

# NATIONAL ACCREDITATION BOARD FOR HOSPITALS AND HEALTHCARE PROVIDERS (NABH)



## Annexures to Accreditation Standards for Homoeopathy Hospitals (*2nd edition*)

*July, 2016*



**National Accreditation Board for Hospitals  
and Healthcare Providers (NABH)**



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**HAPPY INDEPENDENCE DAY**

**15th August 2020**



## **PREFACE TO THE RE-PRINT**

National Accreditation Board for Hospitals and Healthcare Providers (NABH), a constituent board of Quality Council of India, established in 2005, is in its 15<sup>th</sup> 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.

All NABH standards have been developed in consultation with various stakeholders in the healthcare industry and if implemented help the healthcare organizations in stepwise progression to mature quality systems covering the entire spectrum of patient safety and healthcare delivery.

The NABH organization & the hospital accreditation standards are internationally recognized and benchmarked. NABH is an Institutional as well as a Board member of the International Society for Quality in Health Care (ISQua) and Asian Society for Quality in Health Care (ASQua) and a member of the Accreditation Council of International Society for Quality in Health Care (ISQua).

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.

**In celebration of our 74th Independence Day, on 15th of August, 2020, we are pleased to announce, that starting today, in an enhanced effort to connect with people, all NABH standards, across programmes, will be available free of charge as downloadable documents in PDF format on the NABH website [www.nabh.co](http://www.nabh.co). (The Printed copies of Standards and Guidebooks will continue to remain available for purchase at a nominal price).**

NABH also announces the enriched continuation of its **"NABH Quality Connect-Learning with NABH"** initiative, connecting free monthly training classes, webinars and seminars. The various topics that will be taken up will cover all aspects of patient safety, including: Key Performance Indicators, Hospital Infection Control, Management of Medication, Document Control etc.

Recently introduced communication initiatives like **Dynamic Website Resource Center** and **NABH Newsletter Quality Connect** (focusing on sharing the best quality practices, news and views) will also be bettered.

It is sincerely hoped that all stakeholders will certainly benefit from the collective efforts of the Board and practical suggestions of thousands of Quality Champions from India and abroad

**NABH remains committed to ensuring healthy lives and promote wellbeing for all at all ages (SDG-3-Target 2030), creating a culture of quality in healthcare and taking Quality, Safety and Wellness to the Last Man in the Line.**

Jai Hind

**(Dr. Atul Mohan Kochhar)**  
**CEO-NABH**

**15<sup>th</sup> August 2020**

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# **Annexures to Accreditation Standards for Homoeopathy Hospitals**

## **2<sup>nd</sup> Edition**

**July 2016**

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## **Annexure - 1**

### **Fact sheet on End of Life care**

#### **1. What is End of Life Care?**

End of life care is a person centered, personalized and family oriented perception of “Good Death “ which encompasses all aspects of comprehensive care of an individual at his or her end of life. End of Life Care constitutes:

- a) Applicability to any person, any place and any illness
- b) Relief of physical, Psychological, Social, Spiritual and Existential symptoms
- c) Dying at the preferred place of choice and receiving appropriate care by a trained health care provider
- d) Universal access to standard palliative care at end of life and every individual having a right to good, peaceful and dignified death

Modalities of End of life care at ICU can be with de-escalation of life sustaining measures, where as in the ward setting, it can be with symptomatic care. The patients can also be transferred to hospice or home for provision of end of life care

#### **2. What does documented procedure for End of Life Care mean?**

End of life care document shall be a policy statement that facilitates a dignified dying process for those who are diagnosed to be at their end of life. It may consists of:

- i. **Documented Evidence:** Evidence of discussion, decision, communication, care provided etc as documented in the medical case records
- ii. **Goals of Care:** Discussion, decision and documentation of further goals of care with respect to site and nature of care
- iii. **EOLC Management Plan:** it comprises of consensus EOLC decision by health care providers, EOLC communication, EOLC shared decision

making, symptom control , managing the dying process, death and after death care including bereavement

### **3. When is End of Life Care applicable?**

Whenever, the treating physicians or group of physicians feel that the medical care is FUTILE, then End of Life Care management can be discussed and initiated. Medical futility is a clinical decision, which is defined as medical interventions that are unlikely to provide any significant clinical benefit for the patient. The reference is to clinical situations where in absence of brain death, the physician believes that continuing life support is futile.

### **4. How patient management is continued at End of Life Care?**

Patient management is done through symptom control which includes control of end of life symptoms such as pain, dyspnea, delirium, respiratory secretions, dryness of mouth, etc

### **5. Does all End of Life Care process happens in the ICU?**

No. Any area within the hospital premises that offers a private conducive and peaceful environment for the person to die and family members to be around can offer End of Life Care process. It can be in ICU or in the ward. It will be preferable to provide the scope of religious clerics to attend and practice any rituals.

### **6. How Code of Medical Ethics facilitates End of Life Care decision making?**

#### **i. Patient Autonomy**

- Means the Right to Self-determination, where the informed patient has a right to choose the manner of his treatment.

#### **ii. Beneficence**

- it implies acting in what is (or judged to be) in patient's best interest.

#### **iii. Non-maleficence**

- Means to do no harm, to impose no unnecessary or unacceptable burden upon the patient

#### **iv. Distributive Justice**

- Means that patients in similar circumstances should receive similar care.

## **7. How Quality assurance be assessed during End of Life Care?**

Quality Assurance in EOLC is governed by Quality of death. Quality of death is family/ care givers appreciation of good death or family satisfaction of good end of life care processes. It can be determined by following questions being asked to family members on quality of death (Rating 1-10).

- a) Having pain and other symptoms under control
- b) Having information about the illness, management and prognosis if this was desired
- c) Having control over the treatment decisions and what was going on
- d) Was able to meet and spend time with near and dear ones if desired
- e) If a desire to die in hospital, home or hospice was met if it was requested
- f) Non beneficial transfer to ICU or ICU or use or prolongation of life support measures in case of medical futility was avoided
- g) Had access to religious, spiritual and any other wishes being fulfilled if it was desired
- h) Died with loved ones present around
- i) Died with dignity and respect

## **8. Can there be an independent system of monitoring End of Life Care process?**

Healthcare organization can constitute Bio Ethics Committee where in medical futility can be discussed by a group of expert stake holders (clinicians, nursing staff, medical social workers etc) and the clinical consensus statement is agreed upon by family members (nearest kith and kin). Shared decision making and proceedings of the committee should be documented.

## 9. How a natural process of dying is facilitated?

Facilitating the natural process of dying without hastening or needless prolonging and providing active end of life care in a dying patient with a medically futile condition is called as Allowing Natural Death (AND).

## 10. How limitation of life sustaining treatment can take place in medically futile condition?

Once medically futile condition is agreed upon a team of clinicians and appropriate communication with family members has taken place, withholding a non-beneficial invasive complex medical intervention or phased withdrawal of the same in a dying patient (with medically futile condition) can be attempted. Team of clinicians needs to ensure that the interventions are unlikely to confer any clinical benefit on the patient.

### Quality Assurance Questionnaire on End of Life Care

#### A. End of Life Care Infrastructure

Sl.No	Items	Compliance
A1.	Presence of a hospital <i>End of Life Care (EOLC) policy</i>	Yes <input type="checkbox"/> No <input type="checkbox"/>
A2.	Presence of a <i>physical space</i> in the hospital where necessary <i>privacy</i> required for the dying can be provided	Yes <input type="checkbox"/> No <input type="checkbox"/>
A3.	Presence of <i>essential medications</i> in the hospital required for pain and <i>symptom control</i>	Yes <input type="checkbox"/> No <input type="checkbox"/>
A4.	Presence of <i>trained health care providers in EOLC</i> in the hospital who are able to provide EOLC	Yes <input type="checkbox"/> No <input type="checkbox"/>
A5.	Presence of <i>access to religious clerics</i> , rituals and bereavement care support if desired	Yes <input type="checkbox"/> No <input type="checkbox"/>

**B. End of Life Care Process**

Sl.No	Items	Compliance
B1.	<i>Documented evidence</i> to suggest that patient / family had knowledge of diagnosis and prognosis of the disease	Yes <input type="checkbox"/> No <input type="checkbox"/>
B2.	Documented evidence of consensus among treating team about <i>medical futility</i> and documentation of the same	Yes <input type="checkbox"/> No <input type="checkbox"/>
B3.	Documented evidence of communication of medical futility and available <i>modalities of EOLC</i>	Yes <input type="checkbox"/> No <input type="checkbox"/>
B4.	Documented evidence of <i>goals of care, documentation of resuscitation status, Allowing Natural Death(AND)and EOLC management plan</i>	Yes <input type="checkbox"/> No <input type="checkbox"/>
B5.	Documented evidence that end of life care symptoms were identified and managed	Yes <input type="checkbox"/> No <input type="checkbox"/>
B6.	If patient is discharged, documented evidence of <i>continuity of end of life care</i> in the discharge summary	Yes <input type="checkbox"/> No <input type="checkbox"/>

## Annexure - 2

### Clinical Audit

A write-up for carrying out clinical audit is given below for comprehending the process of auditing of the healthcare services. The text has been simplified in the format of FAQs so as to explain all aspects of the subject without compromising the basic tenants of the audit.

#### What is audit?

Evaluation of data, documents and resources to check if performance of systems meets specified standards.

#### What is clinical audit?

**Clinical audit** is 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**. Aspects of the structure, processes, and outcomes of care are selected and systematically evaluated against explicit criteria. Where indicated, changes are implemented at an individual, team, or service level and further monitoring is used to confirm improvement in healthcare delivery". (NICE)

The aim of clinical audit is to measure the gap between ideal practice (determined from evidence and guidelines) and actual practice. Audit does not seek to apportion blame on individual practitioners, but aims to improve the systems in which individuals work. Done correctly, audit can bring about change and improve practice and clinical effectiveness.

The key messages being that:

1. Clinical audit is not just a data collection exercise:
  - ✓ It involves measuring current patient care and outcomes against explicit audit criteria (also termed standards).
  - ✓ There is an expectation from the outset that practice will be improved.

### **Advantages of clinical audit**

The overarching aim of clinical audit is to improve service user outcomes by improving professional practice and the general quality of services delivered.

#### **For healthcare professionals:**

- Provides workable standards
- Resolves problems
- Improves and increases team-working and levels of communication
- Ensures appropriate use of skills and resources
- Increases knowledge and skills
- Can identify training needs
- Measures quality in current practice

#### **For Patients**

- Improves quality of care and service received
- Prompt changes in delivery of care
- Highlights precise patient needs
- Involves patients in decision-making
- Raises patients confidence in service and care levels
- Provides clear information about care and risks involved

#### **For Organisation**

- Improved care of patients
- Enhanced professionalism of staff
- Efficient use of resources
- Aids in continuing education
- Aids in administration
- Accountability to those outside the profession

### **Clinical Audit vs. Research?**

Research addresses clearly defined questions and hypotheses using systematic processes to generate new evidence to refute, support or develop a hypothesis, by

asking the question ‘what is best practice?’ As a result of which a new service or new practice may be developed. The methodology is designed so that it can be replicated and so that the results can be generalised to other similar groups.

Research may involve a completely new treatment or practice, the use of control groups or placebo treatment for purposes of comparison, or allocating service users randomly to different treatment groups. Patients should be involved in the design, implementation and analysis of the work.

Alternatively, clinical audit aims to improve the quality of local patient care and clinical outcomes through the peer-led review of practice against evidence-based standards, implementing change where necessary. It asks the questions ‘are we following best practice?’ and ‘what is happening to patients as a result?’

### **Are clinical audit and medical audit synonymous?**

Medical Audit may be defined as “*peer review* of evaluation of medical care through retrospective and concurrent analysis of medical record”. Its aim is to improve the quality of health care services *rendered by doctors to the patients*.

Whereas clinical audit, is usually a multi-disciplinary activity where in aspects of structure, process and outcomes of care are selected and evaluated against explicit criteria. Most of the clinical audits are also ‘multi-sectoral’, that is, they may involve health and social services, primary and acute care providers, education and health.

### **Medical audit and medical record audit?**

Medical record audit is a focussed activity which emphasises more on timeliness, legibility, completeness of the records/ sheets. Non-medical personnel can perform the activity. Care aspects are not checked in medical record audit unlike the medical audit.

