.8.c. | HRM.8.c. | New Objective element |
| HRM.12.e | HRM.8.d. | | New Objective element |
| HRM.13. | HRM.9. | | New Standard |
| HRM.13.a | HRM.9.a. | | New Objective element |
| HRM.13.b | HRM.9.b. | | New Objective element |

# INFORMATION MANAGEMENT SYSTEM (IMS)

| 5th edition HCO | 3rd edition SHCO | 2nd edition SHCO | Remarks |
|---|---|---|---|
| IMS.1.a.<br>IMS.1.b | IMS.1. | IMS.1. | Content added to the standard to bring in more clarity |
| IMS.1.a.<br>IMS.1.b. | IMS.1.a. | IMS.1.a,d. | Objective elements have been merged and wording modified to emphasize implementation |
| IMS.1.c. | IMS.1.b. | | New Objective element |
| IMS.2.d. | IMS 1.c | | New Objective element |
| IMS.1.g. | IMS.1.d. | IMS.1.f. | No change |
| IMS.2.a<br>IMS.2.b. | IMS.1.e. | IMS.1.b,c | Objective elements have been merged and content added to make it more clearer. |
| | | IMS.1.e. | Deleted |
| IMS.3.c. | IMS.2. | IMS.2. | Minor Change in the language |
| IMS.3.a. | IMS.2.a. | IMS.2.a. | Minor Change in the language |
| IMS.3.b<br>IMS.3.c | IMS.2.b. | IMS.2.e.<br>IMS.3.a. | Objective elements have been merged |
| IMS.3.d. | IMS.2.c. | IMS.2.b, d. | Objective elements have been merged |
| IMS.3.e. | IMS.2.d. | IMS.2.c. | Content added to the Objective element to make it more clearer |
| IMS.3.g. | IMS.2.e. | | New Objective element |
| IMS.4. | IMS.3. | IMS.3. | No change |
| IMS.4.a. | IMS.3.a. | IMS.3.b. | |
| IMS.4.b.<br>IMS.4.c.<br>IMS.4.d. | IMS.3.b. | IMS.3.c. | Content added to Objective element to add clarity |
| IMS.4.e. | iMS.3.c | IMS.3.d. | Minor changes in the language |
| IMS.4.f. | IMS.3.d. | IMS.3.e. | Minor changes in the language |
| IMS.4.g. | IMS.3.e. | IMS.3.f. | |
| IMS.4.h. | IMS.3.f. | IMS.3.h. | |
| | | IMS.3.a. | Deleted. |
| IMS.5. | IMS.4. | IMS.4. | Language changed to emphasize on implementation |

| | | | |
|---|---|---|---|
| IMS.5.a. | IMS.4.a. | IMS.4.a. | Language changed to emphasize on implementation |
| IMS.5.b. | IMS.4.b. | | New Objective element |
| IMS.5.c. | IMS.4.c. | IMS.4.c. | Minor changes in the language |
| IMS.5.d. | IMS.4.d. | IMS.4.d. | Minor changes in the language |
| IMS.5.f. | IMS.4.e. | IMS.4.e. | Minor changes in the language |
| | | IMS.4.b. | Deleted |
| IMS.6. | IMS.5. | IMS.5. | Language changed to emphasize on implementation and content added. |
| IMS.6.a. | IMS.5.a. | | New Objective element |
| IMS.6.b. | IMS.5.b. | IMS.5.a. | Language changed to emphasized on implementation |
| IMS.6.c. | IMS.5.c. | IMS.5.c. | No change |
| IMS.6.d. | IMS.5.d. | IMS.5.d. | No change |
| | | IMS.5.b. | Deleted |
| IMS.7. | IMS.6. | IMS.6. | No change |
| IMS.7.a | IMS.6.a. | IMS.6.a. | No change |
| IMS.7.b<br>IMS.7.e. | IMS.6.b. | IMS.6.b,e. | Two Objective elements have been merged |
| IMS.7.c. | IMS.6.c. | IMS.6.c. | Minor changes in the language |
| IMS.7.d. | IMS.6.d. | IMS.6.d. | Minor changes in the language |
| IMS.7.f.<br>IMS.7.g. | IMS.6.e. | IMS.6.f,g. | Two Objective elements have been merged |

# ABBREVIATIONS

| | |
|---|---|
| **AERB** | Atomic Energy Regulatory Board |
| **AHU** | Air Handling Unit |
| **AI** | Artificial Intelligence |
| **ALARA** | As Low As Reasonably Achievable |
| **BLS** | Basic Life Support |
| **BMW** | Bio-Medical Waste |
| **CCS (CCA)** | Central Civil Services (Classification, Control and Appeal) |
| **CD** | Compact Disc |
| **CDSCO** | Central Drugs Standard Control Organisation |
| **CGHS** | Central Government Health Scheme |
| **CMC** | Comprehensive Maintenance Contract |
| **COVID** | Corona Virus Disease |
| **CPR** | Cardio-Pulmonary Resuscitation |
| **CT** | Computerised Tomography |
| **DG** | Diesel Generator |
| **DICOM** | Digital Imaging and Communications in Medicine |
| **DMRD** | Diploma in Medical Radio Diagnosis |
| **DNB** | Diplomate in National Board |
| **DRM** | Diploma in Radiation Medicine |
| **DSA** | Digital Subtraction Angiography |
| **DVT** | Deep Vein Thrombosis |
| **ECG** | Electrocardiogram |
| **ECHS** | Ex-servicemen Contributory Health Scheme |
| **ECHO** | Echocardiography |
| **ESIS** | Employee State Insurance Scheme |
| **ETP** | Effluent Treatment Plant |
| **FCU** | Fan Coil Unit |
| **FMEA** | Failure Modes and Effects Analysis |
| **FSN** | F – Fast moving, S – Slow moving, N – Non-moving |
| **H Values** | Hounsfield values |
| **HCC** | Hepato-Cellular Carcinoma |
| **HCO** | HealthCare Organisation |
| **HIRA** | Hazard Identification and Risk Analysis |
| **HIS** | Hospital Information System |
| **HIV** | Human Immunodeficiency Virus |
| **HT** | High Tension |

| | |
|---|---|
| **HVAC** | Heating Ventilation and Air Conditioning |
| **ICSOL** | Intra-Cranial Space Occupying Lesion |
| **ICU** | Intensive Care Unit |
| **ICMR** | Indian Council for Medical Research |
| **IT** | Information Technology |
| **IV** | Intravenous |
| **LT** | Low Tension |
| **KPI** | Key Performance Indicators |
| **MBBS** | Bachelor of Medicine and Bachelor of Surgery |
| **MDRD** | Doctor of Medicine in Radio Diagnosis |
| **MIS** | Medical Imaging Services |
| **MLC** | Medico-Legal Case |
| **MoU** | Memorandum of Understanding |
| **MRCP** | Magnetic Resonance Cholangio-Pancreatography |
| **MRI** | Magnetic Resonance Imaging |
| **NABH** | National Accreditation Board for Hospitals & Healthcare Providers |
| **PACS** | Picture Archiving and Communication System |
| **PC-PNDT** | Pre-Conception and Pre-Natal Diagnostic Testing |
| **PET** | Positron Emission Tomography |
| **PMS** | Preventive Maintenance Service |
| **PPD** | Personal Protective Devices |
| **PPE** | Personal Protective Equipment |
| **QA** | Quality Assurance |
| **RIS** | Radiological Information System |
| **RO** | Reverse Osmosis |
| **RSO** | Radiation Safety Officer |
| **RTI** | Right To Information |
| **SOP** | Standard Operating Procedure |
| **STP** | Sewage Treatment Plant |
| **SUV** | Standardized Uptake Value |
| **TAT** | Turn Around Time |
| **TLD** | Thermo Luminescent Dosimeter |
| **USG** | Ultrasonography |
| **UID** | Unique Identification Number |
| **UPS** | Uninterrupted Power Supply |
| **VED** | Vital, Essential & desirable (used for inventory management) |
| **VPN** | Virtual Private Network |
| **WHO** | World Health Organisation |

# Chapter 1

# Access, Assessment and Continuity of Care (AAC)

***Intent of the Chapter:*** Patients are informed of the services provided by the organisation. Only those patients who can be cared for by the organisation are admitted. Emergency patients receive life-stabilising treatment and are then either admitted (if resources are available) or transferred appropriately to an organisation that has the resources to take care of such patients. Out-patients who do not match the organisation's resources are similarly referred to organisations that have the required resources.

Patients that match the organisation's resources are admitted using a defined process. Patients cared for by the organisation undergo an established initial assessment and periodic reassessments.

These assessments result in the formulation of a care plan.

The organisation provides laboratory and imaging services commensurate to its scope of services. The laboratory and imaging services are provided by competent staff in a safe environment for both patients and staff. Patient care is continuous and multidisciplinary. Transfer and discharge protocols are well defined, with adequate information provided to the patient.

## SUMMARY OF STANDARDS

| | |
|---|---|
| **AAC.1.** | The organization defines and displays the healthcare services that it provides. |
| **AAC.2.** | The organization has a well-defined registration, admission and transfer process. |
| **AAC.3.** | Patients cared for by the organization undergo an established initial assessment and regular re-assessment |
| **AAC.4.** | Laboratory services are provided as per the scope of services of the organization and adhere to best practices. |
| **AAC.5.** | Imaging services are provided as per the scope of services of the organization and adhere to best practices. |
| **AAC.6.** | There is an established safety programme in the laboratory and imaging services |
| **AAC.7.** | Patient care is continuous and multidisciplinary in nature. |
| **AAC.8.** | The organization has an established discharge process, and defines the content of the discharge summary. |

# STANDARDS AND OBJECTIVE ELEMENTS

## Standard

| | |
|---|---|
| AAC.1. | **The organization defines and displays the healthcare services that it provides.** |

## Objective Elements

| | | |
|---|---|---|
| **Commitment** | a. | The healthcare services being provided are defined and are in consonance with the needs of the community. |
| **Commitment** | b. | Each defined healthcare service should have diagnostic and treatment services with suitably qualified personnel who provide out-patient, in-patient and emergency cover. |
| **Commitment** | c. | Scope of healthcare services of each department is defined. * |
| **Commitment** | d. | The organization's defined healthcare services are prominently displayed. |

## Standard

| | |
|---|---|
| AAC.2. | **The organization has a well-defined registration, admission and transfer process.** |

## Objective Elements

| | | |
|---|---|---|
| **Commitment** | a. | The organization has a mechanism for registering and admitting patients* |
| **CORE** | b. | A unique identification number is generated at the end of registration. |
| **Commitment** | c. | Patients are accepted only if the organization can provide the required service |
| **Commitment** | d. | The organization has a mechanism to address management of patients during non-availability of beds. * |

| | | |
|---|---|---|
| **Achievement** | e. | Access to the healthcare services in the organization is prioritized according to the clinical needs of the patient. * |
| **Commitment** | f. | Transfer–in and transfer-out / referral of patients to the organization is done appropriately. * |

## Standard

| | |
|---|---|
| **AAC.3.** | **Patients cared for by the organization undergo an established initial assessment and regular re-assessment** |

## Objective Elements

| | | |
|---|---|---|
| **CORE** | a. | The initial assessment for the out–patients, day-care, in-patients and emergency patients is done. * |
| **Achievement** | b. | The initial assessment results in a documented care plan. |
| **CORE** | c. | Patients are reassessed at appropriate intervals to determine their response to treatment and to plan further treatment or discharge. |
| **Commitment** | d. | Out-patients are informed of their next follow-up, where appropriate. |
| **Commitment** | e. | The organization lays down guidelines and implements processes to identify early warning signs of change or deterioration in clinical conditions for initiating prompt intervention. |

## Standard

| | |
|---|---|
| **AAC.4.** | **Laboratory services are provided as per the scope of services of the organization and adhere to best practices.** |

## Objective Elements

| | | |
|---|---|---|
| **Commitment** | a. | Scope of the laboratory services is commensurate to the services provided by the organization. |

| | | |
|---|---|---|
| Commitment | b. | The infrastructure (physical and equipment) and human resources are adequate to provide the defined scope of services |
| Commitment | c. | Requisition for tests, collection, identification, handling, safe transportation, processing and disposal of specimens is performed according to written guidance. * |
| Commitment | d. | Laboratory results are available within a defined time frame. * |
| Commitment | e. | Critical results are intimated to the person concerned at the earliest. * |
| Commitment | f. | Laboratory tests not available in the organization are outsourced to organization(s) based on their quality assurance system.* |
| Commitment | g. | The laboratory quality assurance programme is implemented. * |
| Commitment | h. | The programme includes periodic calibration and maintenance of all equipment. * |

## Standard

| | |
|---|---|
| AAC.5. | **Imaging services are provided as per the scope of services of the organization and adhere to best practices.** |

## Objective Elements

| | | |
|---|---|---|
| CORE | a. | Imaging services comply with legal and other requirements. |
| Commitment | b. | Scope of the imaging services is commensurate to the services provided by the organization. |
| Commitment | c. | The infrastructure (physical and equipment) and human resources are adequate to provide for its defined scope of services. |
| Commitment | d. | Imaging results are available in the standardised manner within a defined time frame* |
| Commitment | e. | Critical results are intimated immediately to the personnel concerned. * |

| | | |
|---|---|---|
| **Commitment** | f. | Imaging tests not available in the organization are outsourced to organization(s) based on their quality assurance system. * |
| **Commitment** | g. | The quality assurance programme for imaging services is implemented. * |
| **Achievement** | h. | The programme addresses periodic internal / external peer review of imaging protocols and results using appropriate sampling. |
| **Commitment** | i. | The programme includes periodic calibration and maintenance of all equipment.* |

## Standard

| | |
|---|---|
| **AAC.6.** | **There is an established safety programme in the laboratory and imaging services** |

## Objective Elements

| | | |
|---|---|---|
| **Commitment** | a. | The laboratory-safety programme is implemented. * |
| **Commitment** | b. | Laboratory personnel are appropriately trained in safe practices and are provided with appropriate safety measures. |
| **Commitment** | c. | Patients are appropriately screened for safety / risk before imaging. |
| **Commitment** | d. | Imaging personnel and patients use appropriate radiation safety and monitoring devices where applicable, and are trained in imaging safety practices and radiation-safety measures. |
| **Commitment** | e. | Imaging signage is prominently displayed in all appropriate locations. |

## Standard

| | |
|---|---|
| **AAC.7.** | **Patient care is continuous and multidisciplinary in nature.** |

## Objective Elements

| | | |
|---|---|---|
| **Commitment** | a. | During all phases of care, there is a qualified individual identified as responsible for the patient's care. |

| | | |
|---|---|---|
| **Commitment** | b. | Information about the patient's care and response to treatment is shared among medical, nursing and other care-providers, including referrals to other departments. |
| **CORE** | c. | The organization implements standardised hand-over communication during each staffing shift, between shifts and during transfers between units/ departments. |
| **Commitment** | d. | Patient transfer within the organization is done safely. |

## Standard

| | |
|---|---|
| **AAC.8.** | **The organization has an established discharge process, and defines the content of the discharge summary.** |

## Objective Elements

| | | |
|---|---|---|
| **Commitment** | a. | A discharge summary is given to all the patients leaving the organization (including patients leaving against medical advice). |
| **Commitment** | b. | Discharge summary contains the patient's name, unique identification number, date of admission and date of discharge. |
| **Commitment** | c. | Discharge summary contains the reasons for admission, significant findings and diagnosis, the patient's condition at the time of discharge, information regarding investigation results, any procedure performed, medication administered and other treatment given. |
| **Commitment** | d. | Discharge summary contains follow-up advice, medication and other instructions in an understandable manner. |
| **Achievement** | e. | Discharge summary incorporates instructions about when and how to obtain urgent care. |
| **Commitment** | f. | In case of death, the summary of the case also includes the cause of death. |
| **Excellence** | g. | The organisation adheres to planned discharge and identify special needs regarding care following discharge. |

## References:

1. Acute care toolkit 1: Handover. Royal College of Physicians. (2015). Retrieved on May 03 2022, from https://www.rcplondon.ac.uk/guidelines-policy/acute-care-toolkit-1-handover

2. Agency for Healthcare Research and Quality. Patient Safety Network. (2012, June). Transfer Troubles. Retrieved on May 03 2022, from https://psnet.ahrq.gov/webmm/case/269

3. Albrecht, J. S., Gruber-Baldini, A. L., Hirshon, J. M., et al. (2014). Hospital Discharge Instructions: Comprehension and Compliance Among Older Adults. Journal of General Internal Medicine, 29(11), 1491-1498. doi:10.1007/s11606-014-2956-0

4. Brady, A. P. (2016). Error and discrepancy in radiology: inevitable or avoidable? Insights into Imaging, 8(1), 171-182. doi:10.1007/s13244-016-0534-1

5. Coleman, E. A., Chugh, A., Williams, M. V., et al.. (2013). Understanding and Execution of Discharge Instructions. American Journal of Medical Quality, 28(5), 383-391. doi:10.1177/1062860612472931

6. Communication During Patient Hand-Overs. (2007). Retrieved on May 03 2022, from https://cdn.who.int/media/docs/default-source/integrated-health-services-(ihs)/psf/patient-safety-solutions/ps-solution3-communication-during-patient-handovers.pdf?sfvrsn=7a54c664_4&ua=1

7. Content of a discharge summary from a medical ward: views of general practitioners and hospital doctors. Journal of the Royal College of Physicians of London. 1995; 29(4):307-310. Retrieved on May 03 2022, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5401316/pdf/jrcollphyslond90372-0047

8. Davenport, R. J. (2018). How to do it: the clinicopathological conference. Practical Neurology, 19(2), 143-146. doi:10.1136/practneurol-2018-001993

9. Déry, J., Ruiz, A., Routhier, F., et al. (2019). Patient prioritization tools and their effectiveness in non-emergency healthcare services: a systematic review protocol. Systematic Reviews, 8(1). doi:10.1186/s13643-019-0992-x

10. Dhingra, N. (2010). WHO Guidelines on Drawing Blood: Best Practices in Phlebotomy. Retrieved on May 03 2022, from http://www.euro.who.int/__data/assets/pdf_file/0005/268790/WHO-guidelines-on-drawing-blood-best-practices-in-phlebotomy-Eng.pdf?ua-1

11. Egan, N. (1999). Managing a bed crisis. Emergency Medicine Journal, 16(2), 145-146. doi:10.1136/emj.16.2.145

12. Gail M. Keenan; Elizabeth Yakel; Dana Tschannen; Mary Mandeville. (2008). Chapter 49 Documentation and the Nurse Care Planning Process. In Patient Safety and Quality: An Evidence-Based Handbook for Nurses.

13. Gardner-Thorpe, J., Love, N., Wrightson, J., et al. (2006). The Value of Modified Early Warning Score (MEWS) in Surgical In-Patients: A Prospective Observational Study. The Annals of The Royal College of Surgeons of England, 88(6), 571-575. doi:10.1308/003588406x130615

14. Goldberg-Stein, S., Frigini, L. A., Long, S. et al. (2017). ACR RADPEER Committee White Paper with 2016 Updates: Revised Scoring System, New Classifications, Self-Review, and Subspecialized Reports. Journal of the American College of Radiology, 14(8), 1080-1086. doi:10.1016/j.jacr.2017.03.023

15. Gooneratne, M., & Walker, D. (2017). Rapid response systems and the deteriorating patient. British Journal of Hospital Medicine, 78(3), 124-125. doi:10.12968/hmed.2017.78.3.124

16. Hawkins, R. C. (2007). Laboratory Turnaround Time. Clin Biochem Rev, 28(4), 179-194.

17. Horwitz, L. I., Moriarty, J. P., Chen, C., et al. (2013). Quality of Discharge Practices and Patient Understanding at an Academic Medical Center. JAMA Internal Medicine. doi:10.1001/jamainternmed.2013.9318

https://www.osha.gov/sites/default/files/publications/OSHA3404laboratory-safety-guidance.pdf

18. Johnson, L., Edward, K., & Giandinoto, J. (2018). A systematic literature review of accuracy in nursing care plans and using standardised nursing language. Collegian, 25(3), 355-361. doi:10.1016/j.colegn.2017.09.006

19. Kulshrestha, A., & Singh, J. (2016). Inter-hospital and intra-hospital patient transfer: Recent concepts. Indian Journal of Anaesthesia, 60(7), 451. doi:10.4103/0019-5049.186012

20. Laboratory biosafety manual, 4th edition. (2020). World Health Organisation (WHO). Retrieved on May 03 2022, from https://www.who.int/publications/i/item/9789240011311

21. Lippi, G., & Mattiuzzi, C. (2016). Critical laboratory values communication: summary recommendations from available guidelines. Annals of Translational Medicine, 4(20), 400-400. doi:10.21037/atm.2016.09.36

22. Maharaj, R., Raffaele, I., & Wendon, J. (2015). Rapid response systems: a systematic review and meta-analysis. Critical Care, 19(1). doi:10.1186/s13054-015-0973-y

23. Mahgerefteh, S., Kruskal, J. B., Yam, C. S., Blachar, A., & Sosna, J. (2009). Peer Review in Diagnostic Radiology: Current State and a Vision for the Future. RadioGraphics, 29(5), 1221-1231. doi:10.1148/rg.295095086

24. Müller, M., Jürgens, J., Redaèlli, M., et al. (2018). Impact of the communication and patient hand-off tool SBAR on patient safety: a systematic review. BMJ Open, 8(8), e022202. doi:10.1136/bmjopen-2018-022202

25. Occupational Safety and Health Administration. (2011). Laboratory safety Guidance. Retrieved on May 03 2022, from

26. Ortiga, B., Salazar, A., Jovell, A., et al. (2012). Standardizing admission and discharge processes to improve patient flow: A cross sectional study. BMC Health Services Research, 12(1). doi:10.1186/1472-6963-12-180

27. Patel, S., Gillon, S. A., & Jones, D. A. (2017). Rapid response systems: recognition and rescue of the deteriorating hospital patient. British Journal of Hospital Medicine, 78(3), 143-148. doi:10.12968/hmed.2017.78.3.143

28. Patient Identification. Patient Safety Solutions (2007). Retrieved on May 03 2022, from https://cdn.who.int/media/docs/default-source/integrated-health-services-(ihs)/psf/patient-safety-solutions/ps-solution2-patient-identification.pdf?sfvrsn=ff81d7f9_4&ua=1

29. Radiological Protection Principles. (2017). Atomic energy Regulatory Board (AERB), Government of India. Retrieved on May 03 2022, from https://aerb.gov.in/english/radiation-protection-principle

30. Schultz, E. M., Pineda, N., Lonhart, J., et al. (2013). A systematic review of the care coordination measurement landscape. BMC Health Services Research, 13(1). doi:10.1186/1472-6963-13-119

31. Scope of Hospital Services: External Standards and Guidelines. (n.d.). Retrieved on May 03 2022, from https://www.princeton.edu/~ota/disk2/1988/8832/883211.PDF

32. Shahid, S., & Thomas, S. (2018). Situation, Background, Assessment, Recommendation (SBAR) Communication Tool for Handoff in Health Care – A Narrative Review. Safety in Health, 4(1). doi:10.1186/s40886-018-0073-1

33. Subbe, C. (2001). Validation of a modified Early Warning Score in medical admissions. QJM, 94(10), 521-526. doi:10.1093/qjmed/94.10.521

34. Subbe, C. P., & Welch, J. R. (2013). Failure to rescue: using rapid response systems to improve care of the deteriorating patient in hospital. Clinical Risk, 19(1), 6-11. doi:10.1177/1356262213486451

35. Wacogne, I., & Diwakar, V. (2010). Handover and note-keeping: the SBAR approach. Clinical Risk, 16(5), 173-175. doi:10.1258/cr.2010.010043

36. Waring J, Marshall F, Bishop S, et al. Hospital discharge and patient safety: reviews of the literature. In: An ethnographic study of knowledge sharing across the boundaries between care processes, services and organisations: the contributions to 'safe' hospital discharge. Health Services and Delivery Research, No. 2.29. 2014. Retrieved on May 03 2022, from https://www.ncbi.nlm.nih.gov/books/NBK259995/

37. Warren, J., Fromm, R. E., Orr, R. A., Rotello, L. C., & Horst, H. M. (2004). Guidelines for the inter- and intrahospital transport of critically ill patients*. Critical Care Medicine, 32(1), 256-262. doi:10.1097/01.ccm.0000104917.39204.0a

38. Weston, C., Yune, S., Bass, E., et al. (2017). A Concise Tool for Measuring Care Coordination from the Provider's Perspective in the Hospital Setting. Journal of Hospital Medicine, 12(10), 811-817. doi:10.12788/jhm.2795

39. Williams, P., Karuppiah, S., Greentree, K., & Darvall, J. (2019). A checklist for intrahospital transport of critically ill patients improves compliance with transportation safety guidelines. Australian Critical Care. doi:10.1016/j.aucc.2019.02.004

40. Winters, B. D., Weaver, S. J., Pfoh, E. R., et al.. (2013). Rapid-Response Systems as a Patient Safety Strategy. Annals of Internal Medicine, 158(5_Part_2), 417. doi:10.7326/0003-4819-158-5-201303051-00009

41. World Health Organization. (2010). WHO guidelines on drawing blood: best practices in phlebotomy. Retrieved on May 03 2022, from http://www.euro.who.int/__data/assets/pdf_file/0005/268790/WHO-guidelines-on-drawing-blood-best-practices-in-phlebotomy-Eng.pdf?ua-1

42. World Health Organization. (2011). Laboratory Quality Management System: Handbook. Retrieved on May 03 2022, from https://www.who.int/publications/i/item/9789241548274

43. World Health Organization. (2018). Continuity and coordination of care: a practice brief to support implementation of the WHO Framework on integrated people-centred health services. Retrieved on May 03 2022, from https://apps.who.int/iris/bitstream/handle/10665/274628/9789241514033-eng.pdf?ua=1

44. Wright, J., Williams, R., & Wilkinson, J. R. (1998). Health needs assessment: Development and importance of health needs assessment. BMJ, 316(7140), 1310-1313. doi:10.1136/bmj.316.7140.1310

45. Yemm, R., Bhattacharya, D., & Wright, D. (2014). What constitutes a high quality discharge summary? A comparison between the views of secondary and primary care doctors. International Journal of Medical Education, 5, 125-131. doi:10.5116/ijme.538b.3c2e

# Chapter 2

# Care of Patients (COP)

***Intent of the Chapter:*** The organisation provides uniform care to all patients in various settings. The settings include care provided in outpatient units, day care facilities, in-patient units including critical care units, procedure rooms and operation theatre. When similar care is provided in these different settings, care delivery is uniform. Written guidance, applicable laws and regulations guide emergency and ambulance services, cardio-pulmonary resuscitation, use of blood and blood components, care of patients in the critical care and high dependency units.

Written guidance, applicable laws and regulations also guide the care of patients who are at higher risk of morbidity/mortality, high-risk obstetric patients, paediatric patients, patients undergoing procedural sedation, administration of anaesthesia, patients undergoing surgical procedures and end of life care.

Pain management, nutritional therapy and rehabilitative services are also addressed to provide comprehensive health care.

The management should have written guidelines for organ donation and procurement. The transplant programme ensures that it has the right skill mix of staff and other related support systems to ensure safe and high quality of care.

The standards aim to guide and encourage patient safety as the overarching principle for providing care to the patients.

## SUMMARY OF STANDARDS

| | |
|---|---|
| **COP.1.** | Uniform care to patients is provided in all settings of the organization and is guided by written guidance, and the applicable laws and regulations |
| **COP.2.** | Emergency services including ambulance, and management of disasters, are provided in accordance with written guidance, applicable laws and regulations. |
| **COP.3.** | Cardio-pulmonary resuscitation services are provided uniformly across the organization. |
| **COP.4.** | Nursing care is provided to patients in the organization in consonance with clinical protocols. |
| **COP.5.** | Transfusion services are provided as per the scope of services of the organization, safely. |
| **COP.6.** | Organization provides care in the intensive care and high dependency units, in a systematic manner. |
| **COP.7.** | Organization provides safe obstetric care. |

| | |
|---|---|
| **COP.8.** | Organization provides safe paediatric services. |
| **COP.9.** | Procedural sedation is provided consistently and safely. |
| **COP.10.** | Anaesthesia services are provided consistently and safely. |
| **COP.11.** | Clinical procedures, as well as procedures in the operation theatre are performed in a safe and consistent manner. |
| **COP.12.** | The organization identifies and manages patients who are at higher risk of morbidity and mortality. |
| **COP.13.** | Pain management, rehabilitation services and nutritional therapy are provided to the patients in a safe, collaborative and consistent manner. |

# STANDARDS AND OBJECTIVE ELEMENTS

## Standard

| | |
|---|---|
| **COP 1.** | **Uniform care to patients is provided in all settings of the organization and is guided by written guidance, and the applicable laws and regulations** |

## Objective Elements

| | | |
|---|---|---|
| CORE | a. | The organization has a uniform process for identification of patients and at a minimum, uses two identifiers. |
| Commitment | b. | Care shall be provided in consonance with applicable laws and regulations. |
| Achievement | c. | The organization adopts evidence-based clinical practice guidelines and/or clinical protocols to guide uniform patient care. |
| Commitment | d. | Care delivery is uniform for a given clinical condition when similar care is provided in more than one setting.* |
| Excellence | e. | Telemedicine facility is provided safely and securely based on written guidance. * |

## Standard

| | |
|---|---|
| **COP 2.** | **Emergency services including ambulance, and management of disasters, are provided in accordance with written guidance, applicable laws and regulations.** |

## Objective Elements

| | | |
|---|---|---|
| Commitment | a. | There shall be an identified area in the organization, which is easily accessible to receive and manage emergency patients, with adequate and appropriate resources. |
| CORE | b. | The organization manages medico-legal cases and provides emergency care in consonance with statutory requirements and in accordance with written guidance. * |
| Commitment | c. | Initiation of appropriate care is guided by a system of triage.* |

| | | |
|---|---|---|
| **Commitment** | d. | Patients waiting in the emergency are reassessed as appropriate for the change in status. |
| **Commitment** | e. | Admission, discharge to home or transfer to another organization is documented, and a discharge note shall be given to the patient. |
| **Achievement** | f. | The organization shall implement a quality assurance programme. * |
| **Commitment** | g. | The organization has systems in place for the management of patients found dead on arrival and patients who die within a few minutes of arrival. |
| **Commitment** | h. | The organization has access to ambulance services commensurate with the scope of services provided by it. |
| **Commitment** | i. | The ambulance(s) is fit for purpose, is operated by trained personnel, is appropriately equipped, and ensures that emergency medications are available in the ambulance. |
| **Excellence** | j. | The emergency department identifies opportunities to initiate treatment at the earliest, when the patient is in transit to the organization. |
| **Commitment** | k. | The organization manages potential community emergencies, epidemics and other disasters as per a documented plan. * |

## Standard

| | |
|---|---|
| **COP 3.** | **Cardio-pulmonary resuscitation services are provided uniformly across the organization.** |

## Objective Elements

| | | |
|---|---|---|
| **Commitment** | a. | Resuscitation services are available to patients at all times. |
| **Commitment** | b. | During cardiopulmonary resuscitation, assigned roles and responsibilities are complied with, and the events during cardiopulmonary resuscitation are recorded. |

| | | |
|---|---|---|
| Commitment | c. | The equipment and medications for use during cardiopulmonary resuscitation are available in various areas of the organization. |
| Commitment | d. | A multidisciplinary committee does a post-event analysis of all cardiopulmonary resuscitations, and corrective and preventive measures are taken based on this. |

## Standard

| | |
|---|---|
| **COP 4.** | **Nursing care is provided to patients in the organization in consonance with clinical protocols.** |

## Objective Elements

| | | |
|---|---|---|
| CORE | a. | Nursing care is aligned and integrated with overall patient care, and is documented in the patient record*. |
| Commitment | b. | Assignment of patient care is done as per current good clinical / nursing practice guidelines. |
| Commitment | c. | Nurses are provided with appropriate and adequate equipment for providing safe and efficient nursing services. |
| Excellence | d. | The organization develops and implements nursing clinical practice guidelines reflecting current standards of practice*. |

## Standard

| | |
|---|---|
| **COP 5.** | **Transfusion services are provided as per the scope of services of the organization, safely.** |

| | | |
|---|---|---|
| Commitment | a. | Transfusion services are commensurate with the services provided by the organization, and are governed by the applicable laws and regulations. |
| CORE | b. | Transfusion of blood and blood components is done safely. * |
| Commitment | c. | Blood and blood components are used rationally*. |

| | | |
|---|---|---|
| **Commitment** | d. | Informed consent is obtained for transfusion of blood and blood products, and for donation. |
| **Commitment** | e. | Blood/blood components are available for use in emergency situations within a defined time frame.* |
| **Achievement** | f. | Post-transfusion form is collected, reactions if any identified and are analysed for corrective and preventive actions. |

## Standard

| | |
|---|---|
| **COP 6.** | **Organization provides care in the intensive care and high dependency units, in a systematic manner.** |

## Objective Elements

| | | |
|---|---|---|
| **Commitment** | a. | The defined admission and discharge criteria for its intensive care and high dependency units are implemented, and defined procedures for the situation of bed shortages are followed. * |
| **Commitment** | b. | The care is provided in intensive care and high dependency units based on written guidance by adequately available staff and equipment. |
| **Commitment** | c. | Infection control practices are documented and followed. *. |
| **Achievement** | d. | The organization shall implement a quality-assurance programme.* |
| **Commitment** | e. | The organisation has a mechanism to counsel the patient and / or family periodically. |
| **Commitment** | f. | End of life care is provided in a consistent manner in the organization, and is in consonance with legal requirements. * |

