QUALITY CONNECT

NABH NEWSLETTER SEPTEMBER 2022 | ISSUE 04

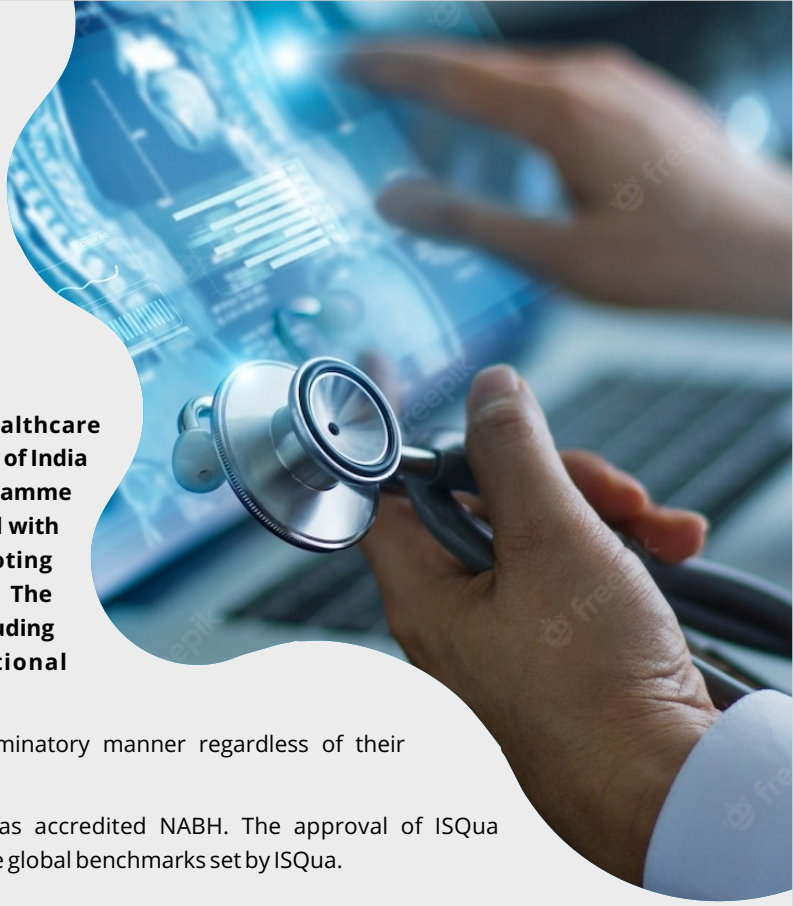
"Medication without Harm"
World Patient safety Day 2022

MEDICATION SAFETY

Working together to make healthcare safer

www.nabh.co

MARK OF EXCELLENCE



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

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

International Society for Quality in Healthcare (ISQua) has accredited NABH. The approval of ISQua authenticates that NABH standards are in consonance with the global benchmarks set by ISQua.

VISION

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

MISSION

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

NABH Activities

NABH Accreditation Programs

NABH offers accreditation to Hospitals, Blood Banks, Eye Care, SHCOs/ Nursing Homes, OST Centers, CHCs/PHCs, AYUSH Hospitals, Wellness Centers, Medical Imaging Services, Dental Centers, Allopathic Clinics, Ethics Committees and Panchkarma Clinics

NABH Certification Programs

NABH offers certification to Medical Laboratories, Nursing Excellence, Emergency Departments, Medical Value Travel Facilitator (MVTF), Pre-Accreditation Entry Level for Hospitals, Pre-Accreditation Entry Level for SHCOs

NABH International

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

Training & Education

NABH conducts Education/Interactive Workshops, Awareness Programmes and Programmes on Implementation (POI)

For further details please contact:

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Quality Council of India

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पीयूष गोयल
PIYUSH GOYAL

वाणिज्य एवं उद्योग,
उपभोक्ता मामले, खाद्य और सार्वजनिक
वितरण तथा वस्त्र मंत्री, भारत सरकार
MINISTER OF COMMERCE & INDUSTRY,
CONSUMER AFFAIRS, FOOD & PUBLIC DISTRIBUTION AND
TEXTILES, GOVERNMENT OF INDIA

आज़ादी का अमृत महोत्सव

MESSAGE

I am delighted to learn that the National Accreditation Board for Hospitals and Healthcare Providers (NABH) has recently celebrated the World Patient Safety Day on 17th September 2022 and is also releasing its 'Quality Connect' NABH newsletter.

India has come a long way in providing quality healthcare for all under the decisive leadership of Hon'ble Prime Minister Shri Narendra Modi, and is now implementing digital technologies to make health services more accessible to everyone. The World Patient Safety Day marks an occasion of reaffirming the commitment to enhance patient safety, reduce harm and work towards global solidarity and action.

I urge NABH to work in mission mode to make healthcare services accessible, affordable and efficient through strengthening its core values of credibility, responsiveness, transparency and innovation. Along with collaborations in healthcare, NABH should also think of partnerships with other ministries and work for innovation to develop a roadmap for having a maximum number of quality health facilities.

I take this opportunity to congratulate the leadership and staff of the NABH-QCI for their initiative and wish them success in their future endeavours.

Piyush Goyal

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FOREWORD

SHRI ADIL ZAINULBHAI
CHAIRMAN, QCI

NABH today has become synonymous with being a healthcare boon for thousands of hospitals and healthcare providers aspiring to achieve high level quality standards for healthcare quality. Patient safety is critical to the delivery of health care in all settings. Our top priority has always been to improve patient safety in all clinical and health programmes. Over the years, we have worked tirelessly to ensure that the general public receives high-quality healthcare.

#IStandForPatientSafety

It is extremely encouraging to see that the NABH has taken several initiatives that contribute in creation of an ecosystem for quality in healthcare. NABH has also adopted digital technologies to anchor complex hospital accreditation, certification, and empanelment processes, ensuring operational and process excellence. Technology will continue to be the board's digital backbone, pushing them to consistently deliver service excellence at the right time to the right stakeholder.

NABH should continue to align itself with the Government of India's long-term strategy. NABH should maintain its focus on improving the quality of healthcare delivery at the grassroots level. Every citizen in the country should have access to high-quality healthcare. NABH must strive to be at the forefront of the country's quality movement.

The NABH team has worked laboriously to achieve the goal of instilling in every individual the "idea of quality as an indispensable component in all walks of life."

I would like to take this opportunity to congratulate the NABH's leadership and staff on their efforts and success to set benchmarks to achieve the ultimate goal of “Quality Healthcare for all in India”.

I wish and hope that NABH will break new ground in the coming year, with renewed optimism for reaching new heights. I wish you all the best in your health.

CHAIRMAN'S MESSAGE

PROF. (DR.) MAHESH VERMA
CHAIRMAN, NABH

The current COVID-19 scenario has impacted the Healthcare industry and its ways of working immensely. NABH is into the 17th year of existence and has established itself as an apex national Healthcare organization for creating and implementing Healthcare standards in modern and traditional medicine. I thank QCI for its hand holding and guidance to NABH at all times till date. The framework of Quality and Patient Safety is ever changing in the world and is based on the needs, new diseases and digital growth in this area. The demand of quality journey is to continuously retro inspect, improve, grow and move ahead. And this is the perfect time to relook, revise the strategy, evaluate and operationalise the works to be done in the entire healthcare industry.

#IStandForPatientSafety

We know that healthcare industry is ever expanding and exploring the changes be it Clinical, Digital or any other direct or indirect field related to healthcare to improve the reach of healthcare eco system. NABH is extensively working hard in the fields of Digital Health, Education on Patient Quality and Safety and valid research and Publications, Marketing, Branding and promotion of NABH

I appreciate the efforts taken by the NABH secretariat team to adapt to the changing processes during the turbulent pandemic times in 2020 and continuously believe in the saying that "change is the only constant". We strongly believe in our values like innovating as per the requirement and we had already changed the processes with the introduction of online assessments and imbibed more digital ways of working. We are already following and are at par with international healthcare standards and strive to continue the good work in this field. My predecessors have handed over the task to strongly lead and steer head the team through some recently started projects/ processes. To name a few

- NABH-Smile Train Foundation collaboration
- FOGSI-Manyata-NABH collaboration
- Establishing Dermatology standards
- Implementing Chat Bot on HOPE platform
- Digital health project with National Health Authority
- WHO and NABH project

NABH would like to work on some out of the box ideas by creating ways of expanding the scope of work of NABH as per market requirement, defining the tasks as per the priorities and identifying the easy doable list. I once again thank everyone for the ever-enthusiastic self to promote the Quality and safety in healthcare.

FROM THE DESK OF SECRETARY GENERAL QCI

DR. RAVI P. SINGH
SECRETARY GENERAL, QCI

As we navigate these extraordinary times of crossing the pandemic, consider how healthcare has adapted and how we have continued to progress despite numerous challenges.It is a source of great pride for NABH that its sincere efforts to create a quality ecosystem have yielded exceptional results in the field of healthcare.

NABH has worked hard to achieve excellence, and the team has begun remote and hybrid assessments of healthcare organisations using virtual assessments.

As a member of the QCI constituent board, I am proud of and grateful for the NABH team's efforts. I congratulate Prof. (Dr.) Mahesh Verma, the new Chairman of NABH, and Dr. Atul Mohan Kochhar, CEO NABH, for their leadership, which has proven to be an asset to the board and the organization.

I would also like to take immense pleasure to thank the former chairman of NABH Dr. B.K Rao for his continued support and guidance.

NABH has risen several rungs on the corporate ladder in the last year and I firmly believe they will continue their efforts towards achieving pursuit of excellence. NABH announced the enriched continuation of 'NABH Quality Connect – Learning with NABH' initiative.

The team has also initiated a series of 3 days training workshop on 'programme on implementation of NABH 5th Edition Accreditation Standards for Hospitals specially for University / College students. The trust that NABH has developed over the years and the quality of its accreditation have encouraged many assessors of repute to get involved with NABH and many healthcare units are striving for accreditation.

#IStandForPatientSafety

I am overjoyed with the initiatives that NABH has undertaken on the occasion 'of the 25th anniversary of QCI such as the development of a chatbot for the HOPE portal, KPI metrics, a Quality Connect video podcast, and so on, and I hope that NABH's success will inspire it to take on more difficult tasks in the future and strive to become an organisation that provides Gold Standard services.

EDITORIAL

DR. ATUL MOHAN KOCHHAR
CEO, NABH

Let's pledge to take Quality to the Last man in the line

As we emerge out of the shadows of the pandemic, it may do us good to pause, introspect, and contemplate upon few of the key takeaways. Ours is not one country, but 36 countries rolled into one. We are a united federal structure with a very big and diverse population in several aspects. That makes healthcare delivery all the more complex. The only way we can bridge our diversity chasm is by leveraging technology.

India -the cradle of technology for the whole world has already showed the world that it could leapfrog in technology and execution. We witnessed this with the UIDAI or Aadhaar and now again when India seamlessly delivered 200 crores plus dosages seamlessly, via the COWIN app, adhered to the best of international protocols.

#IStandForPatientSafety

Quality saves lives. Having SOPs helped our partners significantly cut down on their morbidity and mortality. Not only for their patients but also the doctors and staff. The basic framework of patient safety revolves around having process centered care not person specific care.

Another important learning from the pandemic is that we cannot get away by creating islands of excellence. It is necessary to empower our tier 2/3/4/5 setups. Otherwise, we will remain as weak as the weakest link in the chain. India needs to create a culture of quality, which I would like to label as 'herd quality'. This movement should go on to every nook and corner of our big and diverse country. This pandemic also showed us that there is no absolute right.

AYUSH therapies were already there for 5,000 years, and are now looking extremely promising in ensuring holistic healthcare. Now we realize the importance of developing these traditional practices in a very structured way with accreditation, so they are accepted more in Western countries.

NABH is profoundly committed in working to empower our stakeholders through Digital Health initiatives. For this NABH has joined hands with National Health Authority (NHA) to accredit and rate the Ayushman Bharat Digital Mission (ABDM) integrated healthcare solutions (public and private) on various parameters, that will enable a prospective buyer of the service to make an informed decision. This initiative will help the citizens of India to get better and more timely healthcare and help India to become one of the leaders in digitization of healthcare in the world.

India has already become a leading and attractive destination for medical tourism. With our Hon'ble Prime Minister emphasising on 'Heal in India and Heal by India', NABH has collaborated with Ministry of Health & Family Welfare (MoHFW) to be an active partner in fostering this impactful vision.

I would like to stress that over the past 17 years NABH has given the country national standards or 'desh ka standard', and these are totally Atma Nirbhar. We must build on that and take these standards to every PHC and CHC and district hospital. Only then can we fulfil the vision of a healthy India. NABH is dedicated and committed to take quality to the last man in the line and create an ecosystem of quality in healthcare.

JAI HIND

C O N T E N T

C O N T E N T

FUTURE OF HEALTHCARE

HEALTHCARE IS GOING DIGITAL!
ARE WE GOING TOO?

MR. RIZWAN KOITA
Co-founder CitiusTech
Co-founder Koita Foundation

Digital health and global impact

Industries across the world are going through a metamorphosis and technology is playing an increasingly important role. For example, online banking and peer-to-peer mobile transactions have completely changed the profile of the financial services market. Similarly, travel, entertainment, retail and e-commerce industries have completely transformed in the past 10-15 years.

While the healthcare industry worldwide has been a little behind in the adoption of technology, it has clearly changed in the past 5 years, and at a faster pace in the last 2 years driven by the Covid pandemic. The more visible consumer and patient facing examples include the use of telemedicine, which has increased by over 30 times in the past two years. Similarly, the consumer health device market has increased significantly over the years – an estimated 320 million consumer health and wearable wellness devices will be sold in 2022. The digital health revolution is being fueled by technology innovation (cloud, AI/ML), strong investment in digital health innovation, increase in high-speed internet and mobile penetration, changes in government regulations and last but not the least, changes in consumer preferences.

The use of digital tools is having a meaningful positive impact on healthcare and all its key stakeholders. Hospitals using electronics medical records can better organize patient information, support evidence-based care, track clinical quality and performance metrics. Digital tools also help in analysing patient and administrative information to track efficiency and improve clinical and financial performance. Similarly, use of mobile and digital tools are enabling doctors and physicians to better track their patients, support patients across different care settings (including telemedicine) and take advantage of clinical decision support tools. On the other hand, patients can use digital technologies to better manage their health, organize their health information (e.g., PHRs) and share this information across care providers. Patients can also take advantage of mobile health applications for chronic care management (e.g., medication adherence, vital tracking) and wellness management (e.g., fitness).

Digital health and India Opportunity

India is a large developing country with significant opportunities to improve healthcare delivery and access. Healthcare capacity is a big issue and there is significant disparity between rural and urban areas. India today has 0.3 beds per thousand and 1.1 per thousand in rural and urban areas respectively, vis-à-vis the global benchmark of 3.5 beds per thousand. Similarly, quality of healthcare delivery needs to be enhanced - India ranks 145th in the WHO's Healthcare Access and Quality Index. Healthcare costs and lack of health insurance is also a big issue - it is estimated that unplanned healthcare costs push over 60 million Indians into poverty each year.