### **What are the Pre-requisites?**

- Good record keeping system
- Should be carried out by fair and impartial professionals
- Clinicians, nursing and other staff as well as patient anonymity to be maintained
- Initiative should come from within



- Purpose should be simple and clearly stated
- Intention should be to effect change for the better

### **What can be audited?**

The quality of health care provided can be audited by examining three interrelated component parts:

- Structure
- Process
- Outcome

#### **1. Audits of structure**

This type of audit looks at environmental factors within which care is delivered. Criteria that can be considered include the practice building (state of repair, facilities offered, confidentiality offered during consultations, privacy, cleanliness), the personnel (the receptionist, clinicians, other health care practitioners and additional ancillary staff), equipment in the practice (is it always functioning, is it regularly assessed for safety) and patient notes (are they kept securely to maintain confidentiality, are they legible and complete, are they of a suitably high standard). This provides an indirect assessment of a patient's care, but the environment in which a patient is treated is, nonetheless, an important aspect of their care.

#### **2. Audits of process**

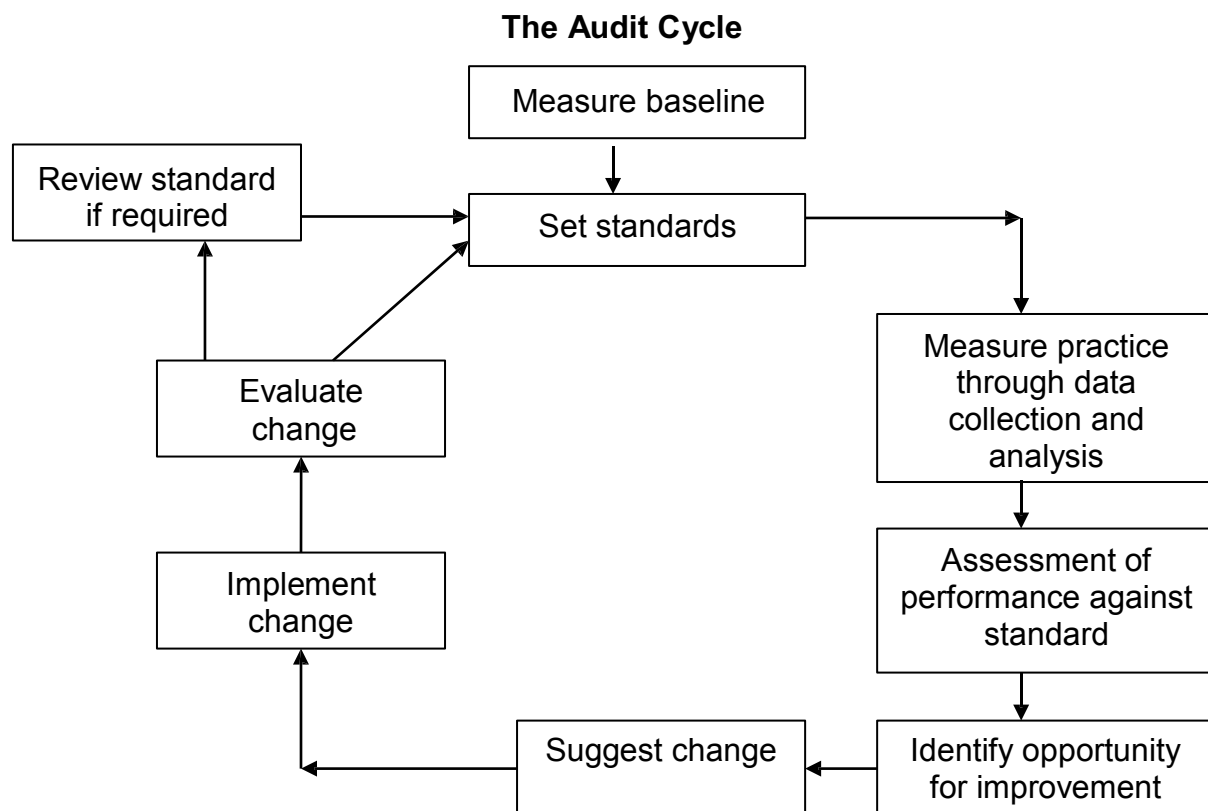
Audits of process focus on the clinical care received by patients e.g. investigations, treatments, or procedures. Projects are best focussed on the processes, which have been shown result in the best patient outcomes. For example if research has shown that Drug X gives better outcomes than Drug Y for patients with condition A, you would audit "are patients with condition A being given Drug X?" This type of audit can focus on the technical skills of a clinician and an evaluation of the decisions made concerning the management of a patient.

### 3. Audits of outcome

Outcomes are considered to be the most relevant assessment of a patient's care. They examine the change in the health status of a patient following a particular treatment intervention. An extensive number of outcome measurements have been developed to assess general health status, physical health and psychological wellbeing. Outcome audits can be concerned with:

- Response to treatment in terms of pain relief or change in levels of disability
- Response to treatment in terms of reaction to treatment e.g. soreness, increased pain or disability within a specified time frame.
- Degree by which patients can manage their symptoms following advice delivered.

#### How to audit?



## Methodology

### 1. Selection of Topic

- a) Should be common because it is common or high risk or bears high cost.
- b) Should be having local clinical concern or known wide variance in clinical practice.
- c) Topic should be well defined, focused and amenable to standard setting.

#### Some topics

- a) Long/short stay cases
- b) Specific disease/specific operations
- c) Vulnerable groups
- d) Increase incidence of a disease
- e) Post-operative infection/complications

### 2. Setting of standard

- a. To be set prior to the study
- b. Criteria to be based on objective measures  
Criterion is an item of care or sure aspect of care that can be used to assess quality. It is a written statement. For example,
  - i All patients requiring urgent appointment will be seen that day only.
  - ii All patients with epilepsy should be seen once a year.
- c. Criteria should be well justified.
- d. Target should be set at realistic level for defined patient groups and take into account local circumstances.

A target describes the level of care to be achieved for any particular criteria.  
For example,

- i 98 per cent of patients requesting for urgent appointment will be seen on that day.
- ii 90 per cent of patients with epilepsy must be seen at least once a year.

### Example of Criteria and Target Applicable to Structure, Process and Outcome Variables

	Structure	Process	Outcome
Criteria	Staffing of IPD	Case Management plan	Case fatality
Target	Not < 1 per 5 occupied beds	Recorded 100% in all case records	Not to exceed 0.1 per cent for IPD cases

- e. Objective criteria are explicit but clinical judgment can be used to answer the question: “Was the management of this case satisfactory”? This is an implicit criterion.
- f. Use of explicit criteria should be preferred. The problem with implicit criteria is that important deficiencies in care may be overlooked and rates may differ in their assessments of the acceptability of management.

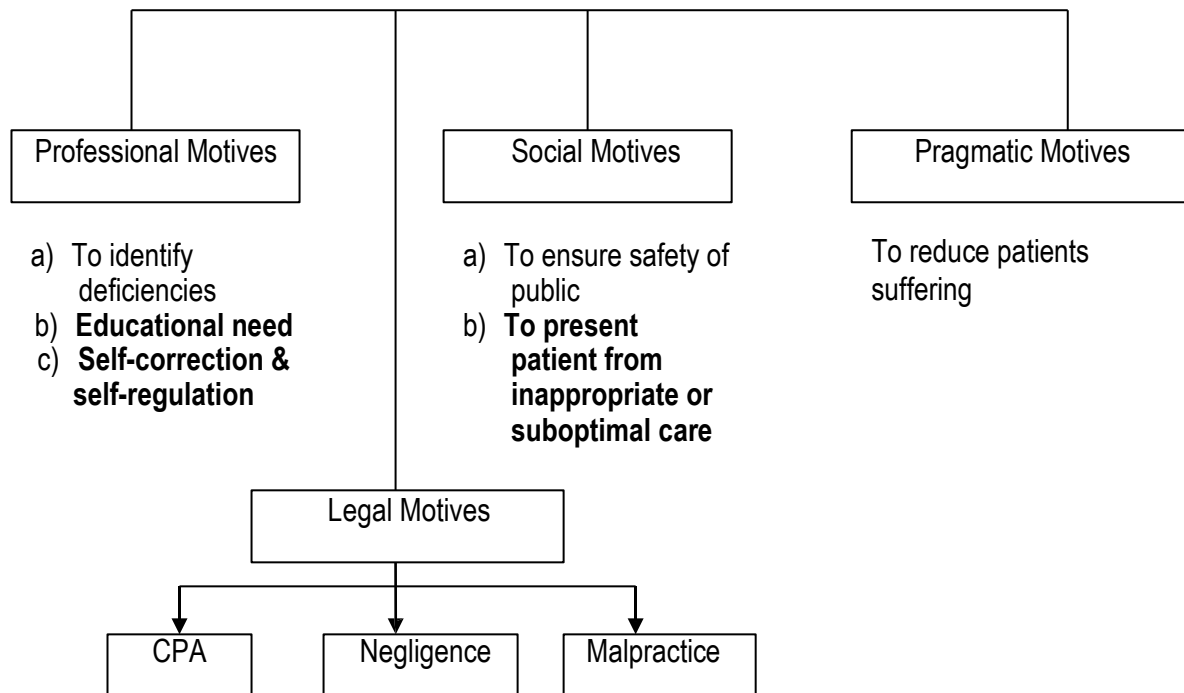
### 3. Worksheet preparation and methodology of administration

- a. Simplest for the purpose
- b. Only essential data is collected
- c. Suitable sample size is to be selected
  - i. Random sampling – generate
  - ii. Stratified samples
  - iii. Systematic sampling
  - iv. Cluster sampling
- d. Probability of bias is to be considered
  - i. Non-response to a survey
  - ii. Unavailability of certain type of case note
  - iii. Selective referral of certain types of patients
  - iv. Failure of patient to turn up for follow up

### 4. Tabulation of evaluation

## 5. Interpretations

- a. Deficiency of care recognised
- b. Specific solutions are proposed. They may not be possible every time.  
E.g. a study of the way cervical screening is organised identified deficiencies but concluded only that other schemes needed to be examined
- c. Education impact is appreciated
- d. Planned programme for change
- e. All staff is involved
- f. Active feedback
- g. Audit is evaluated



### What are the key lessons from various audits?

1. Foster an environment for audit
  - Audit is a valued activity
  - Can augment both career and professional development
  - Provision of protected time for audit
  - Commitment from staff to provide a request and act on the study findings

2. Tackle the problems of multidisciplinary audit
  - Can be seen as threatening
  - Exposing one mistakes to another
  - Staff training in interpersonal skills and in dealing with conflict
  - Benefits outweigh disadvantage
3. Review staff training programme
  - Importance of planning
  - Benefits of pilot study
4. Emphasise audit facilitation
5. Establish confidentiality of finding
6. Ensure all relevant staff are involved
7. Establish evaluation programme

**Checklist**

	Question	Criteria
1.	Why was the audit done?	Reason for choice (a) Should be clearly defined (b) Should include potential for change
2.	How was the audit done?	(a) Criteria choice <ul style="list-style-type: none"><li>i. Should be relevant to the subject</li><li>ii. Should be justified, e.g. literature surveys</li></ul> (b) Preparation and planning should show adequate teamwork and methodology in carrying out the audit (c) If standards are set they should be appropriate and justifiable

3.	What was found?	Interpretation of the data  ✓ Should use all relevant data to allow appropriate conclusion to be drawn
4.	What next?	Detailed proposal for change should show explicit details of the proposed change

## **Few Examples**

### **1. Structure based examples**

The setting and resources (what you need - staff, buildings and equipment required to deliver a service), e.g.

- Resuscitation equipment availability in ER, Ambulance requirements, Materials availability in OT, Cath Lab etc.
- Accessibility of service for disabled individuals, trauma, stroke patients etc.

### **2. Clinical process**

- Post-operative pain management, Normal delivery v/s LSCS, Open v/s Lap cases, communication with patients at first appointment in child and mental health service, hand hygiene compliance, Health care associated infections, single donor blood transfusion
- Organisational/administrative process, e.g. system for patient recall, discharge practice, waiting times etc.

### **3. Outcome**

The effect of healthcare on a patient's health status (what you expect).

- e.g. blood pressure control, improvement of training and skills, DVT prophylaxis, Blood Glucose and HAI rates, vision acuity after cataract etc .

**Other sources** of information/indicators for topics for audit could include:

- Risk register
- Activity information – e.g. throughput, re-admissions, waiting lists

- Alerts received relevant to your service (Medical Emergency Team, CPR team)
- National audits e.g. hygiene audit, diabetes, HAIs, cancer and stroke registry (type of cases and response)

### **Conclusion**

Audit appears deceptively simple. Current care is observed so that it can be compared with standards and the necessary changes in patient care are implemented.