## Standard

| | |
|---|---|
| **COP 7.** | **Organization provides safe obstetric care.** |

## Objective Elements

| | | |
|---|---|---|
| **Commitment** | a. | Obstetric services are organised and provided safely * |

| | | |
|---|---|---|
| **Commitment** | b. | The organization identifies and provides care to high risk obstetric cases with competent doctors and nurses, and where needed, refers them to another appropriate centre |
| **Commitment** | c. | Antenatal assessment also includes maternal nutrition*. |
| **Commitment** | d. | Appropriate peri-natal and post-natal monitoring is performed. |
| **Commitment** | e. | The organization caring for high risk obstetric cases has the human resources and facilities to take care of neonates of such cases. |

## Standard

| | |
|---|---|
| **COP 8.** | **Organization provides safe paediatric services.** |

## Objective Elements

| | | |
|---|---|---|
| **Commitment** | a. | Paediatric services are organised and provided safely. * |
| **Commitment** | b. | Neonatal care is in consonance with the national/ international guidelines* |
| **Commitment** | c. | Those who care for children have age-specific competency. |
| **Commitment** | d. | Provisions are made for special care of children. |
| **Commitment** | e. | Patient assessment includes nutritional, growth, developmental and immunisation assessment. |
| **Commitment** | f. | The organization has measures in place to prevent child/neonate abduction and abuse. * |

## Standard

| COP 9. | Procedural sedation is provided consistently and safely. |
|---|---|

## Objective Elements

| | | |
|---|---|---|
| Commitment | a. | Procedural sedation is administered in a consistent manner. * |
| Commitment | b. | Informed consent for administration of procedural sedation is obtained. |
| Commitment | c. | Competent and trained persons perform and monitor sedation. |
| Commitment | d. | Intra-procedure monitoring includes at a minimum the heart rate, cardiac rhythm, respiratory rate, blood pressure, oxygen saturation, and level of sedation. |
| Commitment | e. | Post procedure monitoring is documented, and patients are discharged from the recovery area based on objective criteria. |

## Standard

| COP 10. | Anaesthesia services are provided consistently and safely. |
|---|---|

## Objective Elements

| | | |
|---|---|---|
| Commitment | a. | Anaesthesia services are administered in a consistent and safe manner. * |
| CORE | b. | The pre-anaesthesia assessment results in the formulation of an anaesthesia plan which is documented*. |
| Commitment | c. | A pre-induction assessment is performed and documented. |
| Commitment | d. | Informed consent for administration of anaesthesia, is obtained. |
| CORE | e. | Patients are monitored while under anaesthesia*. |
| Commitment | f. | Post anaesthesia monitoring is documented, and patients are discharged from the recovery area based on objective criteria*. |

| | | |
|---|---|---|
| **Commitment** | g. | The type of anaesthesia and anaesthetic medications used are documented in the patient record. |
| **Achievement** | h. | Intra-operative adverse anaesthesia events are recorded and monitored. |

## Standard

| | |
|---|---|
| **COP 11.** | **Clinical procedures, as well as procedures in the operation theatre are performed in a safe and consistent manner.** |

## Objective Elements

| | | |
|---|---|---|
| **Commitment** | a. | Clinical procedures as well as procedures done in operation theatres are done in a consistent and safe manner. * |
| **Commitment** | b. | Surgical patients have a preoperative assessment, a documented pre-operative diagnosis, and pre-operative instructions provided before surgery and documented. |
| **Commitment** | c. | Informed consent is obtained by the doctor prior to the procedure. |
| **CORE** | d. | Care is taken to prevent adverse events like wrong site, wrong patient and wrong surgery. * |
| **Commitment** | e. | The procedure is done adhering to standard precautions. |
| **Commitment** | f. | Procedures / operation notes, post procedure monitoring and post-operative care plan are documented accurately in the patient record. |
| **Commitment** | g. | Appropriate facilities, equipment, instruments and supplies are available in the operating theatre. |
| **Achievement** | h. | The organization shall implement a quality assurance programme. * |
| **CORE** | i. | The organ transplant program shall be in consonance with the legal requirements and shall be conducted ethically. |
| **CORE** | j. | The organization shall take measures to create awareness regarding organ donation. |

## Standard

| | |
|---|---|
| **COP 12.** | **The organization identifies and manages patients who are at higher risk of morbidity and mortality.** |

## Objective Elements

| | | |
|---|---|---|
| **Commitment** | a. | The organization identifies and manages vulnerable patients. * |
| **Commitment** | b. | The organization provides for a safe and secure environment for the vulnerable patient. |
| **CORE** | c. | The organization identifies and manages patients who are at risk of fall. |
| **CORE** | d. | The organization identifies and manages patients who are at risk of developing / worsening of pressure ulcers. |
| **CORE** | e. | The organization identifies and manages patients who are at risk of developing / worsening of developing deep vein thrombosis. |
| **Commitment** | f. | The organization identifies and manages patients who need restraints. * |

## Standard

| | |
|---|---|
| **COP 13.** | **Pain management, rehabilitation services and nutritional therapy are provided to the patients in a safe, collaborative and consistent manner.** |

## Objective Elements

| | | |
|---|---|---|
| **Commitment** | a. | Patients in pain are effectively managed * |
| **Commitment** | b. | Pain alleviation measures or medications are initiated and titrated according to the patient's need and response. |
| **Commitment** | c. | Scope of rehabilitation services at a minimum is commensurate to the services provided by the organization. *. |

| | | |
|---|---|---|
| **Commitment** | d. | Care providers collaboratively plan rehabilitation services. |
| **Commitment** | e. | Patients admitted to the organization are screened for nutritional risk, and assessment is done for patients found at risk during nutritional screening. * |
| **Commitment** | f. | The therapeutic diet is planned and provided collaboratively. |

## References:

1. 2015 American Heart Association Guidelines: Update for CPR and ECC. (2015).
2. ACOG Committee Opinion No. 390: Ethical Decision Making in Obstetrics and Gynecology. (2007). Obstetrics & Gynecology, 110(6), 1479-1487. doi:10.1097/01.aog.0000291573.09193.36
3. Anaesthesia Care Standards and Practice Guidelines. American Society of Anesthesiologists. (n.d.). Retrieved on May 03 2022, from https://www.asahq.org/standards-and-guidelines
4. Ateriya, N., Saraf, A., Meshram, V., & Setia, P. (2018). Telemedicine and virtual consultation: The Indian perspective. The National Medical Journal of India, 31(4), 215. doi:10.4103/0970-258x.258220
5. Barton, N. (2013). Acuity-Based Staffing: Balance Cost, Satisfaction, Quality, and Outcomes. Nurse Leader, 11(6), 47-64. doi:10.1016/j.mnl.2013.08.005
6. Brooks Carthon, J. M., Hatfield, L., Plover, C., Dierkes, A., Davis, L., Hedgeland, T., … Aiken, L. H. (2019). Association of Nurse Engagement and Nurse Staffing on Patient Safety. Journal of Nursing Care Quality, 34(1), 40-46. doi:10.1097/ncq.0000000000000334
7. Burch, J., & Tort, S. (2019). Does the use of risk assessment tools help prevent the development of pressure ulcers? Cochrane Clinical Answers. doi:10.1002/cca.2400
8. Byrne, J. P., Xiong, W., Gomez, D., Mason, S., Karanicolas, P., Rizoli, S., … Nathens, A. B. (2015). Redefining “dead on arrival”. Journal of Trauma and Acute Care Surgery, 79(5), 850-857. doi:10.1097/ta.0000000000000843
9. Chou, R., Gordon, D. B., De Leon-Casasola, O. A., Rosenberg, J. M., Bickler, S., Brennan, T., et al. Management of Postoperative Pain: A Clinical Practice Guideline From the American Pain Society, the American Society of Regional Anesthesia and Pain Medicine, and the American Society of Anesthesiologists' Committee on Regional Anesthesia, Executive Committee, and Administrative Council. J Pain 2016 Feb;17(2):131-57. doi: 10.1016/j.jpain.2015.12.008.
10. Christ, M., Grossmann, F., Winter, D., Bingisser, R., & Platz, E. (2010). Modern Triage in the Emergency Department. Deutsches Aerzteblatt Online. doi:10.3238/arztebl.2010.0892
11. Clinical practice Guideline for Chronic Pain. (2018). Japanese Society for the Study of Pain. Retrieved on May 03 2022, from https://plaza.umin.ac.jp/~jaspain/pdf/consortium_20180913en.pdf
12. Colvin, J. R., & Peden, C. (2012). Raising the Standard: A Compendium of Audit Recipes for Continuous Quality Improvement in Anaesthesia. (3rd ed.). Retrieved on May 03 2022, from https://www.rcoa.ac.uk/sites/default/files/documents/2019-09/CSQ-ARB-2012_0.pdf
13. Compendium National Blood Policy and Guidelines (2016). Retrieved on May 03 2022, from http://nbtc.naco.gov.in/assets/resources/policy/commonResource_1517222887.pdf
14. Correction to: 2017 American Heart Association Focused Update on Adult Basic Life Support and Cardiopulmonary Resuscitation Quality: An Update to the American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. (2018). Circulation, 137(1). doi:10.1161/cir.0000000000000555

15. Deutsch, E. S., Yonash, R. A., Martin, D. E., Atkins, J. H., Arnold, T. V., & Hunt, C. M. (2018). Wrong-site nerve blocks: A systematic literature review to guide principles for prevention. Journal of Clinical Anesthesia, 46, 101-111. doi:10.1016/j.jclinane.2017.12.008

16. Dykes, P. C., Carroll, D. L., Hurley, A., Lipsitz, S., Benoit, A., Chang, F., … Middleton, B. (2010). Fall Prevention in Acute Care Hospitals. JAMA, 304(17), 1912. doi:10.1001/jama.2010.1567

17. Global Atlas of Palliative Care at the End of Life. (2020). World Health Organization. Retrieved on May 03 2022, from https://cdn.who.int/media/docs/default-source/integrated-health-services-(ihs)/csy/palliative-care/whpca_global_atlas_p5_digital_final.pdf?sfvrsn=1b54423a_3

18. Guiding principles on human cell, tissue and organ transplantation. World Health Organization. Retrieved on May 03 2022, from https://apps.who.int/iris/bitstream/handle/10665/341814/WHO-HTP-EHT-CPR-2010.01-eng.pdf?sequence=1

19. Haynes, A. B., Berry, W. R., & Gawande, A. A. (2015). What Do We Know About the Safe Surgery Checklist Now? Annals of Surgery, 261(5), 829-830. doi:10.1097/sla.0000000000001144

20. Henke, P., and Pannucci, C. (2010). VTE Risk Factor Assessment and Prophylaxis. Phlebology, 25(5):219-223. doi:10.1258/phleb.2010.010018. Retrieved on May 03 2022, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4487984/pdf/nihms702670.pdf

21. Hervig, T., Kaada, S., & Seghatchian, J. (2014). Storage and handling of blood components – perspectives. Transfusion and Apheresis Science, 51(2), 103-106. doi:10.1016/j.transci.2014.10.001

22. Hinkelbein, J., Lamperti, M., Akeson, J., Santos, J., Costa, J., De Robertis, E., … Fitzgerald, R. (2017). European Society of Anaesthesiology and European Board of Anaesthesiology guidelines for procedural sedation and analgesia in adults. European Journal of Anaesthesiology, 1. doi:10.1097/eja.0000000000000683

23. ICU Admission, Discharge, and Triage Guidelines: A Framework to Enhance Clinical Operations, Development of Institutional Policies, and Further Research. Crit Care Med. 2016;44(8):1553-1602. Retrieved on May 03 2022, from https://journals.lww.com/ccmjournal/Fulltext/2016/08000/ICU_Admission,_Discharge,_and_Triage_Guidelines__A.15.aspx

24. Implementation Handbook on Emergency severity index: A Triage Tool for Emergency Department Care. Version 4. Agency for Healthcare Research and Quality. (2020). Retrieved on May 03 2022, from https://www.ena.org/docs/default-source/education-document-library/triage/esi-implementation-handbook-2020.pdf?sfvrsn=fdc327df_4

25. Intensive Care Unit (ICU) guidelines. Indian Society of Critical Care Medicine. (n.d.). Guidelines. Retrieved on May 03 2022, from https://isccm.org/guidelines.aspx

26. Kleinman, M. E., Brennan, E. E., Goldberger, Z. D., Swor, R. A., Terry, M., Bobrow, B. J., … Rea, T. (2015). Part 5: Adult Basic Life Support and Cardiopulmonary Resuscitation Quality. Circulation, 132(18 suppl 2), S414-S435. doi:10.1161/cir.0000000000000259

27. Kleinman, M. E., Goldberger, Z. D., Rea, T., Swor, R. A., Bobrow, B. J., Brennan, E. E., … Travers, A. H. (2018). 2017 American Heart Association Focused Update on Adult Basic Life Support and Cardiopulmonary Resuscitation Quality: An Update to the American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. Circulation, 137(1). doi:10.1161/cir.0000000000000539

28. Link, M. S., Berkow, L. C., Kudenchuk, P. J., Halperin, H. R., Hess, E. P., Moitra, V. K., … Donnino, M. W. (2015). Part 7: Adult Advanced Cardiovascular Life Support. Circulation, 132(18 suppl 2), S444-S464. doi:10.1161/cir.0000000000000261

29. McClave, S. A., DiBaise, J. K., Mullin, G. E., & Martindale, R. G. (2016). ACG Clinical Guideline: Nutrition Therapy in the Adult Hospitalized Patient. American Journal of Gastroenterology, 111(3), 315-334. doi:10.1038/ajg.2016.28

30. Ministry of Health and Family Welfare, Government of India. (n.d.). Standard Treatment Guidelines (Speciality/Super Speciality wise). Retrieved on May 03 2022, from http://clinicalestablishments.gov.in/En/1068-standard-treatment-guidelines.aspx

31. Mishra, S., Mukhopadhyay, K., Tiwari, S., Bangal, R., Yadav, B. S., Sachdeva, A., & Kumar, V. (2017). End-of-life care: Consensus statement by Indian Academy of Pediatrics. Indian Pediatrics, 54(10), 851-859. doi:10.1007/s13312-017-1149-4

32. Montori, V. M., Brito, J. P., & Murad, M. H. (2013). The Optimal Practice of Evidence-Based Medicine. JAMA, 310(23), 2503. doi:10.1001/jama.2013.281422

33. Moore, Z. E., & Patton, D. (2019). Risk assessment tools for the prevention of pressure ulcers. Cochrane Database of Systematic Reviews. doi:10.1002/14651858.cd006471.pub4

34. Myatra SN, Salins N, Iyer S, Macaden SC, Divatia JV, Muckaden M, Kulkarni P, Simha S, Mani RK. End-of-life care policy: An integrated care plan for the dying. Indian J Crit Care Med 2014;18:615-35.

35. National Council on Aging. (2017, August 29). Malnutrition Screening and Assessment Tools. Retrieved on May 03 2022, from https://www.ncoa.org/assesssments-tools/malnutrition-screening-assessment-tools/

36. National Disaster Management Authority (NDMA) Guidelines. Government of India. Retrieved on May 03 2022, from https://ndma.gov.in/Governance/Guidelines

37. Nguyen, A. (2015). Acuity-based staffing. Nursing Management (Springhouse), 46(1), 35-39. doi:10.1097/01.numa.0000459555.94452.e2

38. Pavenski, K., Stanworth, S., Fung, M., Wood, E. M., Pink, J., Murphy, M. F., … Shehata, N. (2018). Quality of Evidence-Based Guidelines for Transfusion of Red Blood Cells and Plasma: A Systematic Review. Transfusion Medicine Reviews, 32(3), 135-143. doi:10.1016/j.tmrv.2018.05.004

39. Pediatric ICU Admission, Discharge, and Triage Practice Statement and Levels of Care Guidance. Ped Crit Care Med. 2019 Sep;20(9): 847-887. Retrieved on May 03 2022, from https://journals.lww.com/pccmjournal/Fulltext/2019/09000/Criteria_for_Critical_Care_Infants_and_Children_.7.aspx%E2%80%8B

40. Policies and Guidelines. National Blood Transfusion Council. Retrieved on May 03 2022, from http://nbtc.naco.gov.in/page/policies_guidelines/

41. Practice Guidelines for Moderate Procedural Sedation and Analgesia 2018. (2018). Anesthesiology, 128(3), 437-479. doi:10.1097/aln.0000000000002043

42. Prescribing and clinical use of blood and blood products. Australian Commission on Safety and Quality in Healthcare. Retrieved on May 03 2022, from https://www.safetyandquality.gov.au/standards/nsqhs-standards/blood-management-standard/prescribing-and-clinical-use-blood-and-blood-products

43. Preventing Falls in Hospitals. (2013). Agency for Healthcare Research and Quality. Retrieved on May 03 2022, from https://www.ahrq.gov/professionals/systems/hospital/fallpxtoolkit/index.html

44. Quality Indicators in ICU. Indian Society of Critical Care Medicine (2009). Retrieved on May 03 2022, from https://isccm.org/pdf/Section8.pdf

45. Reay, G., Norris, J. M., Nowell, L., Hayden, K. A., Yokom, K., Lang, E. S., … Abraham, J. (2019). Transition in Care from EMS Providers to Emergency Department Nurses: A Systematic Review. Prehospital Emergency Care, 1-13. doi:10.1080/10903127.2019.1632999

46. Roback, M., Green, S., Andolfatto, G., Leroy, P., & Mason, K. (2018). Tracking and Reporting Outcomes Of Procedural Sedation (TROOPS): Standardized Quality Improvement and Research Tools from the International Committee for the Advancement of Procedural Sedation. British Journal of Anaesthesia, 120(1), 164-172. doi:10.1016/j.bja.2017.08.004

47. Rotter, T., Kinsman, L., James, E. L., Machotta, A., Gothe, H., Willis, J., … Kugler, J. (2010). Clinical pathways: effects on professional practice, patient outcomes, length of stay and hospital costs. Cochrane Database of Systematic Reviews. doi:10.1002/14651858.cd006632.pub2

48. Safe Medication Use in the ICU. Crit Care Med 2017; 45(9):e877-e915. Retrieved on May 03 2022, from https://journals.lww.com/ccmjournal/Fulltext/2017/09000/Clinical_Practice_Guideline___Safe_Medication_Use.32.aspx

49. Salins, N., Muckaden, M., Nirabhawane, V., Simha, S., Macaden, S., Kulkarni, P., & Joad, A. (2014). End of life care policy for the dying: Consensus position statement of indian association of palliative care. Indian Journal of Palliative Care, 20(3), 171. doi:10.4103/0973-1075.138384

50. Sedation in children and young people. National Institute for Health and Clinical Excellence (NICE Guidelines). May 03 2022, from https://www.nice.org.uk/guidance/cg112/evidence/full-guideline-136287325

51. Semrau, K. E., Hirschhorn, L. R., Marx Delaney, M., Singh, V. P., Saurastri, R., Sharma, N., … Gawande, A. A. (2017). Outcomes of a Coaching-Based WHO Safe Childbirth Checklist Program in India. New England Journal of Medicine, 377(24), 2313-2324. doi:10.1056/nejmoa1701075

52. Sessler, D. I. (2016). Perioperative thermoregulation and heat balance. The Lancet, 387(10038), 2655-2664. doi:10.1016/s0140-6736(15)00981-2

53. Sharma S, Sharma P and Tyler LN. Transfusion of Blood and Blood Products: Indications and Complications. Am Fam Physician. 2011 Mar 15;83(6):719-724. Retrieved on May 03 2022, from https://www.aafp.org/afp/2011/0315/p719.html

54. Singh, D., & Jain, G. (2018). Chapter-49 Declaration of Brain Death in India: Current Status. Critical Care Update 2017, 273-279. doi:10.5005/jp/books/13063_50

55. Standards For Blood Banks & Blood Transfusion Services. National AIDS Control Organisation. Ministry of Health and Family Welfare. Government of India. (2007, May). Retrieved on May 03 2022, from http://naco.gov.in/sites/default/files/Standards%20for%20Blood%20Banks%20and%20Blood%20Transfusion%20Services.pdf

56. Tripathi, L., & Kumar, P. (2014). Challenges in pain assessment: Pain intensity scales. Indian Journal of Pain, 28(2), 61. doi:10.4103/0970-5333.132841

57. Turner, J., Siriwardena, A. N., Coster, J., Jacques, R., Irving, A., Crum, A., … Campbell, M. (2019). Developing new ways of measuring the quality and impact of ambulance service care: the PhOEBE mixed-methods research programme. Programme Grants for Applied Research, 7(3), 1-90. doi:10.3310/pgfar07030

58. Use of Seclusion and Restraint. (2018). American Psychiatric Nurses Association Position Statement on the Use of Seclusion and Restraint. Retrieved on May 03 2022, from https://www.apna.org/i4a/pages/index.cfm?pageid=3728

59. Validated Malnutrition Screening and Assessment Tools: Comparison Guide. (2017). Retrieved on May 03 2022, from https://www.health.qld.gov.au/__data/assets/pdf_file/0021/152454/hphe_scrn_tools.pdf

60. Van Rein, E. A., Van der Sluijs, R., Voskens, F. J., Lansink, K. W., Houwert, R. M., Lichtveld, R. A., … Van Heijl, M. (2019). Development and Validation of a Prediction Model for Prehospital Triage of Trauma Patients. JAMA Surgery, 154(5), 421. doi:10.1001/jamasurg.2018.4752

61. Vanhaecht, K., De Witte, K., Panella, M., & Sermeus, W. (2009). Do pathways lead to better organized care processes? Journal of Evaluation in Clinical Practice, 15(5), 782-788. doi:10.1111/j.1365-2753.2008.01068.x

62. Wax, D. B., McCormick, P. J., Joseph, T. T., & Levin, M. A. (2018). An Automated Critical Event Screening and Notification System to Facilitate Preanesthesia Record Review. Anesthesia & Analgesia, 126(2), 606-610. doi:10.1213/ane.0000000000002141

63. Whitehead, L., & Myers, H. (2016). The effect of hospital nurse staffing models on patient and staff-related outcomes. International Journal of Nursing Practice, 22(4), 330-332. doi:10.1111/ijn.12463

64. WHO Guidelines for Safe Surgery 2009: Safe Surgery Saves Lives. World Health Organization. World Alliance for Patient Safety. (2009). Retrieved on May 03 2022, from https://apps.who.int/iris/handle/10665/44185

# Chapter 3

# Management of Medication (MOM)

***Intent of the Chapter:*** The organisation has a safe and organised medication process. The availability, safe storage, prescription, dispensing and administration of medications is governed by written guidance. Medications also include blood & blood components, implants and medical devices.

The pharmacy should have oversight of all medications stocked out of the pharmacy. The pharmacy should ensure correct storage (as regards to temperature, light; high-risk medications including look-alike, sound-alike, etc.), near expiry dates and maintenance of documentation.

The availability of emergency medications is stressed upon. The organisation should have a mechanism to ensure that the emergency medications are standardised throughout the organisation, readily available and replenished promptly. There should be a monitoring mechanism to ensure that the required medications are always stocked and well within expiry dates.

Every high-risk medication order should be verified by an appropriate person to ensure accuracy of the dose, frequency and route of administration. Safety is paramount when using narcotics, chemotherapeutic agents and radioactive agents.

The process also includes monitoring of patients after administration and procedures for reporting and analysing near-misses, medication errors and adverse drug reactions. Staff are aware of the recall process and are empowered to report errors

## SUMMARY OF STANDARDS

| | |
|---|---|
| **MOM.1.** | Multidisciplinary committee guides pharmacy services and management of medication. |
| **MOM.2.** | Medications are stored appropriately and are available where required. |
| **MOM.3.** | Medications are prescribed safely and rationally. |
| **MOM.4.** | Medication orders are written in a uniform manner. |
| **MOM.5.** | Medications are dispensed in a safe manner. |
| **MOM.6.** | Medications are administered safely. |
| **MOM.7.** | Patients are monitored after medication administration. |
| **MOM.8.** | Narcotic drugs and psychotropic substances, chemotherapeutic agents and radioactive agents are used in a safe manner. |
| **MOM.9.** | Implantable prosthesis and medical devices are used in accordance with laid down criteria. |

*** This implies that this objective element requires documentation.**

# STANDARDS AND OBJECTIVE ELEMENTS

## Standard

| | |
|---|---|
| **MOM.1.** | **Multidisciplinary committee guides pharmacy services and management of medication.** |

## Objective Elements

| | | |
|---|---|---|
| **Commitment** | a. | The organisation develops , updates and implements a list of medications appropriate for the patients and as per the scope of the organisation's clinical services. |
| **CORE** | b. | Pharmacy services and medication usage are implemented following written guidance through a multidisciplinary committee. * |
| **Commitment** | c. | The organisation adheres to the procedure for the acquisition of formulary medications and medications not listed in the formulary * |
| **Commitment** | d. | There is a procedure to obtain medication when the pharmacy is closed. * |
| **Commitment** | e. | Implantable prosthesis and medical devices are used in accordance with laid down criteria. |
| **Excellence** | f. | The clinicians adhere to the current formulary. |

## Standard

| | |
|---|---|
| **MOM.2.** | **Medications are stored appropriately and are available where required.** |

## Objective Elements

| | | |
|---|---|---|
| **CORE** | a. | Medications are stored in a clean, safe and secure environment; and incorporating the manufacturer's recommendation(s). |

| | | |
|---|---|---|
| Commitment | b. | Sound inventory control practices guide storage of the medications throughout the organisation. |
| CORE | c. | The organisation defines a list and mechanism for storage of high-risk medication(s) including look - alike sound-alike medications * |
| Achievement | d. | High-risk medications are stored in areas of the organisation where it is clinically necessary. |
| Commitment | e. | The list of emergency medications is defined and is stored uniformly. * |
| CORE | f. | Emergency medications are available all the time and are replenished promptly when used. |

## Standard

| MOM.3. | Medications are prescribed safely and rationally. |
|---|---|

## Objective Elements

| | | |
|---|---|---|
| Commitment | a. | Medication prescription is in consonance with good practices/guidelines for the rational prescription of medications. * |
| CORE | b. | The organisation adheres to the determined minimum requirements of a prescription. * |
| Commitment | c. | Drug allergies and previous adverse drug reactions are ascertained before prescribing. |
| Excellence | d. | The organisation has a mechanism to assist the clinician in prescribing appropriate medication. |
| CORE | e. | Implementation of verbal orders ensures safe medication management practices.* |
| Achievement | f. | Audit of medication orders/prescription is carried out to check for safe and rational prescription of medications. |
| Achievement | g. | Corrective and/or preventive action(s) is taken based on the audit, where appropriate. |
| CORE | h. | Reconciliation of medications occurs at transition points of patient care. |

## Standard

| MOM.4. | Medications orders are written in a uniform manner. |
|---|---|

## Objective Elements

| | | |
|---|---|---|
| Commitment | a. | The organisation ensures that only authorised personnel write orders. * |
| Commitment | b. | Medication orders are written in a uniform location in the medical records, which also reflects the patient's name and unique identification number. |
| Commitment | c. | Medication orders are legible, dated, timed and signed. |
| Commitment | d. | Medication orders contain the name of the medicine, route of administration, strength to be administered and frequency/time of administration. |

## Standard

| MOM.5. | Medications are prescribed safely and rationally. |
|---|---|

## Objective Elements

| | | |
|---|---|---|
| Commitment | a. | Dispensing of medications is done safely. * |
| Commitment | b. | Medication recalls are handled effectively. * |
| Commitment | c. | Near-expiry medications are handled effectively. * |
| CORE | d. | Dispensed medications are labelled. * |
| CORE | e. | High-risk medication orders are verified before dispensing. |
| Commitment | f. | Return of medications to the pharmacy is addressed. * |

## Standard

| MOM.6. | Medications are administered safely. |
|---|---|

## Objective Elements

| | | |
|---|---|---|
| Commitment | a. | Administration of medication is done in a safe manner*. |
| Commitment | b. | Prepared medication is labelled before preparation of a second drug. |
| Commitment | c. | The patient is identified before administration. |
| CORE | d. | Medication is verified from the medication order and physically inspected before administration. |
| Commitment | e. | Strength, route and timing is verified from the order before administration. |
| CORE | f. | Measures to avoid catheter and tubing mis-connections during medication administration are implemented. * |
| Commitment | g. | Medication administration is documented. |
| Commitment | h. | Measures to govern patient's self-administration of medications are implemented. * |
| Achievement | i. | Measures to govern patient's medications brought from outside the organisation are implemented.* |

## Standard

| MOM.7. | Patients are monitored after medication administration. |
|---|---|

## Objective Elements

| | | |
|---|---|---|
| Commitment | a. | Patients are monitored after medication administration. * |

| | | |
|---|---|---|
| **Commitment** | b. | Medications are changed where appropriate based on the monitoring. |
| **CORE** | c. | The organisation captures near miss, medication error and adverse drug reaction. * |
| **Commitment** | d. | Near miss, medication error and adverse drug reaction are reported and analysed within a specified time frame. * |
| **Commitment** | e. | Corrective and/or preventive action(s) are taken based on the analysis. |

## Standard

| | |
|---|---|
| **MOM.8.** | **Narcotic drugs and psychotropic substances, chemotherapeutic agents and radioactive agents are used in a safe manner.** |

## Objective Elements

| | | |
|---|---|---|
| **Commitment** | a. | Narcotic drugs and psychotropic substances, chemotherapeutic agents and radioactive agents are used safely. * |
| **Commitment** | b. | Narcotic drugs and psychotropic substances, chemotherapeutic agents and radioactive agents are prescribed by appropriate caregivers. |
| **Commitment** | c. | Narcotic drugs and psychotropic substances, chemotherapeutic agents and radioactive agents drugs are stored securely. |
| **Commitment** | d. | Chemotherapy and radioactive agents are prepared properly and safely, and administered by qualified personnel. |
| **Commitment** | e. | A proper record is kept of the usage, administration and disposal of narcotic drugs and psychotropic substances, chemotherapeutic agents and radioactive agents. |

## Standard

| | |
|---|---|
| **MOM.9.** | **Implantable prosthesis and medical devices are used in accordance with laid down criteria** |

## Objective Elements

| | | |
|---|---|---|
| **Commitment** | a. | Written guidance address procurement and usage of implantable prostheses* |
| **Commitment** | b. | Patient and his/her family are counselled for the usage of the implantable prosthesis and medical devises including precautions if any |
| **Commitment** | c. | The batch and the serial number of the implantable prosthesis and medical devises are recorded in the patients' medical records, the master logbook and the discharge summary |

## References:

1. About Medication Errors. National Coordinating Council for Medication Error Reporting and Prevention. (2015). Retrieved May 03, 2022, from https://www.nccmerp.org/about-medication-errors

2. Avoiding Catheter and Tubing Mis-Connections. World Health Organization. (2007). Retrieved May 03, 2022, from https://cdn.who.int/media/docs/default-source/integrated-health-services-(ihs)/psf/patient-safety-solutions/ps-solution7-avoiding-catheter-and-tubing-miss-connections.pdf?sfvrsn=b913dc7c_4&ua=1

3. Bryan R, Aronson JK, Williams A, Jordan S. The problem of look-alike, sound-alike name errors: Drivers and solutions. Br J Clin Pharmacol.2021;87:386–394.

4. FDA and ISMP Lists of Look-Alike Drug Names with Recommended Tall Man Letters. Institute for Safe Medication Practices. (2016). Retrieved May 03, 2022, from https://www.ismp.org/sites/default/files/attachments/2017-11/tallmanletters.pdf

5. Guide on handling look alike, sound alike medications. Ministry of Health, Malaysia. (2012). Retrieved May 03, 2022, from https://www.pharmacy.gov.my/v2/sites/default/files/document-upload/guide-handling-lasa.pdf

6. Guidelines for Standard Order Sets. Institute for Safe Medication Practices. (2010). Retrieved May 03, 2022, from https://www.ismp.org/guidelines/standard-order-sets

7. High-Alert Medications in Acute Care Settings. Institute for Safe Medication Practices. (2018). Retrieved May 03, 2022, from https://www.ismp.org/recommendations/high-alert-medications-acute-list

8. High-Risk Medicines. Clinical Excellence Commission (CEC). (n.d.). Retrieved May 03, 2022, from https://www.cec.health.nsw.gov.au/keep-patients-safe/medication-safety/high-risk-medicines

9. How to Investigate Drug Use in Health Facilities: Selected Drug Use Indicators - EDM Research Series No. 007. World Health Organization. (1993). Retrieved May 03, 2022, from https://apps.who.int/iris/bitstream/handle/10665/60519/WHO_DAP_93.1.pdf

10. ISMP Acute Care Guidelines for Timely Administration of Scheduled Medications. Institute for Safe Medication Practices. (2011). Retrieved May 03, 2022, from https://www.ismp.org/sites/default/files/attachments/2018-02/tasm.pdf

11. Kahn, S., & Abramson, E. L. (2018). What is new in paediatric medication safety? Archives of Disease in Childhood, 104(6), 596-599. doi:10.1136/archdischild-2018-315175

12. List of Confused Drug Names. Institute for Safe Medication Practices. (2019). Retrieved May 03, 2022, from https://www.ismp.org/recommendations/confused-drug-names-list

13. List of Error-Prone Abbreviations. Institute for Safe Medication Practices. (2017). Retrieved May 03, 2022, from https://www.ismp.org/recommendations/error-prone-abbreviations-list

14. Look-Alike, Sound-Alike Medication Names. World Health Organization. (2017). Retrieved May 03, 2022, from https://cdn.who.int/media/docs/default-source/integrated-health-services-(ihs)/psf/patient-safety-solutions/ps-solution1-look-alike-sound-alike-medication-names.pdf?sfvrsn=d4fb860b_6&ua=1

15. Medication Errors and Adverse Drug Events. Agency for Healthcare Research and Quality Patient Safety

Network. (2019). Retrieved May 03, 2022, from https://psnet.ahrq.gov/primer/medication-errors-and-adverse-drug-events

16. Medication Reconciliation. Agency for Healthcare Research and Quality Patient Safety Network. (2019). Retrieved May 03, 2022, from https://psnet.ahrq.gov/primer/medication-reconciliation

17. Medication Safety in transition of care. World Health Organization. (2019). Retrieved May 03, 2022. https://www.who.int/publications/i/item/WHO-UHC-SDS-2019.9 Medication errors. Technical Series on Safer Primary Care. World Health Organization (2016).