Digital health can play a key role in improving accessibility, quality and affordability of healthcare in India, as is seen across the world. Fortunately, India has made good progress on multiple fronts, which will enable us to accelerate the adoption of Digital Health over the next few years:

- **Digital Infrastructure:** India has seen a rapid growth in use of internet and smartphones. The wireless data usage increased by more than 7 folds between 2017 and 2021 according to the Economic Survey of India. Similarly, the number of smartphone users in India increase from less than 400 Mn in 2017 , to over 850 Mn in 2021.
- **Consumer Preferences:** As consumers are becoming more comfortable with use of smartphones and mobile applications, they are increasing using mobile devices for financial transactions, news, social media and entertainment. Consequently, per capita wireless data usage increased from just 1.24 GB per month to a whooping 14.1 GB between 2017 and 2021 .
- **Digital Innovation:** The growth of mobile devices, availability of high-speed internet and changing consumer preferences for online transactions is creating new companies across all sectors of our economy, which are disrupting their markets. Companies like MakeMyTrip and Yatra for travel, Zerodha and Upstox for stock broking, and Zomato and Swiggy for food delivery have had huge impact on their respective industries. In healthcare too, companies like PharmEasy, Tata 1Mg, and NetMeds are changing the pharmacy business. Many existing healthcare organizations are also adopting their business models and making them more digital e.g., leading labs and diagnostics companies.
- **Government focus:** There is significant government focus on creating and scaling public digital platforms – Aadhar, UPI and COWIN. The COWIN platform is being used to track close to one billion vaccinations and is recognized as a leading platform worldwide. India is now supporting several dozen countries in their vaccination efforts. Interestingly, in a developed country like US, citizens are still using physical cards for tracking vaccinations.
- **ABDM / Digital Health ID initiative:** The National Health Authority (NHA) is rolling out the Ayushman Bharat Digital Mission (ABDM) technology platform across the country. ABDM requires citizens to create unique health accounts – ASHA (Ayushman Bharat Health Account), and hospitals and doctors to create their unique ABDM IDs. The creation of these IDs, coupled with consent management tools for data sharing has the potential to significantly increase collaboration between all stakeholders (including labs, pharmacies and health insurance), and transform healthcare across the country.

India is at a cusp of a major Digital Health transformation (including ABDM) over the next 5-10 years. If Digital Health is rolled-out in a structured manner and adopted correctly by all the stakeholders in the healthcare ecosystem, its impact on healthcare can be very significant – like the impact of Aadhar and UPI on India!

The adoption of Digital Health in India and the adoption of ABDM platform will require an integrated approach across various stakeholders – doctors, hospitals, labs, pharmacies, ancillary care providers and patients. We will need to define simple and clear digital health focus areas based on healthcare delivery needs, current and desired skills of professionals and staff in different healthcare settings and financial constraints on technology investments. Furthermore, to improve return on investments in Digital Health, we can prioritise initiatives which improve productivity, efficiency and reduce operating costs for hospitals and healthcare providers.

NABH and Digital Health Opportunity

As India's leading accreditation and certification organization for hospitals and healthcare providers, NABH has an unique opportunity to play a pivotal role in driving digital health in India. NABH has the expertise, resources and credibility to work with various stakeholders to build a clear vision of how digital health can be used to improve quality, access and cost of healthcare across the country. By

supporting digital transformation of healthcare in India, NABH will have a lasting positive impact on all stakeholders - doctors, hospitals, healthcare providers and patients.

For NABH to play this pivotal role, NABH will need to develop a strong digital health vision, which is aligned with the ABDM roadmap. Key elements of the vision could include:

- Focusing on digital health tools which make healthcare delivery more efficient, accessible, affordable, and safe
- Ensuring digital tools are robust, easy to maintain and commercially viable for hospitals and healthcare organizations
- Supporting healthcare information interoperability / sharing health records
- Tracking and benchmarking key clinical and financial performance indicators
- Ensuring high security and privacy of patient information
- Providing training, capacity building and other support to all stakeholders

To achieve its vision, NABH will need to formulate a comprehensive Digital Health strategy. The Strategy could include:

- Define NABH Digital Health certification standards. These certifications could be independent or augment existing NABH certifications. Similarly, the certifications could be at one level or be tiered based on scale and digital maturity of an organization
- Provide digital health requirements and certify healthcare technology products used by hospitals and healthcare providers
- Augment current NABH training and technical capabilities to support digital transformation (e.g., Digital Health training, technical support, testing sandbox)

In summary, India is at a cusp of a digital health revolution, which can significantly enhance healthcare delivery and patient engagement. NABH has an exciting opportunity to be a leader in this transformation. It will need to develop a robust long-term vision and strategy to do this, working closely with hospitals and healthcare providers. Let all of us working in healthcare embrace this upcoming change and make India a leading example for digital health and affordable healthcare for the world!

INTRODUCTION TO MEDICATION SAFETY

World Patient Safety Day is one of **WHO's global public health days.** It was established in 2019 by the Seventy second World Health Assembly through the adoption of resolution WHA72.6 - "Global action on patient safety". Global public health days offer great potential to raise awareness and understanding of health issues and mobilize support for action, from the local community to the international stage. World Patient Safety Day is firmly grounded in the fundamental principle of medicine - first do no harm. Its objectives are to increase public awareness and engagement, enhance global understanding, and work towards global solidarity and action by Member States to promote patient safety. Each year, a new theme is selected on a priority patient safety topic to highlight its importance and call for urgent action to address the issue.

Objectives of World Patient Safety Day 2022:

1. RAISE global awareness of the high burden of medication-related harm due to medication errors and unsafe practices, and ADVOCATE urgent action to improve medication safety.
2. ENGAGE key stakeholders and partners in the efforts to prevent medication errors and reduce medication-related harm.
3. EMPOWER patients and families to be actively involved in the safe use of medication.
4. SCALE UP implementation of the WHO Global Patient Safety Challenge: Medication Without Harm.

Unsafe medication practices and medication errors are a leading cause of injury and avoidable harm in health care systems across the world. Globally, the cost associated with medication errors has been estimated at $42 billion USD annually. Errors can occur at different stages of the medication use process. Medication errors occur when weak medication systems and/or human factors such as fatigue, poor environmental conditions or staff shortages affect prescribing, transcribing, dispensing, administration and monitoring practices, which can then result in severe harm, disability and even death. Multiple interventions to address the frequency and impact of medication errors have already been developed, yet their implementation is varied. A wide mobilization of stakeholders supporting sustained actions is required. In response to this, WHO has identified Medication Without Harm as the theme for the third Global Patient Safety Challenge.

Unsafe medication practices and medication errors are a leading cause of avoidable harm in health care across the world. Medication errors occur when weak medication systems, and human factors such as fatigue, poor environmental conditions or staff shortages, affect prescribing, transcribing, dispensing, administration and monitoring practices, which can then result in severe patient harm, disability and even death. The ongoing COVID-19 pandemic has significantly exacerbated the risk of medication errors and associated medication-related harm. Considering this huge burden of harm, **"Medication Safety"** has been selected as the theme for World Patient Safety Day 2022.

The theme builds on the ongoing efforts of the **WHO Global Patient Safety Challenge: Medication Without Harm.** It also provides much-needed impetus to take urgent action for reducing medication-related harm through strengthening systems and practices of medication use. The slogan of World Patient Safety Day 2022 "Medication Without Harm" aims to focus attention on making the process of medication safer and free from harm, and to galvanize action on the Challenge by calling on all stakeholders to prioritize medication safety and address unsafe practices and system weaknesses, with a special focus on the three main causes of avoidable harm arising from medication: high-risk situations, transitions of care and polypharmacy.

On the occasion of World Patient Safety Day 2022, NABH had organized a webinar on 17th September 2022 to create awareness about the importance of patient safety and to help the participants understand how NABH accreditation standards can help the hospitals and other healthcare organizations in establishing patient safety specific to Medication safety specific to Medication Safety and Blood & Blood products safety in today's dynamic healthcare world.

Dr. Atul Mohan Kochhar, CEO, NABH had inaugurated the webinar and delivered his opening address about his experience in NABH and contribution in Medication safety. Dr. Vishal Bansal, Clinical Pharmacologist & Group Head Quality from Ivy Hospitals, Punjab had delivered an insightful session on WHO theme - Medication without Harm, Overview and role of NABH standards & Medication Safety, WHO Key Action Areas, Domains and Subdomains and the 5 Moments of Medication Safety. Dr. Sadhana Mangwana, Senior Consultant & Head – Transfusion Medicine & Immunohematology from Sri Balaji Action Medical Institute, New Delhi had delivered an eye-opening session on errors and Risks associated with Blood transfusion, Hemovigilance, Quality Assurance and how NABH Blood Bank standards helps in keeping the quality. The session was moderated by Dr. Indu Bala, Assistant Director, NABH and had more than 200 participants from all around the nation.

#TrustMatters
Campaign Report

On the occasion of World Patient Safety Day, we ran a campaign' #Trustmatters'.

The aim was to spread awareness on various aspects of Patient Safety and its importance for Quality Health Care.

The campaign was a resounding success in terms of reach and engagement. We got reactions like never before.

Here are some key takeaways.

Key Numbers

42,178

Impressions- Number of Audiences reached through campaign.

4,820

Engagement- Reactions, Clicks, Likes, Comments received from audiences

800

Followers- New member added to NABH Social Community through the Campaign

NABH

Highlights

1. Average Engagement of around **13%**
2. Over **14,000** Unique accounts were reached
3. Engaged with not just industry but the **end consumers**
4. People appreciated the informative content and **demanded more**

What's next?

A month-long campaign in November celebrating the International Quality Month

#Quality in Health Matters


Why
patient safety?
#TrustMatters
Source - https://www.who.int/
World Patient Safety Day | 2022
QualityCouncil
QualityCouncilOfIndia
QualityCouncilOfIndia


RAISE
global awareness
of the high burden of medication-related harm
due to medication errors and unsafe practices.
#TrustMatters
Source - https://www.who.int/
World Patient Safety Day | 2022
QualityCouncil
QualityCouncilOfIndia
QualityCouncilOfIndia


ENGAGE
key stakeholders
& partners
in the efforts to prevent medication errors
and reduce medication-related harm.
#TrustMatters
Source - https://www.who.int/
World Patient Safety Day | 2022
QualityCouncil
QualityCouncilOfIndia
QualityCouncilOfIndia


ADVOCATE
urgent action to
improve medication safety.
#TrustMatters
Source - https://www.who.int/
World Patient Safety Day | 2022
QualityCouncil
QualityCouncilOfIndia
QualityCouncilOfIndia


EMPOWER
patients and families
to be actively involved in the safe use of medication.
#TrustMatters
Source - https://www.who.int/
World Patient Safety Day | 2022
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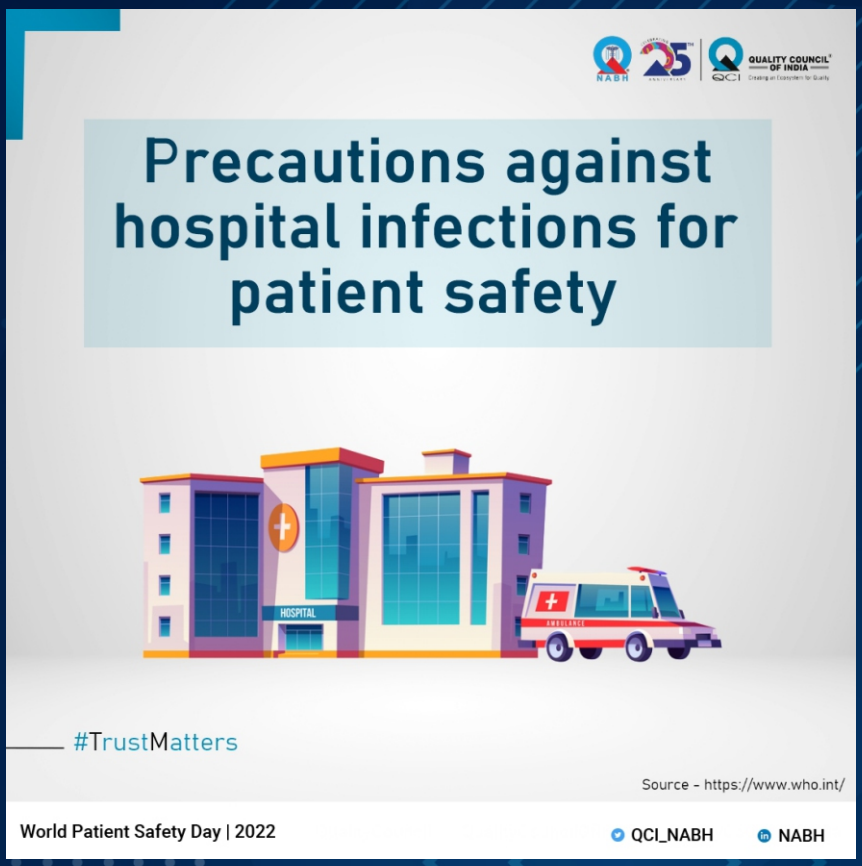
QualityCouncilOfIndia
QualityCouncilOfIndia


SCALE UP
implementation
of the WHO Global Patient Safety Challenge:
Medication Without Harm.
#TrustMatters
Source - https://www.who.int/
World Patient Safety Day | 2022
QualityCouncil
QualityCouncilOfIndia
QualityCouncilOfIndia