### **In practice**

- Topics for audit need to be chosen with care and refined to make them suitable.
- Standard setting requires clarity of thought and careful definition.
- Data collection to observe practice can consume endless time and money.
- Lasting change is notoriously difficult to achieve.

Notwithstanding the above, once audit is understood and planned, it is one of the best ways to check quality of care being rendered, to bring about changes for improving care, to improve patient and employee satisfaction and for professional development.



## **Annexure - 3**

### **Introduction to Green Hospital**

Green building refers to both a structure and the using of processes that are environmentally responsible and resource efficient throughout building's lifecycle.

A green building emphasises upon judicious use of its resources (water, power) and creates less waste, and has efficient solid and water waste management treatment. Green building which can also be called energy efficient building is the one which can reduce energy consumption by atleast 40% as per few studies as compared to conventional buildings.

Similarly green hospital building can be defined as one which enhances the patient well-being, aids the curative process, while utilising natural resources in an efficient environment-friendly manner.

There is empirical evidence linking the physical environment with patient, family and staff leading to improved patient safety, improved clinical and psychosocial outcomes, patient satisfaction, and increased staff effectiveness in providing care, staff satisfaction and improvements in staff health.

The advantages of Green Hospitals are known to reduce patient recovery time, low energy and water consumption, increase health and well being of the patients as well as employees leading to better quality of care. It is also seen that it decreases long term energy costs and leads to better patient outcomes and staff retention. It also reduces stress levels amongst hospital workers and leads to better indoor air quality.

The focus areas for Green Hospital Design include day light, recycling of material and resultant waste generation, better indoor air quality and increased fresh air ventilation, CO<sub>2</sub> monitoring, green house keeping, clean & green interior building materials, proper waste disposal, etc.

Green hospital concepts will play an important part in the curative process in time to come. Instead of being referred to as a place that houses healthcare amenities,

hospitals of tomorrow will now focus on wellness and be transformed into welcoming spaces to get well.

The following are the suggestive measures to be adopted by organisation to move towards energy efficient Green Hospital concept.

- Efficient usage periphery area & terrace of organisation by creation of landscape gardening including planting suitable boundary, roadside & ornamental trees.
- The arriving at right water balance chart for both intake & reuse for newly constructed hospital using NBC (National Building Code) guidelines.
- The due consideration is to be given towards high energy efficient equipment (including medical equipment) during purchase of equipment.
- Step towards energy efficiency can be achieved by providing of more natural lights inside the organisation including patient care area ,usage of low power consumption lights, solar photo voltaic energy, usage of alternate energy source like wind energy. The dynamic harmonic filtration with Power Factor improvement system can considered as part of design. The installation of electrical energy meters across various locations and possible integration to building management system with energy meters is suggested.
- Water efficiency includes rain water harvesting, rain water recharge pits, high efficiency faucets, sterilisation of aerators used for water conservations once in six months, sewage treatment & reuse of waste water, usage of solar plant towards generation of 20% of hot water generation. Usage of water Level controllers in pumping systems, variable frequency drives usage. The installation of water meter across hospital and provision of water consumption monitoring is another suggested measured.
- Creation of building envelop for air reduction leakage & infiltration of air may cause bad air quality, energy efficiency in HVAC, lighting, electrical power and water heating. Areas under central air conditioning can be planned with individual controls using *Variable Air Volume system*. All Air Handling Units are planned with VFD's (Variable Frequency Drives) for fan speed modulations.

- Minimum fresh air for all air conditioning area conditioning as per national or international guidelines like ASHRAE, Less usage of VOC (volatile organic compounds ) based paints/carpets to avoid bad environment quality, continuous ventilation around 36 hours ( minimum of 12 hours) of all area before occupancy so that foul air of construction material can be flushed out.
- The provision of ventilation ducts, exhaust hoods compliance of statutory & manufacturers guidelines.
- The organisation having defined criteria, process and protocols for selection of cleaning products, mops and wipers like on-hazardous cleaning agents, environmental pollutants reduction , protection of the cleaning worker.
- The organisation having protocol for receiving, handling, storing and safe disposal of all kinds of waste including recyclables, hazardous, bio medical and e-waste. The organisation complies all bio-medical waste management rule and ensures biological waste is disposed as recommended by national regulations.
- The organisation to have procurement plan include purchase of environment friendly materials which can be reused or recycled as per manufacturer's recommendations. The organisation having purchase policy that reduces/avoids purchase of mercury containing equipment. The organisation having sustainable food purchasing policies and plan that support human and ecological health.
- The following strategy can be considered by organisation for optimisation of energy saving & usage.
  - Schedule of HVAC based on the requirement preferably using building management system.
  - Schedule for switching on & off of lights.
  - Schedule of operation of exhaust fan.
  - Flow restriction of water taps & showers.
  - Sensor based urinal flushing.
  - Operational control on hot water generation, chillers, lifts etc.
  - Monthly audit of power & water consumption.

- The organisation to have indicators for measuring the waste generation as per the category (hazardous, recyclable, bio-medical, e-waste etc.) through waste audit.

**References:**

ECBC guidelines, bureau of energy efficiency, Govt. of India, Best practices across various hospitals & AHPI checklist on green hospital

## Annexure - 4

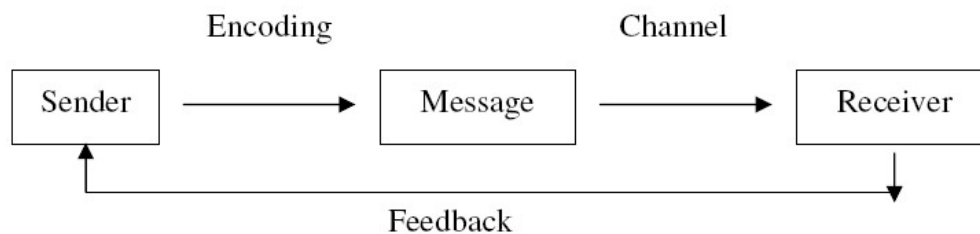
### Communication in Healthcare

#### **Introduction:**

Delivery of healthcare is a complex process which involves lot of human interaction between patients/families and healthcare workers and among healthcare workers as well. It has been proven that majority of the errors that happen in healthcare are related to communication. Studies show that poor communication is the major cause for patient dissatisfaction, litigation and financial loss. It is also proven that the patient outcomes are better with good communication. Since good communication is not addressed in any healthcare curriculum, organizations have to try hard to improve the communication skills of its staff as communication plays a major role in quality.

#### **What is effective communication:**

By definition, “communication is a transactional process to create meaning”. There are 3 components of communication. Those are sender, receiver and message. In a typical doctor –patient interview, doctor assumes the role of sender as well as receiver. The meaning which needs to be communicated is not in the “message” as the doctor may have a different meaning and the patient may have a different one. So the purpose of effective communication is to share a common meaning.



An organisation has to train the staff to communicate effectively. Some areas like Consenting, patient doctor interviews, and Nursing assessment need to be stressed upon making the communication effective. The following is an indicative list which needs to be addressed to make communication effective.

- Greeting, establishing the rapport
- Listening patiently
- Having a favorable body language which includes the way we dress up, sitting posture, eye contact etc
- Showing empathy ( Putting ourselves in patient/family's position)
- Not using unnecessary medical jargon
- Not being judgmental
- Clearing the doubts and confirming whether they have any questions
- Greeting, thanking

Though apparently it appears that good communication demands more time, the literature has proven that on an average it takes only a minute more to communicate well once the skill is mastered.

### **Safe communication:**

Communication is one of the cornerstones of patient safety. Some areas where communication leads to patient safety incidents are handing over, communication in emergency situations, and lack of assertiveness among nurses. There are various methods for doing the handing over. One of the easier examples is using **ISBAR** tool.

I: Identification (of the staff, patient)

S: situation (current problem)

B: Background (past problems, comorbidities, treatment given so far etc)

A: Assessment (Vitals, pain, drains etc)

R: Recommendation (Investigations to be done, medication to be given, consults to be taken , pending things, planning for discharge or move out etc).

The same tool can be used by doctors also for handing over during shifts, telephone conversations about a patient or for communications among different specialties.

Another tool which helps in achieving patient safety is a tool called “**Assertiveness saves lives**”. The steps are

1. Get Person's attention (Doctor, I am ...calling from ward..., I have a serious problem now)

2. Express concern (I am really concerned about Mr.....)
3. State problem (His pulse is 130, BP is 90/60, and he is looking pale...)
4. Propose Action ( Doc, I would like you to come and see the patient immediately)
5. Reach decision ( Doctor, So... you are busy in theatre, can I inform the Consultant, as I think a doctor is needed urgently to make a decision).

### **Special situations:**

Though the principles of communication remain same whatever the situation, some special protocols need to be decided before hand and the concerned staff need to be trained on those. Some examples of those situations are

- Breaking Bad news
- Disclosing Death
- Handling an aggressive patient/family
- Communication in case of emergency/disasters
- Disclosure of an adverse event
- Managing an angry employee
- Handling patient-staff argument etc.

The protocols for these situations should include the following points though can be customized according to situations. Below is an example of Breaking Bad news.

- Who is the responsible person to handle it (the concerned treating consultant should be the one to disclose and not the junior doctors)
- What preparation should he have before (The doctor should have enough time, have a room where serious conversation can happen, know about the patient and relevant investigations, have sufficient knowledge about further plan, have an experienced nurse along to help the patient to deal with the emotions)
- Where to do the breaking bad news (Not on corridors, but in a comfortable confidential room)
- How to break the bad news( Assessing patient knowledge about illness, knowing the background information, and gently but unambiguously breaking the bad news without medical jargon)
- Plan (Further plans, curative, palliation, support etc)

This is just a very sketchy example of breaking bad news protocol. Similarly organisation should have protocols for different scenarios.

### **Communication barriers:**

There are many barriers to effective communication. Many are internal barriers like fatigue, lack of interest and motivation, type of patients etc which need to be identified and handled by each healthcare professional. But one of the major communication barriers in this vast country is language. So the organisation should identify staff who can act as interpreters in case of need for a particular language, to help in the patient interaction and counseling. It is also necessary to identify patients with speech and hearing disability so that they can be appropriately counseled.

### **Unacceptable behaviour:**

Unacceptable behaviour is the behaviour of a staff which is worse than the minimum expectation a patient or management would have about the staff. These types of behaviors will make the patient unhappy and the hospital to lose its patient base. So it is the responsibility of the management to identify such unacceptable behaviors. The management also should ensure a disciplinary action is taken against staff displaying unacceptable behaviour. List of unacceptable behaviour is exhaustive, but at least the common indicative list as below should be made public to the staff.

- Alcohol and smoking at workplace
- Abusing a patient
- Inappropriate behaviour with women
- Employees fighting in the corridors
- Disrespect to any religion
- Any behaviour violating the patient right
- Talking bad about professional colleagues of same or different specialty
- Talking bad about alternate approved system of medicine
- Corruption etc.



### **Monitoring effective communication:**

With the help of patient feedbacks, complaints and analysis of incidents the issues which are communication related should be identified as this forms the major portion of root cause. Then appropriate dissemination of information in the form of training to concerned personnel should be given as a preventive action. Other ways of capturing information about communication are direct observations by peers and getting communication specific feedbacks from stakeholders.

### **Training on communication:**

Communication in spite of being an important determinant of patient safety and satisfaction is not a part of healthcare curriculum. So the hospital aspiring for best quality should make an effort to train its staff in healthcare communication. The training requirements for each group of staff vary. As a first step, a group of internal trainers should be identified who can develop some relevant resources and train the others. The training can happen in the form of group discussions, role-plays, rolemodelling, videos etc. Communication training for front office staff can be some good etiquette to make the patient feel comfortable and welcome.

Communication is the back bone of healthcare communication and strategically the organisation has to plan regarding educating, monitoring and learning constantly the “good communication practices”.