18. Medication without harm. WHO Global Patient safety Challenge. World Health Organization. (2017). Retrieved May 03, 2022. https://www.who.int/initiatives/medication-without-harm

19. Model Lists of Essential Medicines. World Health Organization. (n.d.). Retrieved May 03, 2022, from https://www.who.int/groups/expert-committee-on-selection-and-use-of-essential-medicines/essential-medicines-lists

20. National Coordinating Council for Medication Error Reporting and Prevention. (2015). Recommendations to Enhance Accuracy of Administration of Medications. Retrieved May 03, 2022, from https://www.nccmerp.org/recommendations-enhance-accuracy-administration-medications

21. National List of Essential Medicines. Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers, Government of India. (2018, December 27). Retrieved May 03, 2022, from https://pharmaceuticals.gov.in/sites/default/files/NLEM.pdf

22. Pharmacovigilance Programme of India. Indian Pharmacopoeia Commission, National Coordination Centre. Retrieved May 03, 2022, from https://ipc.gov.in//PvPI/pv_home.html

23. Promoting rational use of medicines: core components. World Health Organization. (2012). Retrieved May 03, 2022. https://apps.who.int/iris/bitstream/handle/10665/67438/WHO_EDM_2002.3.pdf

24. Recommendations to Enhance Accuracy of Dispensing Medications. National Coordinating Council for Medication Error Reporting and Prevention. (2015). Retrieved May 03, 2022, from https://www.nccmerp.org/recommendations-enhance-accuracy-dispensing-medications

25. Recommendations to Enhance Accuracy of Prescription/Medication Order Writing. National Coordinating Council for Medication Error Reporting and Prevention. (2015). Retrieved May 03, 2022, from https://www.nccmerp.org/recommendations-enhance-accuracy-prescription-writing

26. Recommendations to Enhance Accuracy of Prescription/Medication Order Writing. National Coordinating Council for Medication Error Reporting and Prevention. (2015). Retrieved May 03, 2022, from https://www.nccmerp.org/recommendations-enhance-accuracy-prescription-writing

27. Recommendations to Reduce Medication Errors Associated with Verbal Medication Orders and Prescriptions. National Coordinating Council for Medication Error Reporting and Prevention. (2015). Retrieved May 03, 2022, from https://www.nccmerp.org/recommendations-reduce-medication-errors-associated-verbal-medication-orders-and-prescriptions

28. Seven (Potentially) Deadly Prescribing Errors. Graham, L. R., Scudder, L., & Stokowski, L. (2015). Retrieved May 03, 2022. https://www.medscape.com/slideshow/prescribing-errors-6007087

29. The High 5s Project –Standard Operating Protocol Assuring Medication Accuracy at Transitions in Care: Medication Reconciliation. World Health Organization. (2014). Retrieved May 03, 2022, from https://cdn.who.int/media/docs/default-source/patient-safety/high5s/h5s-sop.pdf?sfvrsn=594d8e49_2&download=true

30. Tully, A. P., Hammond, D. A., Li, C., Jarrell, A. S., & Kruer, R. M. (2019). Evaluation of Medication Errors at the Transition of Care From an ICU to Non-ICU Location. Critical Care Medicine, 47(4), 543-549.

# Chapter 4

# Patient Rights and Education (PRE)

***Intent of the Chapter:*** The organisation defines, protects and promotes the patient and family's rights and responsibilities. The staff is aware of these rights and is trained to protect them. Patients are informed of their rights and educated about their responsibilities at the time of entering the organisation.

The expected costs of treatment and care are explained clearly to the patient and/or family.

Patients are educated about the mechanisms available for addressing grievances.

Informed consent is obtained from the patient or family for specified procedures/care. The key components of information shall include risks, benefits and alternatives.

Patients and families have a right to get information, education and communication about their healthcare needs in a language and manner that is understood by them.

## SUMMARY OF STANDARDS

| | |
|---|---|
| **PRE.1.** | The organisation protects and promotes patient and family rights and informs them about their responsibilities during care. |
| **PRE.2.** | Patient and family rights support individual beliefs, values and involve the patient and family in decision-making processes. |
| **PRE.3.** | Informed consent is obtained from the patient or family about their care. |
| **PRE.4.** | Patient and families have a right to information, education and communication about their healthcare needs. |
| **PRE.5.** | Patients and families have a right to information on expected costs. |
| **PRE.6.** | The organization has a mechanism to capture patient's feedback and to redress complaints. |

# STANDARDS AND OBJECTIVE ELEMENTS

## Standard

| | |
|---|---|
| **PRE.1.** | **The organisation protects and promotes patient and family rights and informs them about their responsibilities during care.** |

## Objective Elements

| | | |
|---|---|---|
| **Commitment** | a. | Patient and family rights and responsibilities are documented, displayed, and they are made aware of the same. * |
| **Achievement** | b. | Patient and family rights and responsibilities are actively promoted.* |
| **CORE** | c. | The organisation protects patient and family rights. |
| **CORE** | d. | The organisation has a mechanism to report a violation of patient and family rights. |
| **CORE** | e. | Violation of patient and family rights are monitored, analysed and corrective/preventive action taken by the top leadership of the organisation. |

## Standard

| | |
|---|---|
| **PRE.2.** | **Patient and family rights support individual beliefs, values and involve the patient and family in decision-making processes.** |

## Objective Elements

| | | |
|---|---|---|
| **Commitment** | a. | Patients and family rights include respecting values and beliefs, any special preferences, cultural needs, and responding to requests for spiritual needs. |
| **Commitment** | b. | Patient and family rights include respect for personal dignity and privacy during examination, procedures and treatment. |
| **Commitment** | c. | Patient and family rights include protection from neglect or abuse. |
| **CORE** | d. | Patient and family rights include treating patient information as confidential. |
| **Commitment** | e. | Patient and family rights include the refusal of treatment. |

| | | |
|---|---|---|
| **Commitment** | f. | Patient and family rights include a right to seek an additional opinion regarding clinical care. |
| **CORE** | g. | Patient and family rights include informed consent before the transfusion of blood and blood components, anaesthesia, surgery, initiation of any research protocol and any other invasive/high-risk procedures/treatment. |
| **Commitment** | h. | Patient and family rights include a right to complain and information on how to voice a complaint. |
| **Commitment** | i. | Patient and family rights include information on the expected cost of the treatment. |
| **Commitment** | j. | Patient and family rights include access to their clinical records. |
| **Commitment** | k. | Patient and family rights include information on the name of the treating doctor, care plan, progress and information on their health care needs. |
| **Commitment** | l. | Patient rights include determining what information regarding their care would be provided to self and family. |
| **Commitment** | m. | The patient and/or family members are explained about the proposed care, including the risks, alternatives and benefits. |
| **Commitment** | n. | The patient and/or family members are explained about the expected results and complications. |
| **Achievement** | o. | The care plan is prepared and modified in consultation with the patient and/or family members. |
| **Achievement** | p. | The patient and/or family members are provided multidisciplinary counselling when appropriate |

## Standard

| PRE.3. | Informed consent is obtained from the patient or family about their care. |
|---|---|

## Objective Elements

| | | |
|---|---|---|
| CORE | a. | The organisation obtains informed consent from the patient or family for situations where informed consent is required. Informed consent process adhered to statutory norms. * |
| CORE | b. | Informed consent includes information regarding the procedure; it's risks, benefits, alternatives and as to who will perform the procedure in a language that they can understand. |
| Commitment | c. | The organisation describes who can give consent when a patient is incapable of independent decision making and implements the same. * |
| CORE | d. | Informed consent is taken by the person performing the procedure. |

## Standard

| PRE.4. | Patient and families have a right to information, education and communication about their healthcare needs. |
|---|---|

## Objective Elements

| | | |
|---|---|---|
| CORE | a. | Patient and/or family are educated in a language and format that they can understand. |
| Commitment | b. | Patient and/or family are educated about the safe and effective use of medication and the potential side effects of the medication, when appropriate. |
| Commitment | c. | Patient and/or family are educated about food-drug interaction and about diet, nutrition and immunisations |
| Commitment | d. | Patient and/or family are educated about their specific disease process, complications and prevention strategies. |
| Commitment | e. | Patient and/or family are educated about preventing healthcare associated infections. |

| | | |
|---|---|---|
| Excellence | f. | Communication with the patients and/or families is done effectively. * |

## Standard

| | |
|---|---|
| PRE.5. | Patients and families have a right to information on expected costs. |

## Objective Elements

| | | |
|---|---|---|
| CORE | a. | The patient and/or family members are made aware of the pricing policy in different settings (out-patient, emergency, ICU and in-patient). |
| Commitment | b. | The relevant tariff list is available to patients. |
| Commitment | c. | The patient and/or family members are explained about the expected costs. |
| Achievement | d. | Patient and/or family are informed about the financial implications when there is a change in the care plan. |

## Standard

| | |
|---|---|
| PRE.6. | The organisation has a mechanism to capture patient's feedback and to redress complaints. |

## Objective Elements

| | | |
|---|---|---|
| Commitment | a. | The organisation has a mechanism to capture feedback from patients, which includes patient satisfaction. |
| Excellence | b. | The organisation has a mechanism to capture the patient experience. |
| CORE | c. | The organisation redresses patient complaints as per the defined mechanism. Patient and/or family members are made aware of the procedure for giving feedback and/or lodging complaints* |
| Achievement | d. | Feedback and complaints are reviewed and/or analysed within a defined time frame. Corrective and/or preventive action(s) are taken based on the analysis where appropriate. |

## References:

1. Badarudeen, S., & Sabharwal, S. (2010). Assessing Readability of Patient Education Materials: Current Role in Orthopaedics. Clinical Orthopaedics and Related Research®, 468(10), 2572-2580. doi:10.1007/s11999-010-1380-y

2. Boissy, A., & Gilligan, T. (2016). Communication the Cleveland Clinic Way: How to Drive a Relationship-Centered Strategy for Exceptional Patient Experience. New York, NY: McGraw Hill Professional.

3. Burgener, A. M. (2017). Enhancing Communication to Improve Patient Safety and to Increase Patient Satisfaction. The Health Care Manager, 36(3), 238-243. doi:10.1097/hcm.0000000000000165

4. Communication with patients and families. Ian Anderson Continuing Education Program in End-of-Life Care. (2000). Retrieved May 08, 2022 , from https://www.cpd.utoronto.ca/endoflife/Modules/COMMUNICATIONS%20MODULE.pdf

5. Effective Patient–Physician Communication. Committee Opinion. (2016). The American College of Obstetricians and Gynecologists. Retrieved May 08, 2022 , from https://www.acog.org/-/media/project/acog/acogorg/clinical/files/committee-opinion/articles/2014/02/effective-patient-physician-communication.pdf

6. Five strategies for Providing Effective Patient Education.Lippincott Solutions. (2017). Retrieved May 08, 2022 , from https://www.wolterskluwer.com/en/expert-insights/5-strategies-for-providing-effective-patient-education

7. Ha JF and Longnecker N. Doctor-Patient Communication: A Review. Ochsner J. 2010 Spring; 10(1): 38–43. Retrieved May 08, 2022 , from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3096184/

8. Hong, J., Nguyen, T. V., & Prose, N. S. (2013). Compassionate care: Enhancing physician–patient communication and education in dermatology. Journal of the American Academy of Dermatology, 68(3), 364.e1-364.e10. doi:10.1016/j.jaad.2012.10.060

9. Human rights and health. (2017). Whorld Health Organisation. Retrieved May 08, 2022 , from https://www.who.int/news-room/fact-sheets/detail/human-rights-and-health

10. Kumar, A., Mullick, P., Prakash, S., & Bharadwaj, A. (2015). Consent and the Indian medical practitioner. Indian Journal of Anaesthesia, 59(11), 695-700. doi:10.4103/0019-5049.169989

11. Marcus, C. (2014). Strategies for improving the quality of verbal patient and family education: a review of the literature and creation of the EDUCATE model. Health Psychology and Behavioral Medicine, 2(1), 482-495. doi:10.1080/21642850.2014.900450

12. Munro, C. L., & Savel, R. H. (2013). Communicating and Connecting With Patients and Their Families. American Journal of Critical Care, 22(1), 4-6. doi:10.4037/ajcc2013249

13. Nandimath, O. (2009). Consent and medical treatment: The legal paradigm in India. Indian Journal of Urology, 25(3), 343. doi:10.4103/0970-1591.56202

14. Nouri, S. S., & Rudd, R. E. (2015). Health literacy in the “oral exchange”: An important element of patient–provider communication. Patient Education and Counseling, 98(5), 565-571. doi:10.1016/j.pec.2014.12.002

15. Olejarczyk JP and Young M. Patient Rights And Ethics. (2021). Retrieved May 08, 2022 , from https://www.ncbi.nlm.nih.gov/books/NBK538279/

16. Patient Rights: Confidentiality & Informed Consent. Emedicine health. (2020). Retrieved May 08, 2022, from https://www.emedicinehealth.com/patient_rights/article_em.htm

17. Reader, T. W., Gillespie, A., & Roberts, J. (2014). Patient complaints in healthcare systems: a systematic review and coding taxonomy. BMJ Quality & Safety, 23(8), 678-689. doi:10.1136/bmjqs-2013-002437

18. Roberts, H., Zhang, D., & Dyer, G. S. (2016). The Readability of AAOS Patient Education Materials. The Journal of Bone and Joint Surgery, 98(17), e70. doi:10.2106/jbjs.15.00658

19. Williams, A. M., Muir, K. W., & Rosdahl, J. A. (2016). Readability of patient education materials in ophthalmology: a single-institution study and systematic review. BMC Ophthalmology, 16(1). doi:10.1186/s12886-016-0315-0

# Chapter 5

# Hospital Infection Control (HIC)

***Intent of the Chapter:*** The organisation implements an effective healthcare associated infection prevention and control programme. The programme is documented and aims at reducing/eliminating infection risks to patients, visitors and providers of care. The programme is implemented across the organisation, including clinical areas and support services. This shall be done through a multidisciplinary committee.

The organisation provides proper facilities and adequate resources to support the infection prevention and control programme. The organisation measures and acts to prevent or reduce the risk of healthcare associated infection in patients and staff.

The organisation has an effective antimicrobial management programme through a regularly updated antibiotic policy which is based on local data and trend analysis. Monitoring of antimicrobials usage in the organisation is an integral part of the programme.

Surveillance activities are incorporated in the infection prevention and control programme.

The programme includes disinfection/sterilisation activities and biomedical waste (BMW) management.

## SUMMARY OF STANDARDS

| | |
|---|---|
| **HIC.1.** | The organisation has a comprehensive and coordinated Hospital Infection Prevention and Control (HIC) programme aimed at reducing/eliminating risks to patients, visitors, providers of care and community. |
| **HIC.2.** | The organisation implements the infection prevention and control programme in clinical areas. |
| **HIC.3.** | The organisation implements the infection prevention and control programme in support services. |
| **HIC.4.** | The organisation takes actions to prevent healthcare associated Infections (HAI) in patients and staff working in the hospital. |
| **HIC.5.** | The organisation performs surveillance to capture and monitor infection prevention and control data. |
| **HIC.6.** | Infection prevention measures include sterilization and/or disinfection of instruments, equipment and devices. |

# STANDARDS AND OBJECTIVE ELEMENTS

## Standard

| | |
|---|---|
| **HIC.1.** | **The organisation has a comprehensive and coordinated Hospital Infection Prevention and Control (HIC) programme aimed at reducing/eliminating risks to patients, visitors, providers of care and community.** |

## Objective Elements

| | | |
|---|---|---|
| CORE | a. | The hospital infection prevention and control programme is documented, which aims at preventing and reducing the risk of healthcare associated infections in the hospital.* |
| Achievement | b. | The infection prevention and control programme is reviewed based on infection control assessment tool.* |
| Commitment | c. | The organisation has a multidisciplinary infection control committee and an infection control team, which coordinate the implementation of all infection prevention and control activities. |
| Commitment | d. | The organisation implements information, education and communication programme for infection prevention and control activities for the community and participates in managing community outbreaks and pandemics. |
| CORE | e. | The management makes available resources required for the infection control programme. |
| Achievement | f. | Isolation/barrier nursing facilities are available. |

## Standard

| | |
|---|---|
| **HIC.2.** | **The organisation implements the infection prevention and control programme in clinical areas.** |

## Objective Elements

| | | |
|---|---|---|
| CORE | a. | The organisation adheres to standard precautions at all times.* |
| CORE | b. | The organisation adheres to hand-hygiene guidelines.* |
| Commitment | c. | The organisation adheres to transmission-based precautions.* |

| | | |
|---|---|---|
| CORE | d. | The organisation adheres to safe injection and infusion practices. * |
| Commitment | e. | Appropriate antimicrobial usage policy is established and documented.* |
| CORE | f. | The organisation implements the antimicrobial usage policy and monitors the rational use of antimicrobial agents. |
| Excellence | g. | The organisation implements an antibiotic stewardship programme. * |

## Standard

| | |
|---|---|
| **HIC.3.** | **The organisation implements the infection prevention and control programme in support services.** |

## Objective Elements

| | | |
|---|---|---|
| Commitment | a. | The organisation has appropriate engineering controls to prevent infections. * |
| Commitment | b. | The organisation designs and implements a plan to reduce the risk of infection during construction and renovation. * |
| CORE | c. | The organisation adheres to housekeeping procedures. * |
| CORE | d. | Biomedical waste (BMW) is handled appropriately and safely |
| Commitment | e. | The organisation adheres to laundry and linen management processes. * |
| Commitment | f. | The organisation adheres to kitchen sanitation and food-handling issues. |

## Standard

| | |
|---|---|
| **HIC.4.** | **The organisation takes actions to prevent or reduce healthcare associated infections (HAI) in patients and staff working in the hospital.** |

## Objective Elements

| | | |
|---|---|---|
| Commitment | a. | The organisation takes action to prevent catheter-associated urinary tract Infections. |

| | | |
|---|---|---|
| **Commitment** | b. | The organisation takes action to prevent infection-related ventilator associated complication/ventilator-associated pneumonia. |
| **Commitment** | c. | The organisation takes action to prevent catheter linked blood stream infections |
| **Commitment** | d. | The organisation takes action to prevent surgical site infections. |
| **Commitment** | e. | The organisation implements occupational health and safety practices to reduce the risk of transmitting microorganisms among health care providers. |
| **Commitment** | f. | Appropriate post-exposure prophylaxis is provided to all staff members concerned. * |

## Standard

| | |
|---|---|
| **HIC.5.** | **The organisation performs surveillance to capture and monitor infection prevention and control data.** |

## Objective Elements

| | | |
|---|---|---|
| **CORE** | a. | The scope of surveillance incorporates tracking and analysing of infection risks, rates and trends. |
| **CORE** | b. | Surveillance includes monitoring compliance with hand-hygiene guidelines. |
| **Achievement** | c. | Surveillance includes mechanisms to capture the occurrence of multi-drug-resistant organisms and highly virulent infections. |
| **Commitment** | d. | The organisation identifies and takes appropriate action to control outbreaks of infections. * |
| **CORE** | e. | Surveillance activities include monitoring the effectiveness of the housekeeping services |
| **Commitment** | f. | Surveillance data is analysed, and appropriate corrective and preventive actions are taken and feedback regarding the same is provided regularly to the appropriate health care team. |

## Standard

| HIC.6. | Infection prevention measures include sterilisation and/or disinfection of instruments, equipment and devices. |
|---|---|

## Objective Elements

| | | |
|---|---|---|
| Commitment | a. | The organisation provides adequate space and appropriate zoning for sterilisation activities. |
| CORE | b. | Cleaning, packing, disinfection and/or sterilisation, storing and the issue of items is done as per the written guidance. * |
| Commitment | c. | Reprocessing of single-use instruments, equipment and devices are done as per written guidance. * |
| Commitment | d. | Regular validation tests for sterilisation are carried out and documented. * |
| Commitment | e. | The established recall procedure is implemented when a breakdown in the sterilisation system is identified. * |

## References:

1. Banach, D. B., Bearman, G., Barnden, M., et al. (2018). Duration of Contact Precautions for Acute-Care Settings. Infection Control & Hospital Epidemiology, 39(2), 127-144. doi:10.1017/ice.2017.245

2. Banach, D. B., Johnston, B. L., Al-Zubeidi, D., Bartlett, A. H., Bleasdale, S. C., & Deloney, V. M. (2017). Outbreak Response and Incident Management: SHEA Guidance and Resources for Healthcare Epidemiologists in United States Acute-Care Hospitals. Infection Control & Hospital Epidemiology, 38(12), 1393-1419. doi:10.1017/ice.2017.212

3. Bearman, G., Bryant, K., Leekha, S., Mayer, J., Munoz-Price, L. S., Murthy, R., … White, J. (2014). Healthcare Personnel Attire in Non-Operating-Room Settings. Infection Control & Hospital Epidemiology, 35(2), 107-121. doi:10.1086/675066

4. Best practices for injections and related procedures toolkit. World Health Organization. (2010). Retrieved May 08, 2022 , from https://apps.who.int/iris/bitstream/handle/10665/44298/9789241599252_eng.pdf?sequence=1

5. Bloodborne Pathogens and Needlestick Prevention. Occupational Safety and Health Administration. (2018). Retrieved May 08, 2022 , from https://www.osha.gov/SLTC/bloodbornepathogens/index.html

6. Checklist for Prevention of Central Line Associated Blood Stream Infections. Centers for Disease Control and Prevention. (2014). Retrieved May 08, 2022 , from https://www.cdc.gov/hai/pdfs/bsi/checklist-for-CLABSI.pdf

7. Compendium of Strategies to Prevent Healthcare-Associated Infections in Acute Care Hospitals. Society for Healthcare Epidemiology of America. (2008). Retrieved May 08, 2022 , from https://shea-online.org/compendium-of-strategies-to-prevent-healthcare-associated-infections-in-acute-care-hospitals/

8. De Sousa Martins, B., Queiroz e Melo, J., Logarinho Monteiro, J., Rente, G., & Teixeira Bastos, P. (2019). Reprocessing of Single-Use Medical Devices: Clinical and Financial Results. Portuguese Journal of Public Health, 1-7. doi:10.1159/000496299

9. Dolan, S. A., Arias, K. M., Felizardo, G., Barnes, S., Kraska, S., Patrick, M., & Bumsted, A. (2016). APIC position paper: Safe injection, infusion, and medication vial practices in health care. American Journal of Infection Control, 44(7), 750-757. doi:10.1016/j.ajic.2016.02.033

10. Environmental Cleaning for the Prevention of Healthcare-Associated Infections (HAI). Agency for Healthcare Research and Quality. (2014). Retrieved May 08, 2022 , from https://effectivehealthcare.ahrq.gov/products/healthcare-infections/research-protocol

11. Fishman, N. (2012). Policy Statement on Antimicrobial Stewardship by the Society for Healthcare Epidemiology of America (SHEA), the Infectious Diseases Society of America (IDSA), and the Pediatric Infectious Diseases Society (PIDS). Infection Control & Hospital Epidemiology, 33(4), 322-327. doi:10.1086/665010

12. Global Guidelines for the Prevention of Surgical Site Infection. World Health Organization. (2016). Retrieved May 08, 2022 , from https://apps.who.int/iris/bitstream/handle/10665/250680/9789241549882-eng.pdf

13. Guideline for Disinfection and Sterilization in Healthcare Facilities (2008). Centers for Disease Control and Prevention. Retrieved May 08, 2022 , from https://www.cdc.gov/infectioncontrol/guidelines/disinfection/index.html

14. Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings (2007). Centers for Disease Control and Prevention. Retrieved May 08, 2022 , from https://www.cdc.gov/infectioncontrol/guidelines/isolation/index.html

15. Guideline for Prevention of Catheter-Associated Urinary Tract Infections (2009). Centers for Disease Control and Prevention. Retrieved May 08, 2022 , from https://www.cdc.gov/infectioncontrol/guidelines/CAUTI/index.html

16. Guideline for Prevention of Surgical Site Infection (2017). Centers for Disease Control and Prevention. Retrieved May 08, 2022 , from https://www.cdc.gov/infectioncontrol/guidelines/ssi/index.html

17. Guidelines for Environmental Infection Control in Health-Care Facilities: Recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee (HICPAC). MMWR 2003;52(RR10):1-42. Retrieved May 08, 2022 , from https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5210a1.htm

18. Guidelines for the Prevention of Intravascular Catheter-Related Infections (2011) Centers for Disease Control and Prevention. Retrieved May 08, 2022 , from https://www.cdc.gov/infectioncontrol/guidelines/bsi/index.html

19. Guidelines on Core Components of Infection Prevention and Control Programmes at the National and Acute Health Care Facility Level. World Health Organization. (2016). Retrieved May 08, 2022 , from https://apps.who.int/iris/handle/10665/251730

20. Guidelines on hand hygiene in health care. World Health Organization. (2019). Retrieved May 08, 2022 , from https://www.who.int/publications/i/item/9789241597906

21. Han, J. H., Sullivan, N., Leas, B. F., Pegues, D. A., Kaczmarek, J. L., & Umscheid, C. A. (2015). Cleaning Hospital Room Surfaces to Prevent Health Care–Associated Infections. Annals of Internal Medicine, 163(8), 598. doi:10.7326/m15-1192

22. Health Care Workers, Prevention Controls. (2016). Centers for Disease Control and Prevention. (2018). CDC -, Infectious Agents - The National Institute for Occupational Safety and Health (NIOSH). Retrieved May 08, 2022 , from https://www.cdc.gov/niosh/topics/healthcare/prevention.html

23. Healthcare-Associated Infections (HAIs). Centers for Disease Control and Prevention. (2021). Retrieved May 08, 2022 , from https://www.cdc.gov/hai/index.html

24. Hospital Infection Control Guidelines. Indian Council of Medical Research. (n.d.). Retrieved May 08, 2022 , from https://www.icmr.nic.in/sites/default/files/guidelines/Hospital_Infection_control_guidelines.pdf

25. Infection Prevention and Control in Healthcare Settings. Standard Operating Procedures. (2018). Delhi State Health Mission. Government of NCT of Delhi, India. Retrieved May 08, 2022 , from https://dshm.delhi.gov.in/(S(qohk5xwyvoyrqxje20uuyb0k))/pdf/QAC/SoPs/IPC_FINAL_MANUAL.doc

26. Lee, T. B., Montgomery, O. G., Marx, J., Olmsted, R. N., & Scheckler, W. E. (2007). Recommended practices for surveillance: Association for Professionals in Infection Control and Epidemiology (APIC), Inc. American Journal of Infection Control, 35(7), 427-440. doi:10.1016/j.ajic.2007.07.002

27. Management of Multidrug-Resistant Organisms in Healthcare Settings (2006). Centers for Disease Control and Prevention. Retrieved May 08, 2022 , from https://www.cdc.gov/infectioncontrol/guidelines/mdro/index.html

28. McDonald, L. C., Gerding, D. N., Johnson, S., et al. (2018). Clinical Practice Guidelines for Clostridium difficile Infection in Adults and Children: 2017 Update by the Infectious Diseases Society of America (IDSA) and Society for Healthcare Epidemiology of America (SHEA). Clinical Infectious Diseases, 66(7), 987-994. doi:10.1093/cid/ciy149

29. Munoz-Price, L., Banach, D., Bearman, G., et al. (2015). Isolation Precautions for Visitors. Infection Control & Hospital Epidemiology, 36(7), 747-758. doi:10.1017/ice.2015.67

30. Munoz-Price, L., Bowdle, A., Johnston, B., et al. (2019). Infection prevention in the operating room anesthesia work area. Infection Control & Hospital Epidemiology, 40(1), 1-17. doi:10.1017/ice.2018.303

31. National guidelines for infection prevention and control in healthcare facilities. (2020). National Centre for Disease Control, Directorate General of Health Services. Ministry of Health & Family Welfare, Government of India. Retrieved May 08, 2022 , from https://www.mohfw.gov.in/pdf/National%20Guidelines%20for%20IPC%20in%20HCF%20-%20final%281%29.pdf

32. National Technical Guidelines on Anti Retroviral Treatment. National AIDS Control Organization. Ministry of Health and Family Welfare, Government of India. (2018). Retrieved May 08, 2022 , from http://naco.gov.in/sites/default/files/NACO%20-%20National%20Technical%20Guidelines%20on%20ART_October%202018%20%281%29.pdf

33. National Treatment Guidelines for Antimicrobial Use in Infectious Diseases. (2016). National Centre for Disease Control, Directorate General of Health Services. Ministry of Health & Family Welfare, Government of India. Retrieved May 08, 2022 , from https://ncdc.gov.in/WriteReadData/l892s/File622.pdf

34. Outline For Healthcare-Associated Infections Surveillance. Centers for Disease Control and Prevention. (2006). Retrieved May 08, 2022 , from https://www.cdc.gov/nhsn/PDFS/OutlineForHAISurveillance.pdf

35. Personal Protective Equipment in Medical Settings. Infectious Diseases Society of America (2022). Retrieved May 08, 2022 , from https://www.idsociety.org/covid-19-real-time-learning-network/infection-prevention/personal-protective-equipment-in-medical-settings/

36. Petersen, B. T., Cohen, J., Hambrick, R. D., Buttar, N., Greenwald, D. A., Buscaglia, J. M., … Eisen, G. (2017). Multisociety guideline on reprocessing flexible GI endoscopes: 2016 update. Gastrointestinal Endoscopy, 85(2), 282-294.e1. doi:10.1016/j.gie.2016.10.002

37. Post-exposure prophylaxis (PEP). Centers for Disease Control and Prevention. (2021). Retrieved May 08, 2022 , from https://www.cdc.gov/hiv/basics/pep.html

38. Post-exposure prophylaxis to prevent HIV infection : joint WHO/ILO guidelines on post-exposure prophylaxis (PEP) to prevent HIV infection. World Health Organization. (2007). Retrieved May 08, 2022 , from https://apps.who.int/iris/handle/10665/43838

39. Postexposure Prophylaxis: Viral Hepatitis. Centers for Disease Control and Prevention. (2020). Retrieved May 08, 2022 , from https://www.cdc.gov/hepatitis/hbv/pep.htm

40. Recommended Vaccines for Healthcare Workers. (2016). Centers for Disease Control and Prevention. Retrieved May 08, 2022 , from https://www.cdc.gov/vaccines/adults/rec-vac/hcw.html

41. Recommended work restrictions for communicable diseases in health care workers. Association of Occupational Health Professionals in Healthcare. (2014). Retrieved May 08, 2022 , from https://aohp.org/aohp/Portals/0/Documents/MemberServices/templateandform/WR4CD-HCW.pdf

42. Reprocessed Single-Use Devices. ACOG Committee Opinion No. 769. (2019). Obstetrics & Gynecology, 133(3), e235-e237. doi:10.1097/aog.0000000000003124

43. Sfeir, M., Simon, M. S., & Banach, D. (2017). Isolation Precautions for Visitors to Healthcare Settings. Infection Prevention, 19-27. doi:10.1007/978-3-319-60980-5_4

44. Silvia Munoz-Price L, Bowdle A, Johnston L et al. Infection Prevention in the Operating Room Anesthesia Work Area. Infection Control & Hospital Epidemiology 2019;40 (1): 1 – 17. Retrieved May 08, 2022 , from https://www.cambridge.org/core/journals/infection-control-and-hospital-epidemiology/article/infection-prevention-in-the-operating-room-anesthesia-work-area/66EB7214F4F80E461C6A9AC00922EFC9

45. Standard precautions in health care. World Health Organization. (2007). Retrieved May 08, 2022 , from https://www.who.int/docs/default-source/documents/health-topics/standard-precautions-in-health-care.pdf

46. Summary of WHO Position Papers – Immunization of Health Care Workers. World Health Organization. (2019). Retrieved May 08, 2022 , from https://cdn.who.int/media/docs/default-source/immunization/immunization_schedules/immunization-routine-table4.pdf?sfvrsn=714e38d6_4&download=true

47. Swachhta Guidelines for Public Health Facilities. Ministry of Health & Family Welfare, Government Of India. (2015). Retrieved May 08, 2022 , from http://tripuranrhm.gov.in/QA/Guideline/SwachhtaGuidelinesforPublicHealthFacilities.pdf

48. Swaminathan, S., Prasad, J., Dhariwal, A. C.,et al. Strengthening infection prevention and control and systematic surveillance of healthcare associated infections in India. BMJ 2017: j3768. doi:10.1136/bmj.j3768

49. Transmission-Based Precautions. Centers for Disease Control and Prevention. (2016). Retrieved May 08, 2022 , from https://www.cdc.gov/infectioncontrol/basics/transmission-based-precautions.html

50. Treatment Guidelines for Antimicrobial Use in Common Syndromes. Indian Council of Medical Research. (2019). Retrieved May 08, 2022 , from https://main.icmr.nic.in/sites/default/files/guidelines/Treatment_Guidelines_2019_Final.pdf

# Chapter 6

# Patient safety and Quality Improvement (PSQ)

***Intent of the Chapter:*** The standards encourage an environment of patient safety and continual quality improvement. The patient safety and quality programme should be documented and involve all areas of the organisation and all staff members.