Precautions against hospital infections for patient safety
HOSPITAL
AMBULANCE
#TrustMatters
Source - https://www.who.int/
World Patient Safety Day | 2022
QCI_NABH
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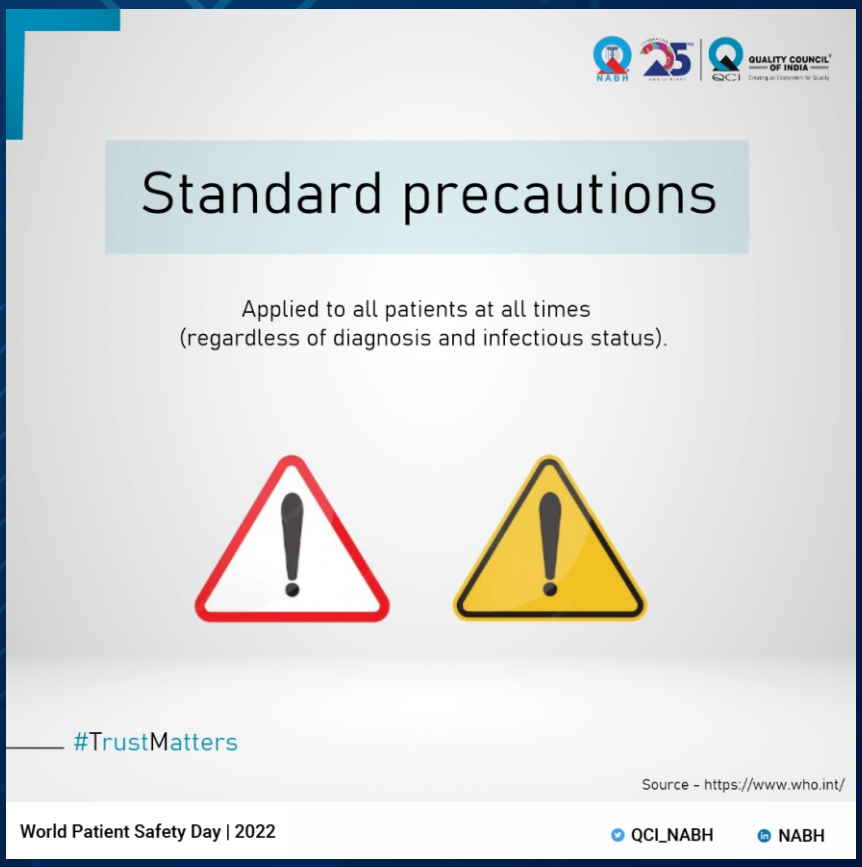
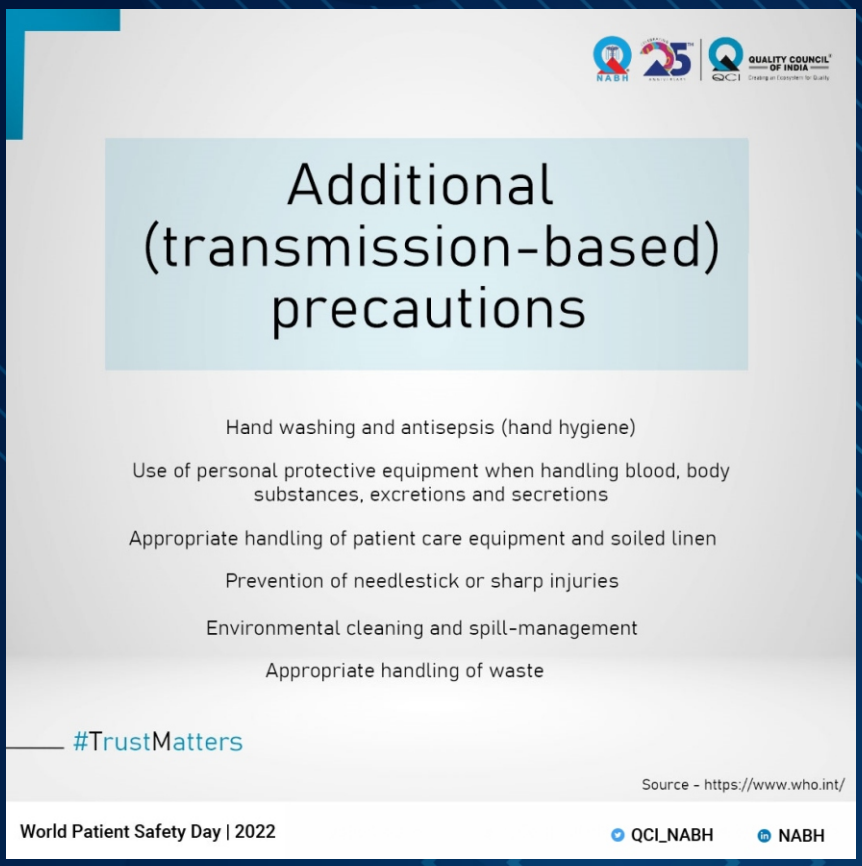
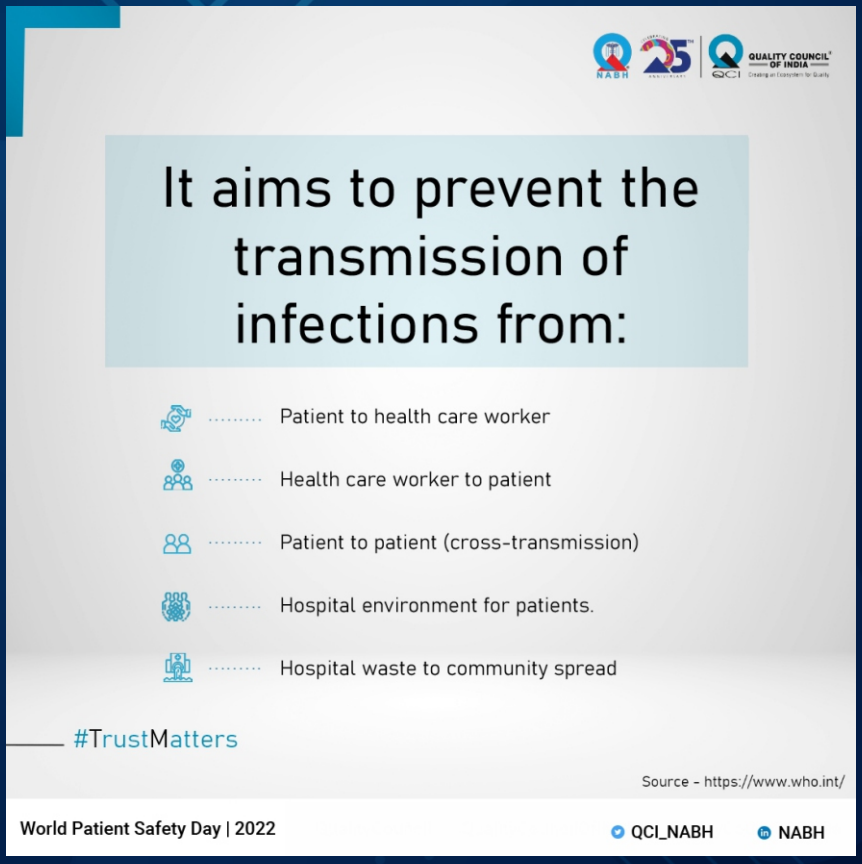
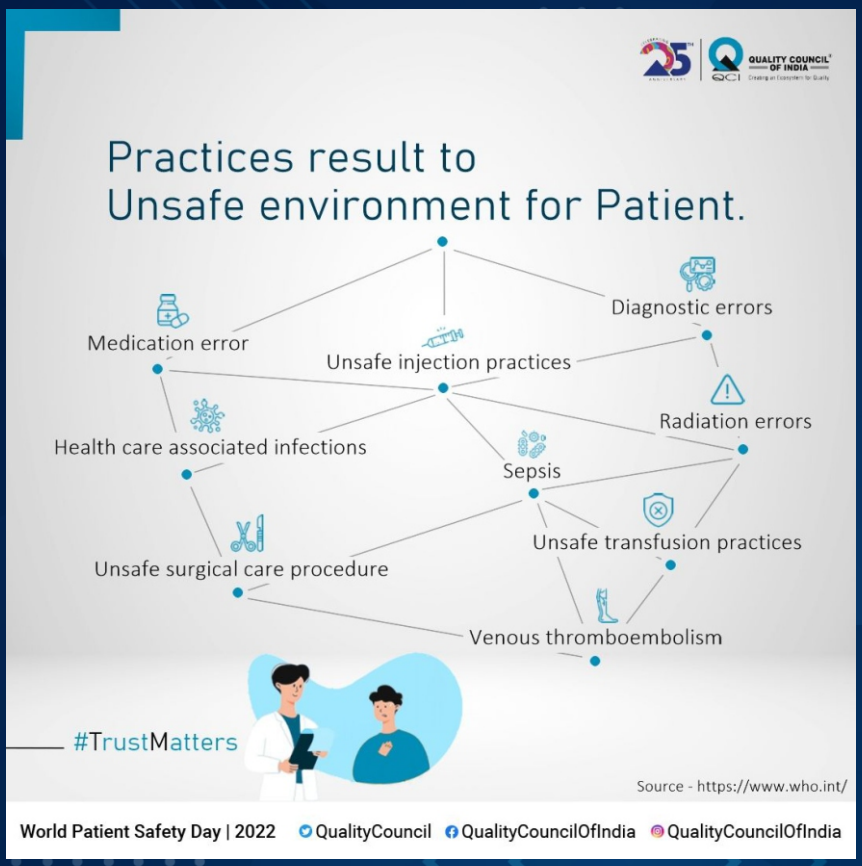

Standard precautions
Applied to all patients at all times
(regardless of diagnosis and infectious status).
#TrustMatters
Source - https://www.who.int/
World Patient Safety Day | 2022
QCI_NABH
NABH


Additional (transmission-based) precautions
Hand washing and antisepsis (hand hygiene)
Use of personal protective equipment when handling blood, body substances, excretions and secretions
Appropriate handling of patient care equipment and soiled linen
Prevention of needlestick or sharp injuries
Environmental cleaning and spill-management
Appropriate handling of waste
#TrustMatters
Source - https://www.who.int/
World Patient Safety Day | 2022
QCI_NABH
NABH

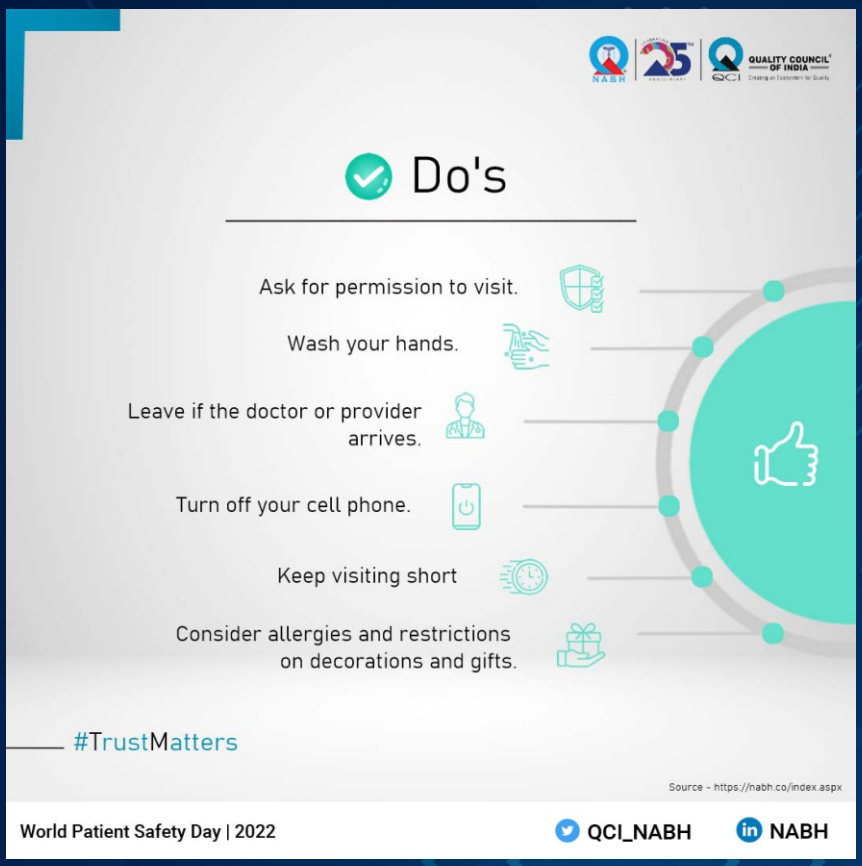

It aims to prevent the transmission of infections from:
Patient to health care worker
Health care worker to patient
Patient to patient (cross-transmission)
Hospital environment for patients.
Hospital waste to community spread
#TrustMatters
Source - https://www.who.int/
World Patient Safety Day | 2022
QCI_NABH
NABH


How to prevent medication errors
K
N
O
W
the drug
the risk
the storage space
how to take
the label when you take
#TrustMatters
Source - https://www.fda.gov/
World Patient Safety Day | 2022
QCI_NABH
NABH


Benefits of
Patient Safety
It prevents patient harm
It prevents medication administration errors
It prevents infection control issues
It reduces cost
#TrustMatters
Source: patient-safety-day.org
World Patient Safety Day | 2022
QCI_NABH
NABH


Practices result to
Unsafe environment for Patient.
Medication error
Unsafe injection practices
Diagnostic errors
Radiation errors
Health care associated infections
Sepsis
Unsafe transfusion practices
Unsafe surgical care procedure
Venous thromboembolism
#TrustMatters
Source - https://www.who.int/
World Patient Safety Day | 2022
QualityCouncil
QualityCouncilOfIndia
QualityCouncilOfIndia


What visitors
can do for
patient safety?
#TrustMatters
Source - https://nabh.co/index.aspx
World Patient Safety Day | 2022
QCI_NABH
NABH


Do's
Ask for permission to visit.
Wash your hands.
Leave if the doctor or provider arrives.
Turn off your cell phone.
Keep visiting short
Consider allergies and restrictions on decorations and gifts.
#TrustMatters
Source - https://nabh.co/index.aspx
World Patient Safety Day | 2022
QCI_NABH
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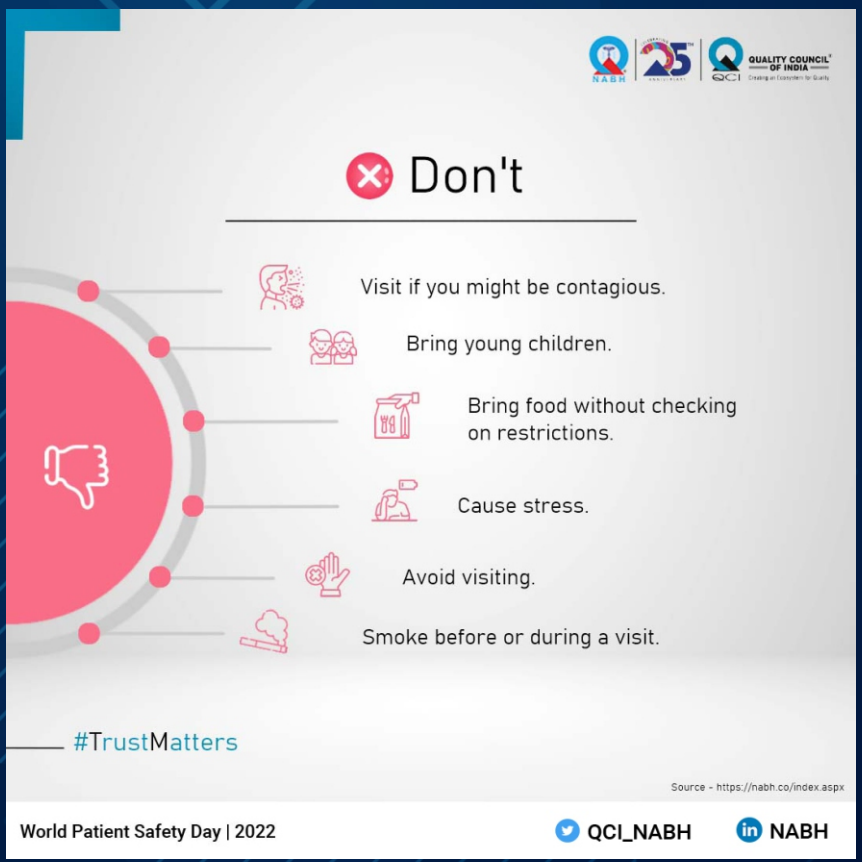
Don't
Visit if you might be contagious.
Bring young children.
Bring food without checking on restrictions.
Cause stress.
Avoid visiting.
Smoke before or during a visit.
#TrustMatters
Source - https://nabh.co/index.aspx
World Patient Safety Day | 2022
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How to ensure pharmacy services & medication usage are done safely?
Medications are stored appropriately
Multidisciplinary committee guidance
Appropriate procedures are to be followed correctly
Update medication management processes as per committee guidance
Inform relevant staff of key changes in pharmacy services & medication usage
#TrustMatters
Source - https://nabh.co/index.aspx
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Patient & families' rights to be informed:
About the safe and effective use of medication
In the language or format they understand
The potential side effects of the medication
About food-drug interactions
On various pain management techniques
About diet and nutrition
#TrustMatters
Source - https://nabh.co/index.aspx
World Patient Safety Day | 2022
QCI_NABH
NABH