### **Material for further reading:**

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## **Annexure - 5**

### **Revised Guidelines for Air Conditioning in Operation Theatres**

#### **Air Conditioning in OT**

- A. The air conditioning requirements for Operation Theatre in a HCO have been deliberated at length with manufacturers, engineers, technical committee members and other stake holders and the following guidelines have been finalized.
- B. For this purpose operation theatres have been divided into groups:
1. **Super specialty OT:** Super specialty OT means operation theatres for Neurosciences, Orthopaedics (Joint Replacement), Cardiothoracic and Transplant Surgery (Renal, Liver etc.).
  2. **General OT:** This includes operation theatres for Ophthalmology, District hospital OTs, FRU OT and all other basic surgical disciplines.
  3. **Day care centre:** Day surgery is the admission of selected patients to hospital for a planned surgical procedure, returning home on the same day, would fall under the category of general OT.
- C. The following basic assumptions have been kept in view:
- **Occupancy:** Standard occupancy of **5-8** persons at any given point of time inside the OT is considered.
  - **Equipment Load:** Standard equipment load of **5-7 kW** and lighting load of **1 kW** to be considered per OT. For super speciality OT the equipment load can be taken as **7 – 9KW**.
  - **Ambient temperature & humidity at each location** to be considered while designing the system.

## **REQUIREMENTS – Super Specialty OT**

### **1. Air Changes Per Hour:**

- Minimum total air changes should be **20** based on international guidelines although the same will vary with biological load and the location.
- The fresh air component of the air change is required to be minimum **4** air changes out of total minimum **20** air changes.
- **100 %** outdoor ventilation air systems are not mandatory. If HCO chooses to have 100% fresh air system than appropriate energy saving devices like heat recovery wheel, run around pipes etc. should be installed.
- The supply & return air ducts must be of non-corrosive material.
- No internal insulation or acoustic lining must be done on ducts as they can become breeding grounds.

### **2. Air Velocity:**

- The vertical down flow of air coming out of the diffusers should be able to carry bacteria carrying particle load away from the operating table. The airflow needs to be unidirectional and downwards on the OT table. The air face velocity of **25-35 FPM** (feet per minute) from non-aspirating unidirectional laminar flow diffuser/ceiling array is recommended.
- **Positive Pressure:** There is a requirement to maintain positive pressure differential between OT and adjoining areas to prevent outside air entry into OT. Positive pressure will be maintained in OT at all times (operational & non-operational hours)
- Laminar flow boxes/diffusers should be installed in the OT for supplying majority air and also majority return air should be picked up **75-150 mm** above floor level.

3. The minimum **positive pressure** recommended is **2.5 Pascal** (0.01 inches of water)
4. **Outdoor Air intakes:** The location of outdoor air intake for an AHU must not be located near potential contaminated sources like DG exhaust hoods, lab exhaust vents, vehicle parking area.
5. **Air handling in the OT including air Quality:** Air is supplied through Terminal HEPA (High-efficiency particulate arrestance) filters in the ceiling. The HEPA can be at AHU level if it not feasible at terminal level inside OT. The minimum size of the filtration area should extend one foot (i.e. 304.8 millimetres) on each side of the OT table to cover the entire OT table and surgical team. The minimum supply air volume to the OT (in cubic feet per minutes CFM) should be compliant with the desired minimum air change. Air quality at the supply i.e. at grille level should be Class 100/ ISO Class 5 (at rest condition).

**Note:** Class 100 means a cubic foot of air should not have more than 100 particles measuring more than 0.5 microns or larger.

6. **Air Filtration:** The AHU (i.e. air handling unit) must be an air purification unit and air filtration unit. There must be two sets of washable flange type filters of efficiency 90% down to **10 microns** and 99% down to **5 microns** with aluminium/ SS 304 frame within the AHU. The necessary service panels to be provided for servicing the filters, motors & blowers. HEPA filters of efficiency 99.97% down to **0.3 microns** or higher efficiency are to be provided .
7. **Temp & RH for Super-specialty OT:** It should be maintained **21 C +/- 3 C** (except for Ortho for Joints replacement as **18 C +/-2 C**) with corresponding relative humidity between **20 to 60%** though the ideal RH is considered to be **55%**. Appropriate devices to monitor and display these conditions inside the OT may be installed.

## REQUIREMENTS – General OT

### 1. Air Change Per Hour:

- Minimum total air changes should be **20** based on international guidelines although the same will vary with biological load and the location.
- The fresh air component of the air change is required to be minimum **4** air changes out of total minimum **20** air changes.

### 2. Air Velocity: should be same as per previous guide.

### 3. Positive Pressure: There is a requirement to maintain positive pressure differential between OT and adjoining areas to prevent outside air entry into OT. The minimum positive pressure recommended is **2.5** Pascal (0.01 inches of water).

### 4. Air handling/Filtration: It should be same as previous. When not possible, the OTs should be well ventilated with **2** levels of filtrations with efficiencies as specified previously (**pre** and **micro vee** filters should be in position at the AHU).

The air quality at the supply i.e. at grille level should be Class 1000/ ISO Class 6 (at rest condition).

**Note:** Class 1000 means a cubic foot of air must have no more than 1000 particles measuring 0.5 microns or larger.

### 5. Temperature and Humidity: The temperature should be maintained at **21C +/- 3 Deg C** inside the OT all the time with corresponding relative humidity between **20 to 60%**. Appropriate devices to monitor and display these conditions inside the OT may be installed.

## Design considerations for Planning New Operation Theatres

### OT Construction:

- a) The AHU of each OT should be **dedicated one** and should not be linked to air conditioning of any other area for all OT constructed.
- b) Window & split A/c **should not** be used in any type of OT because they are pure re circulating units and have convenient pockets for microbial growth which cannot be sealed.
- c) Paint- antibacterial, anti-fungal
- d) OT door – automatic/ Hermitically Sealed/Touch free (preferable)

- e) General Lights – Clean room lights
- f) Provision of safety against static charge.
- g) Separate power circuit for equipment like Laser.
- h) The anti-static flooring, walls and ceiling should be non-porous, smooth, seamless without corners (coving) and should be easily cleanable repeatedly. The material should be chosen accordingly. Anti-static Flooring – seamless, including skirting, should not be of porous stone as it absorbs moisture and could be a source of bio-burden.

### **Maintenance of the system**

- During the non-functional hours AHU blower will be operational round the clock (may be without temperature control). Variable frequency devices (VFD) may be used to conserve energy. Air changes can be reduced to 25% during non-operating hours thru VFD provided positive pressure relationship is not disturbed during such period.
- **Validation of system** to be done as per ISO 14644 standards and should include:
  - ✓ Temperature and Humidity check
  - ✓ Air particulate count
  - ✓ Air Change Rate Calculation
  - ✓ Air velocity at outlet of terminal filtration unit /filters
  - ✓ Pressure Differential levels of the OT wrto ambient / adjoining areas
  - ✓ Validation of HEPA Filters by appropriate tests like **DOP** (Dispersed Oil Particulate) /**POA** (Poly Alpha Olefin) etc.; repeat after **6 month** in case HEPA found healthy.
- **Preventive Maintenance** of the system: It is recommended that periodic preventive maintenance be carried out in terms of cleaning of pre filters, micro vee at the interval of **15 days**. Preventive maintenance of all the parts of AHU is carried out as per manufacturer recommendations.

## **References**

1. American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) Standards. Ventilation for Indoor Air Quality. 2013
2. Previous NABH guidelines for air conditioning in operation theatre
3. Discussion by NABH TC & AC team on 25<sup>th</sup> April 2015.

## **ASSESSORS CHECKLIST DURING NABH AUDIT**

1. To check the temperature, humidity inside OT.
2. The differential pressure inside & outside OT.
3. Maintenance record of AHU & filter cleaning frequency.
4. Last HEPA filtration report & HEPA validation report.
5. Is Air-conditioning done through split AC or AHU?

.



## **Annexure - 6**

### **Sentinel Events**

#### **Definition:**

An 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.

*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.*

#### **Event type description**

##### **1. Surgical events**

- Surgery performed on the wrong body part
- Surgery performed on the wrong patient
- Wrong surgical procedure performed on the wrong patient
- Retained instruments in patient discovered after surgery/procedure
- Patient death during or immediately post-surgical procedure
- Anesthesia-related event

##### **2. Device or product events Patient death or serious disability associated with:**

- the use of contaminated drugs, devices, products supplied by the organisation
- the use or function of a device in a manner other than the device's intended use
- the failure or breakdown of a device or medical equipment
- intravascular air embolism

##### **3. Patient protection events**

- Discharge of an infant to the wrong person

- Patient death or serious disability associated with elopement from the healthcare facility
- Patient suicide, attempted suicide, or deliberate self-harm resulting in serious disability
- Intentional injury to a patient by a staff member, another patient, visitor, or other
- Any incident in which a line designated for oxygen or other came to be delivered to a patient and contains the wrong gas or is contaminated by toxic substances
- Nosocomial infection or disease causing patient death or serious disability

#### **4. Environmental events**

Patient death or serious disability while being cared for in a healthcare facility associated with:

- a burn incurred from any source
- a slip, trip, or fall
- an electric shock
- the use of restraints or bedrails

#### **5. Care management events**

- Patient death or serious disability associated with a hemolytic reaction due to the administration of ABO-incompatible blood or blood products
- Maternal death or serious disability associated with labour or delivery in a low-risk pregnancy
- Medication error leading to the death or serious disability of patient due to incorrect administration of drugs, for example:
  - omission error
  - dosage error
  - dose-preparation error
  - wrong-time error
  - wrong rate of administration error
  - wrong administrative technique error

- wrong-patient error
- Patient death or serious disability associated with an avoidable delay in treatment or response to abnormal test results

## **6. Criminal events**

- Any instance of care ordered by or provided by an individual impersonating a clinical member of staff
- Abduction of a patient
- Sexual assault on a patient within or on the grounds of the healthcare facility
- Death or significant injury of a patient or staff member resulting from a physical assault or other crime that occurs within or on the grounds of the healthcare facility.

## **Annexure - 7**

### **Patient Responsibilities (Indicative Guide)**

#### **Patient Responsibilities (Indicative Guide)**

- Provide complete and accurate information about his/her health, including present condition, past illnesses, hospitalisations, medications, natural products and vitamins, and any other matters that pertain to his/her health.
- Provide complete and accurate information including full name, address and other information.
- To ask questions when he/she does not understand what the doctor or other member of the healthcare team tells about diagnosis or treatment. He/she should also inform the doctor if he/she anticipates problems in following prescribed treatment or considering alternative therapies.
- Abide by all hospital rules and regulations.
  - Comply with the no-smoking policy.
  - Comply with the visitor policies to ensure the rights and comfort of all patients. Be considerate of noise levels, privacy, and safety. Weapons are prohibited on premises.
  - Treat hospital staff, other patients, and visitors with courtesy and respect.
- To be on time in case of appointments. To cancel or reschedule as far in advance as possible in case of cancellation or rescheduling of the appointments.
- Not to give medication prescribed for him/her to others.
- Provide complete and accurate information for insurance claims and work with the hospital and physician billing offices to make payment arrangements.
- To communicate with the healthcare provider if his/her condition worsens or does not follow the expected course.
- To pay for services billed for in a timely manner as per the hospital policies.
- To respect that some other patients' medical condition may be more urgent than yours and accept that your doctor may need to attend them first.

- To respect that admitted patient and patients requiring emergency care take priority for your doctor.
- To follow the prescribed treatment plan and carefully comply with the instructions given.
- To accept, where applicable, adaptations to the environment to ensure a safe and secure stay in hospital.
- To accept the measures taken by the hospital to ensure personal privacy and confidentiality of medical records.
- To attend follow-up appointment as requested.
- Not to take any medications without the knowledge of doctor and healthcare professionals.
- To provide correct and truthful history.
- To understand the charter of rights and seek clarification, if any.

## **Annexure - 8**

### **Key Performance Indicators**

In the last years, performance has become a well known term in the health services. Performance represents the extent to which set objectives are accomplished. The concept of performance in health services represents an instrument for bringing quality, efficiency and efficacy together. Consequently, the concept of performance is a multidimensional one, covering various aspects, such as: evidence-based practice (EBD), continuity and integration in healthcare services, health promotion, orientation towards the needs and expectation of patients.

Generally speaking, the mission of any hospital is to provide specific health services, which can solve the patients' health problems (efficacy) in the best manner (quality) and in the most economic way possible (efficiency). Key Performance Indicators (KPIs) help to systematically monitor, evaluate, and continuously improve service performance. In and of themselves, KPIs cannot improve performance. However, they do provide "signposts" that signal progress toward goals and objectives as well as opportunities for improvement.

Well-designed KPIs should help health sector decision makers to do a number of things, including:

- Establish baseline information (i.e., the current state of performance)
- Set performance standards and targets to motivate continuous 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.