National/international patient-safety goals/solutions are implemented.

The organisation should collect data on structures, processes and outcomes, especially in areas of high-risk situations. The collected data should be collated, analysed and used for further improvements. Appropriate quality tools can be used for carrying out quality improvement activities. Clinical audits shall be used as a tool to improve the quality of patient care. The improvements should be sustained. Department leaders play an active role in patient safety and quality improvement.

The organisation should have a robust incident reporting system. Sentinel events shall be defined. All incidents are investigated, and appropriate action is taken.

The management should support the patient safety and quality programme

## SUMMARY OF STANDARDS

| | |
|---|---|
| **PSQ.1.** | The organisation implements a patient-safety programme and a structured quality improvement programme. |
| **PSQ.2.** | The organisation identifies key indicators to monitor the structures, processes and outcomes which are used as tools for continual improvement. |
| **PSQ.3.** | There is an established system for clinical audit and quality improvement programmes. |
| **PSQ.4.** | The patient safety and quality improvement programme are supported by the management. |
| **PSQ.5.** | Incidents are collected and analysed to ensure continual quality improvement. |

# STANDARDS AND OBJECTIVE ELEMENTS

## Standard

| | |
|---|---|
| **PSQ.1.** | **The organisation implements a patient-safety programme and a structured quality improvement programme.** |

## Objective Elements

| | | |
|---|---|---|
| CORE | a. | The patient safety programme is developed, implemented and maintained by a multi-disciplinary committee.* |
| Commitment | b. | The patient-safety programme identifies opportunities for improvement based on review at pre-defined intervals. |
| CORE | c. | The organisation performs proactive analysis of patient safety risks and makes improvement accordingly. |
| CORE | d. | The organisation adapts and implements national/international patient-safety goals/solutions. |
| CORE | e. | A comprehensive quality improvement programme is developed, implemented and maintained by a multi-disciplinary committee. |
| Commitment | f. | There is a designated individual for coordinating and implementing the quality improvement programme. |
| Commitment | g. | The quality improvement programme identifies opportunities for improvement based on review at pre-defined intervals. * |
| Commitment | h. | Audits are conducted at regular intervals as a means of continuous monitoring* |
| CORE | i. | There is an established process in the organisation to monitor and improve quality of nursing care. * |

## Standard

| | |
|---|---|
| **PSQ.2.** | **The organisation identifies key indicators to monitor the structures, processes and outcomes which are used as tools for continual improvement.** |

## Objective Elements

| | | |
|---|---|---|
| Commitment | a. | The organisation identifies and monitors key indicators to oversee the clinical structures, processes and outcomes. |

| | | |
|---|---|---|
| CORE | b. | The organisation identifies and monitors the key indicators to oversee infection control activities. |
| Commitment | c. | The organisation identifies and monitors the key indicators to oversee the managerial structures, processes and outcomes. |
| CORE | d. | The organisation identifies and monitors the key indicators to oversee patient safety activities. |
| Commitment | e. | Data is regularly verified by the quality team and is analysed to identify the opportunities for improvement. |

## Standard

| | |
|---|---|
| **PSQ.3.** | **There is an established system for clinical audit and quality improvement programmes.** |

## Objective Elements

| | | |
|---|---|---|
| Commitment | a. | Clinical audits are performed to improve the quality of patient care and documented. |
| Commitment | b. | The parameters to be audited are defined by the organisation. |
| Commitment | c. | Medical and nursing staff participates in this system. |
| Commitment | d. | Remedial measures are implemented. |
| CORE | e. | The organisation undertakes quality improvement projects. |

## Standard

| | |
|---|---|
| **PSQ.4.** | **The patient safety and quality improvement programme are supported by the management.** |

## Objective Elements

| | | |
|---|---|---|
| Achievement | a. | The management creates a culture of safety. |
| Commitment | b. | The leaders at all levels in the organisation are aware of the intent of the patient safety quality improvement program and the approach to its implementation. |

| | | |
|---|---|---|
| **Commitment** | c. | The management makes available adequate resources required for patient safety and quality improvement programme, earmarks adequate funds from its annual budget in this regard. |
| **Excellence** | d. | The management uses the feedback obtained from the workforce to improve patient safety and quality improvement programme. |

## Standard

| | |
|---|---|
| **PSQ.5.** | **Incidents are collected and analysed to ensure continual quality improvement** |

## Objective Elements

| | | |
|---|---|---|
| **CORE** | a. | The organisation implements an incident management system.* |
| **Commitment** | b. | The organisation has a mechanism to identify sentinel events.* |
| **Commitment** | c. | The organisation has an established process for analysis of incidents. |
| **Commitment** | d. | Corrective and preventive actions are taken based on the findings of such analysis. |
| **Excellence** | e. | The organization shall have a process for informing various stakeholders in case of a near miss / adverse event / sentinel event. |

## References:

1. Canadian Incident Analysis Framework. (2012). Canadian Patient Safety Institute. Retrieved May 08, 2022, from https://www.patientsafetyinstitute.ca/en/toolsResources/IncidentAnalysis/Documents/Canadian%20Incident%20Analysis%20Framework.PDF

2. Charles, R., Hood, B., Derosier, J. M., et al. (2016). How to perform a root cause analysis for workup and future prevention of medical errors: a review. Patient Safety in Surgery, 10(1). doi:10.1186/s13037-016-0107-8

3. Culture of Safety. Agency for Healthcare Research and Quality. Patient Safety Network. (2019). Retrieved May 08, 2022, from http://psnet.ahrq.gov/primer.aspx?primerID=5

4. Detection of Safety Hazards. (2019). Agency for Healthcare Research and Quality. Patient Safety Primers. Retrieved May 08, 2022, from https://psnet.ahrq.gov/primers/primer/24/Detection-of-Safety-Hazards

5. Dimick, J. B. (2010). What Makes a "Good" Quality Indicator? Archives of Surgery, 145(3), 295. doi:10.1001/archsurg.2009.291

6. Donabedian, A. (1983). Quality Assessment and Monitoring. Evaluation & the Health Professions, 6(3), 363-375. doi:10.1177/016327878300600309

7. Doyle, C., Lennox, L., & Bell, D. (2013). A systematic review of evidence on the links between patient experience and clinical safety and effectiveness. BMJ Open, 3(1), e001570. doi:10.1136/bmjopen-2012-001570

8. Esposito P and Canton AD. Clinical audit, a valuable tool to improve quality of care: General methodology and applications in nephrology. World J Nephrol. 2014 Nov 6; 3(4): 249–255. Retrieved May 08, 2022, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4220358/

9. Ewen, B. M., & Bucher, G. (2013). Root Cause Analysis. Home Healthcare Nurse, 31(8), 435-443. doi:10.1097/nhh.0b013e3182a1dc32

10. Frankel A and Leonard M. Update on Safety Culture. (2013). Agency for Healthcare Research and Quality Patient Safety Network. Retrieved May 08, 2022, from https://psnet.ahrq.gov/perspective/update-safety-culture

11. Fung, C. H., Lim, Y., Mattke, S., Damberg, C., & Shekelle, P. G. (2008). Systematic Review: The Evidence That Publishing Patient Care Performance Data Improves Quality of Care. Annals of Internal Medicine, 148(2), 111. doi:10.7326/0003-4819-148-2-200801150-00006

12. Gruen, R. L., Gabbe, B. J., Stelfox, H. T., & Cameron, P. A. (2011). Indicators of the quality of trauma care and the performance of trauma systems. British Journal of Surgery, 99(S1), 97-104. doi:10.1002/bjs.7754

13. How can leaders influence a safety culture? (2012). The Health Foundation. Retrieved May 08, 2022, from https://www.health.org.uk/sites/default/files/HowCanLeadersInfluenceASafetyCulture.pdf

14. How To Guides. Clinical audits. (n.d.). University Hospitals Bristol. Retrieved May 08, 2022, from http://www.uhbristol.nhs.uk/for-clinicians/clinicalaudit/how-to-guides/

15. Hughes, R. (2008). Chapter 44 Tools and Strategies for Quality Improvement and Patient Safety. In Patient Safety and Quality: An Evidence-based Handbook for Nurses.

16. Human Factors:Technical Series on Safer Primary Care. World Health Organization. (2016). Retrieved May 08, 2022, from https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwjS1rnPrND3AhXU4HMBHaPYADEQFnoECAsQAQ&url=https%3A%2F%2Fapps.who.int%2Firis%2Frest%2Fbitstreams%2F1070137%2Fretrieve&usg=AOvVaw2F7Ms2P-O-eEcMqTkLlP9f

17. International Use of the Surveys on Patient Safety Culture. (2012). Agency for Healthcare Research and Quality. Retrieved May 08, 2022, from http://www.ahrq.gov/professionals/quality-patient-safety/patientsafetyculture/pscintusers.html

18. Jones, P., Shepherd, M., Wells, S., Le Fevre, J., & Ameratunga, S. (2014). Review article: What makes a good healthcare quality indicator? A systematic review and validation study. Emergency Medicine Australasia, 26(2), 113-124. doi:10.1111/1742-6723.12195

19. Kötter, T., Blozik, E., & Scherer, M. (2012). Methods for the guideline-based development of quality indicators--a systematic review. Implementation Science, 7(1). doi:10.1186/1748-5908-7-21

20. Krause, C. (2017). The Case for Quality Improvement. Healthcare Quarterly, 20(1), 25-27. doi:10.12927/hcq.2017.25138

21. Leonard, M. E. (2013). The Essential Guide for Patient Safety Officers (2nd ed.).

22. Leotsakos, A., Zheng, H., Croteau, R., Loeb, J. M., Sherman, H., Hoffman, C., … Munier, B. (2014). Standardization in patient safety: the WHO High 5s project. International Journal for Quality in Health Care, 26(2), 109-116. doi:10.1093/intqhc/mzu010

23. Limb, C., Fowler, A., Gundogan, B., Koshy, K., & Agha, R. (2017). How to conduct a clinical audit and quality improvement project. International Journal of Surgery Oncology, 2(6), e24. doi:10.1097/ij9.0000000000000024

24. Lindblad, S., Ernestam, S., Van Citters, A., Lind, C., Morgan, T., & Nelson, E. (2016). Creating a culture of health: evolving healthcare systems and patient engagement. QJM, hcw188. doi:10.1093/qjmed/hcw188

25. Medicine, I. O., Board on Health Care Services, & Committee on Patient Safety and Health Information Technology. (2012). Health IT and Patient Safety: Building Safer Systems for Better Care. Washington, DC: National Academies Press.

26. Patient safety incident reporting and learning systems: technical report and guidance. (2020). World Health Organization. Retrieved May 08, 2022, from https://www.who.int/publications/i/item/9789240010338

27. Patient Safety Solutions. (2017). World Health Organization. Retrieved May 08, 2022, from https://www.who.int/teams/integrated-health-services/patient-safety/research/patient-safety-solutions

28. Quality Improvement Essentials Toolkit. (n.d.). Institute for Healthcare Improvement. Retrieved May 08, 2022, from http://www.ihi.org/resources/Pages/Tools/Quality-Improvement-Essentials-Toolkit.aspx

29. Quality Statistics - Statistical Methods for Quality Improvement. (n.d.). American Society for Quality. Retrieved May 08, 2022, from https://asq.org/quality-resources/statistics

30. RCA2 Improving Root Cause Analyses and Actions to Prevent Harm. (2015). National Patient Safety Foundation. Retrieved May 08, 2022, from https://www.ashp.org/-/media/assets/policy-guidelines/docs/endorsed-documents/endorsed-documents-improving-root-cause-analyses-actions-prevent-harm.ashx

31. Reporting Patient Safety Events. (2019). Agency for Healthcare Research and Quality. Patient Safety Network. Retrieved May 08, 2022, from https://psnet.ahrq.gov/primers/primer/13/reporting-patient-safety-events%20on%20April%2016

32. Root Cause Analysis. (2019). Agency for Healthcare Research and Quality. Patient Safety Network. Retrieved May 08, 2022, from https://psnet.ahrq.gov/primers/primer/10/Root-Cause-Analysis

33. Rubin, H. R. (2001). The advantages and disadvantages of process-based measures of health care quality. International Journal for Quality in Health Care, 13(6), 469-474. doi:10.1093/intqhc/13.6.469

34. Santana, M., Ahmed, S., Lorenzetti, D., et al. (2019). Measuring patient-centred system performance: a scoping review of patient-centred care quality indicators. BMJ Open, 9(1), e023596. doi:10.1136/bmjopen-2018-023596

35. Secanell, M., Groene, O., Arah, O. A., et al. (2014). Deepening our understanding of quality improvement in Europe (DUQuE): overview of a study of hospital quality management in seven countries. Int J Qual Health Care, 2014(1), 5-15. doi:10.1093/intqhc/mzu025

36. Seven basic quality tools for process improvement. (n.d.). American Society for Quality. Retrieved May 08, 2022, from https://asq.org/quality-resources/seven-basic-quality-tools

37. Shaikh U. Strategies and Approaches for Investigating Patient Safety Events. (2022). Retrieved May 08, 2022, from https://psnet.ahrq.gov/primer/strategies-and-approaches-investigating-patient-safety-events

38. Shaikh U. Strategies and Approaches for Tracking Improvements in Patient Safety. (2021). Agency for Healthcare Research and Quality Patient Safety Network. Retrieved May 08, 2022, from https://psnet.ahrq.gov/primer/strategies-and-approaches-tracking-improvements-patient-safety

39. Swensen, S. J., Dilling, J. A., Mc Carty, P. M., et al. (2013). The business case for health-care quality improvement. J Patient Saf, 9(1), 44-52. doi:10.1097/PTS.0b013e3182753e33

40. Systematic review: the evidence that publishing patient care performance data improves quality of care. (2009). Clinical Governance: An International Journal, 14(1). doi:10.1108/cgij.2009.24814aae.006

41. Thomas, E. J. (2015). The future of measuring patient safety: prospective clinical surveillance. BMJ Quality & Safety, 24(4), 244-245. doi:10.1136/bmjqs-2015-004078

42. Thomas, L., & Galla, C. (2012). Building a culture of safety through team training and engagement. BMJ Quality & Safety, 22(5), 425-434. doi:10.1136/bmjqs-2012-001011

43. Trbovich, P. L., & Griffin, M. (2015). Measuring and improving patient safety culture: still a long way to go. BMJ Quality & Safety, 25(3), 209-211. doi:10.1136/bmjqs-2015-005038

44. Tsai, T. C., Jha, A. K., Gawande, A. A., Huckman, R. S., Bloom, N., & Sadun, R. (2015). Hospital Board And Management Practices Are Strongly Related To Hospital Performance On Clinical Quality Metrics. Health Affairs, 34(8), 1304-1311. doi:10.1377/hlthaff.2014.1282

45. Wagner, C., Smits, M., Sorra, J., & Huang, C. C. (2013). Assessing patient safety culture in hospitals

across countries. International Journal for Quality in Health Care, 25(3), 213-221. doi:10.1093/intqhc/mzt024

46. Ways To Approach the Quality Improvement Process. (2017). Agency for Healthcare Research and Quality. Retrieved May 08, 2022, from https://www.ahrq.gov/cahps/quality-improvement/improvement-guide/4-approach-qi-process/index.html

47. Weaver, S. J., Lubomksi, L. H., Wilson, R. F., Pfoh, E. R., Martinez, K. A., & Dy, S. M. (2013). Promoting a Culture of Safety as a Patient Safety Strategy. Annals of Internal Medicine, 158(5_Part_2), 369. doi:10.7326/0003-4819-158-5-201303051-00002

48. What is Risk Management in Healthcare? (2019). NEJM Catalyst. Retrieved May 08, 2022, from https://catalyst.nejm.org/what-is-risk-management-in-healthcare/

49. What is Root Cause Analysis (RCA)?. (n.d.). American Society for Quality. Retrieved May 08, 2022, from https://asq.org/quality-resources/root-cause-analysis

# Chapter 7

# Responsibilities of Management (ROM)

***Intent of the Chapter:*** The management of the healthcare organisation is aware of and manages all the key components of governance. Those responsible for governance are identified and their roles defined. The standards encourage the governance of the organisation professionally and ethically. The responsibilities of management are defined. The responsibilities of the leaders at all levels are defined. The management executes its responsibility for compliance with all applicable regulations.

Leaders ensure that patient-safety and risk-management issues are an integral part of patient care and hospital management.

Note: "Responsible for Governance' refers to the governing entity of the healthcare organisation and can exist in many configurations. For example, the owner(s), the board of directors, or in the case of public hospitals, the respective Ministry (Health/Railways/Labour).

## SUMMARY OF STANDARDS

| | |
|---|---|
| **ROM.1.** | The organisation identifies those responsible for governance and their roles are defined. |
| **ROM.2.** | The organisation is headed by a leader who shall be responsible for operating the organisation on a day-to-day basis. |
| **ROM.3.** | The organisation displays professionalism in its functioning. |
| **ROM.4.** | Management ensures that patient-safety aspects and risk-management issues are an integral part of patient care and hospital management. |

# STANDARDS AND OBJECTIVE ELEMENTS

## Standard

| | |
|---|---|
| **ROM.1.** | **The organisation identifies those responsible for governance and their roles are defined.** |

## Objective Elements

| | | |
|---|---|---|
| CORE | a. | Those responsible for governance are identified, and their roles and responsibilities are defined and documented. * |
| Commitment | b. | Those responsible for governance lay down the organisation's vision, mission and values and make them public.* |
| Achievement | c. | Those responsible for governance monitor and measure the performance of the organisation against the stated mission. |
| Commitment | d. | Those responsible for governance appoint the senior leaders in the organisation. |
| CORE | e. | Those responsible for governance support the ethical management framework of the organisation.* |

## Standard

| | |
|---|---|
| **ROM.2.** | **The organisation is headed by a leader who shall be responsible for operating the organisation on a day-to-day basis.** |

## Objective Elements

| | | |
|---|---|---|
| Commitment | a. | The person heading the organisation has requisite and appropriate administrative qualifications. |
| Commitment | b. | The person heading the organisation has requisite and appropriate administrative experience. |
| CORE | c. | The leader is responsible for and complies with the laid-down and applicable legislations, regulations and notifications. |
| Achievement | d. | The performance of the organisation's leader is reviewed for effectiveness. |

## Standard

| ROM.3. | The organisation displays professionalism in its functioning. |
|---|---|

## Objective Elements

| | | |
|---|---|---|
| Commitment | a. | Those responsible for governance approve the strategic and operational plans and the organisation's annual budget. |
| Achievement | b. | The organisation coordinates the functioning with departments and external agencies and monitors the progress in achieving the defined goals and objectives. |
| Commitment | c. | The functioning of committees is reviewed for their effectiveness. |
| Achievement | d. | The organisation documents the service standards that are measurable and monitors them.* |
| Commitment | e. | The organization documents staff rights and responsibilities. |

## Standard

| ROM.4. | Management ensures that patient-safety aspects and risk-management issues are an integral part of patient care and hospital management. |
|---|---|

## Objective Elements

| | | |
|---|---|---|
| CORE | a. | Management ensures proactive risk management across the organisation.* |
| Excellence | b. | Management ensures integration between quality improvement, risk management and strategic planning within the organisation. |
| Commitment | c. | Management ensures implementation of systems for internal and external reporting of system and process failures.* |
| CORE | d. | Management ensures that it has a documented agreement for all outsourced services that include service parameters. |
| Achievement | e. | Management monitors the quality of the outsourced services and improvements are made as required. |

## References:

1. Alam, A. Y. (2016). Steps in the Process of Risk Management in Healthcare. Journal of Epidemiology and Preventive Medicine, 02(02). doi:10.19104/jepm.2016.118

2. Arnwine, D. L. (2002). Effective Governance: The Roles and Responsibilities of Board Members. Baylor University Medical Center Proceedings, 15(1), 19-22. doi:10.1080/08998280.2002.11927809

3. Baba, V. V., & HakemZadeh, F. (2012). Toward a theory of evidence based decision making. Management Decision, 50(5), 832-867. doi:10.1108/00251741211227546

4. Balding, C. (2008). From quality assurance to clinical governance. Australian Health Review, 32(3), 383. doi:10.1071/ah080383

5. Barends E, Rousseau DM and Briner RB. (2014). Evidence-Based Management: The Basic Principles. Center for Evidence-Based Management. Retrieved May 08, 2022, from https://www.cebma.org/wp-content/uploads/Evidence-Based-Practice-The-Basic-Principles-vs-Dec-2015.pdf

6. Biller-Andorno, N. (2004). Ethics, EBM, and hospital management. Journal of Medical Ethics, 30(2), 136-140. doi:10.1136/jme.2003.007161

7. Braithwaite, J., Herkes, J., Ludlow, K., Testa, L., & Lamprell, G. (2017). Association between organisational and workplace cultures, and patient outcomes: systematic review. BMJ Open, 7(11), e017708. doi:10.1136/bmjopen-2017-017708

8. Bruning, P. (2013). Improving Ethical Decision Making in Health Care Leadership. Business and Economics Journal, 04(02). doi:10.4172/2151-6219.1000e101

9. Chatterjee, C., & Srinivasan, V. (2013). Ethical issues in health care sector in India. IIMB Management Review, 25(1), 5. doi:10.1016/j.iimb.2012.12.007

10. Choudhuri, D. (2015). Strategic Planning: A Comprehensive Approach. Retrieved May 08, 2022, from https://www.structuremag.org/wp-content/uploads/2015/08/D-BusinessPrac-Choudhuri-Sept151.pdf

11. Clay-Williams, R., Ludlow, K., Testa, L., Li, Z., & Braithwaite, J. (2017). Medical leadership, a systematic narrative review: do hospitals and healthcare organisations perform better when led by doctors? BMJ Open, 7(9), e014474. doi:10.1136/bmjopen-2016-014474

12. Combes, J. R. (2009). Effective boards begin with effective board members. Trustee, 62(9), 26-29.

13. Common Ethical Dilemmas for Doctors. Medscape. (n.d.). Retrieved May 08, 2022, from https://www.medscape.com/courses/section/898063

14. Daly, J., Jackson, D., Mannix, J., Davidson, P., & Hutchinson, M. (2014). The importance of clinical leadership in the hospital setting. Journal of Healthcare Leadership, 75. doi:10.2147/jhl.s46161

15. Davies, H. T. (2000). Organisational culture and quality of health care. Quality in Health Care, 9(2), 111-119. doi:10.1136/qhc.9.2.111

16. Determining Your Core Values, Mission, and Vision. (2015). Complete Guide to Practice Management, 3-18. doi:10.1002/9781119204312.ch1

17. Doran, E., Fleming, J., Jordens, C., Stewart, C. L., Letts, J., & Kerridge, I. H. (2015). Managing ethical

issues in patient care and the need for clinical ethics support. Australian Health Review, 39(1), 44. doi:10.1071/ah14034

18. Effective board members have three qualities. (2019). Board & Administrator for Administrators Only, 35(S7), 2-2. doi:10.1002/ban.30866

19. Feudtner, C., Schall, T., Nathanson, P., & Berry, J. (2018). Ethical Framework for Risk Stratification and Mitigation Programs for Children With Medical Complexity. Pediatrics, 141(Supplement 3), S250-S258. doi:10.1542/peds.2017-1284j

20. Frankel A and Leonard M. Update on Safety Culture. (2013). Agency for Healthcare Research and Quality Patient Safety Network. Retrieved May 08, 2022, from https://psnet.ahrq.gov/perspective/update-safety-culture

21. G20/OECD Principles of Corporate Governance. (2015). OECD. Retrieved May 08, 2022, from https://www.oecd.org/daf/ca/Corporate-Governance-Principles-ENG.pdf

22. Govind, N. (2014). Between families and doctors. Indian Journal of Medical Ethics. doi:10.20529/ijme.2014.016

23. India Code: Home. Digital repository of all central and state acts. (n.d.). Government of India. Retrieved May 08, 2022, from https://indiacode.nic.in/

24. Ingersoll, G. L., Witzel, P. A., & Smith, T. C. (2005). Using Organizational Mission, Vision, and Values to Guide Professional Practice Model Development and Measurement of Nurse Performance. JONA: The Journal of Nursing Administration, 35(2), 86???93. doi:10.1097/00005110-200502000-00008

25. Jondle, D., Maines, T. D., Burke, M. R., & Young, P. (2013). Modern risk management through the lens of the ethical organizational culture. Risk Management, 15(1), 32-49. doi:10.1057/rm.2012.11

26. Kaya, G. K., Ward, J. R., & Clarkson, P. J. (2018). A framework to support risk assessment in hospitals. International Journal for Quality in Health Care, 31(5), 393-401. doi:10.1093/intqhc/mzy194

27. Kaya, G. K., Ward, J. R., & Clarkson, P. J. (2018). A framework to support risk assessment in hospitals. International Journal for Quality in Health Care, 31(5), 393-401. doi:10.1093/intqhc/mzy194

28. Kuhn, A. M. (2002). The need for risk management to evolve to assure a culture of safety. Quality and Safety in Health Care, 11(2), 158-162. doi:10.1136/qhc.11.2.158

29. Mannion, R., & Davies, H. (2018). Understanding organisational culture for healthcare quality improvement. BMJ, k4907. doi:10.1136/bmj.k4907

30. McDonagh, K. J. (2006). Hospital Governing Boards: A Study of Their Effectiveness in Relation to Organizational Performance. Journal of Healthcare Management, 51(6), 377-389. doi:10.1097/00115514-200611000-00007

31. McSherry, R., Wadding, A., & Pearce, P. (n.d.). Healthcare Governance Through Effective Leadership. Effective Healthcare Leadership, 58-75. doi:10.1002/9780470774984.ch5

32. Organizational Management—How to Run a Meeting and Make Decisions. (n.d.). Developing Human Service Leaders, 149-168. doi:10.4135/9781506330389.n11

33. Orlikoff, J. E., & Totten, M. K. (2007). Center for Healthcare Governance: effective board development:

showing the way toward exceptional governance. Healthc Exec., 22(3), 68-70.

34. Personal Characteristics of Effective Boards and Members. (2015). Audit Committee Essentials, 33-39. doi:10.1002/9781119201472.ch3

35. Phrampus PE. Building a Safety Program in a Vast Health Care Network. (2019). Agency for Healthcare Research and Quality. Retrieved May 08, 2022, from https://psnet.ahrq.gov/perspective/building-safety-program-vast-health-care-network

36. Quality and Patient Safety Directorate. (2012). Quality and Patient Safety Clinical Governance Development: an assurance check for health service providers. Retrieved May 08, 2022, from https://www.pna.ie/images/0405124.pdf

37. Rego, A., Araújo, B., & Serrão, D. (2015). The mission, vision and values in hospital management. Journal of Hospital Administration, 5(1). doi:10.5430/jha.v5n1p62

38. Risk management -- Guidelines. (2018). International Organization for Standardization. ISO 31000:2018 Retrieved May 08, 2022, from https://www.iso.org/standard/65694.html

39. Schmets G, Rajan D, Kadandale S. Strategizing National Health in the 21st Century: A Handbook. World Health Organization. (2016). Retrieved May 08, 2022, from http://apps.who.int/iris/bitstream/10665/250221/41/9789241549745-eng.pdf?ua=1

40. Stern RJ and Sarkar U. Update: Patient Engagement in Safety. (2018). Agency for Healthcare Research and Quality. Patient Safety Network. Retrieved May 08, 2022, from https://psnet.ahrq.gov/perspective/update-patient-engagement-safety

41. Strategic Planning: Why It Makes a Difference, and How to Do It. (2009). Journal of Oncology Practice, 5(3), 139-143. doi:10.1200/jop.0936501

42. Suchy, K. (2010). A Lack of Standardization: The Basis for the Ethical Issues Surrounding Quality and Performance Reports. Journal of Healthcare Management, 55(4), 241-251. doi:10.1097/00115514-201007000-00005

43. Trybou, J., Gemmel, P., Desmidt, S., & Annemans, L. (2017). Fulfillment of administrative and professional obligations of hospitals and mission motivation of physicians. BMC Health Services Research, 17(1). doi:10.1186/s12913-017-1990-0

44. Useem, M. (n.d.). How well-run boards make decisions. Harv Bus Rev., 84(11), 130-6.

# Chapter 8

# Facility Management and Safety (FMS)

***Intent of the Chapter:*** The standards guide the provision of a safe and secure environment for patients, their families, staff and visitors. The organisation attends to the facility, equipment, and internal physical environment for improving patient safety and quality of services by consistently addressing issues that may arise out of the same. The organisation does this through proactive risk analysis, safety rounds, training of staff on the enhancement of safety. To ensure this, the organisation conducts regular facility inspection rounds and takes the appropriate action to ensure safety.

The organisation provides for safe water, electricity, medical gases and vacuum systems.

The organisation has a programme for medical and utility equipment management.

The organisation plans for fire and non-fire emergencies within the facilities.

The organisation safely manages hazardous materials.

The organisation works towards measures on being energy efficient.

## SUMMARY OF STANDARDS

| | |
|---|---|
| **FMS.1.** | The organisation's environment and facilities operate in a planned manner and promotes environment-friendly measures. |
| **FMS.2.** | The organisation's environment and facilities operate to ensure the safety of patients, their families, staff and visitors. |
| **FMS.3.** | The organisation has a programme for medical equipment and support services management. |
| **FMS.4.** | The organisation has a programme for medical gases, vacuum and compressed air. |
| **FMS.5.** | The organization has plans for fire and non-fire emergencies within the facilities. |

# STANDARDS AND OBJECTIVE ELEMENTS

## Standard

| | |
|---|---|
| **FMS.1.** | **The organisation's environment and facilities operate in a planned manner and promotes environment-friendly measures.** |

## Objective Elements

| | | |
|---|---|---|
| **Commitment** | a. | Facilities and space provisions are appropriate to the scope of services. |
| **Commitment** | b. | As-built and updated drawings are maintained as per statutory requirements. |
| **CORE** | c. | There are internal and external sign postings in the organisation in a manner understood by the patient, families and community. |
| **CORE** | d. | Potable water and electricity are available round the clock. |
| **Commitment** | e. | Alternate sources for electricity and water are provided as a backup for any failure/shortage and their functioning is tested at a predefined frequency. |
| **Excellence** | f. | The organisation takes initiatives towards an energy-efficient and environment friendly hospital.* |

## Standard

| | |
|---|---|
| **FMS.2.** | **The organisation's environment and facilities operate to ensure the safety of patients, their families, staff and visitors.** |

## Objective Elements

| | | |
|---|---|---|
| **CORE** | a. | Patient-safety devices and infrastructure are installed across the organisation and inspected periodically. |
| **Commitment** | b. | The organisation has facilities for the differently-abled. |
| **Achievement** | c. | Operational planning identifies areas which need to have extra security and describes access to different areas in the hospital by staff, patients, and visitors. |
| **CORE** | d. | Facility inspection rounds to ensure safety are conducted at least once a month. |
| **Achievement** | e. | Organisation conducts electrical safety audits for the facility. |

| | | |
|---|---|---|
| Commitment | f. | There is a procedure which addresses the identification and disposal of material(s) not in use in the organisation. * |
| CORE | g. | Hazardous materials are identified and used safely within the organisation.* |

## Standard

| | |
|---|---|
| FMS.3. | The organisation has a programme for medical and support service equipment management. |

## Objective Elements

| | | |
|---|---|---|
| Commitment | a. | The organisation plans for medical and support service equipment in accordance with its services and strategic plan. |
| Commitment | b. | Medical equipment and support service equipment are inventoried, and proper logs are maintained as required. |
| CORE | c. | The documented operational and maintenance (preventive and breakdown) plan for medical and support service equipment is implemented. * |
| Commitment | d. | Medical and support service equipment are periodically inspected and calibrated for their proper functioning. |
| Commitment | e. | Qualified and trained personnel operate and maintain medical and support service equipment. |
| Achievement | f. | There is monitoring of medical equipment and medical devices related to adverse events, and compliance hazard notices on recalls. * |
| Achievement | g. | Downtime for critical equipment breakdown is monitored from reporting to inspection and implementation of corrective actions. |

## Standard

| | |
|---|---|
| FMS.4. | The organisation has a programme for medical gases, vacuum and compressed air |

## Objective Elements

| | | |
|---|---|---|
| Commitment | a. | Written guidance governs the implementation of procurement, handling, storage, distribution, usage and replenishment of medical gases. * |
| CORE | b. | Medical gases are handled, stored, distributed and used in a safe manner |

| | | |
|---|---|---|
| CORE | c. | Alternate sources for medical gases, vacuum and compressed air are provided for, in case of failure and their functioning is tested at a predefined frequency |
| Commitment | d. | There is an operational, inspection, testing and maintenance plan for piped medical gas, compressed air and vacuum installation. * |

## Standard

| | |
|---|---|
| **FMS.5.** | **The organisation has plans for fire and non-fire emergencies within the facilities.** |

## Objective Elements

| | | |
|---|---|---|
| CORE | a. | The organisation has plans and provisions for early detection, abatement and containment of the fire, and non-fire emergencies. * |
| Commitment | b. | The organisation has a documented and displayed exit plan in case of fire and non-fire emergencies |
| Commitment | c. | Mock drills are held at least twice a year. |
| Commitment | d. | There is a maintenance plan for fire-related equipment and infrastructure. * |
| Achievement | e. | The organisation has a service continuity plan in case of fire and non-fire emergencies. |

## References:

1. Aggarwal, R., Mytton, O. T., Greaves, F., & Vincent, C. (2010). Technology as applied to patient safety: an overview. Quality and Safety in Health Care, 19 (Suppl 2), i3-i8. doi:10.1136/qshc.2010.040501

2. Medical Gases. (n.d.). British Compressed Gases Association. Retrieved May 08, 2022, from http://www.bcga.co.uk/pages/index.cfm?page_id=29&title=medical_gases

3. Respiratory equipment. Compressed gases for breathing apparatus. BS EN 12021:2014. (2014). British Standards Institution. Retrieved May 08, 2022, from https://shop.bsigroup.com/ProductDetail?pid=000000000030315779

4. National Building Code of India, 2016. (2016). Bureau of Indian Standards. New Delhi. Retrieved May 08, 2022, from https://www.bis.gov.in/index.php/standards/technical-department/national-building-code/

5. Coulliette, A. D., & Arduino, M. J. (2015). Hemodialysis and Water Quality. Semin Dial, 26(4), 427-438.

6. Medical Gas Pipeline Systems. (2006). Department of Health: Estates and Facilities Division. London, England: The Stationery Office.