What role does laboratory quality control play in ensuring patient safety?
#TrustMatters
Source - https://www.who.int/
World Patient Safety Day | 2022
QCI_NABH
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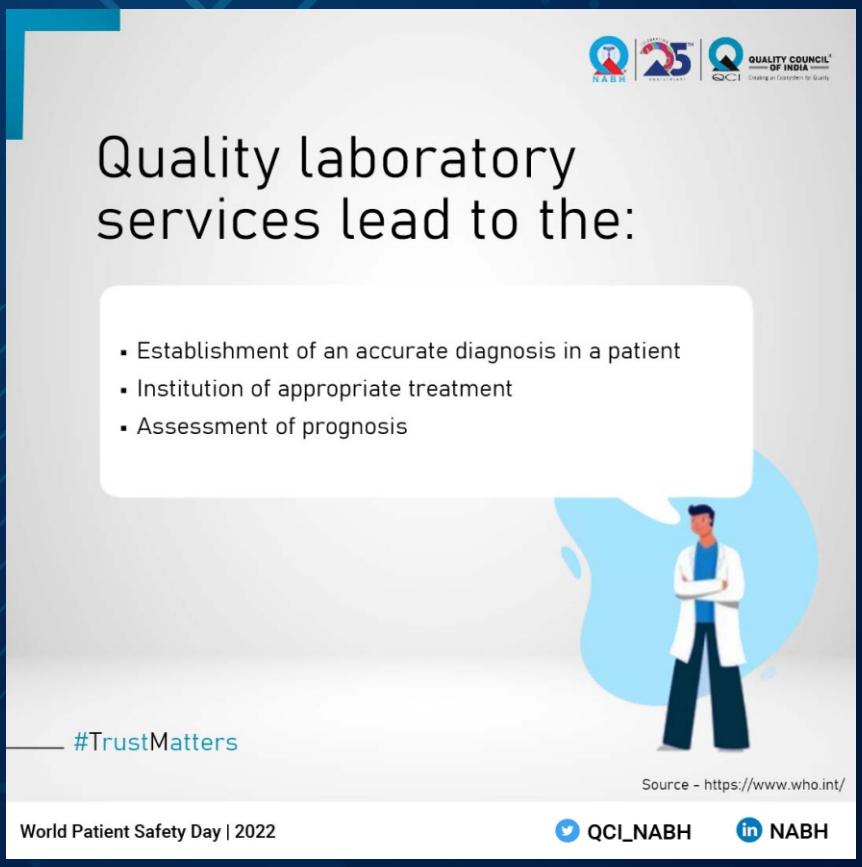
Quality laboratory services lead to the:
• Establishment of an accurate diagnosis in a patient
• Institution of appropriate treatment
• Assessment of prognosis
#TrustMatters
Source - https://www.who.int/
World Patient Safety Day | 2022
QCI_NABH
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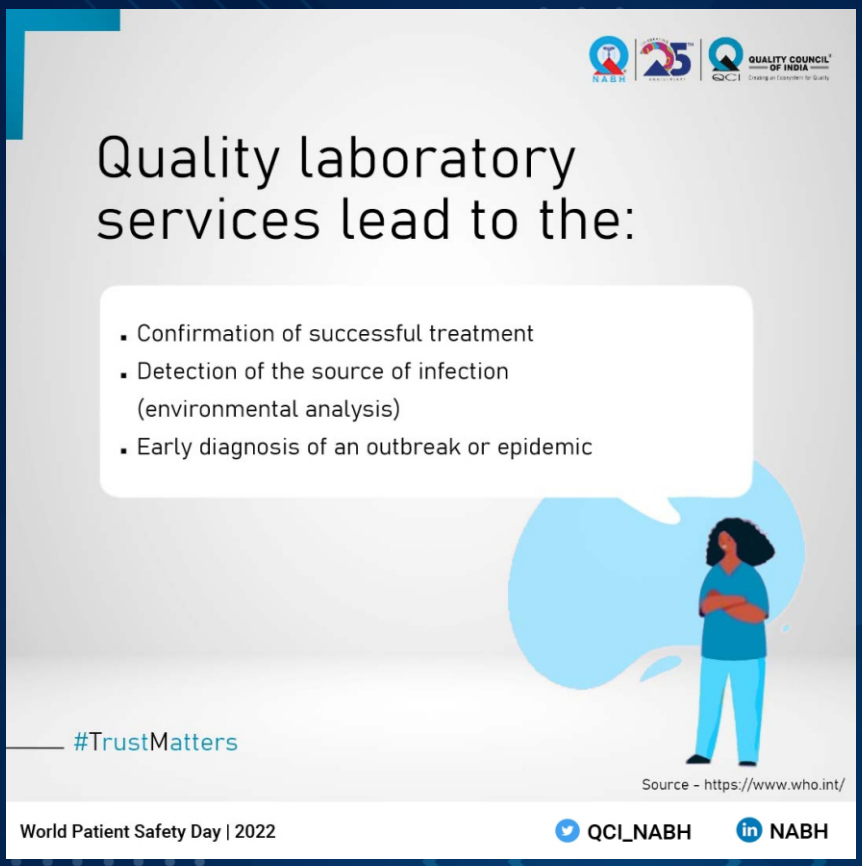
Quality laboratory services lead to the:
Confirmation of successful treatment
Detection of the source of infection (environmental analysis)
Early diagnosis of an outbreak or epidemic
#TrustMatters
Source - https://www.who.int/
World Patient Safety Day | 2022
QCI_NABH
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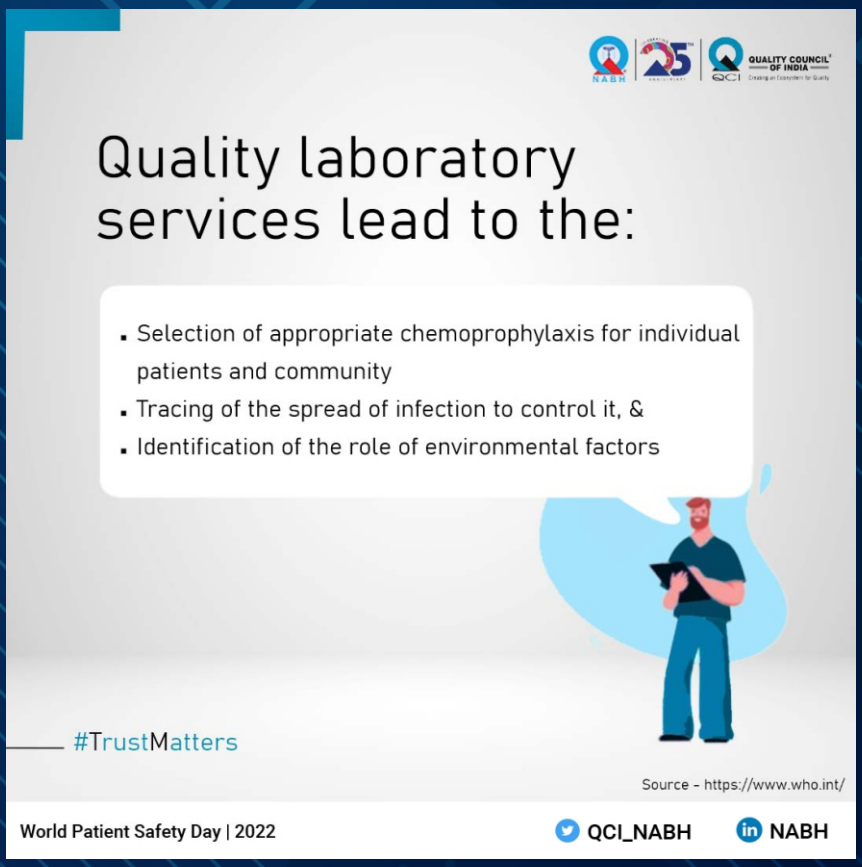

Quality laboratory services lead to the:
Selection of appropriate chemoprophylaxis for individual patients and community
Tracing of the spread of infection to control it, &
Identification of the role of environmental factors
#TrustMatters
Source - https://www.who.int/
World Patient Safety Day | 2022
QCI_NABH
NABH

Union Health Minister launches National Lists of Essential Medicines (NLEM) 2022

384 Drugs included; 34 new drugs added , 26 drugs dropped in the new revised list released by National List of Essential Medicines (NLEM) including ranitidine and other stomach-related ailments.

“Under Hon. PM's vision of Sabko Dawai, Sasti Dawai NLEM another step towards affordable healthcare with reduced Out-of-Pocket-Expenditure (OOPE)”

It will further ensure efficacy, safety, quality, affordability and accessibility of medicines: Dr Mansukh Mandaviya

Dr Bharati Pravin Pawar urges stakeholders to create awareness on Antimicrobial Resistance

“Union Health Ministry is taking various steps under vision of Hon. Prime Minister Shri Narendra Modi ji towards Sabko Dawai, Sasti Dawai. In this direction, National List of Essential Medicines (NLEM) plays an important role in ensuring accessibility of affordable quality medicines at all levels of healthcare. This will give boost to cost-effective, quality medicines and contribute towards reduction in Out of Pocket Expenditure on healthcare for the citizens.” This was stated by Dr Mansukh Mandaviya, Union Minister for Health and Family Welfare as he launched National Lists of Essential Medicines (NLEM) 2022, here today.

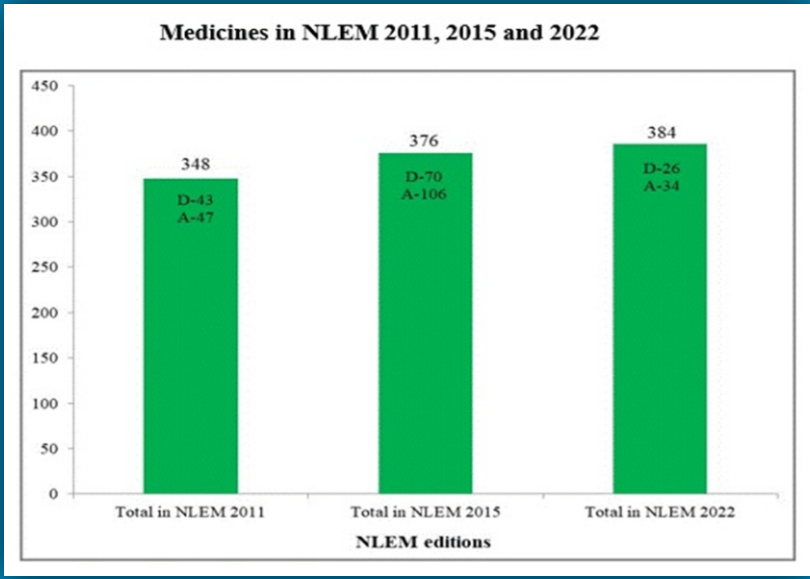
384 drugs have been included in this list with addition of 34 drugs, while 26 from the previous list have been dropped. The medicines have been categorized into 27 therapeutic categories.

Speaking on the occasion, Union Health Minister stated that the "essential medicines" are those that satisfy the priority health care needs, based on efficacy, safety, quality and total cost of the treatment. The primary purpose of NLEM is to promote rational use of medicines considering the three important aspects i.e., cost, safety and efficacy. It also helps in optimum utilization of healthcare resources and budget; drug procurement policies, health insurance; improving prescribing habits; medical education and training for UG/PG; and drafting pharmaceutical policies. In NLEM, the medicines are categorized based on level of healthcare system as- P- Primary; S- Secondary and T- Tertiary.

He elaborated that the concept is based on the premise that a limited list of carefully selected medicines will improve quality of health care, provide cost-effective health care and better management of medicines. He added that the NLEM is a dynamic document and is revised on a regular basis considering the changing public health priorities as well as advancement in pharmaceutical knowledge. The National List of Essential Medicines was first formulated in 1996 and it was revised thrice earlier in 2003, 2011, and 2015.

"The independent Standing National Committee on Medicines (SNCM) was constituted by Union Health Ministry in 2018. The Committee after detailed consultation with experts and stakeholders has revised the NLEM, 2015 and submitted its report on NLEM, 2022 to the Ministry of Health & Family Welfare. The Government of India has accepted the recommendations of the Committee and adopted the list", he stated. He also noted that the process of creation of NLEM depends on the feedback backed by scientific sources from stakeholders and inclusion/exclusion principle followed.

While congratulating the stakeholders for the revised NLEM which takes the country forward in the direction of provisioning of affordable healthcare to its citizens, Dr Bharati Pravin Pawar, Union Minister of State stressed on enhancing awareness regarding Antimicrobial Resistance (AMR) which "is emerging as a big challenge for our scientists and community and we need to create awareness in the society about AMR".



Revision of NLEM 2022 has been done after constant consultation with stakeholders spanning from academia, industrialists and public policy experts etc., and crucial documents like WHO EML 2021.

The following criteria are followed for inclusion in NLEM:

1. Be useful in diseases which is a public health problem in India
2. Be licensed/ approved Drugs Controller General (India) (DCGI)
3. Have proven efficacy and safety profile based on scientific evidence
4. Be comparatively cost effective
5. Be aligned with the current treatment guidelines
6. Recommended under National Health Programs of India. (e.g. Ivermectin part of Accelerated Plan for Elimination of Lymphatic Filariasis 2018).
7. When more than one medicine are available from the same therapeutic class, one prototype/ medically best suited medicine of that class to be included.
8. Price of total treatment is considered and not the unit price of a medicine
9. Fixed dose combinations are usually not included
10. vaccines as and when are included in Universal Immunization Program (e.g. Rotavirus vaccine).

NLEM 2022 can be accessed here:

https://cdsco.gov.in/opencms/opencms/system/modules/CDSCO.WEB/elements/download_file_division.jsp?num_id=OTAxMQ==

Source: https://pib.gov.in/PressReleasePage.aspx?PRID=1858931

MEDICATION SAFETY FROM ADMINISTRATOR'S POINT OF VIEW

MEDICATION SAFETY -

Working Together to Make Healthcare Safer

MS. UPASANA ARORA

Director-Yashoda Super Specialty Hospitals, GZB

Chairperson- SEPC Healthcare Sector

Co-Chairperson-ASSOCHAM Healthcare Council

Member- NABH Board from ASSOCHAM

Assessor – NABH

Fellow-ISQua

Assessor-CII Healthcare Business Excellence

Medication is an integral component of healthcare – there is an extensive range of drugs, devices, and medical practices that are used to relieve symptoms caused by all kinds of illnesses. While these are largely safe (when prescribed by a qualified healthcare practitioner), any form of negligence around their use can lead to accidental injuries or emergencies.