There are several main dimensions most frequently used to measure hospitals' performance viz Clinical efficiency (Clinical quality, evidence-based practices, health improvement and outcomes for individual and patients), Operational efficiency (Resource utilisation of services like reduction in waiting time or improvement in non

productive OT time and provision of state-of-the-art medical equipment and technique), Personnel (Satisfying the human resources needs, providing proper conditions to keep the health of the hospital personnel safe and also to improve it, ensuring fair opportunities for continuous medical education), Social accountability and reactivity (Orientation towards community- response to needs and requirements, health promotion with abilities to adapt to increasing demands of the population) , Safety (for Patients, Healthcare worker and facility) and Focus on patient (Availability of services in accordance to scope towards patients, focusing on the patient and attendants, patient's satisfaction and patient's experience involving dignity, confidentiality, autonomy, communication).

Donabedian et al introduced a concept of key performance indicators being seen as structure, process and outcome based. NABH in its 4th edition has 70 key performance indicators which have been divided as 36 clinical and 34 managerial indicators. Most of the indicators in hospitals are process based indicators with an intent that quality delivery and outcome improves. Few process based indicators got included in the new edition viz change in plan of elective surgery (patient safety), appropriate handovers (communication), patient identification errors (patient safety), hand hygiene compliance (patient safety), re-exploration rate (patient rate) and medical prescription in capitals (patient safety).

Healthcare organizations are encouraged to capture all data which involves clinical and support services. The data needs to be analyzed and risks, rates and trends for all the indicators have to be demonstrated for appropriate action. The HCOs can gather data based on the sample size (Guidance tool: Table 1) and mode of data collection can be divided in three categories:

- a) Continuous
- b) Periodic (monthly)
- c) Periodic (quarterly)

The intent of the NABH KPIs is to have comprehensive involvement of scope of services for which an institution has applied for the accreditation program. Standardized

definitions (Annexure 9) for each indicator along with numerator and denominator have been explained. Each HCO can have the data set, analyze the data and appropriate correction, corrective and preventive action can be formulated. In the 4th edition, an effort has been made to participate towards national programs and evolving databases. Few essential health indicators like infant mortality, maternal mortality etc have been included as KPIs for regular reporting.

Each institution can also design their own methodology of data collection but a broad guidance note has been given to facilitate organization's compliance.

Suggested minimum sample size to be taken for various audits and KPIs as applicable. (Table at the end).



## Annexure - 9

### The Key Performance Indicators Expected to be Monitored by Healthcare Organisation

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

Sl. No.	Standard	Indicator	Definition	Formula		Frequency of Data Collection / monitoring	Remarks
1.	CQI 3a	<p>a. Time for initial assessment of indoor patients</p> <p>b. Time taken for initial assessment of patients attending emergency services, if applicable.</p>	<p>a. The time shall begin from the time that the patient has arrived at the bed of the ward till the time that the initial assessment has been completed by a doctor.</p> <p>b. In case of emergency the time shall begin from the time the patient's arrival at the emergency till the time that the initial</p>	Sum of time taken for the assessment	Total number of patients in indoor/emergency	Periodic- Atleast Monthly (Refer to sample size table / annexure)	<p>The average time should be reviewed by the hospital, to see if this has impacted clinical care, outcome, or has reduced the efficiency.</p> <p><i>The outliers:</i> those taking more than 20% of the average time shall be audited.</p> <p>The hospital will make efforts to keep this measure at low levels, and track trends in times of increased patient flows.</p>

			assessment is completed by a doctor.				
2.	CQI 3a	Percentage of cases (in-patients) wherein care plan with desired outcomes is documented and counter-signed by the clinician.		Number of in-patient case records wherein the care plan with desired outcomes has been documented Total number of patients	X 100	Periodic-Atleast Monthly ( <i>Refer to sample size table / annexure</i> )	The indicator shall be captured during the stay of the patient and not from the medical record department. It shall be collated on a monthly basis. The sampling base shall be patients who have completed 24 hours of stay in the hospital.  However, immediate correction is to be initiated, when gaps are seen on a real time basis.
3.	CQI 3a	Percentage of cases (in-patients) wherein screening for nutritional needs has been done.		Number of in-patient case records wherein the nutritional assessment has been documented Total number of patients	X 100	Periodic-Atleast Monthly ( <i>Refer to sample size table / annexure</i> )	The indicator shall be captured during the stay of the patient and not from the medical record department. It shall be collated on a monthly basis. The sampling base shall be patients who have completed 24 hours of stay in the hospital.  However, immediate

							correction is to be initiated, when gaps are seen on a real time basis.
4.	CQI 3a	Percentage of cases (in-patients) wherein the nursing care plan is documented.	Nursing care plan shall be the outcome of the nursing assessment done at the time of admission.	Number of in-patient case records wherein the nursing care plan has been documented  Total number of patients	X 100	Periodic - Atleast Monthly (Refer to sample size table / annexure)	The indicator shall be captured during the stay of the patient and not from the medical record department. It shall be collated on a monthly basis. The sampling base shall be patients who have completed 24 hours of stay in the hospital.  However, immediate correction is to be initiated, when gaps are seen on a real time basis.
5.	CQI 3b	Number of reporting errors / 1000 investigations	Reporting errors include those picked up before and after dispatch. It shall include transcription errors.	Number of reporting errors  Number of tests performed	X 1000	Continuous	This shall be captured in the laboratory and radiology.  Although the indicator is capture don a monthly basis, immediate correction is to be initiated when such instances happen.
6.	CQI 3b	Rate of re-dos.	This shall also include tests repeated before release of the	Number of re-dos  Number of tests	X 1000	Periodic - Atleast Monthly (Refer to	This shall be captured in the laboratory and radiology.

			result (to confirm the finding).	performed		sample size table / annexure)	
7.	CQI 3b	Percentage of reports co-relating with clinical diagnosis.	Co-relation means that the test results should match either the diagnosis or differential diagnosis written in the discharge Summary	Number of reports co-relating with clinical diagnosis No of tests performed	X 100	Continuous	This shall be captured in the laboratory (at least histo- pathology) and radiology (at least CT and MRI).
8.	CQI 3b	Percentage of adherence to safety precautions by employees working in diagnostics.		Number of employees adhering to safety precautions Number of employees sampled	X 100	Periodic - Atleast quarterly (Refer to sample size table/annexure)	This shall be captured in the laboratory and radiology. This shall be captured by doing an audit on a monthly basis. Even if the employee is not adhering with any one of the organisation's/statutory safety precautions it shall be considered as non-adherence.
9.	CQI 3c	Incidence of medication errors (Medication errors per patient days)	A medication error is any preventable event that may cause or lead to inappropriate medication use or harm to a patient (US- FDA). Examples include,	Total number of medication errors Number of patient days a. Total no. of prescription errors	X 1000	Continuous monitoring AND Periodic - Atleast Monthly (Refer to sample size table /	In addition to incident reporting, to detect medication errors the organisation shall either adopt medical record review or direct observation. The average occupancy shall be of the preceding 3 months.

			but are not limited to:  Errors in the prescribing, transcribing, dispensing, administering, and monitoring of medications;  Wrong drug, wrong strength, or wrong dose errors;  Wrong patient errors;  Wrong route of administration errors; and  Calculation or preparation of a) Prescription Error b) Dispensing Error	<div>No. of patient days</div> <div>b. Total no. of medication dispensing errors</div> <div>No. of patients days</div>	<div>X 1000</div> <div>X 1000</div>	annexure)	Medication Error is to be calculated only in IP. OP calculations are beyond the scope.
10.	CQI 3c	Percentage of admissions with adverse drug	Refer to glossary	Number of adverse drug reactions/		Continuous	Separations means discharges (includes LAMA/DAMA and abscond) and deaths.

		reaction(s)/ Idiosyncratic reactions (Adverse drug reactions/ Idiosyncratic reactions per 100 separations)		Idiosyncratic reactions	X 100		
				Number of discharges and deaths			
11.	CQI 3c	Percentage of medication charts with error prone abbreviations	Medication chart with illegible handwriting and un accepted error prone abbreviations	Number of medication charts with error prone abbreviations	X 100	<i>Continuous monitoring AND Periodic - Atleast Monthly (Refer to sample size table / annexure)</i>	This could be clubbed with the activity for capturing medication errors.
				Number of medication charts reviewed			
12.	CQI 3c	Percentage of patients receiving high risk medications developing adverse drug event if applicable.	High risk medications are 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.	Number of patients receiving high risk medications who have an adverse drug event	X 100	Continuous	The denominator can be captured from the pharmacy by having a master list of in- patients who have been dispensed high-risk medications. Please refer to glossary.
				Number of patients receiving high risk			

				medications.			
13.	CQI 3d	Percentage of modification of anaesthesia plan, if applicable	The anaesthesia plan is the outcome of pre-anaesthesia assessment. Any changes done after this shall be considered as modification of anaesthesia plan.	Number of patients in whom the anaesthesia plan was modified	X 100	Continuous	The modification is anaesthesia plan could be captured in a register/system before the patient is shifted out of the OT.
				Number of patients who underwent anaesthesia			
14.	CQI 3d	Percentage of unplanned ventilation following anaesthesia, if applicable		Number of patients requiring unplanned ventilation following anaesthesia	X 100	Continuous	Every anaesthesia plan shall invariably mention if there is a possibility of the patient requiring ventilation following anaesthesia. Every case wherein a patient required ventilation but this was not captured in the anaesthesia plan shall be a part of the numerator.
				Number of patients who underwent anaesthesia			
15.	CQI 3d	Percentage of adverse anaesthesia events, if applicable	Adverse anaesthesia event is any untoward medical occurrence that may present during treatment with an	Number of patients who developed adverse anaesthesia event	X 100	Continuous	
				Number of			

			anaesthetic product but which does not necessarily have a causal relationship with this treatment.	patients who underwent anaesthesia			
16.	CQI 3d	Anaesthesia related mortality rate, if applicable	Any death where the cause is possible, probable (likely) or certain to be due to anaesthesia shall be included.	Number of patients who died due to Anaesthesia	X100	Continuous	
				Number of patients who underwent anaesthesia			
17.	CQI 3e	Percentage of unplanned return to OT, if applicable		Number of unplanned return to OT	X100	Continuous	
				Number of patient operated			
18.	CQI 3e	Percentage of re- scheduling of surgeries, if applicable	Re-scheduling of patients includes cancellation and postponement (beyond 4 hours) of the surgery.	Number of cases re-scheduled	X100	Continuous	
				Number of surgeries planned			



19.	CQI 3e	Percentage of cases where the organisation procedure to prevent adverse events like wrong site, wrong patient and wrong surgery have been adhered to, if applicable.		Number of cases where the procedure was followed			This could be checked in the post-op/recovery room and documented in a register / system (Includes adherence to Surgical Safety Check List)
				Number of surgeries performed	X100		
20.	CQI 3e	Percentage of cases who received appropriate prophylactic antibiotics within the specified time frame, if applicable		Number of patients who did receive appropriate prophylactic antibiotic (s)		Continuous	Appropriate prophylactic antibiotic should be according to hospital policy.
				Number of surgeries performed	X 100		
21.	CQI 3e	Percentage of cases in which the planned surgery is changed intraoperativ		No. of cases in which the planned surgery is changed intraoperatively		Continuous and Periodic Monthly (Refer to sample size table / annexure)	
				Total no. of	X 100		

		ely, if applicable		surgeries performed			
22.	CQI 3e	Re-exploration rate, if applicable		No. of re-explorations done during same admission	X 100	Periodic Monthly (Refer to sample size table / annexure)	Re-explorations should not include two stage surgical procedures
				Total number of surgeries			
23.	CQI 3f	Percentage of transfusion reactions recipient. The causes include red blood cell incompatibility allergic sensitivity to the leukocytes, platelets, plasma protein components of the transfused blood; or potassium or citrate preservatives	A systemic response by the body to the administration of blood incompatible with that of the	Number of transfusion reactions	X 100	Continuous	Any adverse reaction to the transfusion of blood or blood components shall be considered as transfusion reaction. It may range from an mild allergic reaction (including chills/rigors) to a life threatening complication like TRALI and Graft Versus Host Disease.
				Number of units transfused			