7. Dhillon, V. S. (2015). Green Hospital and Climate Change: Their Interrelationship and the Way Forward. JOURNAL OF CLINICAL AND DIAGNOSTIC RESEARCH. doi:10.7860/jcdr/2015/13693.6942

8. Medical Devices and Diagnostics. Government of India. Ministry of Health and Family Welfare. (n.d.). Retrieved May 08, 2022, from https://cdsco.gov.in/opencms/opencms/en/Medical-Device-Diagnostics/Medical-Device-Diagnostics/

9. National Disaster Management Guidelines. Hospital Safety. (2016). Government of India. National Disaster Management Authority. Retrieved May 08, 2022, from https://nidm.gov.in/PDF/pubs/NDMA/18.pdf

10. Biomedical Equipment Management and Maintenance Program. Government of India. National Health MIssion. (n.d.). Retrieved May 08, 2022, from https://nhm.gov.in/New_Updates_2018/NHM_Components/Health_System_Stregthening/BEMMP/Biomedical_Equipment_Revised_Guidelines.pdf

11. Gudlavalleti, V. (2018). Challenges in Accessing Health Care for People with Disability in the South Asian Context: A Review. International Journal of Environmental Research and Public Health, 15(11), 2366. doi:10.3390/ijerph15112366

12. Hart, J. R. (2018). Medical Gas and Vacuum Systems Handbook. National Fire Protection Association.

13. Infrastructures to improve patient safety. Health Facilities Management. (2015, December 2). Retrieved May 08, 2022, from https://www.hfmmagazine.com/articles/1827-infrastructures-to-improve-patient-safety

14. Pressure regulators for use with medical gases — Part 1: Pressure regulators and pressure regulators with flow-metering devices. ISO 10524-1:2018. (2018). International Organization for Standardization. Retrieved May 08, 2022, from https://www.iso.org/standard/67190.html

15. Pressure regulators for use with medical gases — Part 2: Manifold and line pressure regulators. International Organization for Standardization. ISO 10524-2:2018. (2018). Retrieved May 08, 2022, from https://www.iso.org/standard/66690.html

16. Pressure regulators for use with medical gases — Part 3: Pressure regulators integrated with cylinder valves (VIPRs). ISO 10524-3:2019. (2019). International Organization for Standardization. Retrieved May 08, 2022, from https://www.iso.org/standard/66691.html

17. Medical Gas Cylinder Storage. (2018). National Fire Protection Association. Retrieved May 08, 2022, from https://www.nfpa.org/~/media/4B6B534171E04E369864672EBB319C4F.pdf

18. Indian Public Health Standards. (2022). National Health Mission. Ministry of Health & Family Welfare, Government of India. Retrieved May 08, 2022, from https://nhm.gov.in/index1.php?lang=1&level=2&sublinkid=971&lid=154

19. Sarangi, S., Babbar, S., & Taneja, D. (n.d.). Safety of the medical gas pipeline system. Journal of Anaesthesiology Clinical Pharmacology, 34(1), 99-102. Retrieved May 08, 2022, from http://www.joacp.org/text.asp?2018/34/1/99/227571

20. Guidelines for Drinking-water Quality (4th Edition). World Health Organization. (2011). Retrieved May 08, 2022, from https://apps.who.int/iris/bitstream/handle/10665/44584/9789241548151_eng.pdf?sequence=1

21. Safe Management of Wastes from Health-Care Activities (2nd ed.). World Health Organization. (2014). Retrieved May 08, 2022, from https://apps.who.int/iris/bitstream/handle/10665/85349/9789241548564_eng.pdf?sequence=1

22. Hospital safety index: guide for evaluators – 2nd ed. World Health Organization. (2015). Retrieved May 08, 2022, from https://www.who.int/hac/techguidance/hospital_safety_index_evaluators.pdf

23. Handle medical gases safely. BOC. (2017). Retrieved May 08, 2022, from http://www.boc-healthcare.com.au/en/images/HCD186_Gases%20safety%20pocket%20guide_V3_FA_web_tcm350-131320.pdf

# Chapter 9

# Human Resource Management (HRM)

***Intent of the Chapter:*** The most important resource of the organisation is its human resource. Human resources are an asset for the effective and efficient functioning of the organisation. The management plans on identifying the right number and skill mix of staff required to render safe care to the patients.

Recruitment of staff is accomplished by having a uniform and standardised system. The organisation must orient the staff to its environment and also orient them to specific duties and responsibilities related to their position. The organisation should plan to have an ongoing professional training/in-service education to enhance the competencies and skills of the staff continually.

The organization must ensure that all staff undergo induction training and ongoing professional training, pertaining to safety and quality.

A systematic and structured appraisal system must be used for staff development. The organisation uses this as an opportunity to discuss, motivate, identify gaps in the performance of the staff.

The organisation promotes the physical and mental well-being of staff. A grievance handling mechanism and disciplinary procedure should be in place.

Credentialing and privileging of health-care professionals (medical, nursing and para-clinical professionals) are done to ensure patient safety.

A document containing all such personal information has to be maintained for all staff.

**Note**

The term "employee" refers to all salaried personnel working in the organisation. The term "staff" refers to all personnel working in the organisation including employees, "fee for service" medical professionals, part-time workers, contractual personnel and volunteers

## SUMMARY OF STANDARDS

| | |
|---|---|
| **HRM.1.** | The organisation has a documented system of human resource planning. |
| **HRM.2.** | Staff are provided induction training and an on-going professional training for development. |
| **HRM.3.** | Staff are trained in safety and quality-related aspects. |
| **HRM.4.** | An appraisal system for evaluating the performance of staff exists as an integral part of the human resource management process. |
| **HRM.5.** | The organisation promotes staff well-being and addresses their health and safety needs. |
| **HRM.6.** | There is documented personal information for each staff member. |

| | |
|---|---|
| **HRM.7.** | There is a process for credentialing and privileging of medical professionals, permitted to provide patient care without supervision. |
| **HRM.8.** | There is a process for credentialing and privileging of nursing professionals, permitted to provide patient care without supervision. |
| **HRM.9.** | There is a process for credentialing and privileging of para-clinical professionals, permitted to provide patient care without supervision. |

# STANDARDS AND OBJECTIVE ELEMENTS

## Standard

| | |
|---|---|
| **HRM.1.** | **The organisation has a documented system of human resource planning.** |

## Objective Elements

| | | |
|---|---|---|
| **Excellence** | a. | Human resource planning supports the organisation's current and future ability to meet the care, treatment and service needs of the patient. |
| **CORE** | b. | Written guidance governs the process of recruitment* |
| **CORE** | c. | The organisation maintains an adequate number and mix of staff to meet the care, treatment and service needs of the patient. |
| **Achievement** | d. | The organisation has contingency plans to manage long- and short-term workforce shortages, including unplanned shortages |
| **Commitment** | e. | The reporting relationships, job specification and job description are defined for each category of staff. * |
| **Commitment** | f. | The organisation performs a background check of new staff. |
| **CORE** | g. | The organisation defines and implements a code of conduct for its staff. |
| **Achievement** | h. | Exit interviews are conducted and used as a tool to improve human resource practices |
| **Commitment** | i. | Written guidance governs disciplinary and grievance handling mechanisms.* |

## Standard

| | |
|---|---|
| **HRM.2.** | **Staff are provided induction training and on-going professional training for development.** |

## Objective Elements

| | | |
|---|---|---|
| **CORE** | a. | Staff are provided with induction training. |
| **CORE** | b. | Written guidance governs training and development policy for the staff through an on-going programme for professional training and development of the staff. |
| **Commitment** | c. | Staff are appropriately trained based on their specific job description |

| | | |
|---|---|---|
| CORE | d. | Staff involved in direct patient care are provided training on cardiopulmonary resuscitation at the time of induction and periodically thereafter. |
| Excellence | e. | Evaluation of training effectiveness is done by the organisation |

## Standard

| | |
|---|---|
| HRM.3. | Staff are trained in safety and quality-related aspects. |

## Objective Elements

| | | |
|---|---|---|
| Commitment | a. | Staff are trained in the organisation's safety programme |
| Commitment | b. | Staff are provided training in the detection, handling, minimisation and elimination of identified risks within the organisation's environment. |
| Commitment | c. | Staff members are made aware of procedures to follow in the event of an incident |
| Commitment | d. | Staff are trained in occupational safety aspects. |
| CORE | e. | Staff are trained in the organisation's disaster management plan |
| CORE | f. | Staff are trained in handling fire and non-fire emergencies. |
| Commitment | g. | Staff are trained in the organisation's quality improvement programme. |

## Standard

| | |
|---|---|
| HRM.4. | An appraisal system for evaluating the performance of staff exists as an integral part of the human resource management process. |

## Objective Elements

| | | |
|---|---|---|
| Commitment | a. | Performance appraisal is done for staff within the organisation and staff are made aware of the same at the time of induction.* |
| Commitment | b. | Performance is evaluated based on pre-determined criteria. |
| Excellence | c. | The appraisal system is used as a tool for further development. |
| Commitment | d. | Performance appraisal is carried out at defined intervals and is documented |

## Standard

| HRM.5. | The organisation promotes staff well-being and addresses their health and safety needs. |
|---|---|

## Objective Elements

| | | |
|---|---|---|
| Commitment | a. | Staff well-being is promoted through identification of health problems of the staff, including occupational health hazards, in accordance with the organisation's policy. |
| CORE | b. | Health checks of staff are done at least once a year and the findings/results are documented. |
| Commitment | c. | Organisation provides treatment to staff who sustain workplace-related injuries |
| CORE | d. | The organisation has measures in place for preventing and handling workplace violence. |

## Standard

| HRM.6. | There is documented personal information for each staff member. |
|---|---|

## Objective Elements

| | | |
|---|---|---|
| Commitment | a. | Personal files are maintained with respect to all staff, and their confidentiality is ensured |
| Commitment | b. | The personal files contain personal information regarding the staff's qualification, job description, proof of formal engagement verification of credentials and health status. |
| Commitment | c. | Records of in-service training and education are contained in the personal files. |
| Commitment | d. | Personal files contain results of all evaluations and remarks. |

## Standard

| HRM.7. | There is a process for credentialing and privileging of medical professionals, permitted to provide patient care without supervision. |
|---|---|

## Objective Elements

| | | |
|---|---|---|
| CORE | a. | Medical professionals permitted by law, regulation and the organisation to provide patient care without supervision are identified. |
| Commitment | b. | The education, registration, training, experience and other information of medical professionals are identified, verified, documented and updated periodically. |
| CORE | c. | Medical professionals are granted privileges to admit and care for the patients in consonance with their qualification, training, experience and registration. |
| Commitment | d. | The requisite services to be provided by the medical professionals are known to them as well as the various departments/units of the organisation. |

## Standard

| HRM.8. | There is a process for credentialing and privileging of nursing professionals, permitted to provide patient care without supervision |
|---|---|

## Objective Elements

| | | |
|---|---|---|
| CORE | a. | Nursing staff permitted by law, regulation and the organisation to provide patient care without supervision are identified. |
| Commitment | b. | The education, registration, training, experience and other information of nursing staff are identified, verified, documented and updated periodically. |
| CORE | c. | Nursing staff are granted privileges in consonance with their qualification, training, experience and registration |
| Commitment | d. | The requisite services to be provided by the nursing staff are known to them as well as the various departments/units of the organisation. |

## Standard

| HRM.9. | There is a process for credentialing and privileging of para-clinical professionals, permitted to provide patient care without supervision. |
|---|---|

## Objective Elements

| | | |
|---|---|---|
| CORE | a. | Para-clinical professionals permitted by law, regulation and the organisation to provide patient care without supervision are identified |
| Commitment | b. | The education, registration, training and experience of para-clinical professionals are appropriately verified, documented and updated periodically. |
| CORE | c. | Para-clinical professionals are granted privileges in consonance with their qualification, training, experience and registration. |
| Commitment | d. | The requisite services to be provided by the para-clinical professionals are known to them as well as the various departments/units of the organisation. |

## References:

1. Academy of Nutrition and Dietetics: Revised 2017 Scope of Practice for the Registered Dietitian Nutritionist. Academy Quality Management Committee. (2017). Journal of the Academy of Nutrition and Dietetics, 118(1), 141-165. Retrieved May 08, 2022, from https://doi.org/10.1016/j.jand.2017.10.002

2. Aswathappa, K. (2013). Human Resource Management 6E (7th ed.). New York, NY: Tata McGraw-Hill Education.

3. Barnett, S. D. (2015). Growing Pains of Credentialing Research: Discussions from the Institute of Medicine Workshop. The Journal of Continuing Education in Nursing, 46(2), 53-55. doi:10.3928/00220124-20150121-11

4. Baumann, A., Norman, P., Blythe, J., Kratina, S., & Deber, R. (2014). Accountability: The Challenge for Medical and Nursing Regulators. Healthcare Policy | Politiques de Santé, 10(SP), 121-131. doi:10.12927/hcpol.2014.23911

5. Baumann, M. H., Simpson, S. Q., Stahl, M., Raoof, S., Marciniuk, D. D., & Gutterman, D. D. (2012). First, Do No Harm: Less Training != Quality Care. American Journal of Critical Care, 21(4), 227-230. doi:10.4037/ajcc2012825

6. Britt, L. D. (2009). Use of Board Certification and Recertification in Hospital Privileging—Invited Critique. Archives of Surgery, 144(8), 752. doi:10.1001/archsurg.2009.27

7. Chhabra, S. (2016). Health hazards among health care personnel. Journal of Mahatma Gandhi Institute of Medical Sciences, 21(1), 19. doi:10.4103/0971-9903.178074

8. Chhabra, T. N., & Chhabra, M. S. (2014). Human Resources Management (1st ed.). India: Sun publications.

9. Cook, D. A., Blachman, M. J., Price, D. W., West, C. P., Berger, R. A., & Wittich, C. M. (2017). Professional Development Perceptions and Practices Among U.S. Physicians. Academic Medicine, 92(9), 1335-1345. doi:10.1097/acm.0000000000001624

10. Credentialing and privileging of pharmacists: A resource paper from the Council on Credentialing in Pharmacy. (2014). American Journal of Health-System Pharmacy, 71(21), 1891-1900. doi:10.2146/ajhp140420

11. Gesme, D. H., Towle, E. L., & Wiseman, M. (2010). Essentials of Staff Development and Why You Should Care. Journal of Oncology Practice, 6(2), 104-106. doi:10.1200/jop.091089

12. Gillespie, G. L., Fisher, B. S., & Gates, D. M. (2015). Workplace Violence in Healthcare Settings. Work, 51(1), 3-4. doi:10.3233/wor-152017

13. Gillespie, G. L., Gates, D. M., Miller, M., & Howard, P. K. (2010). Workplace Violence in Healthcare Settings: Risk Factors and Protective Strategies. Rehabilitation Nursing, 35(5), 177-184. doi:10.1002/j.2048-7940.2010.tb00045.x

14. Gorman, T., Dropkin, J., Kamen, J., et al. (2014). Controlling Health Hazards to Hospital Workers: A Reference Guide. NEW SOLUTIONS: A Journal of Environmental and Occupational Health Policy, 23(1_suppl), 1-169. doi:10.2190/ns.23.suppl

15. Guidelines for Preventing Workplace Violence for Healthcare and Social Service Workers. (2016).

Occupational Safety and Health Administration. Retrieved May 08, 2022, from https://www.osha.gov/Publications/osha3148.pdf

16. Guiding Principles for Privileging of Innovative Procedures in Gynecologic Surgery. American College of Obstetricians and Gynecologists. (2016). Retrieved May 08, 2022, from https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2016/09/guiding-principles-for-privileging-of-innovative-procedures-in-gynecologic-surgery

17. Health Care Workers. (2019). National Institute for Occupational Safety and Health. Retrieved May 08, 2022, from https://www.cdc.gov/niosh/topics/healthcare/default.html

18. Healthcare. (2019). Occupational Safety and Health Administration. United States Department of Labor. Retrieved May 08, 2022, from https://www.osha.gov/SLTC/healthcarefacilities/index.html

19. Hravnak, M., & Baldisseri, M. (1997). Credentialing and Privileging. AACN Clinical Issues: Advanced Practice in Acute and Critical Care, 8(1), 108-115. doi:10.1097/00044067-199702000-00014

20. Is credentialing a solution to the workforce crisis? (2017). Emergency Nurse, 25(1), 5-5. doi:10.7748/en.25.1.5.s1

21. Izadi, N. (2018). Occupational Health Hazards among Health Care Workers. Public Health Open Access, 2(1). doi:10.23880/phoa-16000120

22. Jones, L., & Moss, F. (2018). What should be in hospital doctors' continuing professional development? Journal of the Royal Society of Medicine, 112(2), 72-77. doi:10.1177/0141076818808427

23. Kirkpatrick, J. D., & Kirkpatrick, W. K. (2016). Kirkpatrick's Four Levels of Training Evaluation. Association for Talent Development.

24. Medical Surveillance for Healthcare Workers Exposed to Hazardous Drugs. (2013). Department of Health and Human Services, Centers for Disease Control and Prevention National Institute for Occupational Safety and Health. Retrieved May 08, 2022, from https://www.cdc.gov/niosh/docs/wp-solutions/2013-103/pdfs/2013-103.pdf

25. Niles, N. J. (2012). Basic Concepts of Health Care Human Resource Management (1st ed.). Burlington, MA: Jones & Bartlett Publishers.

26. Pearl, J., Fellinger, E., Dunkin, B., Pauli, E., Trus, T., Marks, J., … Richardson, W. (2016). Guidelines for privileging and credentialing physicians in gastrointestinal endoscopy. Surgical Endoscopy, 30(8), 3184-3190. doi:10.1007/s00464-016-5066-8

27. Position Statement on Credentialing and Privileging for Nurse Practitioners. (2016). Journal of Pediatric Health Care, 30(2), A20-A21. doi:10.1016/j.pedhc.2015.11.006

28. Sarre, S., Maben, J., Aldus, C., Schneider, J., Wharrad, H., Nicholson, C., & Arthur, A. (2018). The challenges of training, support and assessment of healthcare support workers: A qualitative study of experiences in three English acute hospitals. International Journal of Nursing Studies, 79, 145-153. doi:10.1016/j.ijnurstu.2017.11.010

29. Singh, S. (2014). Credentialing and Privileging in Healthcare Organizations. Handbook of Healthcare Quality and Patient Safety, 114-114. doi:10.5005/jp/books/12287_9

30. Srinivasan, A. V. (2008). Human Resource Management in Hospitals. In Managing a Modern Hospital

(2nd ed.). New Delhi, India: SAGE Publications India.

31. Steege, A. L., Boiano, J. M., & Sweeney, M. H. (2014). NIOSH Health and Safety Practices Survey of Healthcare Workers: Training and awareness of employer safety procedures. American Journal of Industrial Medicine, 57(6), 640-652. doi:10.1002/ajim.22305

32. STRESS...At Work. (2018). National Institute for Occupational Safety and Health. Retrieved May 08, 2022, from https://www.cdc.gov/niosh/docs/99-101/default.html

33. Tam, V., Zeh, H. J., & Hogg, M. E. (2017). Incorporating Metrics of Surgical Proficiency Into Credentialing and Privileging Pathways. JAMA Surgery, 152(5), 494. doi:10.1001/jamasurg.2017.0025

34. The Kirkpatrick Model. (2019). Kirkpatrick Partners. Retrieved May 08, 2022, from https://kirkpatrickpartners.com/Our-Philosophy/The-Kirkpatrick-Model

35. Wilburn, S. Q., & Eijkemans, G. (2004). Preventing Needlestick Injuries among Healthcare Workers: A WHO-ICN Collaboration. International Journal of Occupational and Environmental Health, 10(4), 451-456. doi:10.1179/oeh.2004.10.4.451

36. Work Organization and Stress. WHO/SDE/Objective ElementH/01.10. World Health Organization. (2003). Retrieved May 08, 2022, from https://apps.who.int/iris/bitstream/handle/10665/42625/9241590475.pdf

37. Workload Indicators for Staffing Need (WISN) methodology for health workforce planning and estimation. (2020). World Health Organization. Retrieved May 08, 2022, from https://www.who.int/news-room/articles-detail/workload-indicators-for-staffing-need-(wisn)-methodology-for-health-workforce-planning-and-estimation

38. Workload indicators of staffing need (WISN); a manual for implementation. (1998). World Health Organization. Retrieved May 08, 2022, from https://apps.who.int/iris/bitstream/handle/10665/64011/WHO_HRB_98.2.pdf?sequence=1&isAllowed=y

39. Workload indicators of staffing need. (2010). World Health Organization. Retrieved May 08, 2022, from https://www.who.int/publications/i/item/9789241500197

40. Zhao, S., Liu, H., Ma, H., Jiao, M., Li, Y., Hao, Y., … Qiao, H. (2015). Coping with Workplace Violence in Healthcare Settings: Social Support and Strategies. International Journal of Environmental Research and Public Health, 12(11), 14429-14444. doi:10.3390/ijerph121114429

# Chapter 10

# Information Management System (IMS)

***Intent of the Chapter:*** The goal of information management in the organisation is to ensure that the right information is available to the right person at the right time.

Information management includes management of hospital information system as well as all modalities of information communicated to staff, patients, visitors and community in general.

Data and information management must be directed to meet the organisation's needs and support the delivery of quality patient care. The information needs are provided in an authenticated, secure and accurate manner at the right time and place.

Confidentiality, integrity and security of records, data and information is maintained. Confidentiality of protected health information is paramount and is safeguarded across all information processing, storing and disseminating platforms.

Information management also includes periodic review, revision and withdrawal of obsolete information to avoid confusion among staff, patients and visitors.

The organisation maintains a complete and accurate medical record for every patient. Various aspects of the medical record like contents, staff authorised to make entries and retention of records are addressed effectively by the organisation. The medical record is available for appropriate care providers. The medical records are reviewed at regular intervals

## SUMMARY OF STANDARDS

| | |
|---|---|
| **IMS.1.** | Information needs of the stakeholders are met and data is captured and analyzed appropriately |
| **IMS.2.** | The patients cared for by the organisation have a complete and accurate medical record. |
| **IMS.3.** | The medical record reflects the continuity of care. |
| **IMS.4.** | The organisation maintains confidentiality, integrity and security of records, data and information. |
| **IMS.5.** | The organization ensures availability of current and relevant documents, records, data and information and provides for retention of the same. |
| **IMS.6.** | The organisation regularly carries out a review of medical records. |

# STANDARDS AND OBJECTIVE ELEMENTS

## Standard

| IMS.1. | Information needs of the stakeholders are met and data is captured and analyzed appropriately |
|---|---|

## Objective Elements

| | | |
|---|---|---|
| CORE | a. | The organization identifies, captures and disseminates the information needs of the patients, visitors, staff, management, external agencies and community. * |
| Commitment | b. | Information management and technology acquisitions and maintenance plan are in consonance with the identified information needs. |
| Commitment | c. | The organisation stores and retrieves data according to its information needs. * |
| Commitment | d. | The organization contributes to external databases in accordance with the law and regulations. |
| Commitment | e. | Processes for data collection are standardized and data is analysed to meet the information needs. |

## Standard

| IMS.2. | The patients cared for by the organisation have a complete and accurate medical record. |
|---|---|

## Objective Elements

| | | |
|---|---|---|
| CORE | a. | The unique identifier is assigned to the medical record |
| CORE | b. | The contents of medical record are identified, documented and provides a complete, up-to-date and chronological account of patient care.* |
| Commitment | c. | Authorized staff make the entry in the medical record, author of the entry can be identified. |
| Commitment | d. | Entry in the medical record is named, signed, dated and timed. |
| Commitment | e. | The medical record has only authorised abbreviations. |

## Standard

| IMS.3. | The medical record reflects the continuity of care. |
|---|---|

## Objective Elements

| | | |
|---|---|---|
| Commitment | a. | The medical record contains information regarding reasons for admission, diagnosis and plan of care. |
| Commitment | b. | The medical record contains the details of assessments, re-assessments, consultations, results of investigations, operative and other procedures, and the details of the care provided. |
| Commitment | c. | When patient is transferred to another hospital, the medical record contains the details of the transfer. |
| Commitment | d. | The medical record contains a copy of the discharge summary |
| Commitment | e. | In case of death, the medical record contains a copy of the cause of death certificate. |
| Commitment | f. | Care providers have access to current and past medical record. |

## Standard

| IMS.4. | The organisation maintains confidentiality, integrity and security of records, data and information. |
|---|---|

## Objective Elements

| | | |
|---|---|---|
| CORE | a. | The organization maintains the confidentiality of records, data and information.* |
| CORE | b. | The organization maintains the integrity of records, data and information.* |
| CORE | c. | The organization maintains the security of records, data and information.* |
| Commitment | d. | The organization discloses privileged health information as authorized by patient and/ or as required by law. |
| Commitment | e. | Request for access to information in the medical records by patients/physicians and other public agencies are addressed consistently.* |

## Standard

| | |
|---|---|
| **IMS.5.** | **The organization ensures availability of current and relevant documents, records, data and information and provides for retention of the same.** |

## Objective Elements

| | | |
|---|---|---|
| CORE | a. | The organization has an effective process for document control.* |
| CORE | b. | The organization retains patient's clinical records, data and information, according to its requirements.* |
| Commitment | c. | The retention process provides expected confidentiality and security. |
| Commitment | d. | The destruction of medical records, data and information is in accordance with the laid-down policy. |

## Standard

| | |
|---|---|
| **IMS.6.** | **The organisation regularly carries out a review of medical records.** |

## Objective Elements

| | | |
|---|---|---|
| CORE | a. | The medical records are reviewed periodically. |
| Commitment | b. | The review uses a representative sample of both active and discharged patients, based on statistical principles. |
| Commitment | c. | The review is conducted by identified individuals. |
| Commitment | d. | The review of records is based on identified parameters |
| Commitment | e. | Appropriate corrective and preventive measures are undertaken on the deficiencies pointed out in the review. |

## References:

1. Aguiar T, Gomes SB, de Cunha PR, da Silva MM. (2021). Identifying the Practices of Digital Transformation: Based on a Systematic Literature Review. ISACA Journal, Vol1. Retrieved May 08, 2022, from https://www.isaca.org/-/media/files/isacadp/project/isaca/articles/journal/2021/volume-1/identifying-the-practices-of-digital-transformation_joa_eng_0121.pdf

2. Alotaibi, Y., & Federico, F. (2017). The impact of health information technology on patient safety. Saudi Medical Journal, 38(12), 1173-1180. doi:10.15537/smj.2017.12.20631

3. Anderson, J. G. (2010). Improving Patient Safety with Information Technology. Handbook of Research on Advances in Health Informatics and Electronic Healthcare Applications, 144-152. doi:10.4018/978-1-60566-030-1.ch009

4. Blum, B. I. (1986). Clinical Information Systems—A Review. West J Med., 145(6), 791-797. Retrieved May 08, 2022, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1307152/pdf/westjmed00160-0055.pdf

5. Borycki, E., & Kushniruk, A. (2017). Patient Safety and Health Information Technology. E-Health Two-Sided Markets, 19-31. doi:10.1016/b978-0-12-805250-1.00004-6

6. Electronic Health Record (EHR) Standards for India -2016. Ministry of Health and Family Welfare, Government of India. (2016). Retrieved May 08, 2022, from https://www.nhp.gov.in/NHPfiles/EHR-Standards-2016-MoHFW.pdf

7. Feldman, S. S., Buchalter, S., & Hayes, L. W. (2018). Health Information Technology in Healthcare Quality and Patient Safety: Literature Review. JMIR Medical Informatics, 6(2), e10264. doi:10.2196/10264

8. Generic medical record keeping standards. Royal College of Physicians. (2015). Retrieved May 08, 2022, from https://www.rcplondon.ac.uk/projects/outputs/generic-medical-record-keeping-standards

9. Guidance Document of ABDM Compliant HMIS/LMIS. (2022). Ayushman Bharat Digital Mission (ABDM). National Health Authority. Ministry of Health and Family Welfare. Government of India. Retrieved May 08, 2022, from https://abdm.gov.in/assets/uploads/Guidance_Document_for_ABDM_Compliant_HMIS_LMIS.pdf

10. Haemovigilance Programme of India. National Institute of Biologicals, Ministry of Health & Family Welfare, Government of India. (n.d.). Retrieved May 08, 2022, from http://nib.gov.in/haemovigilance/HvPI_website/HvPI_index.html

11. Hamiel, U., Hecht, I., Nemet, A., Pe'er, L., Man, V., Hilely, A., & Achiron, A. (2018). Frequency, comprehension and attitudes of physicians towards abbreviations in the medical record. Postgraduate Medical Journal, 94(1111), 254-258. doi:10.1136/postgradmedj-2017-135515

12. Haux, R. (2006). Health information systems – past, present, future. International Journal of Medical Informatics, 75(3-4), 268-281. doi:10.1016/j.ijmedinf.2005.08.002

13. Health Informatics -- Information Security Management in Health Using ISO/IEC 27002. ISO

27799:2016. International Organization for Standardization. (2016). Retrieved May 08, 2022, from https://www.iso.org/standard/62777.html

14. Koppel R. (2012). Patient Safety and Health Information Technology: Learning from Our Mistakes. Patient Safety Network, Agency for Healthcare Research and Quality. (2012). Retrieved May 08, 2022, from https://psnet.ahrq.gov/perspective/patient-safety-and-health-information-technology-learning-our-mistakes

15. Mann, R., & Williams, J. (2003). Standards in medical record keeping. Clinical Medicine, 3(4), 329-332. doi:10.7861/clinmedicine.3-4-329

16. Mathiharan, K. (2001). Medical Records. Indian Journal of Medical Ethics, 1(2), 59. doi:10.20529/IJME.2004.029

17. Myuran, T., Turner, O., Ben Doostdar, B., & Lovett, B. (2017). The e-CRABEL score: an updated method for auditing medical records. BMJ Quality Improvement Reports, 6(1), u211253.w4529. doi:10.1136/bmjquality.u211253.w4529

18. National Digital Health Mission: Health Data Management Policy. (2020). Ayushman Bharat Digital Mission (ABDM). National Health Authority. Ministry of Health and Family Welfare. Government of India. Retrieved May 08, 2022, from https://abdm.gov.in/publications/policies_regulations/health_data_management_policy

19. National Digital Health Mission: Personal Data Processing Model Consent Form. (2020). Ayushman Bharat Digital Mission (ABDM). National Health Authority. Ministry of Health and Family Welfare. Government of India. Retrieved May 08, 2022, from https://abdm.gov.in/documents/hdmpolicy/consentform

20. Patient Safety and Health Information Technology. (2015). Committee Opinion; 621. American College of Obstetricians and Gynaecologists. Retrieved May 08, 2022, from https://www.acog.org/-/media/project/acog/acogorg/clinical/files/committee-opinion/articles/2015/01/patient-safety-and-health-information-technology.pdf

21. Planning for and Implementing ISO 27001. (2011). ISACA Journal. Retrieved May 08, 2022, from https://www.isaca.org/resources/isaca-journal/past-issues/2011/2011-planning-for-and-implementing-iso-27001

22. Schneider EC, Ridgely MS, Meeker D, Hunter LE, Khodyakov D, Rudin R. (2014). Promoting Patient Safety Through Effective Health Information Technology Risk Management. RAND Health. Washington, DC: Office of the National Coordinator for Health Information Technology; May 2014. RR-654-DHHSNCH. Retrieved May 08, 2022, from https://www.healthit.gov/sites/default/files/rr654_final_report_5-27-14.pdf

23. Schweitzer, M., & Hoerbst, A. (2015). A Systematic Investigation on Barriers and Critical Success Factors for Clinical Information Systems in Integrated Care Settings. Yearbook of Medical Informatics, 24(01), 79-89. doi:10.15265/iy-2015-018

24. Thomas, J. (2009). Medical records and issues in negligence. Indian Journal of Urology, 25(3), 384. doi:10.4103/0970-1591.56208

25. Tuffaha, H., Amer, T., Jayia, P., Bicknell, C., Rajaretnam, N., & Ziprin, P. (2012). The STAR score: a

method for auditing clinical records. The Annals of The Royal College of Surgeons of England, 94(4), 235-239. doi:10.1308/003588412x13171221499865

26. Winter, A., Ammenwerth, E., Bott, O., et al. (2001). Strategic information management plans: the basis for systematic information management in hospitals. International Journal of Medical Informatics, 64(2-3), 99-109. doi:10.1016/s1386-5056(01)00219-2

# GLOSSARY

The commonly-used terminologies in the NABH standards are briefly described and explained herein to remove any ambiguity regarding their comprehension. The definitions narrated have been taken from various authentic sources as stated, wherever possible. Notwithstanding the accuracy of the explanations given, in the event of any discrepancy with a legal requirement enshrined in the law of the land, the provisions of the latter shall apply.