These errors could be anything from diagnostic issues, adverse events caused as a consequence of the wrong usage of drugs or devices, survival errors, or even hospital-acquired infections – as reported by the National Patient Safety Implementation Framework 2018-2025 (NPSIF) released by the Ministry of Health and Family Welfare, Government of India.

This highlights how patient care and safety are critical. Unfortunately, despite consistent efforts taken by the Government of India, the burden of unsafe care has only grown over the years-largely caused by a fragmented approach. Globally, too, the statistics show a bleak picture – out of the estimated 421 million patients that are hospitalized every year, 42.7 million patients are victims of avoidable accidents and injuries.

The statistics are proof enough – as per the World Health Organization (WHO), the cost associated with medication errors stands at an estimated $42 billion annually.

Cause of medication errors

Of every 100 hospitalized patients at any point in time, 7 in developed and 10 in developing countries, will acquire Health Care-associated infections, as reported by NPSIF. Interestingly, simple steps like hand hygiene can bring down such infections considerably – by more than 50%. This highlights how preventive strategies can reduce medical hazards.

Most errors around medication safety today are caused by a combination of weak medication systems and human factors such as fatigue, poor environmental conditions, or staff shortages.

For instance, most avoidable errors happen in the case of surgical care. From administering the wrong drug to dose miscalculations, and errors in prescribing and transcription – the list is endless. Failed communication and lack of patient awareness are also some of the common causes. These can be arrested, if relevant and requisite action is taken.

A SUSTAINED SOLUTION

Although there is a range of measures and programmes offered by several national bodies in India, the awareness of medication safety is still low. It is the need of the hour for key stakeholders to step up and rise against this issue – ensuring that sustained action is being taken, to eradicate such situations in the long run.

Here are a few strategies that can be adopted for effective implementation of medication safety:

- Ensure safe and equitable healthcare services are provided to everyone, with minimum waste of resources;
- Take steps to minimize medication errors by ensuring that prescriptions are written in capital letters and computerized;
- Build an efficient health workforce that is well-trained and takes all possible steps to provide fair treatment to their patients;
- Design an effective and efficient health financing system, so that patients can utilize healthcare services, without having to endure the burden of catastrophic cases;
- Review look-alike, sound-alike (LASA) drugs from time to time, so that they are not interchanged. Label them in different ways, so that there's hardly any room for accidents;
- Ensure schemed medication is administered;
- Timely administration of scheduled medication is as critical as the medication itself;
- Empower patients and push them to be equal partners in the journey toward receiving safe and efficient healthcare;
- Promote a collaborative action and engage all key stakeholders to step up efforts in the provision of medication safety not just within the sector – but also outside of it;
- Strengthen quality assurance mechanisms for public and private healthcare systems;
- To ensure safe surgical care, a safe surgery checklist must be created and implemented to ensure that all the procedures are being performed, as per protocol;
- Strengthen adverse drug reaction surveillance in collaboration with state health departments, drug manufacturers, and national health bodies

A PROMISE FOR A SAFE FUTURE

The National Accreditation Board for Hospitals and Healthcare Providers (NABH) has laid down new guidelines for all its accredited hospitals to have the appropriate implementation of the Management of Medication (MOM) standards, reinforcing the safe usage of medications and devices. These include documented procedures for procurement and storage of licensed medicines, identifying near/beyond expiry date medication, incorporating rational and safe dispensing of medication, and more.

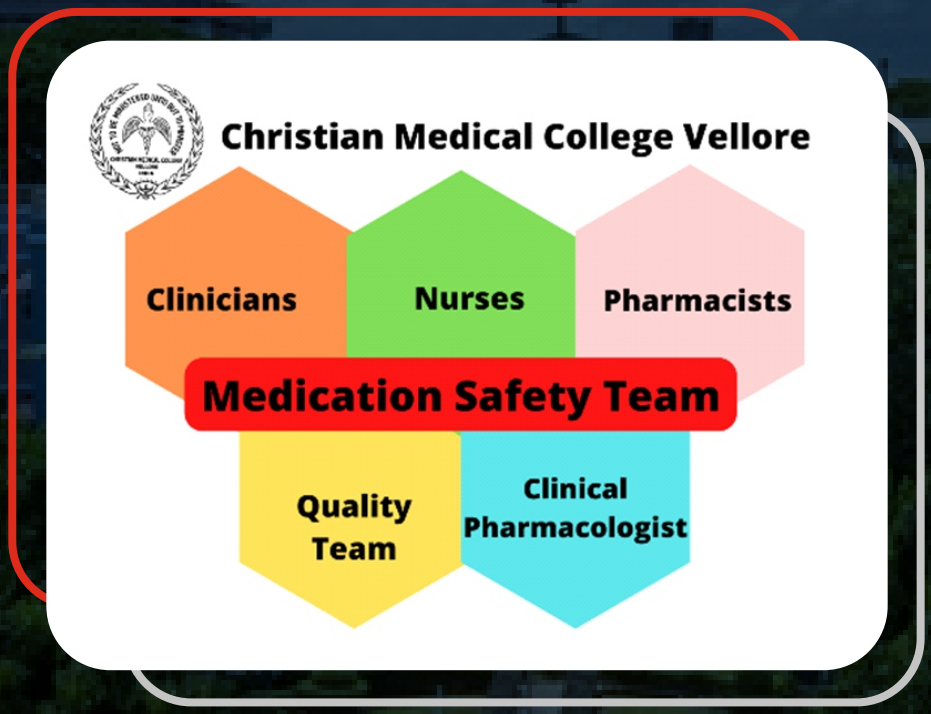
Apart from the above-mentioned measures, it is also critical to scale up the implementation of WHO's Medication Without Harm Challenge. The goal is to achieve "widespread engagement and commitment of the WHO Member States and professional bodies around the world, to reduce the harm associated with medication."

Through this Challenge, WHO envisions bringing down severe avoidable medication-related harm by 50% globally, in the next five years.

There are three key action areas that need to be implemented, as part of the Challenge:

- Ask countries and key stakeholders to make strong commitments, and take early action – to protect patients from harm in high-risk situations, polypharmacy, and transitions of care;
- Ask countries to convene healthcare professionals to design targeted programmes of change and take requisite action in improving safety across domains;
- In driving forward, the Global Patient Safety Challenge on Medication Safety, WHO will provide support in areas like – leading the process of change and taking global action; facilitating the implementation of country programmes; commissioning expert reports to develop guidance and action plans across domains that are a part of the Challenge, as well as developing strategies, guidelines, and tools to ensure medication safety, among others.

All in all, the success of the Challenge is heavily dependent on the prioritization of medication safety within healthcare systems. As we take baby steps forward, here's hoping that a preventive strategy becomes the weapon of choice to avoid harm, in case



CHRISTIAN MEDICAL COLLEGE, VELLORE & MEDICATION SAFETY

"Lowering medication-related harm is considered a critical aspect of ensuring patient safety globally. Ensuring medication related safety must be one of the top quality priorities of every hospital administration"

Dr. Binila Chacko
Professor, Medical ICU, Deputy Director & Clinical Safety Officer

"Patients should become equal partners in healthcare delivery. The role of patients in medication safety will go a long way in strengthening the WHO call for medication without harm"

Dr. Lallu Joseph
Quality Manager, Accreditation Coordinator & Assoc. General Superintendent

"Medication safety is a crucial component of patient safety that has a significant impact on patient's quality of life"

Ms. Sophia Vijayanandan
Deputy Nursing Superindentent

"It is an important initiative to safeguard the patients from potential harm due to inadvertent medication errors. Pharmacists are sensitised and trained about the importance in safe dispensing of Look Alike and Sound Alike drugs (LASA) and High Risk Medications (HRM) in order to prevent medication errors"

Mr. Jacob Prabhu
Sr. Pharmacist

"Monitoring "medication safety" as key performance indicator would be one of the prime factor for hospitals to reduce medication related errors. The Healthcare workers should also develop the culture of reporting incidents, related to medication safety, in-order to correct them and reduce errors"

Mr. Rabindranath B
Quality & Risk Manager

"Medication error in the healthcare orgnisation is inevitatble but can be minimized. It is important to report the incidents, learn out of it and put forward ideas and systems to minimize them"

Mr. Reuban Gnanaraj. E
Safety Officer

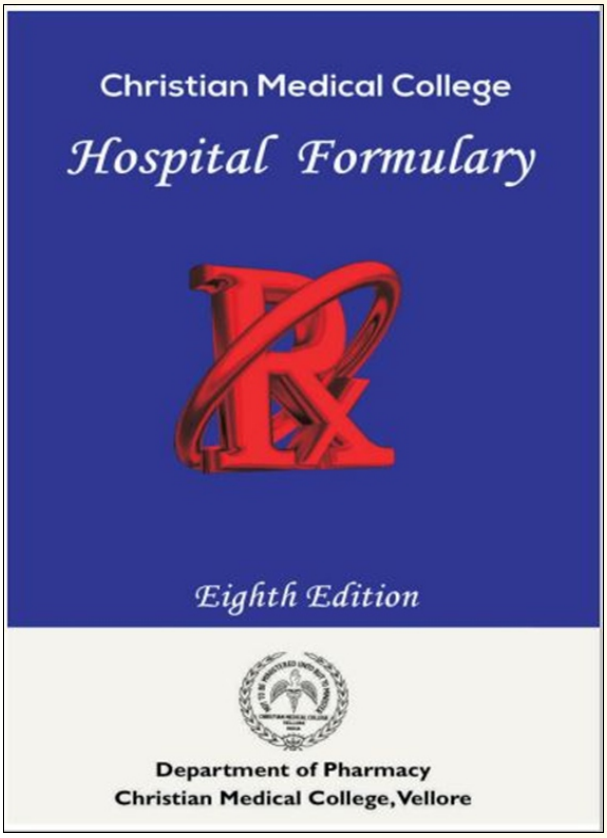
"Ensuring medication safety is very challenging nevertheless appropriate safety measures would save a thousand lives"

Ms. Anitha L
Nurse Manager & Patient Safety Officer

The Christian Medical College Vellore (CMC), located in Vellore, Tamil Nadu, is an unaided, non-profit, minority educational institution established in the year 1900. Today, CMC's network of primary, secondary, tertiary, and quaternary care teaching hospitals, spread across in and around Vellore including facilities in Ranipet District and in the neighboring State of Andhra Pradesh. CMC Vellore is a 4100-bedded multispecialty medical institution of international reputation. CMC Vellore is one of the largest hospitals in India to be accredited by NABH.

The Institution focuses on delivering quality and safe care to its patients. Medication safety is an important part of patient safety. Realizing the importance to prevent adverse reactions, medication errors, overdose, disability, and death, CMC Vellore developed a robust system of controlling medication safety. NABH has played a crucial role in medication safety of the institution. Over the period of 13 years of our journey with NABH, lots of systems and processes in medication management has changed based on the non-compliance raised during NABH assessments that evolved medication safety program in the organization. Clinicians, Pharmacists, Nurses, Clinical pharmacologists, and the Quality team are involved in ensuring the safety of medication practices. Policies, protocols, and procedures on medication safety are well documented in the Clinicians General Guidelines Booklet, Nursing Manual, and Pharmacy Manual. These manuals are available on the CMC intranet for easy access of all staff.

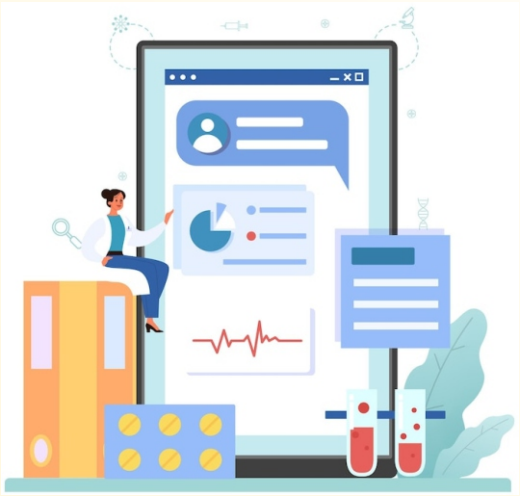
Hospital Formulary



The Institution has a "Hospital Formulary" for the use of health care professionals. A soft copy of this is available in the Clinical Workstation and also on the intranet. This is updated periodically. The hospital formulary committee is multi-disciplinary. This committee ensures that all appropriate medications are available in the pharmacy as per requirements. Drugs may be added to the formulary based on the evaluation by the Formulary Committee. Approximately 3000 molecules are available in the Pharmacy Department which includes medicines, surgical items, sutures and IV fluids. Pharmacy manufacturing division provides a vital service for many decades with a goal of delivering drug products that are not available in the commercial pharmaceutical market at affordable price. In the manufacturing unit, the parenteral section manufactures small volume injections, non-parenteral section manufactures liquid oral preparations and external preparations, and repacking section repacks drug products for external and internal use. These drugs are also included in the hospital formulary.

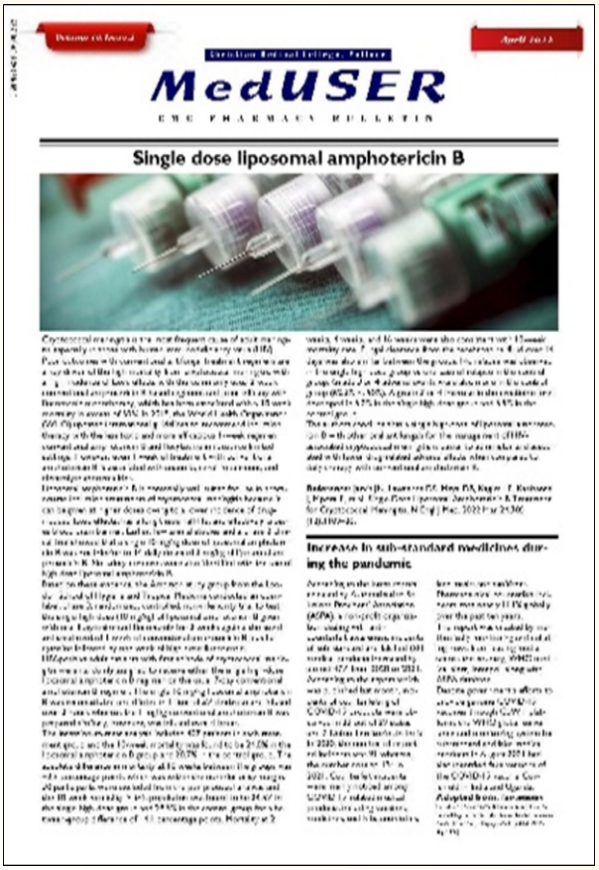
Drug Information Services for Hospital (DISH) :

The primary purpose of Drug Information Services for Hospital (DISH) is to meet the drug information and education needs of clinicians and nurses. In order to improve access to drug information, an online drug information portal was created and has been made available through intranet and Clinical Workstation for everyone to use. DISH periodically updates and publishes the Hospital Formulary containing comprehensive drug monographs of all formulary drugs for staff to improve rational drug use. In addition to this, the institution has subscription of electronic clinical resource tool called “UpToDate and Medicines Complete” for evidence-based information.