		in the banked blood, if applicable.					
24.	CQI 3f	Percentage of wastage of blood and blood components, if applicable.		<div>a. Number of blood and blood components units wasted among those issued</div> <div>Number of blood and blood components units issued from the blood bank</div> <div>b. Number of blood and blood components units wasted at blood bank/blood storage center</div> <div>Number of</div>	<div>X 100</div> <div>X 100</div>	Continuous	<p>This also includes blood products found unfit for use.</p> <p>It is important that the organisation capture the number of blood and blood components used and not just the number of transfusions carried out. At times more than one blood bag or components may have been given in a single transfusion.</p> <p>In case the organisation does not have a blood bank of its own, the denominator shall be the total number of blood and blood components collected / indented from the blood bank.</p>

				blood and blood components units stored in the blood bank.			
25.	CQI 3f	Percentage of blood component usage, if applicable		Number of components used	X 100	Continuous	
				Number of blood and blood products used			
26.	CQI 3f	Turnaround time for issue of blood and blood components, if applicable	The time shall begin from the time that the order is raised to blood/blood component reaching the clinical unit.	um of time taken		Continuous	This will include blood outsourced from other Blood Banks, for those organisations not having in house Blood Banks. Refer to glossary
				Total number of blood and blood components issued			
27.	CQI 3g	Catheter associated Urinary tract infection rate	As per the latest CDC/NHSN definition	Number of urinary catheter associated UTIs in a month	X 1000	Continuous	
				Number of urinary catheter days in that			

				month			
28.	CQI 3g	Ventilator associated Pneumonia rate, if applicable	As per the latest CDC/NHSN definition	Number of “Ventilator Associated Pneumonia” in a month	X1000	Continuous	
				Number of ventilator days in that month			
29.	CQI 3g	Central line associated Bloodstream infection rate, if applicable	As per the latest CDC/NHSN definition	Number of central line associated blood stream infections in a month.	X1000	Continuous	
				No. of central line days in that month			
30.	CQI 3g	Surgical site infection rate, if applicable	As per the latest CDC/NHSN definition	Number of surgical site infections in a given month	X100	Continuous	Additionally the SSI rates for Inguinal Herniorrhaphy with mesh, Caesarean section, Laparoscopic cholecystectomy and Coronary artery bypass grafting (CABG) shall be monitored separately as applicable.
				Number of surgeries performed in that month			
31.	CQI 3h	Mortality rate		a. Number of		Continuous	Additionally, Case fatality rate for 5 most frequent

				deaths	X100		conditions death in HCO should be monitored.  Maternal deaths- pregnancy related deaths  Infant -Young baby from birth to 12 month of age
				Number of discharges and deaths			
				b. Proportional maternal mortality rate= Total no. Of maternal deaths			
				Total no. of deaths	X100		
				c. Proportional infant mortality rate= Total No. of infant deaths	X100		
Total no. of deaths							
32.	CQI 3h	Return to ICU within 48 hours, if applicable		Number of returns to ICU within 48 hours		Continuous	

				Number of discharges/transfers in the ICU	X100		
33.	CQI 3h	Return to the emergency department within 72 hours with similar presenting complaints, if applicable		Number of returns to emergency within 72 hours with similar presenting complaints	X 100	Continuous	To capture this indicator it may be a good practice to capture during the initial assessment itself if the patient had come within 72 hours for similar complaints.
				Number of patients who have come to the emergency.			
34.	CQI 3h	Re-intubation rate, if applicable	This shall include re-intubation within 48 hours of extubation.	Number of re-intubations within 48 hours of extubation	X 100	Continuous	
				Number intubations			
35.	CQI 3i	Percentage of research activities approved by Ethics committee		Number of research activities approved by ethics committee		Continuous	

				Number of research protocols submitted to ethics committee	X 100		
36.	CQI 3i	Percentage of patients withdrawing from the study		Number of patients who have withdrawn from all on-going studies	X 100	Continuous	.
				Number of patients enrolled in all on-going studies			
37.	CQI 3i	Percentage of protocol violations/ deviations reported		Number of protocol violations/ deviations reported	X 100	Continuous	Any protocol violation/deviation that gets reported based on an internal/external assessment finding shall be considered as deemed to have happened but not reported. Hence, even though it gets reported it shall be included to only calculate the denominator and shall not be included in the numerator.
				Number of protocol violations / deviations that have occurred			
38.	CQI 3i	Percentage	The timeframe for	Number of		Continuous	



		of serious adverse events (which have occurred in the organisation ) reported to the ethics committee within the defined timeframe.	reporting shall be as per ICMR guidelines or as laid down by the sponsor.	serious adverse events reported within the defined timeframe	X 100		
				Number of serious adverse events reported within and outside the defined timeframe			
39.	CQI 4a	Percentage of drugs and consumables procured by local purchase	These include drugs and consumables which are not included in the hospital formulary at the time of prescription, but are then arranged by the hospital pharmacy itself for the patient within a short time.	a. Number of drugs /items purchased by local purchase within formulary  Number of drugs/ items in hospital formulary list  b. Number of drugs /items purchased by local purchase outside formulary	X 100	Continuous	This includes medicines or consumables which were used by the patients before admission and need to continue but it is not included in the hospital list (generic).  To capture this, organisation should maintain a register in the pharmacy and stores (and also if necessary in the wards) wherein all such events are captured.

				Number of drugs/items procured in hospital within as well as outside.	X 100		
40.	CQI 4a	Percentage of stock outs including emergency drugs	A stock out is an event which occurs when an item in a pharmacy or consumable store is temporarily unable to provide for an intended patient.	Number of stock outs	X 100	Continuous	To capture this, organisation should maintain a register in the pharmacy and stores (and also if necessary in the wards) wherein all such events are captured.
				Number of drugs listed in hospital formulary and hospital consumables list			
41.	CQI 4a	Percentage of drugs and consumables rejected before preparation of Goods Receipt Note (GRN)	All materials received not in conformity with the specifications and requirements ordered for in the purchase order shall be rejected.	Total quantity rejected	X 100	Continuous	Please note that the denominator is total quantity and not number. For example, a single order may have 30 items of "X" consumable. Of the 30, 10 may be rejected. In this case the formula will be 10/30.
				Total quantity received before GRN			
42.	CQI 4a	Percentage of variations from the procurement process	Variations from the written standardised procurement process of acquiring supplies from licensed,	Total number of variations from the defined procurement process	X 100	Continuous	
				Total number of			

			authorized, agencies, wholesaler / distributors.	items procured			
43.	CQI 4b	Number of variations observed in mock drills	Mock drill is a simulation exercise of preparedness for any type of event. It could be event or disaster. This is basically a dry run or preparedness drill. For example, fire mock drill, disaster drill, Code Blue Drill.	Total number of variations in a mock drill		Continuous	To capture the variation it is suggested that every organisation develop a checklist to capture the events during a mock drill.
44.	CQI 4b	Incidence of 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-	Number of falls Total number of patient days	X 1000	Continuous	Falls may be: <ul style="list-style-type: none"> <li>at different levels – i.e., from one level to ground level e.g. from beds, wheelchairs or down stairs</li> <li>on the same level as a result of slipping, tripping, or stumbling, or from a collision, pushing, or shoving, by or with another person</li> </ul>

			<p>purposeful, downward displacement of the body to the floor/ground or hitting another object like a chair or stair.”</p> <p>It is an event that results in a person coming to rest inadvertently on the ground or floor or other lower level.</p>				<ul style="list-style-type: none"> <li>below ground level, i.e. into a hole or other opening in surface</li> </ul> <p>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).</p>
45.	CQI 4b	Incidence of hospital associated pressure ulcers after admission (Bed sore per 1000 patient days)	<p>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.</p>	<p>Number of patients who develop new / worsening of pressure ulcer</p>	X 1000	Continuous	The organisation shall use The European and US National Pressure Ulcer Advisory panels (EPUAP and NPUAP) staging system to look for worsening pressure ulcers.
				Total no. of patient days			
46.	CQI 4b	Percentage of	Pre-exposure	Number of		Continuous	This shall include at a

		staff provided pre- exposure prophylaxis	prophylaxis is any medical or public health procedure used before exposure to the disease causing agent, its purpose is to prevent, rather than treat or cure a disease.	employees who were provided pre-exposure prophylaxis	X 100		minimum prophylaxis against Hepatitis B. The denominator shall include new employees (working in patient care areas) and existing employees whose booster dose is due in that month.
				Number of employees who were due to be provided pre exposure prophylaxis			
47.	CQI 4c	Bed occupancy rate and average length of stay	The bed occupancy rate is the percentage of official beds occupied by hospital inpatients for a given period of time. – (Basic statistics for health information management technology By Carol E. Osborn) The occupancy rate is a calculation used to show the actual utilisation of an inpatient health facility for a given	Number of inpatient days in a given month	X 100	Continuous	For a bed to be included in the official count, it must be set up, staffed, equipped and available for patient care.
				Number of available bed days in that month			<i>Inpatient Days:</i> A patient day is the unit of measure denoting lodging provided and services rendered to inpatients between the census taking hours (usually at midnight) of two successive days. A patient formally admitted who is discharged or dies on the same day is counted as one patient day, regardless of the number of hours the patient occupies a hospital

			<p>time period.</p> <p>Length of stay (LOS) is a term used to measure the duration of a single episode of hospitalization. Inpatient days are calculated by subtracting day of admission from day of discharge. However, persons entering and leaving a hospital on the same day have a length of stay of one</p>				<p>bed. For patients switched from observation to inpatient status, the patient day count should begin on the day the patient was officially admitted as an inpatient.</p>
			<p>Length of stay (LOS) is a term used to measure the duration of a single episode of hospitalization. Inpatient days are calculated by subtracting day of admission from day of discharge. However, persons entering and leaving a hospital</p>	<p>Number of inpatient days in a given month</p>		Continuous	<p><i>Available bed days</i>- It is the product of number of inpatient beds and number of days in that month.</p> <p><i>Number of inpatient days</i>- It is a sum of daily inpatient census.</p> <p>While calculating the overall length of stay and available number of inpatient beds, emergency, rehabilitation</p>
				<p>Number of discharges and deaths in that month</p>			

			on the same day have a length of stay of one				and day care beds should not be considered.
48.	CQI 4c	OT and ICU utilisation rate, if applicable	<p>OT utilisation is defined as the quotient of hours of OT time actually used during elective resource hours and the total number of elective resource hours available for use.</p> <p>The degree of utilisation depicts the average utilisation of beds in per cent. The actual bed occupancy is set in relation to the maximum bed occupancy. The maximum bed capacity is the result of the product of installed beds and the number of calendar days in the reporting year. The</p>	<p>a. OT utilisation rate = OT utilisation time in hours</p> <p>Resource hours</p> <p>b. ICU Equipment utilisation= Number of equipment utilized days</p> <p>Equipment days available</p> <p>c. Bed utilisation = Number of bed utilized days</p> <p>Bed days available</p>	<p>X 100</p> <p>X 100</p> <p>X 100</p>	Continuous	<p><i>Resource hours</i> - total number of hours scheduled to be available for performance of procedures</p> <p>Equipment days available = Number of equipment X 30 days</p>

			actual bed occupancy is the sum of calculation days and occupancy days, because every patient occupies one bed per inpatient day in the facility				
49.	CQI 4c	Critical equipment down time	The term downtime is used to refer to periods when a system is unavailable. Downtime or outage duration refers to a period of time that a system fails to provide or perform its primary function	Sum of down time for all critical equipment in hours in a month.		Continuous	Check list of all equipment should be updated in the unit on daily basis to monitor equipment utilisation and downtime.
50.	CQI 4c	Nurse-patient ratio for wards (mandatory) and ICUs (if applicable)		<div>Number of nursing staff</div> <div>Number of beds</div> <div>To be calculated for each shift</div>		Continuous	The HCOs should calculate the staffing patterns separately for ICUs and for the wards. The in-charge/supervisor of the area shall not be included for calculating the number of staff. It is preferable that in case



				separately			of ICU the organisation capture the ratio for ventilated and non-ventilated patients separately
51.	CQI 4d	Out patient satisfaction index	Patient Satisfaction is defined in terms of the degree to which the patient's expectations are fulfilled. It is an expression of the gap between the expected and perceived characteristics of a service.	<div>Average Score achieved</div> <div>Maximum possible score Maximum possible score</div>	X 100	<i>Continuous monitoring and audits should be done at least quarterly (Refer to sample size table / annexure)</i>	<p>The sample shall be derived from repeat patients. It is preferable that patients who are coming to the hospital for the first time not be included as it is possible that they would not be in a position to give feedback on some aspects.</p> <p>The organisation could also capture satisfaction for various individual parameters (as laid down in its feedback form). In case the organisation is not capturing an overall feedback but instead only for various parameters, the index shall be calculated by averaging the satisfaction of various parameters.</p>