| | |
|---|---|
| **Accreditation** | Accreditation is self-assessment and external peer review process used by health care organisations to accurately assess their level of performance in relation to established standards and to implement ways to improve the health care system continuously. |
| **Accreditation assessment** | The evaluation process for assessing the compliance of an organisation with the applicable standards for determining its accreditation status. |
| **Advance life support** | Emergency medical care for sustaining life, including defibrillation, airway management, and drugs and medications. |
| **Adverse drug reaction** | A response to a drug which is noxious and unintended and which occurs at doses normally used in man for prophylaxis, diagnosis, or therapy of disease or for the modification of physiologic function. |
| **Adverse event** | An injury related to medical management, in contrast to complications of the disease. Medical management includes all aspects of care, including diagnosis and treatment, failure to diagnose or treat, and the systems and equipment used to deliver care. Adverse events may be preventable or non-preventable. (WHO Draft Guidelines for Adverse Event Reporting and Learning Systems) |
| **Anaesthesia Death** | It is defined as death occurring within 24 hours of administration of anaesthesia due to cases related to anaesthesia. However, death may occur even afterwards due to the complications. |
| **Assessment** | All activities including history taking, physical examination, laboratory investigations that contribute towards determining the prevailing clinical status of the patient. |
| **Barrier nursing** | The nursing of patients with infectious diseases in isolation to prevent the spread of infection.<br>As the name implies, the aim is to erect a barrier to the passage of infectious pathogenic organisms between the contagious patient and other patients and staff in the hospital, and thence to the outside world. The nurses wear gowns, masks, and gloves, and they observe strict rules that minimise the risk of passing on infectious agents. |
| **Basic life support** | Basic life support (BLS) is the level of medical care which is used for patients with life-threatening illnesses or injuries until the patient can be given full medical care. |
| **Breakdown maintenance** | Activities which are associated with the repair and servicing of site infrastructure, buildings, plant or equipment within the site's agreed building capacity allocation which have become inoperable or unusable because of the failure of component parts. |

| | |
|---|---|
| **Byelaws** | A rule governing the internal management of an organisation. It can supplement or complement the government law but cannot countermand it, e.g. municipal by-laws for construction of hospitals/nursing homes, for disposal of hazardous and/or infectious waste |
| **Calibration** | Set of operations that establish, under specified conditions, the relationship between values of quantities indicated by a measuring instrument or measuring system, or values represented by a material measure or a reference material, and the corresponding values realised by standards. |
| **Care Plan** | A plan that identifies patient care needs, lists the strategy to meet those needs, documents treatment goals and objectives, outlines the criteria for ending interventions, and documents the individual's progress in meeting specified goals and objectives. The format of the plan may be guided by specific policies and procedures, protocols, practice guidelines or a combination of these. It includes preventive, promotive, curative and rehabilitative aspects of care. |
| **Citizen's charter** | Citizen's Charter is a document which represents a systematic effort to focus on the commitment of the organisation towards its citizens in respects of standard of services, information, choice and consultation, non-discrimination and accessibility, grievance redress, courtesy and value for money.<br>(Reference: https://goicharters.nic.in/faq.htm) |
| **Clinical audit** | A quality improvement process that seeks to improve patient care and outcomes through systematic review of care against explicit criteria and the implementation of change. (Reference: Principles for Best Practice in Clinical Audit 2002, NICE/CHI) |
| **Clinical autopsy** | It is a surgical procedure that consists of an examination of a corpse by dissection to identify the cause, mode and manner of death or to evaluate any disease or injury that may be present for research or educational purposes. |
| **Clinical care pathway** | Clinical care pathways are standardised evidence-based, multidisciplinary management plans. They identify an appropriate sequence of clinical interventions, timeframes, milestones and expected outcomes for a homogenous patient group. |
| **Clinical practice guidelines** | Clinical practice guidelines are systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances. |
| **Competence** | Demonstrated ability to apply knowledge and skills (para 3.9.2 of ISO 9000: 2015). Knowledge is the understanding of facts and procedures. Skill is the ability to perform a specific action. |
| **Confidentiality** | Restricted access to information to individuals who have a need, a reason and permission for such access. It also includes an individual's right to personal privacy as well as the privacy of information related to his/her healthcare records. |

| | |
|---|---|
| **Consent** | 1. The willingness of a party to undergo examination/procedure/ treatment by a healthcare provider. It may be implied (e.g. patient registering in OPD), expressed which may be written or verbal. Informed consent is a type of consent in which the healthcare provider has a duty to inform his/her patient about the procedure, its potential risk and benefits, alternative procedure with their risk and benefits so as to enable the patient to make an informed decision of his/her health care.<br>2. In law, it means active acquiescence or silent compliance by a person legally capable of consenting. In India, the legal age of consent is 18 years. It may be evidenced by words or acts or by silence when silence implies concurrence. Actual or implied consent is necessarily an element in every contract and every agreement. |
| **Control Charts** | The statistical tool used in quality control to (1) analyse and understand process variables, (2) determine process capabilities, and to (3) monitor effects of the variables on the difference between target and actual performance. Control charts indicate upper and lower control limits, and often include a central (average) line, to help detect the trend of plotted values. If all data points are within the control limits, variations in the values may be due to a common cause and process is said to be 'in control'. If data points fall outside the control limits, variations may be due to a special cause, and the process is said to be out of control. |
| **Correction** | Action to eliminate the detected non-conformity (Reference: ISO 9000:2015) |
| **Corrective action** | Action to eliminate the cause of a non-conformity and to prevent recurrence. (Reference: ISO 9000:2015) |
| **Credentialing** | The process of obtaining, verifying and assessing the qualification of a healthcare provider. |
| **Data** | Data is a record of the event. |
| **Discharge summary** | A part of a patient record that summarises the reasons for admission, significant clinical findings, procedures performed, treatment rendered, patient's condition on discharge and any specific instructions given to the patient or family (for example follow-up medications). |
| **Disciplinary procedure** | A sequence of activities to be carried out when staff does not conform to the laid-down norms, rules and regulations of the healthcare organisation. |
| **Drug dispensing** | The preparation, packaging, labelling, record keeping, and transfer of a prescription drug to a patient or an intermediary, who is responsible for the administration of the drug. (Reference: Mosby's Medical Dictionary, 9th edition, 2009, Elsevier.) |
| **Drug Administration** | The giving of a therapeutic agent to a patient, e.g. by infusion, inhalation, injection, paste, pessary, suppository or tablet. |
| **Effective communication** | Effective Communication is a communication between two or more persons wherein the intended message is successfully delivered, received and understood.<br>The effective communication also includes several other skills such as non-verbal communication, engaged listening, ability to speak assertively, etc. |
| **Employees** | All members of the healthcare organisation who are employed full time and are paid suitable remuneration for their services as per the laid-down policy. |

| | |
|---|---|
| **End-of-life Care** | Helps all those with an advanced, progressive, incurable illness to live as well as possible until they die. It enables the supportive and palliative care needs of both patient and family to be identified and met throughout the last phase of life and into bereavement. It includes management of pain and other symptoms and provision of psychological, social, spiritual and practical support. |
| **Enhanced communication** | Enhanced communication is using the methods of communication to ensure meaning and understanding through the recognition of the limitations of others. The intent is to ensure purposeful, timely and reliable communication. The communication must be sensitive, empathetic and inclusive. |
| **Ethics** | Moral principles that govern a person's or group's behaviour. |
| **Evidence-based medicine** | Evidence-based medicine is the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients. |
| **Family** | The person(s) with a significant role in the patient's life. It mainly includes spouse, children and parents. It may also include a person not legally related to the patient but can make healthcare decisions for a patient if the patient loses decision-making ability. |
| **Failure Mode and Effect Analysis (FMEA)** | A method used to prospectively identify error risks within a particular process. |
| **Formulary** | An approved list of drugs. Drugs contained in the formulary are generally those that are determined to be cost-effective and medically effective. |
| **Goal** | A broad statement describing a desired future condition or achievement without being specific about how much and when. (Reference: American Society for Quality) The term “goals” refers to a future condition or performance level that one intends to attain. Goals can be both short- and longer-term. Goals are ends that guide actions. (Reference: Malcolm Baldridge National Quality Award) |
| **Grievance- handling procedures** | The sequence of activities carried out to address the grievances of patients, visitors, relatives and staff. |
| **Hazardous materials** | Substances dangerous to human and other living organisms. They include radioactive or chemical materials. |
| **Hazardous waste** | Waste materials dangerous to living organisms. Such materials require special precautions for disposal. They include the biologic waste that can transmit disease (for example, blood, tissues) radioactive materials, and toxic chemicals. Other examples are infectious waste such as used needles, used bandages and fluid soaked items. |
| **Healthcare-associated infection** | Healthcare-associated infection (HAI), also referred to as "nosocomial" or "hospital" infection, is an infection occurring in a patient during the process of care in a hospital or other health care facility which was not present or incubating at the time of admission. (Reference: World Health Organization) |
| **Healthcare organisation** | The generic term is used to describe the various types of organisation that provide healthcare services. This includes ambulatory care centres, hospitals, laboratories, etc. |

| | |
|---|---|
| **High-dependency unit** | A high-dependency unit (HDU) is an area for patients who require more intensive observation, treatment and nursing care than are usually provided for in a ward. It is a standard of care between the ward and full intensive care. |
| **High Risk/High Alert Medications** | High-risk/high-alert medications are medications involved in a high percentage of medication errors or sentinel events and medications that carry a high risk for abuse, error, or other adverse outcomes.<br>Examples include medications with a low therapeutic index, controlled substances, psychotherapeutic medications, and look-alike and sound-alike medications. |
| **Incident reporting** | It is defined as written or verbal reporting of any event in the process of patient care, that is inconsistent with the deserved patient outcome or routine operations of the healthcare facility. |
| **In-service education/training** | Organised education/training usually provided in the workplace for enhancing the skills of staff members or for teaching them new skills relevant to their jobs/tasks. |
| **Indicator** | A statistical measure of the performance of functions, systems or processes over time. For example, hospital acquired infection rate, mortality rate, caesarean section rate, absence rate, etc. |
| **Information** | Processed data which lends meaning to the raw data. |
| **Intent** | A brief explanation of the rationale, meaning and significance of the standards laid down in a particular chapter. |
| **Inventory control** | The method of supervising the intake, use and disposal of various goods in hands. It relates to supervision of the supply, storage and accessibility of items in order to ensure an adequate supply without stock-outs/excessive storage. It is also the process of balancing ordering costs against carrying costs of the inventory so as to minimise total costs. |
| **Isolation** | Separation of an ill person who has a communicable disease (e.g.,measles, chickenpox, mumps, SARS) from those who are healthy. Isolation prevents transmission of infection to others and also allows the focused delivery of specialised health care to ill patients. The period of isolation varies from disease-to-disease. Isolation facilities can also be extended to patients for fulfilling their individual, unique needs. |
| **Job description** | 1. It entails an explanation pertaining to duties, responsibilities and conditions required to perform a job.<br>2. A summary of the most important features of a job, including the general nature of the work performed (duties and responsibilities) and level (i.e., skill, effort, responsibility and working conditions) of the work performed. It typically includes job specifications that include employee characteristics required for competent performance of the job. A job description should describe and focus on the job itself and not on any specific individual who might fill the job. |
| **Job specification** | 1. The qualifications/physical requirements, experience and skills required to perform a particular job/task.<br>2. A statement of the minimum acceptable qualifications that an incumbent must possess to perform a given job successfully. |

| | |
|---|---|
| **Maintenance** | The combination of all technical and administrative actions, including supervision actions, intended to retain an item in, or restore it to, a state in which it can perform a required function. (Reference: British Standard 3811:1993) |
| **Medical equipment** | Any fixed or portable non-drug item or apparatus used for diagnosis, treatment, monitoring and direct care of a patient. |
| **Medication error** | A medication error is any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the health care professional, patient, or consumer.<br>Such events may be related to professional practice, health care products, procedures, and systems, including prescribing; order communication; product labelling, packaging, and nomenclature; compounding; dispensing; distribution; administration; education; monitoring; and use. (Reference: The National Coordinating Council for Medication Error Reporting and Prevention) |
| **Medication Order** | A written order by a physician, dentist, or other designated health professionals for a medication to be dispensed by a pharmacy for administration to a patient.<br>(Reference: Mosby's Medical Dictionary, 10th edition, Elsevier) |
| **Mission** | An organisation's purpose. This refers to the overall function of an organisation. The mission answers the question, “What is this organisation attempting to accomplish?” The mission might define patients, stakeholders, or markets served, distinctive or core competencies or technologies used. |
| **Monitoring** | The performance and analysis of routine measurements aimed at identifying and detecting changes in the health status or the environment, e.g. monitoring of growth and nutritional status, air quality in operation theatre. It requires careful planning and use of standardised procedures and methods of data collection. |
| **Multidisciplinary** | A generic term which includes representatives from various disciplines, professions or service areas. |
| **Near-miss** | A near-miss is an unplanned event that did not result in injury, illness, or damage--but had the potential to do so.<br>Errors that did not result in patient harm, but could have, can be categorised as near-misses. |
| **No harm** | This is used synonymously with a near miss. However, some authors draw a distinction between these two phrases.<br>A near-miss is defined when an error is realised just in the nick of time, and abortive action is instituted to cut short its translation. In no harm scenario, the error is not recognised, and the deed is done, but fortunately for the healthcare professional, the expected adverse event does not occur. The distinction between the two is important and is best exemplified by reactions to administered drugs in allergic patients. A prophylactic injection of cephalosporin may be stopped in time because it suddenly transpires that the patient is known to be allergic to penicillin (near-miss). If this vital piece of information is overlooked, and the cephalosporin administered, the patient may fortunately not develop an anaphylactic reaction (no harm event). |

| | |
|---|---|
| **Notifiable disease** | Certain specified diseases, which are required by law to be notified to the public health authorities. Under the international health regulation (WHO's International Health Regulations 2005), the following diseases are always notifiable to WHO:<br>(a) Smallpox<br>(b) Poliomyelitis due to wild-type poliovirus<br>(c) Human influenza caused by a new subtype<br>(d) Severe acute respiratory syndrome (SARS).<br>In India, the following is an indicative list of diseases which are also notifiable, but may vary from state to state:<br>(a) Polio<br>(b) Influenza<br>(c) Malaria<br>(d) Rabies<br>(e) HIV/AIDS<br>(f) Louse-borne typhus<br>(g) Tuberculosis<br>(h) Leprosy<br>(i) Leptospirosis<br>(j) Viral hepatitis<br>(k) Dengue fever |
| **Nursing empowerment** | Empowerment for nurses may consist of three components: a workplace that has the requisite structures to promote empowerment; a psychological belief in one's ability to be empowered; and acknowledgement that there is power in the relationships and caring that nurses provide.<br>It could include structural empowerment and psychological empowerment. Structural empowerment refers to the presence or absence of empowering conditions in the workplace. Kanter's (1993) theory of structural empowerment includes a discussion of organisational behaviour and empowerment. According to this theory, empowerment is promoted in work environments that provide employees with access to information, resources, support, and the opportunity to learn and develop. Psychological empowerment is related to a sense of motivation towards the organisational environment, based on the dimensions of meaning, competence, self-determination, and impact<br>Evidence of nursing empowerment include initiating and carrying out CPR even in the absences of physicians, implementing standard protocols in the ICU such as weaning a patient off ventilator, tapering or titrating inotropic as per standard policies, nurse-led discussions during patient rounds, preparing nursing budgets, decisions to procure equipment that aid and ease nursing care, empowered to correct, stop non-compliance to protocols defined by the hospital. |
| **Objective** | A specific statement of a desired short-term condition or achievement includes measurable end-results to be accomplished by specific teams or individuals within time limits. (Reference: American Society for Quality) |
| **Objective element** | It is that component of standard which can be measured objectively on a rating scale. Acceptable compliance with the measurable elements will determine the overall compliance with the standard. |
| **Occupational health hazard** | The hazards to which an individual is exposed during the course of the performance of his job. These include physical, chemical, biological, mechanical and psychosocial hazards. |

| | |
|---|---|
| **Operational plan** | The operational plan is the part of your strategic plan. It defines how you will operate in practice to implement your action and monitoring plans - what your capacity needs are, how you will engage resources, how you will deal with risks, and how you will ensure the sustainability of the organisation's achievements. |
| **Organogram** | A graphic representation of the reporting relationship in an organisation. |
| **Outsourcing** | Hiring of services and facilities from other organisation based upon one's own requirement in areas where such facilities are either not available or else are not cost-effective. For example, outsourcing of house-keeping, security, laboratory/certain special diagnostic facilities. When an activity is outsourced to other institutions, there should be a memorandum of understanding that clearly lays down the obligations of both organisations: the one which is outsourcing and the one who is providing the outsourced facility. It also addresses the quality-related aspects. |
| **Patient-care setting** | The location where a patient is provided health care as per his needs, e.g. ICU, speciality ward, private ward and general ward. |
| **Patient record/ medical record/ clinical record** | A document which contains the chronological sequence of events that a patient undergoes during his stay in the healthcare organisation. It includes demographic data of the patient, assessment findings, diagnosis, consultations, procedures undergone, progress notes and discharge summary. |
| **Patient-reported experience measures (PREMs)** | Patient-reported experience measures are questionnaires measuring the patients' perceptions of their experience whilst receiving care. |
| **Patient-reported outcome measures (PROMs)** | Patient-reported outcome measures are questionnaires measuring the patients' views of their health status. |
| **Patient Satisfaction** | Patient satisfaction is a measure of the extent to which a patient is content with the health care which they received from their health care provider. Patient satisfaction is thus a proxy but a very effective indicator to measure the success of Health care providers. |
| **Patient Experience** | Patient Experience is the sum of all interactions, shaped by an organisation's culture, that influence patient perceptions across the continuum of care.<br>It is a holistic perception that the patient forms about the healthcare provider based on the overall interactions/ care touchpoints. |
| **Performance appraisal** | It is the process of evaluating the performance of staff during a defined period of time with the aim of ascertaining their suitability for the job, the potential for growth as well as determining training needs. |
| **Point of care equipment** | Medical Equipment that is used to deliver care/intervene at or near the site of patient care. These are primarily Point-of-care testing (POCT), or bedside testing equipment that helps in reducing turn-around times. POCT Machine examples; Glucometer, ABG Analyser, Stat Lab at ICU/ER, portable USG etc. |

| | |
|---|---|
| **Policies** | They are the guidelines for decision-making,e.g. admission, discharge policies, antibiotic policy,etc. |
| **Preventive action** | Action to eliminate the cause of a potential non-conformity. (Reference ISO 9000:2015) |
| **Preventive maintenance** | It is a set of activities that are performed on plant equipment, machinery, and systems before the occurrence of a failure in order to protect them and to prevent or eliminate any degradation in their operating conditions.<br>The maintenance carried out at predetermined intervals or according to prescribed criteria and intended to reduce the probability of failure or the degradation of the functioning of an item. |
| **Prescription** | A prescription is a document given by a physician or other healthcare practitioner in the form of instructions that govern the care plan for an individual patient.<br>Legally, it is a written directive, for compounding or dispensing and administration of drugs, or for other service to a particular patient.<br>(Reference: Miller-Keane Encyclopedia and Dictionary of Medicine, Nursing, and Allied Health, Seventh Edition, Saunders) |
| **Privileging** | It is the process for authorising all medical professionals to admit and treat patients and provide other clinical services commensurate with their qualifications and skills. |
| **Privileged communication** | Confidential information furnished (to facilitate diagnosis and treatment) by the patient to a professional authorised by law to provide care and treatment. |
| **Procedural sedation** | Procedural sedation is a technique of administering sedatives or dissociative agents with or without analgesics to induce a state that allows the patient to tolerate unpleasant procedures while maintaining cardiorespiratory function. Procedural sedation and analgesia (PSA) is intended to result in a depressed level of consciousness that allows the patient to maintain oxygenation and airway control independently. (Reference: The American College of Emergency Physicians) |
| **Procedure** | 1. A specified way to carry out an activity or a process (Para 3.4.5 of ISO 9000: 2015).<br>2. A series of activities for carrying out work which when observed by all help to ensure the maximum use of resources and efforts to achieve the desired output. |
| **Process** | A set of interrelated or interacting activities which transforms inputs into outputs (Para 3.4.1 of ISO 9000: 2015). |
| **Programme** | A sequence of activities designed to implement policies and accomplish objectives. |
| **Protocol** | A plan or a set of steps to be followed in a study, an investigation or an intervention. |
| **Quality** | 1. Degree to which a set of inherent characteristics fulfil requirements (Para 3.1.1 of ISO 9000: 2015).<br>Characteristics imply a distinguishing feature (Para 3.5.1 of ISO 9000: 2015).<br>Requirements are a need or expectation that is stated, generally implied or obligatory (Para 3.1.2 of ISO 9000:2015).<br>2. Degree of adherence to pre-established criteria or standards. |

| | |
|---|---|
| **Quality assurance** | Part of quality management focussed on providing confidence that quality requirements will be fulfilled (Para 3.2.11 of ISO 9000:2015). |
| **Quality improvement** | Ongoing response to quality assessment data about a service in ways that improve the process by which services are provided to consumers/patients. |
| **Radiation Safety** | Radiation safety refers to safety issues and protection from radiation hazards arising from the handling of radioactive materials or chemicals and exposure to Ionizing and Non-Ionizing Radiation.<br>This is implemented by taking steps to ensure that people will not receive excessive doses of radiation and by monitoring all sources of radiation to which they may be exposed.(Reference: McGraw-Hill Dictionary of Scientific & Technical Terms)<br>In a Healthcare setting, this commonly refers to X-ray machines, CT/PET CT Scans, Electron microscopes, Particle accelerators, Cyclotron etc. Radioactive substances and radioactive waste are also potential Hazards.<br>Imaging Safety includes safety measures to be taken while performing an MRI, Radiological interventions, Sedation, Anaesthesia, Transfer of patients, Monitoring patients during imaging procedure etc. |
| **Re-assessment** | It implies a continuous and ongoing assessment of the patient, which is recorded in the medical records as progress notes. |
| **Reconciliation of medications** | Medication reconciliation is the process of creating the most accurate list possible of all medications a patient is taking — including drug name, dosage, frequency, and route — and comparing that list against the physician's admission, transfer, and/or discharge orders, with the goal of providing correct medications to the patient at all transition points within the hospital. (Reference: Institute for Healthcare Improvement) |
| **Resources** | It implies all inputs in terms of men, material, money, machines, minutes (time), methods, metres (space), skills, knowledge and information that are needed for the efficient and effective functioning of an organisation. |
| **Restraints** | Devices used to ensure safety by restricting and controlling a person's movement. Many facilities are “restraint-free” or use alternative methods to help modify behaviour. Restraint may be physical or chemical (by use of sedatives). |
| **Risk abatement** | Risk abatement means minimising the risk or minimising the impact of that risk. |
| **Risk assessment** | Risk assessment is the determination of the quantitative or qualitative value of risk related to a concrete situation and a recognised threat (also called hazard). Risk assessment is a step in a risk management procedure. |
| **Risk management** | Clinical and administrative activities to identify, evaluate and reduce the risk of injury. |
| **Risk mitigation** | Risk mitigation is a strategy to prepare for and lessen the effects of threats and disasters. Risk mitigation takes steps to reduce the negative effects of threats and disasters. |

| | |
|---|---|
| **Risk reduction** | The conceptual framework of elements considered with the possibilities to minimise vulnerabilities and disaster risks throughout society to avoid (prevention) or to limit (mitigation and preparedness) the adverse impacts of hazards, within the broad context of sustainable development.<br>It is the decrease in the risk of a healthcare facility, given activity, and treatment process with respect to patient, staff, visitors and community. |
| **Root Cause Analysis (RCA)** | Root Cause Analysis (RCA) is a structured process that uncovers the physical, human, and latent causes of any undesirable event in the workplace. Root cause analysis (RCA) is a method of problem-solving that tries to identify the root causes of faults or problems that cause operating events.<br>RCA practice tries to solve problems by attempting to identify and correct the root causes of events, as opposed to simply addressing their symptoms. By focusing correction on root causes, problem recurrence can be prevented. The process involves data collection; cause charting, root cause identification and recommendation generation and implementation. |
| **Safety** | The degree to which the risk of an intervention/procedure, in the care environment is reduced for a patient, visitors and healthcare providers. |
| **Safety programme** | A programme focused on patient, staff and visitor safety. |
| **Scope of services** | Range of clinical and supportive activities that are provided by a healthcare organisation. |
| **Security** | Protection from loss, destruction, tampering, and unauthorised access or use. |
| **Sedation** | The administration to an individual, in any setting for any purpose, by any route, moderate or deep sedation. There are three levels of sedation:<br>Minimal sedation (anxiolysis) - A drug-induced state during which patients respond normally to verbal commands. Although cognitive function and coordination may be impaired, ventilatory and cardiovascular functions are not affected.<br>Moderate sedation/analgesia (conscious sedation) - A drug-induced depression of consciousness during which patients respond purposefully to verbal commands either alone or accompanied by light tactile stimulation. No interventions are needed to maintain a patent airway.<br>Deep sedation/analgesia - A drug-induced depression of consciousness during which patients cannot be easily aroused but respond purposefully after repeated or painful stimulation. Patients may need help in maintaining a patent airway. |
| **Sentinel events** | A relatively infrequent, unexpected incident, related to system or process deficiencies, which leads to death or major and enduring loss of function for a recipient of healthcare services.<br>Major and enduring loss of function refers to sensory, motor, physiological, or psychological impairment not present at the time services were sought or begun. The impairment lasts for a minimum period of two weeks and is not related to an underlying condition. |
| **Social responsibility** | A balanced approach for an organisation to address economic, social and environmental issues in a way that aims to benefit people, communities and society,e.g. adoption of villages for providing health care, holding of medical camps and proper disposal of hospital wastes. |
| **Sound clinical practice** | Practitioner decisions based on available knowledge, principles and practices for specific clinical situations. |

| | |
|---|---|
| **Special Educational needs of the patient** | In addition to routine carried by the healthcare professionals, patients and family have special educational needs depending on the situation. For example, a post-surgical patient who has to take care of his wound, nasogastric tube feeding, patient on tracheostomy getting discharged who has to be taken care of by the family etc. The special educational needs are also greatly influenced by the literacy, educational level, language, emotional barriers and physical and cognitive limitations. Hence it is important for the staff to determine the special educational needs and the challenges influencing the effective education. |
| **Staff** | All personnel working in the organisation including employees, "fee-for-service" medical professionals, part-time workers, contractual personnel and volunteers. |
| **Standard precautions** | 1. A method of infection control in which all human blood and other bodily fluids are considered infectious for HIV, HBV and other blood-borne pathogens, regardless of patient history. It encompasses a variety of practices to prevent occupational exposure, such as the use of personal protective equipment (PPE), disposal of sharps and safe housekeeping<br>2. A set of guidelines protecting first aiders or healthcare professionals from pathogens. The main message is: "Don't touch or use anything that has the victim's body fluid on it without a barrier." It also assumes that all body fluid of a patient is infectious, and must be treated accordingly.<br>Standard Precautions apply to blood, all body fluids, secretions, and excretions (except sweat) regardless of whether or not they contain visible blood, non-intact skin and mucous membranes |
| **Standards** | A statement of expectation that defines the structures and process that must be substantially in place in an organisation to enhance the quality of care. |
| **Sterilisation** | It is the process of killing or removing microorganisms including their spores by thermal, chemical or irradiation means. |
| **Strategic plan** | Strategic planning is an organisation's process of defining its strategy or direction and making decisions on allocating its resources to pursue this strategy, including its capital and people. Various business analysis techniques can be used in strategic planning, including SWOT analysis (Strengths, Weaknesses, Opportunities and Threats), e.g. Organisation can have a strategic plan to become a market leader in the provision of cardiothoracic and vascular services. The resource allocation will have to follow the pattern to achieve the target.<br>The process by which an organisation envisions its future and develops strategies, goals, objectives and action plans to achieve that future. |
| **Surveillance** | The continuous scrutiny of factors that determines the occurrence and distribution of diseases and other conditions of ill health. It implies watching over with great attention, authority and often with suspicion. It requires professional analysis and sophisticated interpretation of data leading to recommendations for control activities. |
| **Table-top exercise** | A table-top exercise is an activity in which key personnel assigned emergency management roles and responsibilities are gathered to discuss, in a non-threatening environment, various simulated emergency situations.<br>(Reference:<br>https://uwpd.wisc.edu/content/uploads/2014/01/What_is_a_tabletop_exercise.pdf) |

| | |
|---|---|
| **Traceability** | Traceability is the ability to trace the history, application, use and location of an item or its characteristics through recorded identification data. (Reference: ISO 9000:2015) |
| **Transfusion reaction** | A transfusion reaction is a problem that occurs after a patient receives a transfusion of blood. |
| **Triage** | Triage is a process of prioritising patients based on the severity of their condition so as to treat as many as possible when resources are insufficient for all to be treated immediately. |
| **Turn-around-time** | Turnaround Ttime (TAT) means the amount of time taken to complete a process or fulfil a request. |
| **Unstable patient** | A patient whose vital parameters need external assistance for their maintenance. |
| **Validated tool** | A validated tool refers to a questionnaire/scale that has been developed to be administered among the intended respondents. The validation processes should have been completed using a representative sample, demonstrating adequate reliability (the ability of the instrument to produce consistent results) and validity (the ability of the instrument to produce true results). |
| **Validation** | Validation is verification, where the specified requirements are adequate for the intended use. |
| **Values** | The fundamental beliefs that drive organisational behaviour and decision-making. This refers to the guiding principles and behaviours that embody how an organisation and its people are expected to operate. Values reflect and reinforce the desired culture of an organisation. |
| **Verbal order** | Verbal orders are those orders given by a physician with prescriptive authority to a licensed person who is authorised by the organisation. |
| **Verification** | Verification is the provision of objective evidence that a given item fulfils specified requirements. |
| **Vision** | An overarching statement of the way an organisation wants to be, an ideal state of being at a future point.<br>This refers to the desired future state of an organisation. The vision describes where the organisation is headed, what it intends to be, or how it wishes to be perceived in the future. |
| **Vulnerable patient** | Those patients who are prone to injury and disease by virtue of their age, sex, physical, mental and immunological status,e.g. infants, elderly, physically- and mentally-challenged, semiconscious/unconscious, those on immunosuppressive and/or chemotherapeutic agents. |
| **Workplace violence** | Incidents where staff are abused, threatened or assaulted in circumstances related to their work, including commuting to and from work, involving an explicit or implicit challenge to their safety, well-being or health. (Adapted from European Commission) |

# ANNEXURE 1
# NABH
# Key Performance Indicators

The concept of performance in health services represents an instrument for bringing quality, ef ciency and ef cacy together. Performance represents the extent to which set objectives are accomplished. Performance is a multidimensional one, covering various aspects, such as evidence-based practice (EBP), continuity and integration in healthcare services, health promotion, orientation towards the needs and expectation of patients and family members.

Key Performance Indicators (KPIs) help to systematically monitor, evaluate, and continually improve service performance. By themselves, KPIs cannot improve performance. However, they do provide "signposts" that signal progress toward goals and objectives as well as opportunities for sustainable improvements.

Well-designed KPIs should help the organisation to do a number of things, including:

- Establish baseline information i.e., the current state of performance
- Set performance standards and targets to motivate continual improvement
- Measure and report improvements over time
- Compare performance across geographic locations
- Benchmark performance against regional and international peers or norms
- Allow stakeholders to independently judge health sector performance.

Healthcare organisations (HCO) are encouraged to capture all data which involves clinical and support services. The data needs to be analysed and risks, rates and trends for all the indicators have to be demonstrated for appropriate action.

The intent of the NABH KPIs is to have comprehensive involvement of scope of services for which a HCO has applied for the accreditation program. Standardised de nitions for each indicator along with numerator and denominator have been explained. Each HCO can have the data set measure, analyse the aggregated data and appropriate correction, corrective and preventive action can be formulated. Each HCO can also design their own methodology of data collection but a broad guidance note has been given to facilitate organisation's compliance.

Suggested minimum sample size to be taken for various audits and KPIs as applicable has been speci ed.