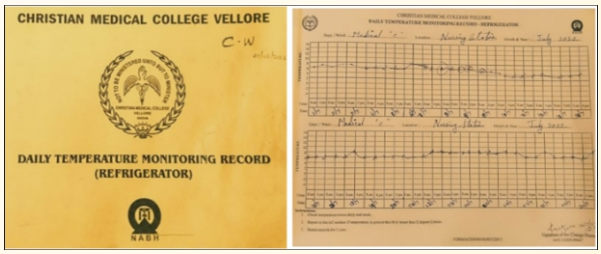


“MedUSER”:

This is the monthly pharmacy bulletin published by Drug Information Services for Hospital (DISH) which is circulated through emails and intranet to the CMC community.



The contents include the latest groundbreaking drug research findings, important regulatory decisions, approvals, news, global medication error stories, a page aimed at learning, and a summary of Adverse Drug Reaction (ADR) and Adverse Drug Event (ADE) reports. The pharmacy bulletin was first published in the 1970s, renewed in the year 2013 with more engaging content.



Medication Storage:

The Institution has 4 pharmacy stores and 48 dispensing outlets. Medications are stored as per the manufacturer's instructions. The refrigerator temperature is monitored twice a day and documented in the temperature monitoring record both in the pharmacies and clinical areas. Appropriate pest control measures are taken in all pharmacies. Sound inventory control practices guide the storage of the medications in all areas across the organization.

The evolvement of approved abbreviations:

Error-prone abbreviations are dangerous because they can lead to misinterpretation of orders resulting in serious harm to the patient. Non-compliances with error-prone abbreviations were identified during the NABH renewal assessment held in November 2016 and a baseline audit were conducted (Oct 2016 – Mar 2017). The usage of error-prone abbreviations to the extent of about 40% was alarming. A multidisciplinary team comprising of clinicians, nurses, pharmacists and quality team was formulated to prepare the approved list of abbreviations for medication management in December 2017.

Approved abbreviation list was prepared based on the "ISMP - List of Error-Prone Abbreviations and Australian Commission on Safety and Quality in Health Care". This is included in the clinician's induction training program, PG orientation, and interns' orientation programs of CMC Vellore to improve adherence and avoid errors. As a result of this, the usage of error-prone abbreviations has reduced to about 8%.

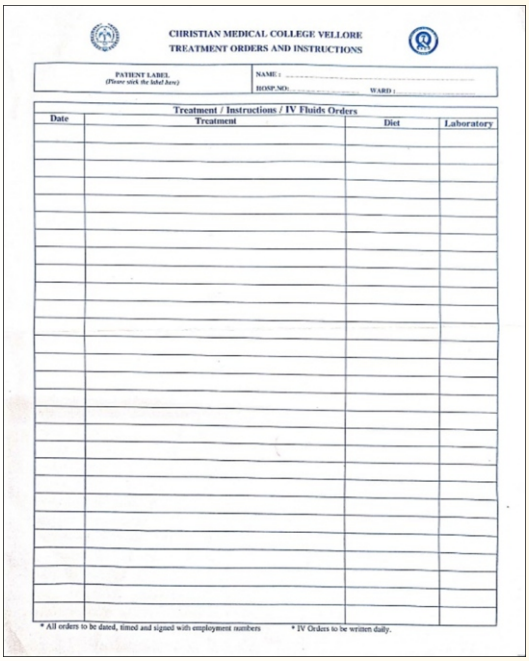
Cut Strip Policy:

Any Cut strips without name of the drug/ strength/ batch number/ expiry date lead to dispensing error. During the NABH renewal assessment held in October 2019, cut strips without appropriate labeling were noticed. As a respond to this problem, the Department of Pharmacy developed the following policy for cut strips. Cut strips are kept on a cover with the drug name, strength, batch number, and expiry date. Minerals and vitamins are dispensed as whole strips. Return of cut strips to the pharmacy is not encouraged.

Prescriptions: Medication errors can become multifold if the prescriptions are not legible. The Institution has a well-established policy for writing prescriptions. Only clinicians are permitted to write prescriptions and medication orders. The clinicians are insisted to write a prescription using generic names and the name of the drug in capital letters as per the guidelines of Medical Council of India (MCI). Alternatively, they are encouraged to prescribe online (e-prescribing). To improve the usage of online prescription, the administration has introduced the P-MAP (Patient Medication Assistance Program) scheme, in which when the clinicians prescribe medications online, 8% of the profit margin will be added to their respective department P-MAP account. The department can utilize this money for their poor patient medicines. As a result, the usage of online prescriptions rose from 10% to 60% in the last five years and this also reduced transcription error in the hospital. Drug allergies are documented in the clinical workstation and this information pop-up as a reminder during subsequent visits to ensure avoiding prescribing allergic drugs. The prescription audit team was set up in 2018. The team audits 300 to 400 hard copy prescriptions every month to ensure handwritten prescriptions comply with the prescription norms. The prescription audit team embarked on compliance with prescription norms and reduction of unapproved abbreviation usage as the Quality Improvement Project in December 2018.

Medication order record:

Initially medication orders were written by the clinicians in the treatment order sheet along with other orders like diet, wound dressing, pre and post operative care, etc., and the nurses document the administration of medications in inpatient nurse's record. This method of documentation was difficult for the nurses to find medication orders in the treatment order sheet and were high chances for medication errors as pointed out by the NABH assessment in 2009. On realizing the severity of the problem, the administration along with quality team, clinicians, nurses and pharmacist prepared a separate "Doctors Medication Order and Nurses Administration Record" and established a stringent policy for writing medication orders and administering medicines.



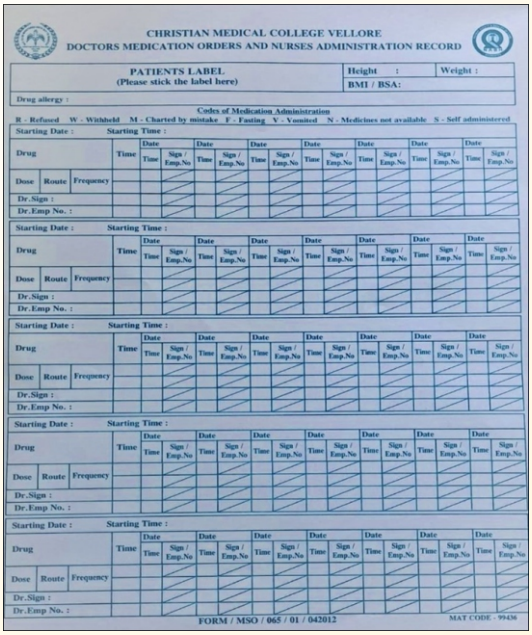
CHRISTIAN MEDICAL COLLEGE VELLORE
TREATMENT ORDERS AND INSTRUCTIONS

PATIENT LABEL (Please stick the label here) | NAME : | HOSP.NO: | WARD :

Treatment / Instructions / IV Fluids Orders

Date	Treatment	Diet	Laboratory

* All orders to be dated, timed and signed with employment numbers * IV Orders to be written daily.



CHRISTIAN MEDICAL COLLEGE VELLORE
DOCTORS MEDICATION ORDERS AND NURSES ADMINISTRATION RECORD

PATIENTS LABEL (Please stick the label here) | Height : | Weight : | BMI / BSA:

Drug allergy :

Codes of Medication Administration
R - Refused W - Withheld M - Charted by mistake F - Fasting V - Vomited N - Medicines not available S - Self administered

Starting Date : Starting Time :

Drug	Time	Date / Time / Sign / Emp.No
Dose / Route / Frequency		
Dr.Sign :		
Dr.Emp No. :		

FORM / MSO / 065 / 01 / 042012 MAT CODE : 9943

For Out-Patients (OP), medications are written on the OP chart and prescriptions are given to the patients. To avoid delays in administering drug such as pre-procedure drugs, post-procedure drugs, stat orders, IV orders, etc., the orders are written in the "Treatment Orders and Instructions".

Narcotic Drugs storage and management:

The institution has a stringent policy for the proper use of narcotic drugs and a good mechanism for inventory control in consonance with the legal requirements of the State Government. Narcotic drugs are kept under lock in a designated cupboard and opened when needed in the presence of two nurses at the site. Narcotic drugs record is maintained in the clinical areas. Patients are monitored by the nurse before, during, and after the administration of drugs to ensure their safety.

High-Risk medications management:

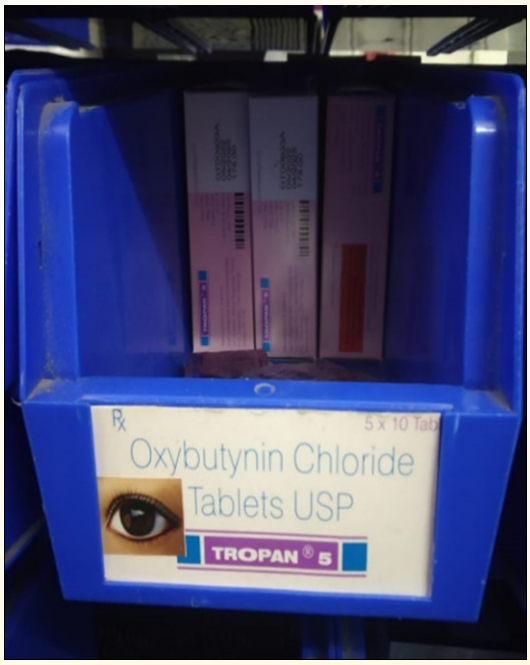
The unsafe use of high-risk medications causes more harm to patients and contributes to additional costs associated with the care of patients. Department of Pharmacy prepared a global list of high-risk medications based on the "Australian Commission on Safety and Quality in Health Care" and expert opinions from clinicians and pharmacists. From the global list, each pharmacy and clinical area prepare their respective high-***Treatment order Sheet in which initially medication orders were written Current Doctors Medication Order and Nurses Administration Record*** risk medication list and that list is displayed in their respective areas and intranet. The list is reviewed and updated whenever needed.

In the pharmacy, high-risk medications are stored separately in boxes with fluorescent green labels on the top.

The pharmacists double-check high-risk medications before dispensing. High-risk medications are stored in a cupboard marked as 'High-Risk Medications" in the clinical areas. High-risk medications are double-checked by the nurse before, during, and after administration and the patients are monitored in all stages of drug administration.

Look Alike and Sound Alike (LASA) drugs safety precautions:

One of the most common pharmacy-related medication errors is failure to accurately identify drugs, probably due to LASA drugs. As there are approximately 3000 molecules, many drugs closely resemble one another in pronunciation and closely resemble one another in appearance.



Hence, the Department of Pharmacy prepared a global LASA list that is made available on the intranet. Based on the global LASA list and available medications, each clinical area prepares its own LASA list and that list is updated whenever needed. Both in the pharmacy and clinical areas, the LookAlike (LA) medicines are stored apart in separate boxes with eye pictures and the Sound Alike (SA) medicines are stored apart in separate boxes with ear pictures. Pharmacists check twice before dispensing LASA medicines. Double checking is done by the nurses before, during, and after administering.

Medication administration and management:

This is one of the most crucial steps in medication management as administration errors can occur at any step. To avoid administration-related errors in the hospital, only nurses and clinicians are allowed to administer drugs. Without medication order, nurses are not allowed to administer medications except during medical emergencies (e.g., cardiac resuscitation) where verbal orders are allowed. Patients are identified by their hospital number, counterchecked with the wrist band and the chart before administering. All medications are checked for expiry and administered after counterchecking with the medication order. Sensitivity tests for drugs (eg. Penicillin) are performed and read by a doctor, recorded on the chart, and informed to the assigned nurse.

When more than one drug is mixed/ prepared for a patient, it is labeled before the preparing the next drug, to prevent mix-up. All loaded syringes are labeled with the patient's hospital number, drug name, strength, and route of administration. Documentation of the medication administered is done in the Doctors Medication Order and Nurses Administration Record. Chemotherapeutic drugs are administered as per the institutional policy. Patients are monitored for therapeutic and adverse effects of the administered drugs. All parenteral drug administrations by students are supervised.

Self- administration of drugs in the hospital:

Insulin is the only drug that is allowed to be taken by the patient during hospitalization under the supervision of the staff nurse.

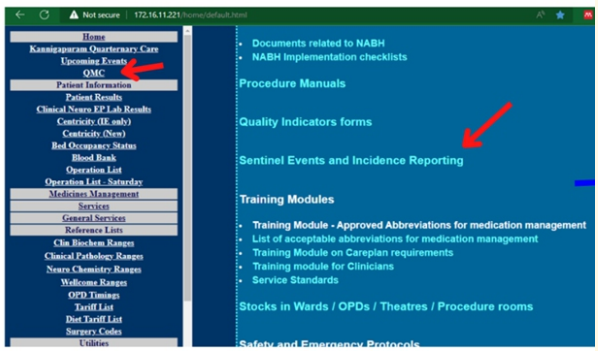
Medication Reconciliation:

Reconciliation of medicines occurs at transition points such as admission, transfer from one unit to another, and discharge. The list of medications that a patient is to receive is complete and up-to-date concerning past clinical conditions and present care plans. The prescribed medications are checked for accuracy at the transition points.

Near miss and Medication Errors:

Online Incident Reporting Format

The incidents are reported within 24 hours either through an online (sentinel events and incident reporting link in the intranet) portal/ incident report form. Prescribing, dispensing and administering



errors are captured by the clinicians and nurses in the clinical areas. Prescribing, transcribing (at the time of billing) and dispensing errors are captured by pharmacists in the pharmacies. Root Cause

Analysis (RCA) is done and interventions are proposed to prevent identical errors in the future. All medication errors and near-miss are captured as indicators and sent to Quality Management Cell (QMC).

Adverse Drug Reaction (ADR):

Patients are monitored for adverse effects of drugs. If any suspected ADR in the clinical areas, appropriate actions are taken immediately. Any suspected ADR from the clinical areas are reported by the nurses and doctors within 24 hours either through an Online/ Suspected ADR report form. ADR reports are published in the "MedUSER" Pharmacy Bulletin for the healthcare professionals in the hospital and submitted to the pharma covigilance program in India every month. CMC Vellore joined the Pharmacovigilance program of India in February 2011.