52.	CQI 4d	In patient satisfaction index		Average Score achieved	X 100	<i>Continuous monitoring and audits should be done at least quarterly (Refer to sample size table / annexure)</i>	Refer to remark for out patient satisfaction index.
				Maximum possible score			
53.	CQI 4d	Waiting time for services including diagnostics and out-patient consultation	A waiting time is a length of time which one must wait in order for a specific action to occur, after that action is requested or mandated. 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. Waiting time for out-patient	Sum (Patient-in Time for Consultation/ Procedure - Patient Reporting Time in OPD/Diagnostics)		<i>Periodic monitoring and audits should be done at least quarterly (Refer to sample size table / annexure)</i>	Waiting time for diagnostics is applicable only for out- patients.
				Number of patients reported in OPD/ Diagnostics			

			consultation is the time from which the patient has come to the concerned out-patient department (it may or may not be the same time as registration) till the time that the concerned consultant (not the junior doctor/resident) begins the assessment				
54.	CQI 4d	Time taken for discharge	Discharge is the process by which a patient is shifted out from the hospital with all concerned medical summaries after ensuring stability.  The discharge process is deemed to have started when the consultant formally approves discharge	Sum of time taken for discharge  Number of patients discharged		<i>Periodic – Monthly AND audits should be done at least quarterly. (Refer to sample size table / annexure)</i>	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.

			and ends with the patient leaving the clinical unit				
55.	CQI 4e	Employee satisfaction index	Employee satisfaction index is an index to measure satisfaction of employee in an organisation	Average Score achieved	X 100	<i>Periodic – Quarterly (Refer to sample size table / annexure)</i>	Refer to remark for out-patient satisfaction index (serial number 49). The satisfaction shall be captured from all categories of staff and at least once in six months.
				Maximum possible score			
56.	CQI 4e	Employee attrition rate	Attrition rate is the percentage of people leaving the organisation.	Number of employees who have left during the month	X 100	Continuous	
				Number of employees at the beginning of month + newly joined staff			
57.	CQI 4e	Employee absenteeism rate	Absenteeism in employment law is the state of not being present that occurs when an employee is absent or not present at work during a normally scheduled work	Number of employees who are on unauthorised absence	X 100	Continuous	
				Number of employees			

			period.				
58.	CQI 4e	Percentage of employees who are aware of employee rights, Responsibilities and welfare schemes	Employee awareness is the state or condition of being aware; having knowledge; consciousness about employee rights, responsibilities and welfare schemes.	Number of employees who are aware of employee rights, responsibilities and welfare schemes	X 100	Periodic monitoring AND audits should be done atleast quarterly (Refer to sample size table / annexure)	
				Number of employees interviewed			
59.	CQI 4f	Number of sentinel events reported, collected and analysed within the defined timeframe	Refer to glossary	Number of sentinel events analysed within the defined timeframe	X 100	Continuous	If there is deviation in either reporting/collecting/analysis it shall not be included in the numerator. Organisations should consider using a portfolio of tools-including incident reporting, medical record review, and analysis of patient claims-to gain a comprehensive picture of sentinel events.
				Number of sentinel events reported/collected			
60.	CQI 4f	Percentage of near misses	A near miss is an unplanned event that did not result in injury, illness, or damage – but had	Number of near misses reported	X 100	Continuous	A key to any near miss report is the "lesson learned". Near miss reporters can describe what they observed of the
				Number of			

			the potential to do so.  Errors that did not result in patient harm, but could have, can be categorized as near misses.	incidents reported			beginning of the event, and  the factors that prevented loss from occurring.
61.	CQI 4f	Incidence of blood body fluid exposures	An exposure is when blood, blood components or other potentially infectious materials come in contact with a staff's eyes, mucous membranes, non-intact skin or mouth. (Adopted from Joan Viteri Memorial Clinic "PEP" Post Exposure Prophylaxis)	<div>A. In IPD Areas: Number of blood body fluid exposures</div> <div>Number of in-patient days</div> <div>B. In OPD Areas: Number of blood body fluid exposures</div> <div>Number of OPD Patient visits</div>	<div>X 1000</div> <div>X 1000</div>	Continuous	All exposures to blood/body fluids should be assessed on a case-by-case basis.
62.	CQI 4f	Incidence of needle stick injuries	Needle stick injury is a penetrating stab wound from a needle (or other	a. In IPD Areas: Number of parenteral		Continuous	Parenteral exposure means injury due to any sharp.

			sharp object) that may result in exposure to blood or other body fluids. Needle stick injuries are wounds caused by needles that accidentally puncture the skin.	exposures	X 1000		All incidences of needle stick injuries should be assessed on a case-by-case basis.
				b. In OPD areas: Number of Parenteral exposures			Analyze needle stick and other sharps related injuries in the workplace to identify hazards and injury trends. Data from injury reporting should be compiled and assessed to identify:
			Needle stick injuries are a hazard for people who work with hypodermic syringes and other needle equipment. These injuries can occur at any time when people use, disassemble, or dispose of needles. When not disposed of properly, needles can become concealed in linen or garbage and injure other workers who encounter them unexpectedly.	Number of OPD Patient visits	X 1000		(1) where, how, with what devices, and when injuries are occurring and  (2) the groups of health care workers being injured.

			(Canadian Centre for Occupational Health and Safety)				
63	CQI 4g	Percentage of incomplete case management records (IPD)	Documented individualised patient-focused case management plan includes case analysis and evaluation, miasmatic analysis, totality formation, repertorisation, remedy differentiation, choice of remedy and posology for each patient.	Number of incomplete case management records	X 100	<i>Periodic monitoring AND audits should be done at least quarterly</i>	It will improve the qualitative application of record keeping and documentation
				Total number of case management records			
63.	CQI 4g	Percentage of medical records not having discharge summary	A discharge summary is the part of a patient record that summarizes the reasons for admission, significant clinical findings, procedures	Number of medical records not having discharge summary	X 100	Continuous	Every medical record that comes to the MRD from the clinical unit following the discharge of a patient shall be immediately checked for the presence of discharge summary. If this is not present at this stage it shall be captured as a part of the numerator.
				Number of discharges and deaths			



			<p>performed, treatment rendered, patient's condition on discharge and any specific instructions given to the patient or family (for example follow-up medications). It is a summary of the patient's stay in hospital written by the attending doctor.</p>				
64.	CQI 4g	Percentage of medical records not having codification as per International Classification of Diseases (ICD)	<p>The ICD is the international standard diagnostic classification for all general epidemiological, many health management purposes and clinical use. These include the analysis of the general health situation of population</p>	<p>Number of medical records not having codification as per International Classification of Diseases (ICD)</p> <hr/> <p>Number of discharges and deaths</p>	X 100	<p>Periodic monthly (Refer to sample size table / annexure)</p>	<p>ICD codification shall be done by the concerned staff within the specified period following discharge. After completion of this specified period an audit shall be done (using sample size mentioned in the previous column) by an independent person to capture this.</p>

			groups and monitoring of the incidence and prevalence of diseases and other health problems in relation to other variables such as the characteristics and circumstances of the individuals affected, reimbursement, resource allocation, quality and guidelines (WHO).				
65.	CQI 4g	Percentage of medical records having incomplete and/or improper consent	Consent is the willingness of a patient to undergo examination/ procedure/ treatment by a health care provider. Informed consent is a type of consent in which the health care provider has a duty	Number of medical records having incomplete and/ or improper consent	X 100	Periodic - monthly (Refer to sample size table / annexure)	
				Number of discharges and deaths			

			<p>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 take an informed decision of his/her health care.</p> <p>If any of the essential element/requirement of consent is missing it shall be considered as incomplete.</p> <p>If any consent obtained is invalid/void (consent obtained from wrong person/consent obtained by wrong person etc.) it is considered as</p>				
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			improper.				
66.	CQI 4g	Percentage of missing records	A medical record is considered as missing when the record could not be found out from the MRD after the 72nd hour of the record request.	Number of missing record	X 100	Continuous	Regular checks should be in place to ensure that there are no missing medical records or medical records are filed in the wrong place.
				Number of records			
67.	CQI 3j	Appropriate handovers during shift change (To be done separately for doctors and nurses) - (per patient per shift).		Total no. of handovers done appropriately	X 100	Periodic - monthly (Refer to sample table / annexure)	Handover is an important communication tool used by the healthcare workers. Handover documentation by each shift can be used as a guide to capture the information. A good tool for hand over is ISBAR or SBAR
				Total no. of handover opportunities			
68.	CQI 3j	Incidence of Patient identification errors		No. of patient identification errors	X100	Periodic - monthly (Refer to sample table / annexure)	Numerator can be captured through observation of doctors/nurses using two identification before procedure/medication/intervention
				No. of patients			
69.	CQI 3j	Compliance to Hand hygiene practice		Total no. of hand hygiene missed opportunities/	X100	Periodic - monthly (Refer to sample table /	Good reference is WHO hand hygiene compliance monitoring tool

				Total no. of hand hygiene opportunities		<i>annexure)</i>	
70.	CQI 3j	Compliance rate to Medication Prescription in capitals		Total no. of prescriptions in capital letters	X 100	<i>Periodic Monthly (Refer to sample size table / annexure)</i>	
				Total no. of prescriptions			

**The indicators shall be indicated in both rates/percentages/ratios and absolute numbers**

**A. Indicator frequency** has been described under:

**Continuous:** implies data/reports needs to be monitored on daily basis for all events/episodes/activities and analysed atleast on monthly basis followed by corrective and prevention actions.

**Periodic monthly basis:** The data needs to be compiled and analysed atleast on monthly basis followed by corrective and preventive actions based on sample size.

**Periodic with audits been done atleast quarterly:** This type of indicators can be reviewed on periodic basis using well designed audits with a goal to improve the patient care and patient safety. The audits can be done through open and/or closed files *using a suggestive sample size* as tabulated in sample size annexure below.

**B. Indicator results/data presentation:**

The presentation of indicators shall be helpful for easy understanding of the data to all relevant stakeholders. Thus data can be presented as:

1. Indicator results presented in a bar graph: Here, the results can be presented in the form of bar graph with periodicity monthly/quarterly etc. on x-axis and magnitude of the indicator on y-axis. The graph shall depict change in results over period of time.
2. Indicator results presented in a statistical process control chart: In such charts, results can be depicted in more dynamic fashion and comparison with the control line graphs. Action points can be easily identified and impact post interventions can be assessed in easier manner.
3. Indicator mix graphs can be used to understand impact of intervention/or one indicator over the other. E.g. Hand hygiene compliance of particular surgical unit can be plotted along with surgical site infection rates or hand hygiene compliance can be plotted along with ventilator associated pneumonia rates in a graph.

**C. Sample size annexure**

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

\*For the recommended sample size, all the samples should be taken on continuous basis.

**The following data has to be sent to NABH office at the end of each quarter in prescribed format.**

**General information**

1	Name of the Hospital
2	Total number of hospital operational beds
3	Total number of ICU beds, if applicable
4	Total number of non-ICU beds
5	Average number of Doctors on hospital rolls in specified period of time
6	Average number of Nurses on hospital rolls specified period of time
7	Total number of operation theatre tables, if applicable
8	Average number of admissions/ <b>day(excluding day care)</b>
9	Average number of patients visiting OPD/ <b>day</b>
10	Average number of patients visiting Emergency/ <b>day</b> , if applicable
11	Average number of elective surgeries/ <b>day</b> , if applicable
12	Average number of emergency surgeries/ <b>day</b> , if applicable
13	Average number of day care surgeries/ <b>day</b> , if applicable
14	Average units of water consumed/ <b>month (KL)</b>
15	Average units of electricity consumed/ <b>month (Units)</b>
16	Average Length of Stay
16.1	Average Length of Stay (excluding day care and obstetric cases)
17	Bed Occupancy



**Key performance indicators**

<b>S. No.</b>	<b>Indicator Name</b>
<b>1.1</b>	<b>Incidence of medication errors (Medication errors per patient days)</b>
<b>1.2</b>	Prescription Errors
<b>1.3</b>	Dispensing Errors
<b>2.</b>	<b>Percentage of cases who received appropriate prophylactic antibiotics within the specified time frame, if applicable</b>
<b>3.</b>	<b>Percentage of transfusion reactions, if applicable</b>
<b>4.</b>	<b>Catheter Associated Urinary tract infection rate (CAUTI)</b>
<b>5.</b>	<b>Ventilator associated pneumonias (VAP), if applicable</b>
<b>6.</b>	<b>Central Line Associated related blood stream infection (CLABSI) , if applicable</b>
<b>7.</b>	<b>Surgical site infection rate (SSI), if applicable</b>
<b>8.1</b>	<b>Total Mortality Rate</b>
<b>8.2</b>	Proportional Infant Mortality rate
<b>8.3</b>	Proportional Maternal Mortality Rate
<b>9.</b>	<b>Compliance to Hand Hygiene</b>
<b>10.</b>	<b>Incidence of fall</b>
<b>11.</b>	<b>Incidence of bed sores after admission</b>
<b>12.1</b>	<b>Incidence of needle stick injuries</b>
<b>12.2</b>	In IPD Areas
<b>12.3</b>	In OPD Areas

**Annexure - 10**  
**Minimum Standard Requirements for the Homoeopathy**  
**Colleges and associated hospitals**

The minimum standard requirements for the Homoeopathy colleges and associated hospitals as published by The Gazette of India vide their notifications dated 8<sup>th</sup> March 2013 or revised version can be followed.