# NABH KEY PERFORMANCE INDICATORS

The Key performance indicators expected to be monitored by healthcare organisation:

| S. No. | Standards | Indicator | Definition | Formula | | Unit | Frequency of Data Collation/ Monitoring | Remarks |
|---|---|---|---|---|---|---|---|---|
| 1. | PSQ2a | Time for initial assessment of indoor patients | The time shall begin from the time that the patient has arrived at the bed of the ward till time that the initial assessment has been completed and documented by a doctor. | Sum of time taken for the assessment / Total number of admissions (sample size) | | Minutes | Monthly | This shall be captured either through the HIS, or through audit. In case of audit, the sample size shall be as specified in the sample size calculation table. Day care patients are not included. Sampling: Yes Sampling methodology: Stratified random |
| 2. | PSQ2a | Incidence of medication errors | A medication error is any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the healthcare professional, patient or consumer. | Total number of medication errors / Total number of opportunities | X 100 | Percentage | Monthly | The methodology for capture shall be as stated in NABH's document on medication errors. The indicator shall be captured for admitted patients Sampling: Yes Sampling methodology: Stratified random. |
| 3. | PSQ2a | Percentage of transfusion reactions | Any adverse reaction to the transfusion of blood or blood components shall be considered as transfusion reaction. It may range from a mild allergic reaction (including chills/rigors) to life-threatening complications like TRALI and Graft-Versus-Host Disease. | Number of transfusion reactions / Number of units transfused | X 100 | Percentage | Monthly | Number of units includes whole blood and components. Sampling: No |

| S. No. | Standards | Indicator | Definition | Formula | | Unit | Frequency of Data Collation/ Monitoring | Remarks |
|---|---|---|---|---|---|---|---|---|
| 4. | PSQ2a | Standardised Mortality Ratio for ICU | Standardised mortality ratio is a ratio of the observed or actual mortality and predicted mortality for a specified time period. | Actual deaths in ICU<br>Predicted deaths in ICU | | Ratio | Monthly | It requires an estimate of predicted mortality rate using a scoring system (APACHE, SOFA, SAPS, MPM, and PRISM)<br>Sampling: No |
| 5. | PSQ2a | Incidence of hospital associated pressure ulcers after admission | A pressure ulcer is localized injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear and/or friction. | Number of patients who develop new / worsening of pressure ulcer<br>Total no. of patient days | X 1000 | /1000 Patient days | Monthly | The organisation shall use The European and US National Pressure Ulcer Advisory panels (EPUAP and NPUAP) staging system to look for worsening pressure ulcers.<br>(Bed sore per 1000 patient days)<br>Sampling: No |
| 6. | PSQ2b | Catheter associated Urinary tract infection rate | As per the latest CDC/NHSN definition | Number of urinary catheter associated UTIs in a month<br>Number of urinary catheter days in that month | X 1000 | /1000 urinary catheter-days | Monthly | Sampling: No |
| 7. | PSQ2b | Ventilator associated Pneumonia rate | As per the latest CDC/NHSN definition | Number of "Ventilator Associated Pneumonia" in a month<br>Number of ventilator days in that month | X 1000 | /1000 ventilator-days | Monthly | Sampling: No |
| 8. | PSQ2b | Central line - associated Blood stream infection rate | As per the latest CDC/NHSN definition | Number of central line - associated blood stream infections in a month.<br>No. of central line days in that month | X 1000 | /1000 central line days | Monthly | Sampling: No |

| S. No. | Standards | Indicator | Definition | Formula | | Unit | Frequency of Data Collation/ Monitoring | Remarks |
|---|---|---|---|---|---|---|---|---|
| 9. | PSQ2b | Surgical site infection rate | As per the latest CDC/NHSN definition | Number of surgical site infections in a given month | X 100 | /100 procedures | Monthly | Keeping in mind the definition of SSI, the numbers would have to be updated on a continual basis until such time that the monitoring period is over. For example, in January, the data of December would be reported. The denominator would be the number of surgeries performed in December, and that would not change. With respect to the numerator, there would be some data but it would not be complete data. Hence, whatever value the organisation gets at this stage would at best be a preliminary value.<br>The organisation will continue to monitor the patients and by end of January, would have got complete data with respect to procedures which have a 30-day surveillance period. At this point in time, based on the data that the organisation has collated the numerator may change and hence, the SSI rate.<br>However, this again would not be the final data.<br>The organisation will continue to monitor procedures which have a 90- day surveillance period, and if there are new SSIs, it would get added to the numerator and thus the rate would change. The surveillance period for surgeries which are done in |
| | | | | Number of surgeries performed in that month* | | | | |

| S. No. | Standards | Indicator | Definition | Formula | | Unit | Frequency of Data Collation/ Monitoring | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | December and have a 90- day surveillance period would end on March 30th (give or take a few days). It is only at this point in time that the organisation can have the final SSI rate for December.<br>Surgery specific SSI rates for common surgeries shall be monitored apart from total SSI rates.<br>Sampling: No<br><br>*If all surgeries are not monitored for SSI during a particular time period, the number of surgeries monitored for SSI shall be denominator. Additionally, the difference between surgeries done and monitored shall be documented with reasons of such difference. |

| S. No. | Standards | Indicator | Definition | Formula | | Unit | Frequency of Data Collation/ Monitoring | Remarks |
|---|---|---|---|---|---|---|---|---|
| 10. | PSQ2b | Compliance to Hand hygiene practice. | | Total number of actions performed<br><br>Total number of hand hygiene opportunities | X 100 | Percentage | Monthly | Observation involves directly watching and recording the hand hygiene behaviour of health care workers and the physical environment. Good reference is WHO hand hygiene compliance monitoring tool. Please refer: http://www.who.int/gpsc/ 5may/tools/en/ http://www.who.int/entity/gpsc/5may/Observation_Form.doc?ua=1 Sampling: Yes Sampling methodology: Stratified random |
| 11. | PSQ2b | Percentage of cases who received appropriate prophylactic antibiotics within the specified timeframe | | Number of patients who did receive appropriate prophylactic antibiotic(s)<br><br>Number of patients who underwent surgery* | X 100 | Percentage | Monthly | Appropriate prophylactic antibiotic should be according to hospital policy. The numerator shall include patients who received the appropriate drug (and dose) within the appropriate time. A patient who was not given prophylactic antibiotic because it was not indicated (e.g. clean surgery) shall be included in the numerator. A patient, who is given prophylactic antibiotic even though it was not indicated, shall be considered as having received it inappropriately. Sampling: No |

| S. No. | Standards | Indicator | Definition | Formula | | Unit | Frequency of Data Collation/ Monitoring | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | *If all surgeries are not monitored for antibiotic prophylaxis during a particular time period, the number of surgeries monitored for SSI shall be denominator. Additionally, the difference between surgeries done and monitored shall be documented with reasons of such difference. |
| 12. | PSQ 2c | Waiting time for diagnostics | Waiting time for diagnostics is the time from which the patient has come to the diagnostic service (requisition form has been presented to the counter) till the time that the test is initiated. | Sum total time<br>Number of patients reported in Diagnostics | | Minutes | Monthly | Waiting time for diagnostics is applicable only for out- patients and for laboratory and imaging.<br>In case of appointment patients, the time shall begin with the scheduled appointment time and end when the diagnostic procedure begins. In cases where the patient's diagnostic test commences ahead of the appointment time the waiting time shall be taken as zero minutes.<br>Sampling: No |
| 13. | PSQ 2c | Time taken for discharge | The discharge process is deemed to have started when the consultant formally approves discharge and ends with the patient leaving the clinical unit | Sum of time taken for discharge<br>Number of patients discharged | | Minutes | Monthly | In case patients request additional time to leave the clinical unit that shall not be added. The discharge is deemed to have been complete when the formalities for the same have been completed.<br>Sampling: No |

| S. No. | Standards | Indicator | Definition | Formula | | Unit | Frequency of Data Collation/ Monitoring | Remarks |
|---|---|---|---|---|---|---|---|---|
| 14. | PSQ 2d | Incidence of patient falls. | The US Department of Veteran Affairs National Centre for Patient Safety defines fall as "Loss of upright position that results in landing on the floor, ground or an object or furniture or a sudden, uncontrolled, unintentional, non-purposeful, downward displacement of the body to the floor/ground or hitting another object like a chair or stair."<br><br>It is an event that results in a person coming to rest inadvertently on the ground or floor or other lower level. | Number of patient falls<br><br>Total number of patient days | X 1000 | /1000 patient days | Monthly | Falls may be:<br>• at different levels– i.e., from one level to ground level e.g. from beds, wheelchairs or down stairs<br>• on the same level as a result of slipping, tripping, or stumbling, or from a collision, pushing, or shoving, by or with another person<br>• below ground level, i.e. into a hole or other opening in surface<br><br>All types of falls are to be included whether they result from physiological reasons (fainting) or environmental reasons. Assisted falls (when another person attempts to minimize the impact of the fall by assisting the patient's descent to the floor) should be included. (NDNQI, 2005).<br>Sampling: No |
| 15. | PSQ2d | Rate of needlestick injuries | Needle stick injury is a penetrating stab wound from a needle (or other sharp object) that may result in exposure to blood or other body fluids.<br>Needle stick injuries are wounds caused by needles that accidentally puncture the skin.<br><br>(Canadian Centre for Occupational Health and Safety) | Number needlestick injuries<br><br>Number of occupied beds | X 100 | /100 occupied beds | Monthly on a cumulative basis | Number of occupied beds is the average of the sum of the daily figures for the number of beds occupied by patients.<br>The rate will be monitored on a monthly basis but reported cumulatively i.e. in the form of year to date. For example, in January it would be January data but in February it would be January + February data, in July it would be data from January to July and so on so that by the end of the year the annual rate is obtained.<br>Sampling: No |

# SAMPLE SIZE CALCULATION (MONTHLY)

Solvent formula

n=N/(1+Ne2)

(Where n=Number of samples, N = Total population and e=Error tolerance)

Using 95% confidence interval (margin of error 95%), the values are calculated as follows:

| Screening Population# | Sample Size* |
|---|---|
| 50 | 44 |
| 100 | 79 |
| 150 | 108 |
| 200 | 132 |
| 500 | 217 |
| 1000 | 278 |
| 2000 | 322 |
| 5000 | 357 |
| 10000 | 370 |
| 20000 | 377 |

# Screening population is the 'base' from which the samples would be selected. The 'base' shall be the average of the previous three months. For example, in the case of time for initial assessment of patients, this would be the average number of patients admitted per month in the preceding three months. Assuming that the average is 200, this would constitute the screening population and the organisation would have to sample 132 patients over the entire month.

* It is preferred to take samples on Stratified random basis where indicated to eliminate the bias that can occur due to convenient sampling.

No sampling means that all the occurrence in the numerator shall be recorded irrespective of rate of occurrence.

# ANNEXURE 2
# Guidance On Monitoring Medication Errors

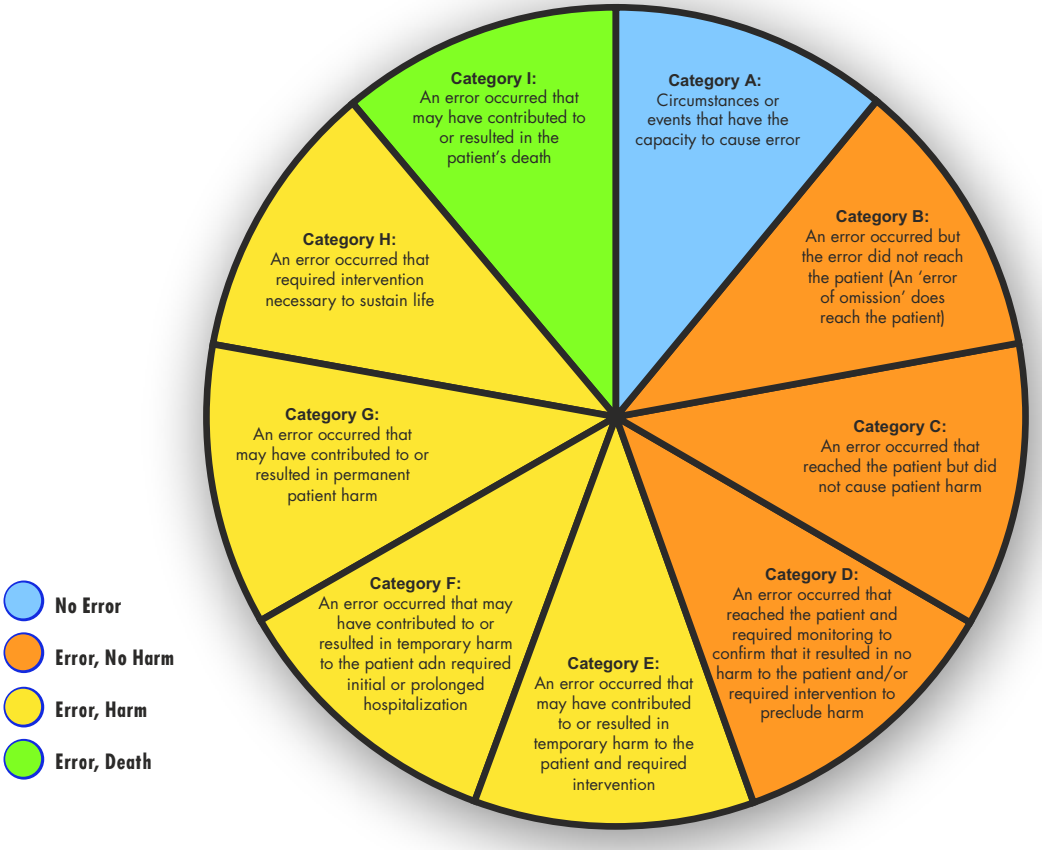
***Definition:*** NCC-MERP (National Coordinating Council for Medication Error Reporting and Prevention) defines medication error as

"A medication error is any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the health care professional, patient or consumer. Such events may be related to professional practice, health care products, procedures and systems, including prescribing, order communication, product labelling, packaging and nomenclature, compounding, dispensing, distribution, administration, education, monitoring and use."

**CATEGORIES OF MEDICATION ERROR:**

| Level of Harm | Category of Error | Explanation of events/ error |
|---|---|---|
| NO ERROR | Category A | Circumstances or events that have the capacity to cause error |
| ERROR, NO HARM | Category B | An error occurred, but the error did not reach the patient (An "error of omission" does reach the patient.) |
| | Category C | An error occurred that reached the patient but did not cause patient harm. |
| | Category D | An error occurred that reached the patient and required monitoring to confirm that it resulted in no harm to the patient and/or required intervention to preclude harm |
| ERROR, HARM | Category E | An error occurred that may have contributed to or resulted in temporary harm to the patient and required intervention |
| | Category F | An error occurred that may have contributed to or resulted in temporary harm to the patient and required initial or prolonged hospitalization |
| | Category G | An error occurred that may have contributed to or resulted in permanent patient harm |
| | Category H | An error occurred that required intervention necessary to sustain life |
| ERROR , DEATH | Category I | An error occurred that may have contributed to or resulted in the patient's death. |

# NCC MERP Index for Categorizing Medication Errors




## Definitions

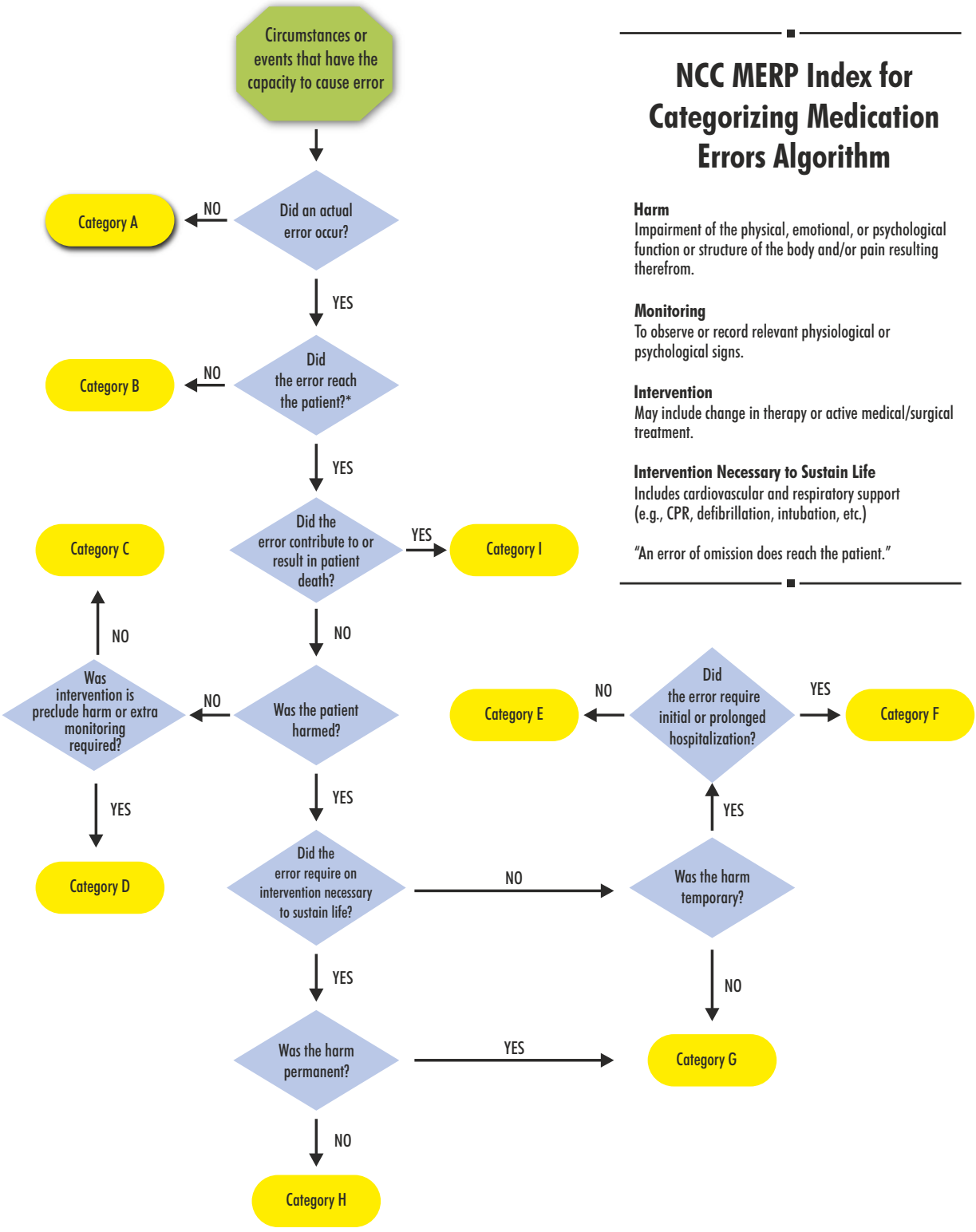
**Harm**
Impairment of the physical, emotional, or psychological function or structure of the body and/or pain resulting therefrom.

**Monitoring**
To observe or record relevant physiological or psychological signs.

**Intervention**
May include change in therapy or active medical/surgical treatment.

**Intervention Necessary to Sustain Life**
Includes cardiovascular and respiratory support (e.g., CPR, defibrillation, intubation, etc.)

*National Coordinating Council for Medication Error Reporting and Prevention (NCC MERP) index for categorizing medication errors. © 2001 National Coordinating Council for Medication Error Reporting and Prevention.*




## NCC MERP Index for Categorizing Medication Errors Algorithm

**Harm**
Impairment of the physical, emotional, or psychological function or structure of the body and/or pain resulting therefrom.

**Monitoring**
To observe or record relevant physiological or psychological signs.

**Intervention**
May include change in therapy or active medical/surgical treatment.

**Intervention Necessary to Sustain Life**
Includes cardiovascular and respiratory support (e.g., CPR, defibrillation, intubation, etc.)

"An error of omission does reach the patient."

*Algorithm developed by the National Coordinating Council for Medication Error Reporting and Prevention (NCC MERP) for applying the NCC MERP index for categorizing medication errors. © 2001, National Coordinating Council for Medication Error Reporting and Prevention.*

**METHODOLOGY:**

Chart Review, Audit and Self Reporting of Medication Errors are preferred methods in case medication charts are documented manually in the HCO. Software programmes can be used where prescriptions are generated online.

The format for capturing medication errors by routine chart review is provided in Annexure.

The idea of trying to identify personnel involved in errors is to ensure that the organisation does a proper root cause analysis and takes appropriate corrective and/or preventive action. It is not meant for punitive action. Process improvements are a must to reduce errors.

**FORMULA:**

| | |
|---|---|
| Total number of errors identified | X100 |
| Total number of opportunities | |

Note:

- Self-reported medication errors, medication errors identified during audits or medication errors identified by any other methodology shall be added to the numerator i.e. the total number of errors identified.

**SAMPLE SIZE:**

Adhere to the formula stated by NABH in its document on indicators for sample size calculation. The 'population' would be calculated from the running average of the previous three months of admissions.

Care needs to be taken to ensure that files from all clinical specialities are included. Stratified sampling will help the organisation achieve this.

**CORRECTION:**

Pending analysis, it is imperative that the organisation do a correction to mitigate the effect(s) of the error. An example of how correction could be done is provided below.

| | |
|---|---|
| For category A and B | Administer the drug within a reasonable time frame |
| For Category C and D | Consult the clinician and follow orders accordingly |

**ANALYSIS:**

The first step in the analysis is the collation of data. This would help identify

- Categories of error
- Personnel involved in error

The data could be collated as per the table below.

| | A | B | C | D | E | F | G | H | I | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| DOCTORS | | | | | | | | | | |
| NURSES | | | | | | | | | | |
| PHARMACISTS | | | | | | | | | | |
| TOTAL | | | | | | | | | | |

The organisation should identify the proper root cause to ensure that effective corrective and/ or preventive action are taken. It is suggested that appropriate tools are used for the same.

Some of the possible causes of medications errors are provided in the table below.

| People | Environment | Equipment | Process |
|---|---|---|---|
| Casual Attitude | Pharmacy- poor drug storage- poor ventilation, lighting, humidity | Defective syringe pumps | 'Ten' rights not observed |
| Inexperienced/ New staff | Pharmacy space constraint for storage | | Wrong stocking |
| Untrained staff | Pharmacy manpower constraint for dispensing | | Wrong labelling |
| Shift change time/ in a hurry | | | Inappropriate syringe/ diluent |
| Emotionally unfit | | | No cross-checking |
| Physically unfit | | | Stock-outs |
| Wrong indent/ receiving | | | Unauthorized replacement of the drug |
| Patient identification error | | | LASA medicine error |
| Wrong dispensing pharmacy | | | |
| Wrong distribution GDA | | | |
| Illegible handwriting of doctors | | | |

Some of the common corrective actions include

- Training
- Manpower recruitment
- Pharmacy stock rectification
- Equipment replacement/ rectification

**SUGGESTED READING:**

1. www.nccmerp.org. National Coordinating Council for Medication Error Reporting and Prevention
2. American Society of Health-System Pharmacists. ASHP guidelines on pre- venting medication errors in hospitals. Am J Health-Syst Pharm. 2018; 75:1493–1517.
3. Nrupal Patel, Mira Desai, Samdih Shah et al. A study of medication errors in a tertiary care hospital. Perspect Clin Res. 2016 Oct-Dec; 7(4): 168–173.
4. Khandelwal AK. Getting it Right. Healthcare Radius 2014; March: 32-34

# Medication Chart Review Checklist

Auditor: Date of Audit: Location:

UHID:

Date of Admission: Primary Consultant: Drug allergies
documented: Yes/No

| | Error Perpetuation (Write Category of error from A to I)#<br>In case of no error, kindly write 0; if a particular parameter is not applicable, kindly write NA<br>(Multiple errors can be there and documented for each row and column) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Drug 1 | Drug 2 | Drug 3 | Drug 4 | Drug 5 | Drug 6 | Drug 7 | Drug 8 | Drug 9 | Drug 10 |
| Doctors | | | | | | | | | | |
| 1. Incorrect drug selection | | | | | | | | | | |
| 2. No/wrong dose | | | | | | | | | | |
| 3. No/wrong unit of measurement | | | | | | | | | | |
| 4. No/wrong frequency | | | | | | | | | | |
| 5. No/wrong route | | | | | | | | | | |
| 6. No/wrong concentration | | | | | | | | | | |
| 7. No/wrong rate of administration | | | | | | | | | | |
| 8. Illegible handwriting | | | | | | | | | | |
| 9. Non-approved abbreviations used | | | | | | | | | | |

| | Error Perpetuation (Write Category of error from A to I)#<br>In case of no error, kindly write 0; if a particular parameter is not applicable, kindly write NA<br>(Multiple errors can be there and documented for each row and column) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Drug 1 | Drug 2 | Drug 3 | Drug 4 | Drug 5 | Drug 6 | Drug 7 | Drug 8 | Drug 9 | Drug 10 |
| 10. Non-usage of capital letters for drug names | | | | | | | | | | |
| 11. Non-usage of generic names | | | | | | | | | | |
| 12. Non-modification of drug dose keeping in mind drug-drug interaction | | | | | | | | | | |
| 13. Non-modification of time of drug administration/ dose/drug keeping in mind food-drug interaction | | | | | | | | | | |
| Doctor and/or Nurse | | | | | | | | | | |
| 14. Wrong formulation transcribed/indented | | | | | | | | | | |
| 15. Wrong drug transcribed/indented | | | | | | | | | | |
| 16. Wrong strength transcribed/indented | | | | | | | | | | |
| Pharmacist | | | | | | | | | | |
| 17. Wrong drug dispensed | | | | | | | | | | |
| 18. Wrong dose dispensed | | | | | | | | | | |
| 19. Wrong formulation dispensed | | | | | | | | | | |
| 20. Expired/Near-expiry drugs dispensed | | | | | | | | | | |

| | Error Perpetuation (Write Category of error from A to I)#<br>In case of no error, kindly write 0; if a particular parameter is not applicable, kindly write NA<br>(Multiple errors can be there and documented for each row and column) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Drug 1 | Drug 2 | Drug 3 | Drug 4 | Drug 5 | Drug 6 | Drug 7 | Drug 8 | Drug 9 | Drug 10 |
| 21. No/wrong labelling | | | | | | | | | | |
| 22. Delay in dispense > defined time | | | | | | | | | | |
| 23. Generic or class substitute done without consultation with the prescribing doctor | | | | | | | | | | |
| Nurses | | | | | | | | | | |
| 24. Wrong Patient | | | | | | | | | | |
| 25. Dose Omission | | | | | | | | | | |
| 26. Improper Dose | | | | | | | | | | |
| 27. Wrong Drug | | | | | | | | | | |
| 28. Wrong Formulation Administered | | | | | | | | | | |
| 29. Wrong Route of Administration | | | | | | | | | | |
| 30. Wrong Rate | | | | | | | | | | |
| 31. Wrong Duration | | | | | | | | | | |
| 32. Wrong Time* | | | | | | | | | | |
| 33. No documentation of drug administration | | | | | | | | | | |
| 34. Incomplete/Improper documentation by nursing staff ** | | | | | | | | | | |
| 35. Documentation without administration | | | | | | | | | | |
| Others | | | | | | | | | | |

**Number of errors (Number of cells having a value between A to I) =**
For example, if drug 1 has an error of category C for doctors and an error of category B for Pharmacists and drug 4 has an error of category C for nurses; numerator will be 3.

**Number of opportunities {Number of cells having a value of either 0 or a value between A to I (excluding NA)} =**
For example, if the case sheet had ten drugs and all the cells had values, then the number would be 350. However, if there were six drugs and there were 24 cells with a value of 'NA' the number of opportunities would be 186{(35 X 6)-24}.

#Select only one of the medication error categories or subcategories, whichever best fits the error that is being reported. In selecting the patient outcome category, select the highest level severity that applies during the course of the event. For example, if a patient suffers a severe anaphylactic reaction (Category H) and requires treatment (Category F) but eventually recovers completely, the event should be coded as Category H.

* Deviation from the organisation's defined timeframe for the administration of drugs for which the time has not been written. The basis for stating 'wrong time' should be evidence-based. The organisation could adopt/adapt the ISMP Acute Care Guidelines for Timely Administration of Scheduled Medications.

**Incomplete documentation includes the missing date, time, signature. Improper documentation includes writing the wrong dose like instead of stating ½ tablet of 500 mg is administered, stating that 1 tablet of 250 mg was administered (based on how the medication order was written) or not stating the actual brand that was administered in cases of brand substitution.

# ANNEXURE 3
# Quality Tools

**Quality Tools:** QI data should be analysed using statistical/quality tools to assess compliance with the targets and identify areas for improvement.

**Root cause analysis(RCA):** RCA a very commonly used tool and is carried out for establishing causality when adverse trends are noted for any parameter or in the case of errors/incidents. RCA is a systematic, extensive and in-depth analysis of a problem with the view to get to the bottom of the problem. RCA is carried out by using either the 5 Why's Tool or the Cause and Effect Diagram.

**5 Whys' tool(Taiichi Ohno):** Helps teams look beyond obvious and initial symptoms by asking "Why?" five times, sequentially in response to the first answer, till one reaches the root cause. As a result the focus(blame) shifts from individuals to the process. There may be multiple root causes of a problem; different people who see different parts of the system may answer the questions differently. The 5 whys has come under criticism for overly simplifying the problem on hand. The cause(s) of a problem and how to address them are likely to be understood more effectively by using multiple 5 Whys in conjunction with a Cause and Effect Diagram.

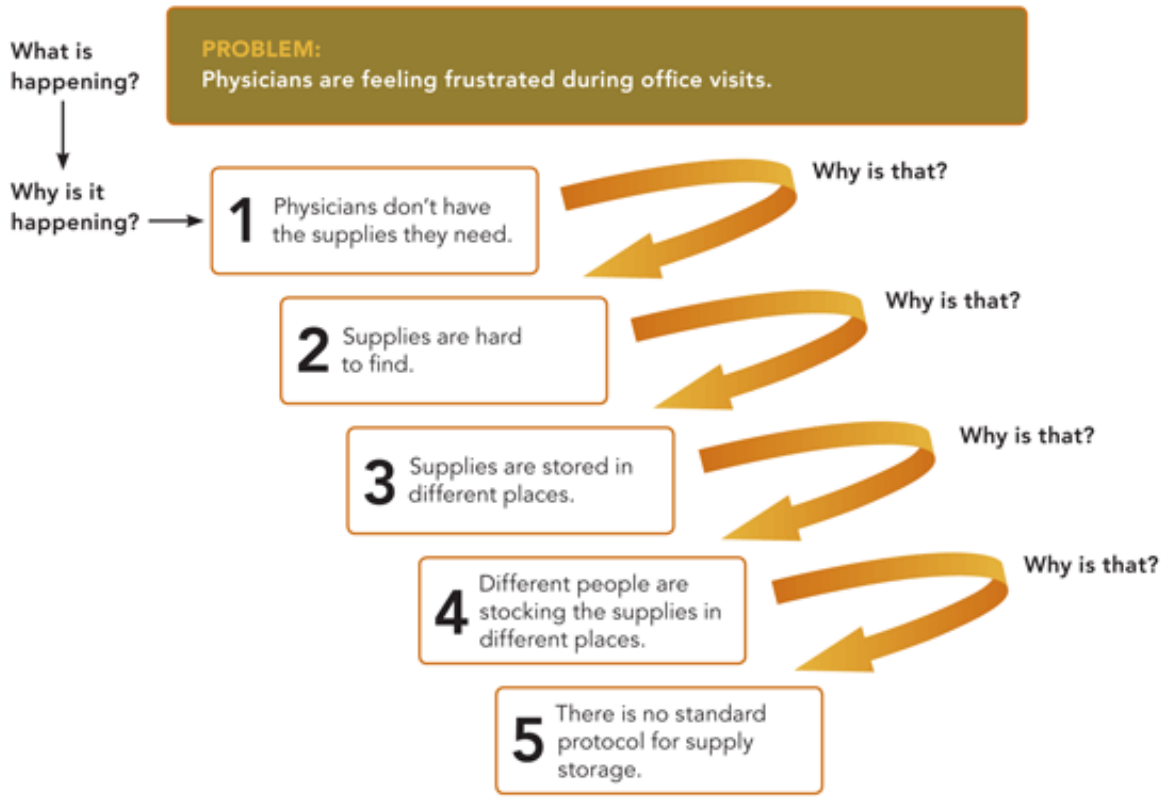


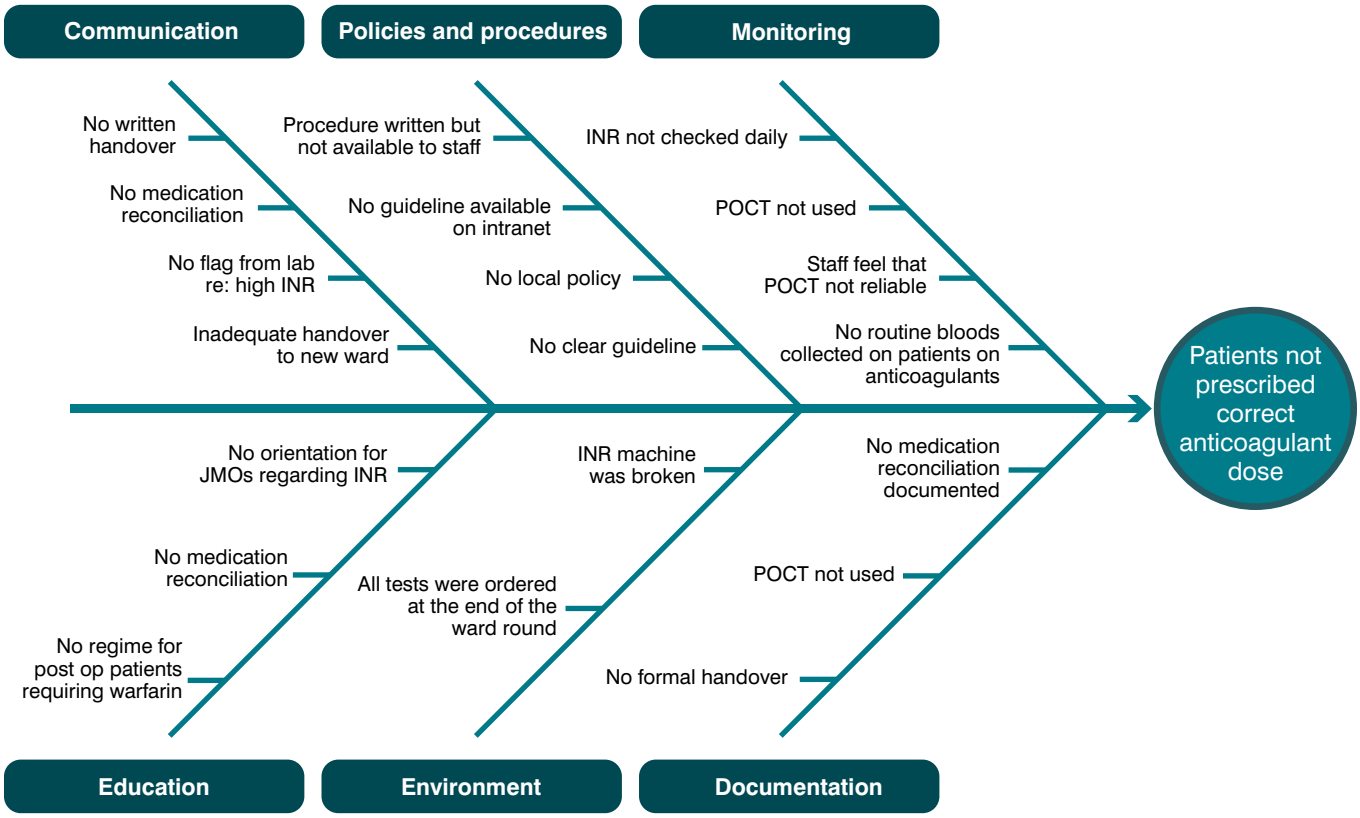

Figure 1 Illustration of 5-Why's Approach for carrying out a root cause analysis.
(https://www.aafp.org/fpm/2007/0500/p30.html accessed on April 30, 2022)

**Cause and Effect Diagram:** Also known as Ishikawa or fishbone diagram, graphically displays the relationship of the many causes to the effect, and to each other; helping teams identify areas for improvement. A line runs horizontally from the tail to the head of the fish, where the effect is written. Causes are grouped under the categories of Materials, Methods, Equipment, Environment, and People or as required.