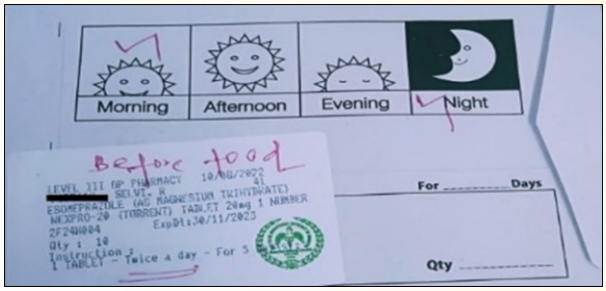
Role of Clinical Pharmacologists:

The pharmacology department conducts a monthly audit on the orders for the appropriateness of the drug, dose, frequency, and route of administration, presence of therapeutic duplication, and the possibility of a drug interaction. Based on the audit reports, Corrective and Preventive Actions (CAPA) are recommended by the department.

Medication recall system:

When a particular drug is withdrawn for any reason, it is publicized on the intranet and intimated to the clinical areas to which the drugs are dispensed. The online systems are comprehensive and give the details of the drugs dispensed to every patient based on the pharmacy transaction. Concerns pertaining to particular drugs can be addressed by sending an email to the pharmacy.

Short expiry and disposal of expired drugs:



The online inventory control provides mechanisms for identifying near expiry (3 months before expiry) drugs in the pharmacy. In the clinical areas, nurses identify short expiry drugs (4 months before expiry) and send them to the ward supply pharmacy. These are sent back to the suppliers. Expired drugs from the clinical areas and pharmacies are disposed as per the Biomedical Waste Management Rules 2016.

Patient Education:

All inpatients are educated about the name of the drug, dose, dosage form, frequency, route, benefits, risks, possible adverse reactions, and precautions by the doctors and nurses in the clinical areas. All drugs are labeled before dispensing for outpatients Online ADR reporting format for Nurses and the label contains the drug name, the strength, the dosage, and the frequency of administration. Outpatients are educated on the same by the dispensing pharmacies or patient counseling desk.

Patient counseling desk in Out-Patient Department (OPD):

Clinical pharmacists are posted in the OPD pharmacy to guide the patient/ caregiver regarding medications. For complex prescriptions, tapering doses, etc, patients are referred to the pharmacy counseling desk. The pharmacist at the desk explains extensively about the proper usage and storage of drugs in the patient's language. This facility improves patient medication usage compliance and also ensures medication safety.

Medication Management Training:

Training on policy for writing the prescription, medication order, approved abbreviations, medication administration, reporting near miss, medication error and ADR are given to clinicians during induction training program, PG Orientation, and Interns Orientation Program and part of mandatory training once in three years.

· Training on policy for high-risk medications, LASA drugs, medication administration, IV therapy, narcotic drugs, reporting near miss, medication error and ADR are given to nurses during induction training program and in-service education program.

Medication safety related audits:

Various audits such as monitoring refrigerator temperature, cut strip policy, prescription, LASA drugs, high risk medication drugs, narcotic drugs account (NDA) and medication order are conducted by both nursing service and quality management cell and the reports are presented to the various committees like Medical Audit Committee, Quality Steering Committee, Safety Steering Committee, etc.,

Way forward:

Patient plays a vital role in the medication safety and involving the patient to take part in all 5 moments for medication safety improves compliance. “Patient safety challenge: Medication without Harm” is the WHO 2022 theme and based on the WHO's call, CMC Vellore is planning to take the quality improvement project by involving patients in the medication safety program.

MEDICATION SAFETY IN HOSPITAL

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DR. SUDHA RAO

INTRODUCTION

Providing strategies to effectively prevent medication errors and adverse drug events in hospitals has gained international recognition.

The burden of medication errors and adverse drug events in hospitals are especially important as these have implications for patient safety. More than half a million patients are injured or die each year in hospitals from adverse drug events (ADEs), which may cost up to USD 5.6 million annually per hospital.

Pharmacotherapy is the most common therapeutic intervention in healthcare to improve health outcomes of patients. Despite the intent to benefit patients, there are many instances where effectiveness of medications is undermined by poor medication use process and practices that could promote avoidable medication errors, thus putting patients' health in jeopardy. Safe care requires that all individuals, patients and care providers are protected from medication-related harm when using the essential health services they need. A medication error is defined by the United States National Coordinating Council for Medication Error Reporting and Prevention as *"Any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the health care professional, patient, or consumer. Such events may be related to professional practice, health care products, procedures, and systems, including prescribing, order communication, product labelling, packaging, and nomenclature, compounding, dispensing, distribution, administration, education, monitoring and use"*

Unsafe medication practices leading to medication errors are among the leading causes of morbidity and mortality in health services delivery. A medication safety fact file released by the World Health Organization (WHO) in 2019 shows that medication errors harm millions of patient's yearly. More importantly, these errors are *preventable*. Identifying the causes of errors and building safeguards in the healthcare system are key steps towards providing safe, quality, efficient and integrated health services.

A focus on Hospital Care, pharmacy and High-Risk Situations

Medication errors often occur as a result of gap in medication use process and practice, from

Prescribing and ordering to transcribing and/or documenting, and from preparing and dispensing to administering and monitoring.

Learning Objectives

Aims to highlight inherent risks and weaknesses in the medication use process in healthcare facilities, focusing on the three main areas identified as having the greatest burden of harm, as well as on the strategies that can be appliedto mitigate them

Learning outcomes: Knowledge and Performance

Knowledge Requirements

Health professional should know:

- The relationship between medication errors and adverse drug events (ADEs).
- The scale of medication errors at three priority areas of medication safety.
- Common points in the medication use process where errors can take place.
- Ways to ensure medication safety at three priority medication safety areas.
- The benefits of inter-professional approach.

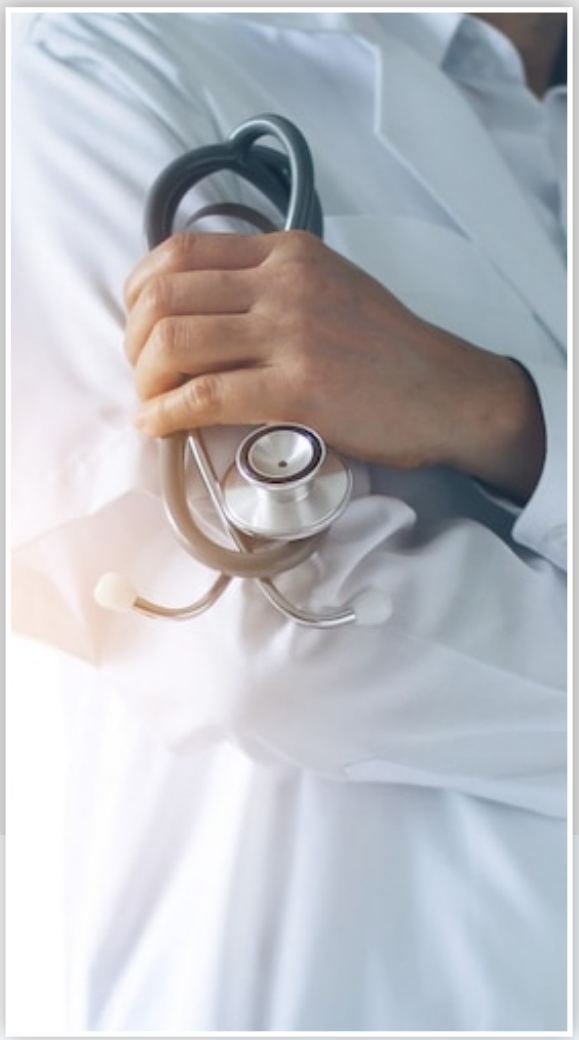
Performance Requirements

Healthcare professionals who understand that medication errors are preventable harm and appreciate risks of unnecessary harm associated with the three priority areas of medication safety will strive to:

- Improve quality and availability of information during transitions of care.
- Engage with and educate patients, families & caregivers.
- Carry out medication reconciliations.
- Perform medication reviews.
- Use generic names.
- Understand and practice drug calculations, e.g. adjustments of dosage based on clinical parameters
- Be familiar with the medications prescribed, prepared, dispensed, and/or administered.
- Develop double-check habits.
- Appreciate human limitations and human factors as contributing factor of errors.
- Communicate clearly and be an effective team player.
- Report and learn from errors.

Medication Safety in Transitions of Care

Transitions of care involve movement of patients between different levels of care within the same setting or across settings, and consultations with different healthcare providers. Transitions of care may also involve other care providers, such as palliative care or social care. During transitions of care, changes to the current medication list of patients are very likely to occur. Therefore, ensuring medication safety involves implementation of safe medication practices to bridge critical communication gaps in medication use process. These could include appropriate prescription and risk assessment, medication review, patient engagement and communication, as well as medication reconciliation.



Extensiveness of Medication Discrepancies

Medication discrepancy is, therefore, defined as ***"Any difference between the medication use history and the medication orders. Discrepancies may be intentional, undocumented intentional or unintentional discrepancies"***

For patients who receive multiple medications from varied prescribers across different settings, obtaining a single medication list on what they should be taking can pose a significant challenge. Medication discrepancies owing to changes in medications during hospital admission can be intentional, attributed to the condition which caused the admission or unrelated to the reason for hospitalization, such as to improve the management of existing chronic illnesses. Importantly, any undocumented intentional or unintentional medication discrepancy is a safety risk to patients.

Studies indicate that more than half of patients experienced at least one unintended medication discrepancy during admission .One national multi-site audit found that nearly half of the patients with at least one new medication started had undocumented reason, while more than half of the cases with medication discontinued or withheld had undocumented reason. In addition, three out of ten patients had unintentional omissions of pre admission medication.

Medication-Related Harm during Transitions of Care

Prevention of medication-related harm for patients who seek hospital or primary care. A systematic review showed that 11–59% of medication discrepancies that occurred at transition points. In fact, about 33.3% of ADEs that led to hospital admission were attributable to preventable medication errors. Omission errors at discharge can also prove to be detrimental.

ADE is defined as: *Any injury resulting from medical interventions related to a drug. This includes both adverse drug reactions that are not preventable and complications resulting from medication errors, which are preventable.*

Making Medication Use Safer During Transitions of Care

Ensuring medication safety during transitions of care often require a multifaceted systematic approach involving inter-disciplinary care teams such as doctors, pharmacists and nurses. Interventions with the goal of reducing medication-related harm during transitions of care focus on three essential areas:

- Medication reconciliation
- Information clarity and availability at all transition of care points
- Patients and family engagement and education

Medication Reconciliation

Medication reconciliation is a risk mitigation strategy for preventing ADEs. It is defined as *"The formal structured process in which health-care professionals partner with patients to ensure accurate and complete medication information transfer at interfaces of care".* Medication reconciliation is an important component in health services delivery especially for patients during hospitalization. The best possible medication history is obtained when information about all medications taken by a patient is recorded accurately. This is often carried out via interview of patients, their families or care givers using a structured format. Obtaining medication history followed by reconciliating the medication lists during transitions of care is essential to ensure medication safety and continuity of care, with the goal of communicating accurate and complete medication information to patients and subsequent care providers (Table 2). Implementation of formal and structured medication reconciliation processes requires education and training of all healthcare professionals involved, including prescribers, nurses & pharmacists, Roles and responsibilities of each team member should be clearly elucidated and agreed upon. Targeting high-risk patients has the highest impact in contributing to the success of intervention, whereas having technologies and appropriate tools that aid standardization could force completion of these processes.

Table 31.1 Steps in the medication reconciliation process to ensure medication safety during transitions of care

	On admission	On discharge/transfer
Verification	Verifying the information obtained from patient/caregivers against at least one reliable source of information.	Retrieving the BPMH (or completing this if it was not completed upon admission) and verifying the final medication list at the time of discharge or transfer.
Clarification	Returning to the patient and confirming the medication list with patient to build the BPMH.	Clarifying any inappropriate dosages or frequency and whether the change is temporary or permanent.
Reconciliation	Reconciliating the BPMH with the medications prescribed on admission to identify and resolve any discrepancies.	Reconciliating and deciding which medication is required after discharge or transfer and prescribing or listing it.
Documentation	Documenting reasons for intentional discrepancies and updating records.	Documenting reasons for changes or discontinuations to preadmission medication list and updating records, to indicate the discharge medication list and changes.

Information to Support Safe Use of Medications

Promoting the use of the generic name (international non-proprietary name) of medicines in the prescribing and labelling process will help to improve clarity for both patients and healthcare professionals minimise reconciliation errors. In addition, national Pharmacovigilance centers, pharmacies or medication information services can improve understanding as well as support safe and effective use of medication by providing readily accessible information on medications and potential ADE for both patients and healthcare professionals.

Patient Engagement and Education

For starters, healthcare professionals should ensure that all patients as well as their immediate families or caregivers are made aware of changes in their medication, the monitoring needs and whom to contact should problems arise during transitions of care .This can be done by properly engaging and counselling them, especially during discharge from hospitals, including asking whether they understand what is being communicated. Other strategies include developing Standardized discharge instructions for patients, creating or updating patient-held medication list with rationale for changes in therapy stated and follow-up needs specified. This comprehensive medication list can also increase their under-standing about their medical conditions as well as the indication of each medications, how to take them, what side effects to expect and when they should seek help.

Monitoring and Measurement

Successful implementation of transitions of care interventions requires extensive coordination and communication between healthcare providers from different institutions to determine their efficacy in reducing medication discrepancies and avoidable patient harm. In addition, validated survey instruments for patient experience and understanding of medications, are also recommended to achieve a well-rounded evaluation

Medication Safety an individual on multiple medications

This usually afflicts those with numerous chronic health conditions, and is highly prevalent in the elderly as the number of co-morbidities increases in tandem with age .Individuals with multiple medications often consult more than one medical specialist and have prescription medications filled at multiple pharmacies, making their medication regimen complex. This is further complicated by usage of non-prescription as well as traditional and/or complementary medications. In fact, the use of multiple medications is warranted and rational in some health conditions, for example, heart or renal failure. This rational polypharmacy is used to describe duplication of therapy, presence of drug interaction, non- indicated or excessive use of medicines.

Medication-Related Harm an individual on multiple medications

Medication safety priority is that it increases the risk of adverse drug reactions (ADRs) due to drug-drug interactions and duplicity of therapy. These unwanted effects are a major source of medication-related harm for patients, and the elderly are more susceptible due to age- related physiologic decline .An adverse reaction can also result in a prescription cascade, where it is mistaken for an emerging medical condition and treated with new medicines .These situations contribute to the incidence of intentional or non-intentional non-adherence among patients, as well as physical harm such as falls, fractures, cognitive impairments and dementia. In terms of economic implications, multiple medications increases avoidable healthcare costs such as emergency department visits and hospitalizations. The main cause of multiple medications is the emergence of multiple morbidities in an ageing population. The prevalence of having two or more chronic conditions increases with age, afflicting two-thirds of those aged more than 65 years old. Multiple morbidity is a major confounder of the relationship between number of medications and health outcomes. Other patient factors affecting multiple medications include gender, ethnicity, and socioeconomic status, with those of poorer background and less education more prone to multiple medications.