The same are available from the website of Central Council for Homoeopathy at [www.cchindia.com](http://www.cchindia.com)

**Annexure - 11**  
**CASE RECORDING FORMAT**  
**(Acute case)**

1. **Name of the Practitioner / Institution / Hospital.....**

2. **Date.....** **Regn. No. ....**

**PERSONAL DATA**

3. **Name of patient.....**

4. **Age.....years Sex - Male/ Female Religion..... Nationality.....**

5. **Name of Father/Husband/ Guardian.....**

**Marital status - Single/Married/Widow(er)/Divorcee/live in relationship**

**Occupation ..... Income per capita.....**

**Family size (members living together) .....**

**Diet – Veg. / Non veg. / Mixed**

**Address.....**  
.....

**Telephone (Res.).....**  
**(Office).....**

**(Mobile).....**

**Email.....**

**Referred by - .....**

**Diagnosis.....Attending Physician: .....**

**1. INTERROGATION****1.1 Presenting complaint(s)**

Complaints with duration	Location & extension	Sensations/ Character & Pathology	Modalities /Ailments from	Concomitants/ Associated symptoms with duration

**1.2. History of Present Illness:** (Origin, duration and progress of each symptom in chronological order along with their mode of onset, probable cause (s), details of treatment and their outcome)

**1.3. Past History**

**1.4. Personal History**

**2. PHYSICAL EXAMINATION:****2.1 General Examinations**

- Conscious / unconscious.....
- General appearance (expression, look, decubitus, etc.)  
.....
- Intelligence and education level.....
- General built and nutrition.....
- Height ..... cm, Weight ..... kg & BMI.....
- Anaemia.....Jaundice.....Cyanosis.....Oedema  
.....
- Skin (Pigmentation, Hair distribution, Warts etc. ....)
- Nails .....
- Gait.....
- Lymphadenopathy (cervical, axillary, inguinal, etc.).....
- Blood pressure... ..mm of Hg
- Pulse.....
- Temperature.....
- Respiration rate...../ min.
- Others.....

**2.2. Systemic Examination**

<b>System</b>	<b>Findings</b>
Respiratory system	
Cardiovascular system	
Nervous system	
Gastro-intestinal system	
Genito-urinary system	
Loco motor system	
Others	

**3. LABORATORY INVESTIGATIONS & FINDINGS**

**4. PROVISIONAL DIAGNOSIS**

**5. DATA PROCESSING**

**5.1. Analysis of Case**

**5.1.1. Classification of Symptoms**

**5.1.2. Evaluation of Symptoms**

**5.2. Totality of Symptoms**

## **6. SELECTION OF MEDICINE (Repertorial / Non Repertorial)**

## **7. SELECTION OF POTENCY AND DOSAGE**

## **8. PRESCRIPTION**

## **9. GENERAL MANAGEMENT AND AUXILLIARY MEASURES**

### **FOLLOW UP**

Date	Change in symptomatology	Further advise (regarding prescription including justification, general management, investigations etc.)

6. (source: Handbook on homoeopathy case taking to prescribing, CCRH publication. pg 19, 2015.)

**Annexure - 12**  
**CASE RECORDING FORMAT**  
**(Chronic case)**

1. Name of the Practitioner / Institution / Hospital.....

2. Date..... Regn. No. ....

**PERSONAL DATA**

3. Name of patient.....

4. Age.....years                      Sex - Male/ Female                      Religion.....  
Nationality.....

5. Name of Father/Husband/ Guardian.....

**Marital status** - Single/Married/Widow(er)/Divorcee/Live in relationship

**Occupation** ..... **Income per capita**.....

**Family size (members living together)** .....

**Diet – Veg. / Non veg. / Mixed**

Address.....  
.....  
.....

Telephone (Res.)..... (Office)..... (Mobile).....

Email.....

**Referred by** - .....

**Diagnosis**..... **Attending Physician:** .....

**CASE SUMMARY** (To be filled at the end of treatment)



## 1. INTERROGATION

### 1.1 Presenting complaint(s)

#### 1.1.1. Initial Presentation of Illness

<b>PATIENT'S NARRATION</b> (in the very expressions used by him/her)	<b>PHYSICIAN'S INTERROGATION</b> (DETAILS REGARDING SYMPTOMS NARRATED)	<b>PHYSICIAN'S OBSERVATION</b>

**1.1.2 Presenting complaint (s)** (Conversion of patient's narration into symptoms chronologically with duration and intensity)

Location & extension (includes tissues, organs, systems. Extension & spread. Duration & Frequency)	Sensation (includes pathology)	Modalities (includes <&>)	Concomitants, if any

**1.1.3 Associated complaint(s)** (in chronological order with duration)

Location & extension (includes tissues, organs, systems. Extension & spread. Duration & Frequency)	Sensation (includes pathology)	Modalities (includes <&>)	Concomitants, if any

**1.2. History of Present Illness:** (Origin, duration and progress of each symptom in chronological order along with their mode of onset, probable cause (s), details of treatment and their outcome)

**1.3. Past History**

Disease/operations/injury etc.	Age / year in which occurred	Treatment taken	Outcome

**1.4. Family History:**

Relation	Alive/Dead (with age) (put √ mark for alive and X for dead )	Illness suffered/ suffering from	Probable cause of death
Father			
Mother			
Brother (s)*			
Sister (s)*			
Children			
Spouse			
Paternal			
Grandmother			
Grandfather			
Others, if any (blood relation)			
Maternal			
Grandmother			
Grandfather			
Others, if any (blood relation)			

Note: \*Add extra rows if required.

**1.5. Personal History**

1.5.1. Accommodation

1.5.2. Economic status

1.5.3. Diet & food habits

1.5.4. Habits & Addictions

1.5.5. Hobbies

1.5.6. Sexual History

1.5.7. Vaccination/ inoculation (reaction if any)

1.5.8. History of treatment (Past & current results thereof)

1.5.9. Life space investigations (as perceived by the Interrogator/Physician)

1.5.9.1. Birth and early development

1.5.9.2. Behaviour during childhood

- 1.5.9.3. Education
- 1.5.9.4. Adolescence & Psychosexual history
- 1.5.9.5. Occupational history
- 1.5.9.6. Marital history
- 1.5.9.7. Children
- 1.5.9.8. Geriatric history if necessary
- 1.5.10 Religious - socio – cultural – political history
- 1.5.11 Travel history

**1.6. Gynaecological History (if applicable)****1.6.1. Menarche**

Complaints related to Menarche, if any

**Last Menstrual Period:****Details of Menstrual cycle**

Cycle (Regular / irregular/ and its duration)	Particulars of Flow					Complaints		
	Quantit y (normal /profus e/ scanty)	Consisten cy (fluid/clott ed/partly fluid and clotted)	Colour & Stains	Odou r	Character- acid/bland )	Before mens es	During mense s	After mense s

**1.6.2. Changes in menstrual cycle**

- Early years (first 3-4 years)
- Before marriage
- After marriage
- After pregnancy (ies)
- Recent

**1.6.3. Climacteric**

- Age of menopause
- Complaints associated with menopause
- Post menopausal complaints

**1.6.4. Abnormal discharge(s) per vagina and Leucorrhoea**

Particulars of discharge				Relation with menses	Modalities including precipitating factors	Concomitan ts
Quantity & consisten cy	Colour & Stains	Odour	Character (acid/ bland)			

**1.6.5. H/O gynaecological surgeries:**

Yes/No

If yes, state the reason

**1.6.6. Contraceptive methods** (used / using):

- Change of contraceptive method (s) and if so, reasons -
- Any complaint from use of contraceptive methods -

**1.7. OBSTETRIC HISTORY** (if applicable)**1. 1.7.1. Details of pregnancies:**

- Total number of pregnancies
- How many abortions
- How many stillbirths
- How many live births
- How many early childhood deaths
- How many children presently surviving

**1.7.2. Details of deliveries**

No .	Period of pregnancy	Complaints during pregnancy/ treatment adopted	Date & nature of labor*	Type of delivery (Home/Hospital; Normal/CS/forceps, episiotomy)	Nature of puerperium	7. Child			Lactation History
						Birth wt.	Alive or dead	Cause(s) of death	
1 <sup>st</sup>									
2 <sup>nd</sup>									

## 1.8 General Symptoms

### 1.8.1. Physicals:

Appearance	
Appetite	
Taste	
Thirst	
Food (foods, drinks & others) Ailments from Aggravation Amelioration Craving Aversion	
Stool	
Urine	

Sweat	
Sleep	
Dreams	
Thermal reactions	
General modalities	
Tendencies/Recurrent complaints	
General sensations, complaints and sides of the body	
Suppression of discharges and eruptions; Bad effects of radiation, toxins, inoculation and vaccination, sera, steroids, hormone therapy, antibiotics and analgesics, etc.	



### 1.8.2. **Mentals**

#### **Will**

- **Will & emotion including motivation**
  - **Cause**
  - **Modalities**
  - **State**
  - **Aversions and cravings (excluding for foods and drinks)**
  
- **Understanding and Intellect**
  - **Cause**
  - **Modalities**
  - **State**
- **Memory**

#### **Effects on behaviour and functions**

## **2. PHYSICAL EXAMINATIONS**

### **2.1 General Examinations**

- Conscious / unconscious.....
- General appearance (expression, look, decubitus, etc.)  
.....
- General built and nutrition.....
- Height ..... cm, Weight ..... kg & BMI.....
- Anaemia.....Jaundice.....Cyanosis.....Oedema  
.....
- Skin (Pigmentation, Hair distribution, Warts.....)
- Nails .....
- Gait.....
- Lymphadenopathy (cervical, axillary, inguinal, etc.).....
- Blood pressure... ..mm of Hg Pulse..... Temperature.....
- Respiration rate...../ min.
- Others .....

## 2.2. Systemic Examination

System	Findings
Respiratory system	
Cardiovascular system	
Nervous system	
Gastro-intestinal system	
Genito-urinary system	
Locomotor system	
Others	

## 2.3 Regional Examination

The physician may examine from scalp to foot, to observe any finding that patient had forgotten to inform like warts, moles, abnormal growth of hair etc.

## 3. LABORATORY INVESTIGATIONS & FINDINGS AND SPECIAL INVESTIGATIONS

## 4. PROVISIONAL DIAGNOSIS

## 5. DATA PROCESSING

### 5.1. Analysis of Case

#### 5.1.1. Classification of Symptoms

#### 5.1.2. Evaluation of Symptoms

### 5.2. Miasmatic Analysis

	Psora	Sycosis	Syphilis	Pseudo Psora / Tubercular
Family history				
Past history				
Mind				
Body				

This table is to be filled as per the miasmatic expressions mentioned in chapter 3.

### Miasmatic diagnosis

### 5.3 Totality of Symptoms

## **6. SELECTION OF MEDICINE**

### **6.1. Non Repertorial approach**

### **6.2. Repertorial approach**

- Selection of appropriate repertory
- Selection of symptoms for repertorisation
- Conversion of symptoms into corresponding rubrics for repertorisation
- Repertorisation proper
- Analysis of repertorial result

## **7. SELECTION OF POTENCY AND DOSAGE**

## **8. PRESCRIPTION**

## **9. GENERAL MANAGEMENT INCLUDING AUXILLARY MEASURES**

### **FOLLOW UP**

Date	Change in symptomatology	Further advise (regarding prescription including justification, general management, investigations etc.)

(source: Handbook on homoeopathy case taking to prescribing, CCRH publication. pg 23, 2015.)



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