The tool is used extensively to reach the root cause of deviations from any policy, procedure or protocol and outliers for indicator data and for detailed analysis of incidents and adverse events.

For e.g. Fish bone/cause and effects diagrams can be used to identify the causes of underuse of the electronic health records in a hospital setting by doctors and nurses.

**Affinity Diagram:** These diagrams serve the same purpose as the Ishikawa charts but the visual presentation differs.




INR - International Normalised Ratio
POCT - Point of care testing

Figure 2 Example of a Cause and Effect Diagram by Clinical Excellence Commission. Reasons why patients are not on a standardised anticoagulation pathway
(https://www.cec.health.nsw.gov.au/CEC-Academy/quality-improvement-tools/cause-and-effect-diagrams)

**Histogram:** A histogram is a bar chart used to display variation in continuous data like time, weight, size, or temperature. It helps to recognize and analyse patterns not apparent by looking at data tables, or by finding the average or median and will effectively highlight the interval that is most frequently occurring.

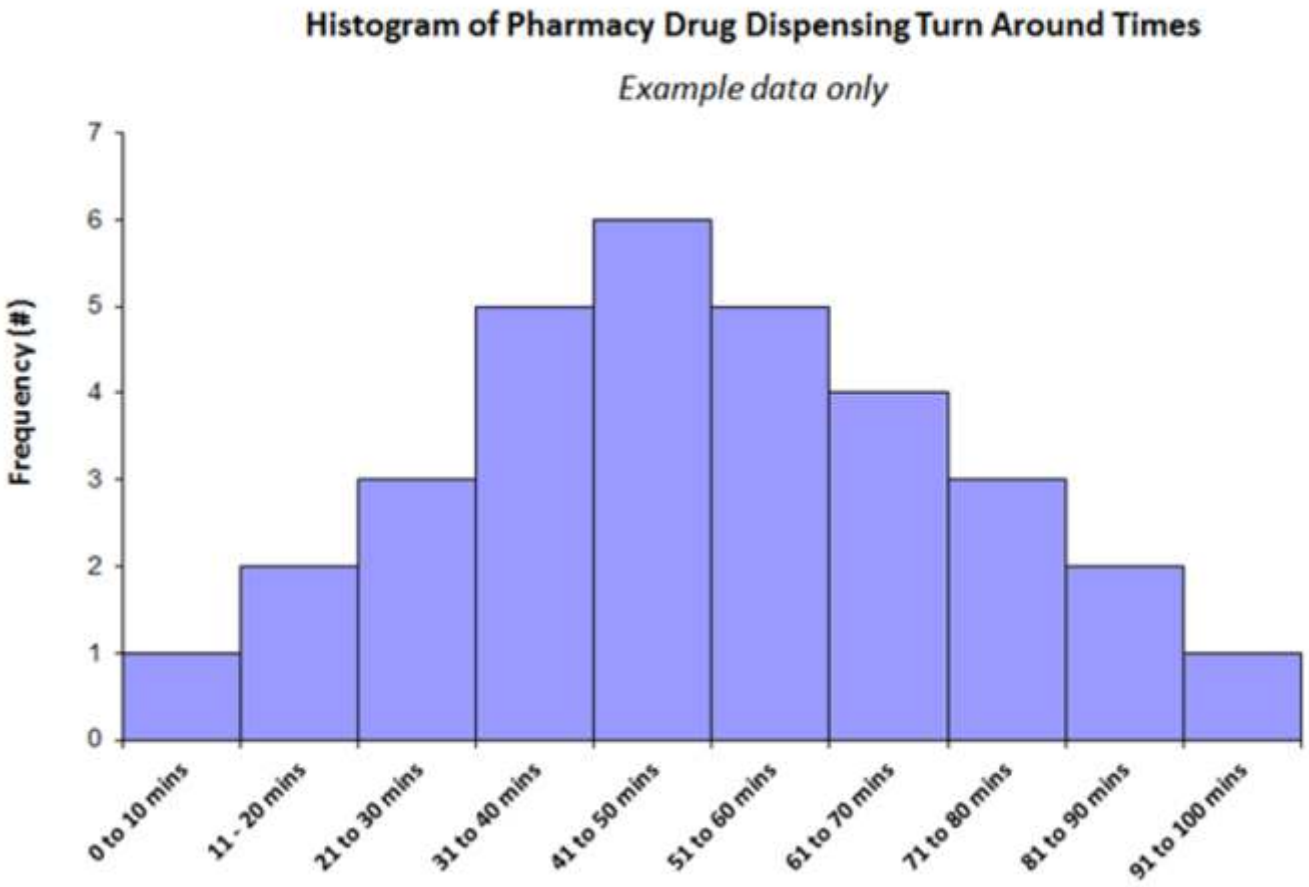



Figure 3 Histogram on Turnaround time for dispensing of the drug
(https://www.cec.health.nsw.gov.au/CEC-Academy/quality-improvement-tools/histogram accessed on April 30, 2022 )

**Failure Modes and Effects Analysis(FMEA):** FMEA is a tool for conducting a systematic, proactive analysis of a process in which harm may occur and prevent it by correcting the processes proactively, rather than reacting to adverse events after failures have occurred. The FMEA tool prompts teams to review, evaluate, and record the following:

- Steps in the process
- Failure modes (What could go wrong?)
- Failure causes (Why would the failure happen?)
- Failure effects (What would be the consequences(severity and frequency) of each failure?)
- How can the failure be prevented?

The tool forms the core of risk assessment and risk mitigation. FMEA is particularly useful in

evaluating a new process prior to implementation and in assessing the impact of a proposed change to an existing process.

| Steps in the Process | Failure Mode | Failure Causes | Failure Effects | Likelihood of Occurrence (1-10) | Likelihood of Detection (1-10) | Severity (1-10) | Risk Profile Number (RPN) | Actions to Reduce Occurrence of Failure |
|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| 3 | | | | | | | | |

Figure 4 Institute of Healthcare Improvement's format for Failure Mode Effect Analysis
(http://www.ihi.org/resources/Pages/Tools/Quality-Improvement-Essentials-Toolkit.aspx accessed on April 30, 2022)

**Flowchart (process map):** Flow charts help understand a process in depth through visual representation of itssteps; and should be prepared in early phase of improvement work. It is a road map of where things are happening, the order in which things happen and the relationships between parts of a process. A Flow Chart is recommended as the first step in almost any study. Often a Flow Chart may reveal that a process does not operate the way management or the operators in the process actually think it does. A high level flow is chart is prepared first to give a helicopter's view of the process followed by a detailed flow chart. Flow charts help identify gaps in the process, its bottlenecks, wasteful/unnecessary processes, delays, duplication, breakdowns in communication, and also how to improve the process. Improvement work can be focussed on these steps. An example of the same is given below-

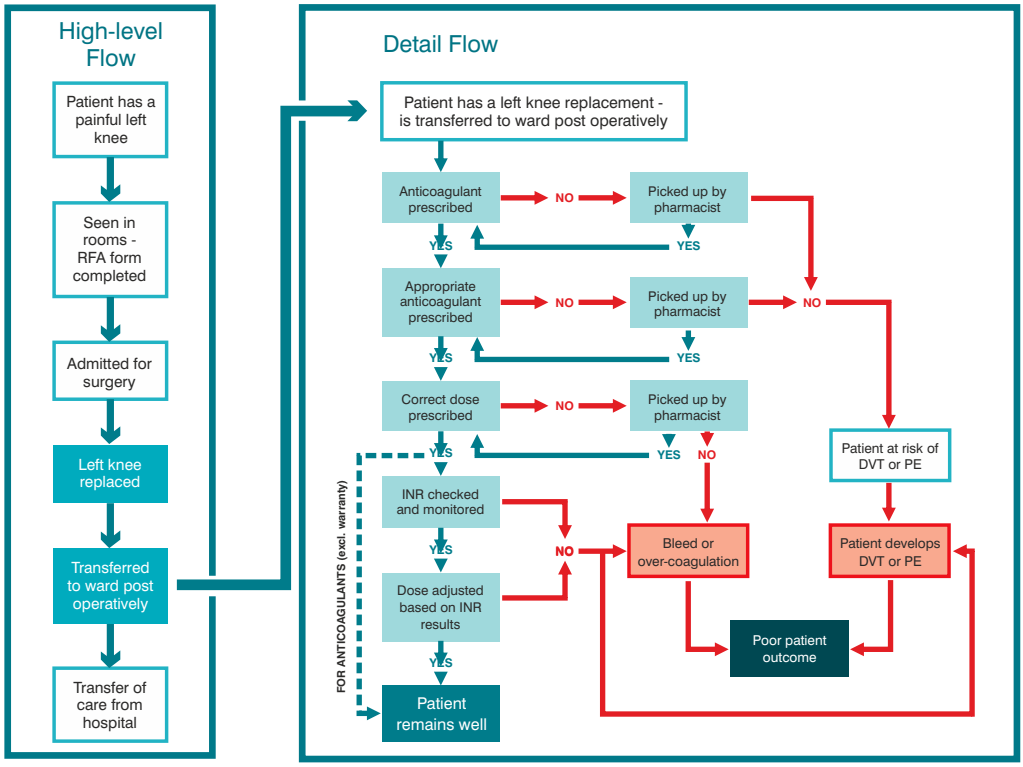



Figure 5 Flow chart of a patient's journey within the hospital
(https://www.cec.health.nsw.gov.au/CEC-Academy/quality-improvement-tools/flow-charts accessed on April 30, 2022)

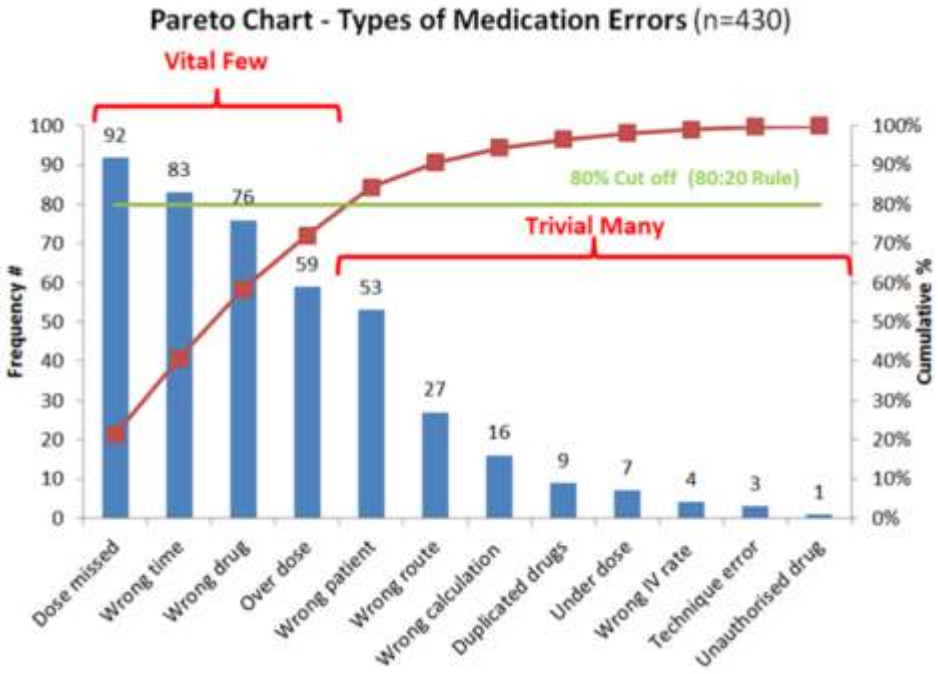
**Pareto Chart:** The "Pareto Principle" is the "80/20 rule" and works on the theory that roughly 80% of the effect comes from 20%("the vital few") of the causes. The "vital few" are easily distinguished from the "useful many" by plotting them as a bar diagram. Teams can prioritize and focus improvement efforts on the vital few. The example given below shows a Pareto Chart of types of medication errors. An audit of 430 medication errors was conducted to determine the categories (types) of errors and their frequency. The results were collected initially in a Tally Sheet (a simple sheet which collects data real time and indicates the frequency of occurrence of events) then the data was placed in descending order of frequency in a Pareto Chart Template in Excel. The types of errors that fall under the 80% cut off line indicate the 'vital few' types of medication error that should be addressed as a priority as they contribute most to the problem ie:

- Dose missed
- Wrong time
- Wrong drug
- Over dose

The types of medication errors that fall above the 80% cut off line are known as the 'trivial many' and are generally seen as not a high priority to address when compared to the 'vital few' factors.

A Pareto chart can also be used to study the occurrence of incidents/care management events( medication errors, pressure ulcers, IV complications etc.).

Data for a Pareto Chart can also be collected after a braining storming session by putting together the number of votes cast for the proposed reasons for incidents, adverse trends of indicator data etc.




**Run Chart and Control Chart :** A run chart is a graph of data over time and assess as variations in performance over a period of time and indicate trends. A control chart, with an upper(UCL) and a lower control limit (LCL), distinguishes between common and special causes of variation within a process.

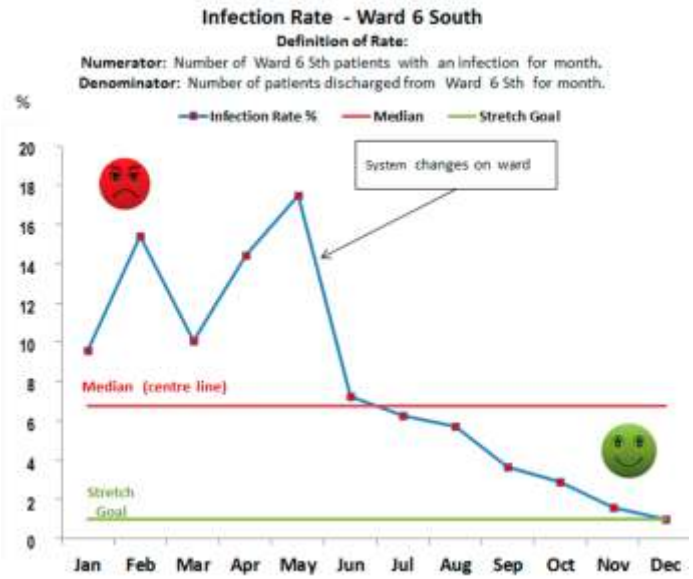



Figure 7. Simple Annotated Run chart with UCL and LCL of an infection rate over time
(https://www.cec.health.nsw.gov.au/CEC-Academy/quality-improvement-tools/run-charts accessed on April 30, 2022)

**Driver Diagram:** A driver diagram is a visual display of what "drives," or contributes to, the achievement of a project aim. driver diagram organises information on proposed activities so the relationships between the aim of the improvement project and the changes to be tested and implemented are made clear. The primary drivers (sometimes called "key drivers") contribute directly to achieving the aim. The secondary drivers are components of the primary drivers, and specific change ideas to test for each secondary driver.

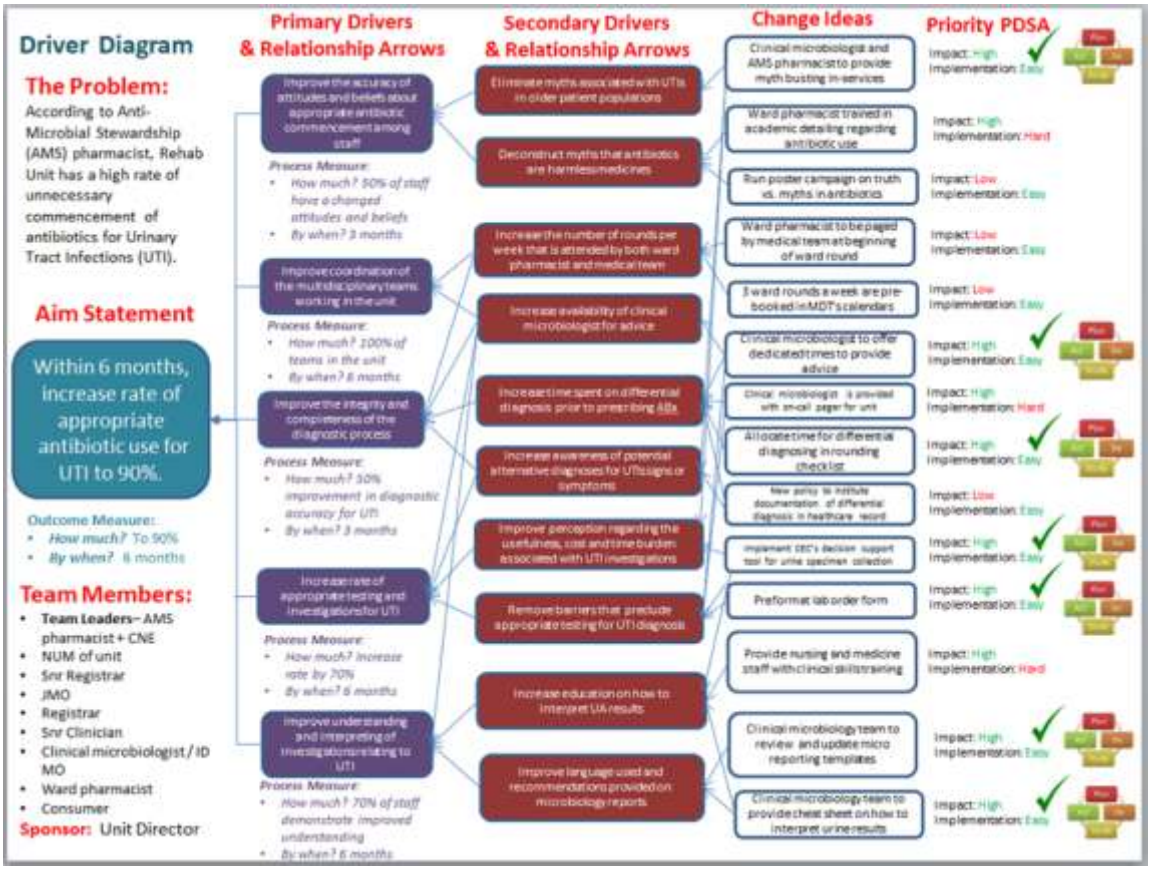



Figure 8 Driver Diagram
(https://www.cec.health.nsw.gov.au/CEC-Academy/quality-improvement-tools/driver-diagrams accessed on April 30, 2022)

**Scatter Diagram/Plot:** Scatter diagrams are used to identify cause-and-effect relationships between two variables. A scatter diagram does not prove causation.

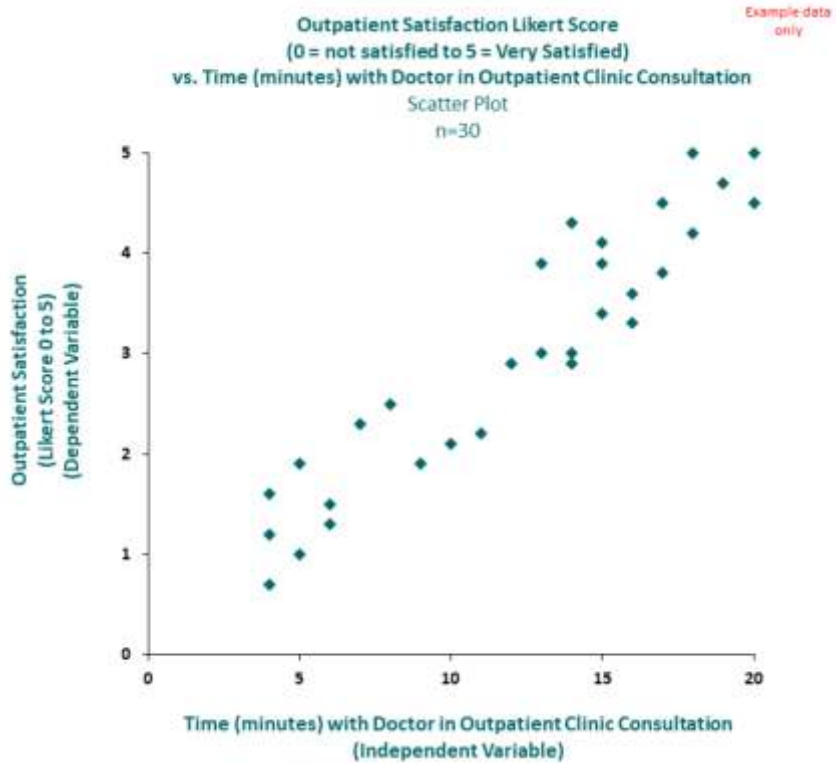



Figure 9 Scatter diagram showing patient satisfaction using likert's score v/s time with doctor consultation (https://www.cec.health.nsw.gov.au/CEC-Academy/quality-improvement-tools/scatter-plot accessed on April 30, 2022)

**Project Planning Form:** This tool helps teams think systematically about their improvement project. It tracks various elements like Plan-Do-Study-Act (PDSA) cycles.

Table 1. Quality improvement tool applications adapted from Butch S.

| Quality improvement technique/tool | Decisions | Describe problem | Cause analysis | Develop action plan | Monitor progress |
|---|---|---|---|---|---|
| Histogram | | Yes | | Yes | Yes |
| Pareto Chart | Yes | Yes | | Yes | Yes |
| Driver Diagram | Yes | Yes | | Yes | |
| Flow chart/ Process Map | | Yes | | Yes | |
| Run chart | Yes | | | | Yes |
| Scatter Diagram/Plot | Yes | Yes | | | |
| Fishbone diagram | | Yes | Yes | | |

**Continuous Quality Improvement(CQI):** CQI is a progressive incremental improvement of processes, safety, and patient care. Introduced by Shewhart and propagated by Deming, CQI is an analytical decision making tool which allows one to see when a process is working predictably and when it is not.

**The Model for Improvement(MFI):** The MFI asks three fundamental questions before embarking on a quality improvement project, which can be addressed in any order.

- What are we trying to achieve?
- What changes can we make that will result in an improvement?
- How will know that the change is an improvement?

This is followed by PDSA cycles to test changes in real work settings to determine if the change is an improvement.

**Models for CQI:** The most common CQI methodologies used in healthcare are the API's Model for improvement(MFI), FOCUS plan-do-study-act (PDSA), Six-Sigma, and Lean strategies. They typically include testing of ideas and redesign of process or technology based on lessons learned. Steps involved in CQI are Plan-Do-Study-Act (PDSA) cycle. The MFI and FOCUS frameworks have been developed to precede the use of PDSA and PDCA cycles respectively.

**PDSA/PDCA cycle:** Involves a sequence of 4 repetitive steps, Plan-Do-Study/Control-Act, eventually leading to exponential improvements 'Plan' phase involves detailing ideas for improvement, 'Do' phase involves implementation and defect prevention. 'Study' phase involves review and analysis of data(Adapt/Adopt/Abandon the change and repeat PDSA). 'Act' phase includes incorporation of lessons learnt into the test cycle. The cycle is repeated again and again as waves of small improvements are considered, tested, evaluated, and incorporated, if effective. This is the most commonly used tool for clinical audits.

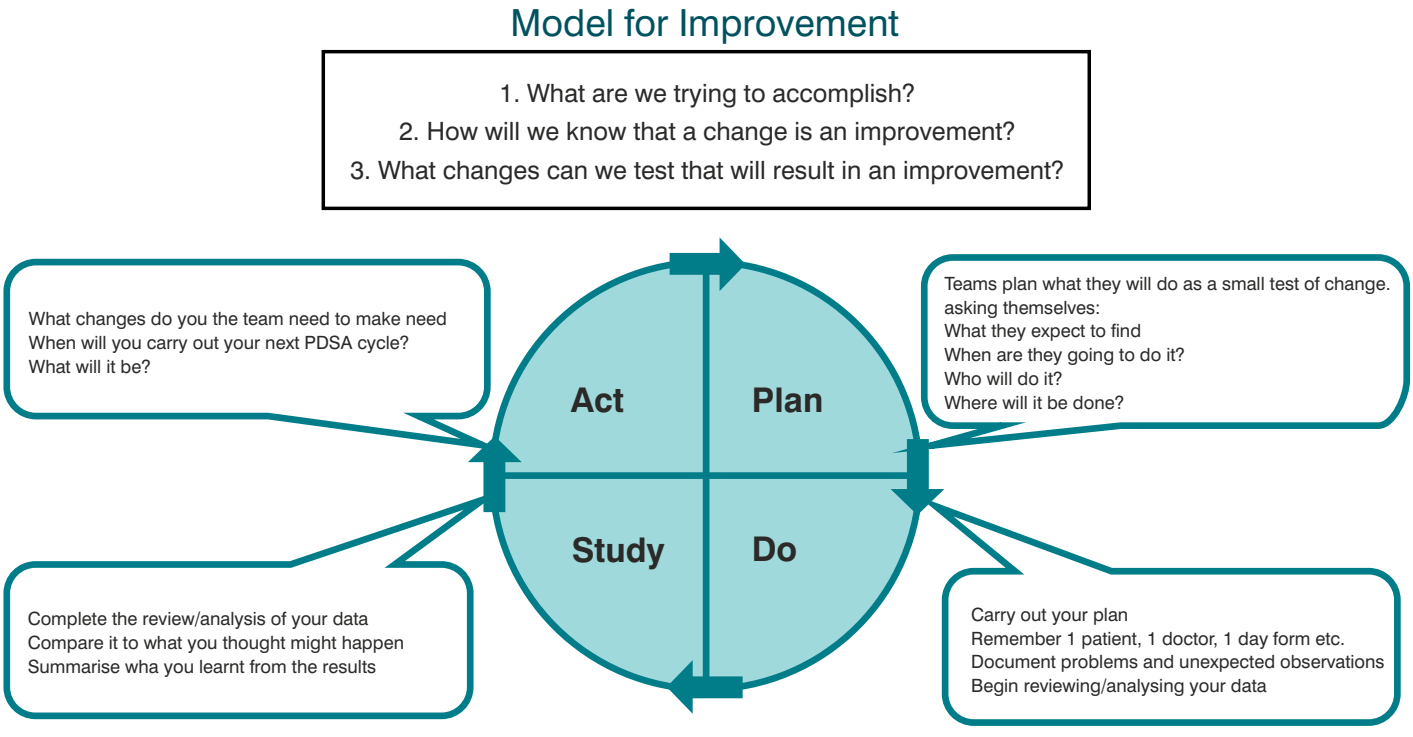



Figure 10: Model for Improvement & PDSA
(https://www.cec.health.nsw.gov.au/CEC-Academy/quality-improvement-tools/model-for-improvement-and-pdsa-cycles accessed on April 30, 2022)

**FOCUS-PDCA:** This model also has two phases. The 'FOCUS' phase focusses attention at the opportunity to improve, and the 'PDCA' phase for pursuit of improvement and assessment of effectiveness of the interventions.

- F = Find what needs to be improved on;
- O = Organize team with good knowledge in the process
- C = Clarify the present knowledge of the process
- U = Understand factors responsible for variations
- S = Select interventions that evidently might improve process

**Six-sigma:** Six-sigma is a widely used model that is now making steady in-roads into medicine. It seeks to improve performance through identifying causes of process defects/errors and eliminating them. At Six Sigma, error rates should be less than 3.7/million opportunities. Two methods have mainly been employed- DMAIC and DMADV. DMAIC is applicable for existing process improvement; DMADV is used for new design process optimization.

**Lean and Lean-Sigma :** Originated by Toyota Inc., Japan, this model is essentially geared towards improving process / product / service flow and eliminates waste by identifying and removing non-value added steps Embracing Lean in healthcare, eliminates waste throughout the entire operational system; whilst simplifying and improving the processes, resulting in low cost of production and fast through-put times. A few establishments, have combined Lean and Six Sigma concepts to obtain better quality improvement effects. Such a combination is known as Lean-Sigma.

## References:

1. Quality Improvement Essentials Toolkit, Institute of Healthcare Improvement, launched on February 22, 2019. Accessed on September 27, 2021.
2. Card AJ The problem with '5 whys' BMJ Quality and Safety 2016;0:1–7. doi:10.1136/bmjqs-2016-005849
3. Butch SH. Applying Quality Improvement Tools in the Transfusion Service Clin Lab Sci 2007;20(2):113
4. Brian O'Donnell; Vikas Gupta. Continuous Quality Improvement. Treasure Island (FL): StatPearls Publishing; 2021 Jan-.Last updated April 7,2021. https://www.ncbi.nlm.nih.gov/books/NBK559239/.
5. Varkey P, Reller K, Bsn, RN, Resar RK, Basics of Quality Improvement in Health Care, concise review for clinicians, 2007;82(6):735-739.
6. Juran, J.M. 1988. Juran on Planning for Quality. New York:1994. Achieving Sustained Quantifiable Results in an Interdepartmental Quality Improvement Project. Joint Commission Journal on Quality Improvement 20;3:105–19.
7. Langley GL, Nolan KM, Nolan TW, Norman CL, Provost LP. The Improvement Guide: A Practical Approach to Enhancing Organizational Performance (2nd edition). San Francisco: Jossey-Bass Publishers; 2009
8. Speroff T, O'Connor GT. Study Speroff T, O'Connor GT. Study designs for PDSA quality improvement research. Qual Manag Health Care. 2004;13:17-32.
9. Gerard J, Amold FL: Performance improvement with a hybrid FOCUS-PDCA methodology. Jt Comm J Qual Improv 1996; 22:660–672
10. Designs for PDSA quality improvement research. Qual Manag Health Care. 2004;13:17-32.
11. Niñerola A, Rebull M2, Lara A Quality improvement in healthcare: Six Sigma systematic review2020 Apr;124(4):438-445. doi:10.1016/j.healthpol.2020.01.002. Epub 2020 Feb 28.
12. Rogenski LL, Wilson K, Turner M, et al.: Six sigma applied to capacity utilization. Transfusion 2005; 45(Suppl. AP29):168A
13. Suman G, Prajapati Utilization of Lean & Six Sigma quality initiatives in Indian healthcare sector. DR.PLoS One. 2021 Dec 23;16(12):e0261747. doi: 10.1371/journal.pone.0261747. eCollection 2021.PMID: 34941958
14. Quality Improvement Tools - Clinical Excellence Commission https://www.cec.health.nsw.gov.au/CEC-Academy/quality-improvement-tools
15. Section 4: Ways to Approach the Quality Improvement Process https://www.ahrq.gov/cahps/quality-improvement/improvement-guide/4-approach-qi-process/index.html
16. Healthcare Management Workflow Diagrams | How to Create a Healthcare Management Workflow Diagram | Flowchart Marketing Process. Flowchart Examples | Hospital Management Application Flowchart

17. https://www.conceptdraw.com/examples/hospital-management-application-flowchart

18. NAPA Advisory Council 2018 Meeting Material | ASPE January 26, 2018 - Advisory Council Meeting. https://aspe.hhs.gov/.../napa-past-meetings/napa-2018-meeting-material

19. Ahmed, Selim. (2019). Integrating DMAIC approach of Lean Six Sigma and theory of constraints toward quality improvement in healthcare. Reviews on Environmental Health. 34. 427-434. 10.1515/reveh-2019-0003.

20. Scatter Plot - Clinical Excellence Commission https://www.cec.health.nsw.gov.au/CEC-Academy/quality-improvement-tools/scatter-plot

21. Quality Digest https://www.qualitydigest.com/june08/articles/03_article.shtml

22. Chandrasekar, Thangavelu & Sharma, Asheesh & Tennent, Lucinda & Wong, Christopher & Chamberlain, Peter & Abraham, Kottarathil. (2017). A Whole System Approach to Improving Mortality associated with Acute Kidney Injury. QJM : monthly journal of the Association of Physicians. 110. 10.1093/qjmed/hcx101.

23. Pareto Chart - MITE MMC Institute for Teaching Excellence https://www.mitemmc.org/monthly-tips/pareto-chart/

24. Pawar M. Getting beyond blame in your practice (5Why's). Fam Pract Manag. 2007 May;14(5):30-4. PMID: 17523378.


**NATIONAL ACCREDITATION BOARD**
**FOR HOSPITALS & HEALTHCARE PROVIDERS (NABH)**

ITPI Building, 5th Floor, 4A, IP Estate, Ring Road, New Delhi-110002
Email: helpdesk@nabh.co | Website: www.nabh.co

ISBN 978-81-959676-1-2