Measuring Appropriateness of Medications

In order to ensure medication safety in polypharmacy, medications taken by a patient, especially those with multiple morbidities, should always be assessed by physicians before the start of a new medication, or routinely by pharmacists during medication review and reconciliation. The aim of this assessment is to increase medication appropriateness and decrease inappropriately prescribed medication and prescribing omissions.

A total of 48 medicines are deemed inappropriate to be used among the elderly, including benzodiazepines, anticholinergics and antihistamines, long-term non-steroidal anti-inflammatory drugs and stimulation laxatives. Other validated screening tools include Medication Appropriateness Index (MSI)and Screening Tool of Older Persons' Prescriptions and Screening Tool to Alert Doctors to Right Treatment (STOPP/START)

Medication Reviews

In medication reviews, patients' medications are evaluated by a trained healthcare professional and discussed together to identify drug-related problems. Interventional recommendations are then made to optimize treatment. In 2018, the Scottish National Health Services published a comprehensive seven-step review process to serve as guidance.

It involves (1) establishing treatment objectives with the patient, before working through the whole list of medications to determine drug therapies that are (2) essential as well as (3) potentially unnecessary. The current treatment is then assessed to determine its (4) effectiveness, (5) safety, (6) cost-effectiveness and (7) patient acceptance Medication reviews are often led by pharmacists, where other issues such as medication adherence, device use technique and monitoring of treatment are also considered. Outcome wise, medication reviews that are more comprehensive and conducted in the context of patients' clinical condition were found to significantly reduce hospitalisation. Medication reviews with follow-up were also found to improve patients' quality of life, reduce medication-related hospitalizations and to be cost-effective.

Rational prescribing of drug selection

Rational use of medicines requires that "patients receive medications appropriate to their clinical needs, in doses that meet their own individual requirements, for an adequate period of time, and at the lowest cost to them and their community.

Prescribing is the most important tool used by physicians to cure illness, relieve symptoms and prevent future disease. It is also a complex intellectual task that requires formulation of an appropriate treatment regimen from the many thousands available, taking into account the infinite variation in the patients they encounter. Unfortunately, the selection of a medicine and dosage regimen is sometimes suboptimal, leading to poor patient outcomes (eg treatment failure, avoidable adverse reactions).

Rational prescribers should attempt to: i) Maximise clinical effectiveness ii) Minimise harms iii) Avoid wasting scarce healthcare resources iv) Respect patient choice.

Several guidelines on prescribing for the elderly exist, especially for conditions often affecting them such as management of constipation, chronic pain and rational usage of benzodiazepines, anticholinergics and anti-psychotics. Guidelines for the management of patients with multiple chronic conditions are also being developed and this is the way forward for the management of polypharmacy.

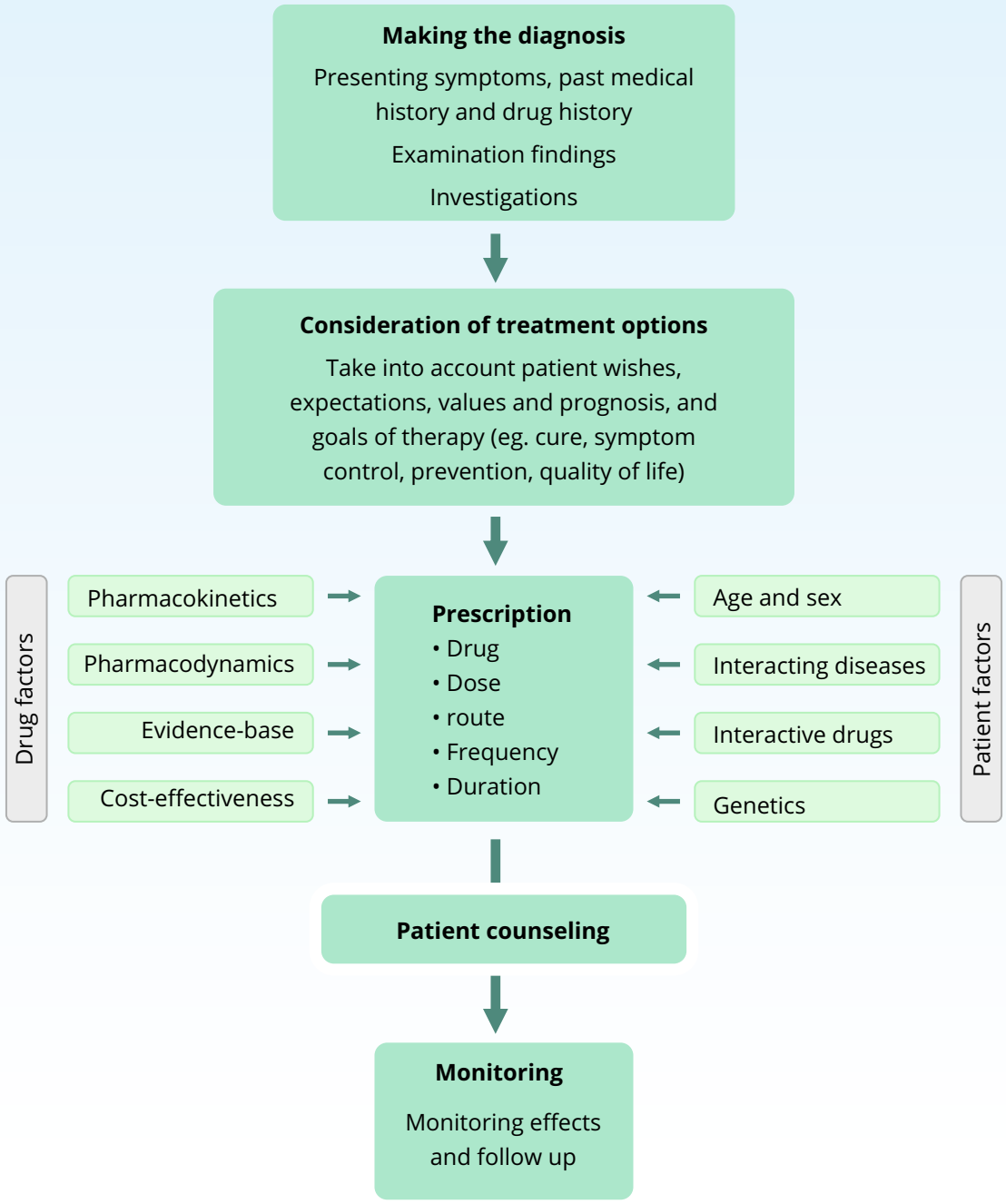


Fig. 3: The process of rational prescribing.

Deprescribing

Patient's medication list systematically to identify items that can be safely discontinued. Due diligence is important in deprescribing, as inappropriately stopping a medication can lead to adverse drug withdrawal events. Research findings suggested that deprescribing saves cost, reduces waste of medications and does not result in patient harm; however definitive impact on clinical outcomes.

High-Risk Situations in Medication Safety

High-risk situations are more often associated with significant harm due to unsafe medication practices or medication errors. This report outlines three main factors contributing to high-risk situations: i) medications, particularly high-risk (high-alert) medications, ii) provider/ patient factors, and iii) systems factors (work environment). One or more of these factors, acting alone or in combination may trigger unsafe medication practices or medication errors. The report also outlines how a range of sustainable strategies of proven efficacy can be developed and implemented in conjunction to reduce the risk of harm associated with high risk situations.

Medication Errors and Related Harm in High-Risk Situations

High-Risk Medications

High-risk medications are drugs that are more likely to cause harm to a patient when they are used in error or taken inappropriately. Although mistakes may or may not be more common with these drugs, the consequences of an error at any level of their management (i.e. prescription, storage, dispensing, preparation, administration and monitoring) are more devastating to patients compared to non-high-risk medications. These medicines require particular attention in the medication use process, mainly because of their potential toxicity, low therapeutic index or high possibility of pharmacological interactions. A recent systematic review, which focused on the epidemiology of prescribing errors with high-risk medications in the inpatient setting, high-lighted that the prevalence

of these errors was highly variable, ranging from 0.24 to 89.6 errors per 100 orders. This wide range reflected the lack of uniqueness on definitions of both prescribing errors and high-risk medications. Dosage errors, incorrect date of prescription, and omissions of required medications were the most common prescribing errors. Opioids and sedatives were the most frequent pharmacological categories associated with these errors .In another systematic literature review aimed at defining high-risk drug classes, methotrexate and warfarin were the top two drugs resulting in fatal medication errors. While the drugs identified as high-risk may vary between countries and healthcare settings in light of the types of molecules used and patients treated, analysis of incident data and review of the literature identified a group of medicines that should universally be considered as high-risk.

High-Risk Patients

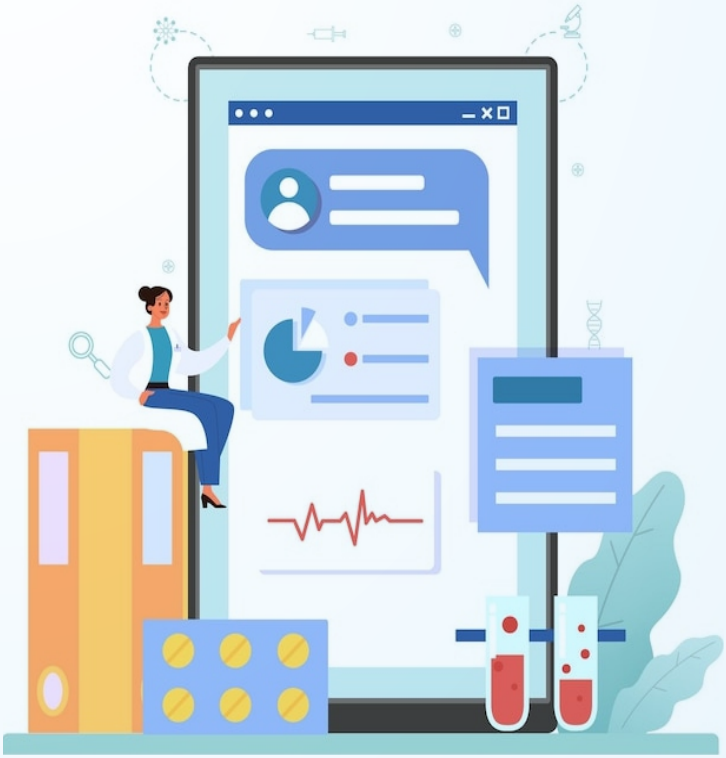
Data from observational studies indicate that 5–27% of all pediatric medication orders resulted in error. Children, especially neonates and infants, are particularly vulnerable to patient safety concerns, including the use of weight-based dosing, the need for stock medicine dilution to administer small amounts of medication, immature hepatic and renal systems and the inability to self-administer medications or communicate side effects.

In the elderly, as discussed in the previous section, long-term polypharmacy due to the emergence of multiple chronic morbidities and high probability of drug-drug interactions are the most critical factors in the medication safety field. It is also noteworthy that the elderly are generally poorly compliant to therapy and less likely to tolerate drugs. Indeed, age-related physiological changes, including the reduction of glomerular filtration rate, the decreasing liver volume and blood flow, as well as an increase of gastric acidity, affect pharmacokinetic

Conclusions

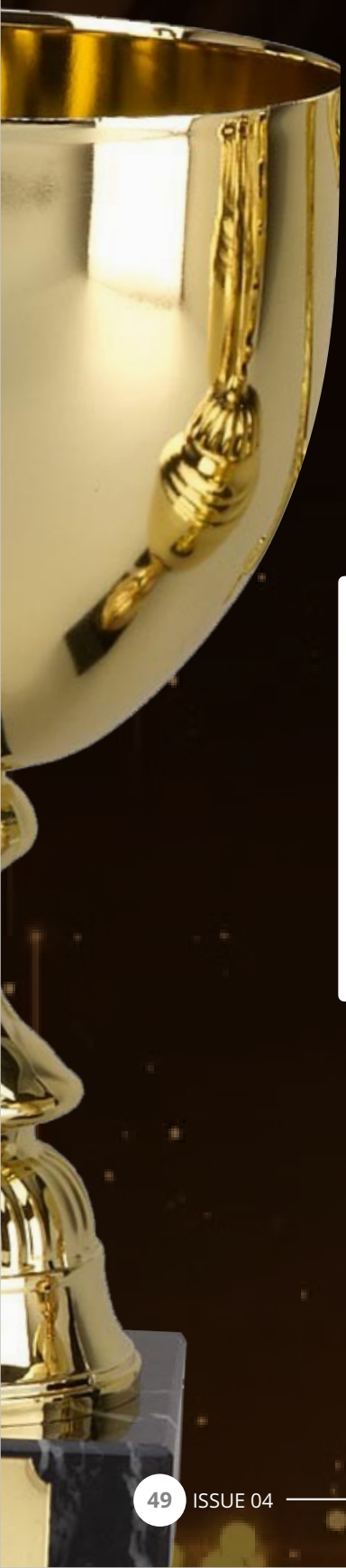
The rapid advancement in pharmacotherapy render medication safety challenging to achieve. A patient can now be seen by multiple prescribers in multiple facilities and started on multiple medications, some of which are high-risk. The factors increase the probability and propensity for unintentional medication errors to occur. Therefore transitions of care is a major contributor to medication discrepancies. A lack of information sharing among healthcare professionals detailing medication changes when patients transfer from one hospital to another or between different setting of care, and inadequate patient health literacy are the main causes for thislapse in medication safety. Focusing on medication reconciliation, information clarity during care transition, as well as patient engagement and empowerment are keys to alleviate this issue.

The use of multiple medications or polypharmacy is a rising trend. This will inevitably increase medication-related adverse events leading to patient harm. Various measures have been taken to promote rationale prescribing, especially among elderly patients as well as to reduce inappropriate polypharmacy. High-risk medications are often those with narrow therapeutic index and high potency, whereas some patient segments, especially children, geriatrics and pregnant women, are physiologically more vulnerable to errors.



Certification Awarded To AYUSH Entry Level Hospital & Center

NABH awarded the first AYUSH Entry Level Certificate for Hospital in the presence of Shri. Vaidya Rajesh Kotecha, Secretary, Ministry of AYUSH, New Delhi



NABH MEETING WITH CEO, NHA

Prof. (Dr.) Mahesh Verma, Chairman-NABH & Dr. Atul Mohan Kochhar, CEO-NABH met Dr. R. S. Sharma, CEO of National Health Authority (NHA) and had an extremely fruitful discussion on the synergy between NABH and NHA. He shared his vision of driving the digital health in India together.

CERTIFICATION AWARDED TO REGIONAL RESEARCH INSTITUTE OF UNANI MEDICINE (RRIUM) SRINAGAR

NABH Accreditation Certificate to RRIUM, Srinagar in the presence of Hon'ble Union Minister, AYUSH and Hon'ble LG Union Territory of Jammu & Kashmir

Unani Day 2022 and International Conference, Srinagar

Awarded NABH Certificate in the Unani Day 2022 during the International Conference, Srinagar

MEDICATION SAFETY FROM DOCTOR'S POINT OF VIEW

DR. RAJESH HARSVARDHAN
Head, Dept. of Hospital Administration &
Dy. Medical Superintendent,
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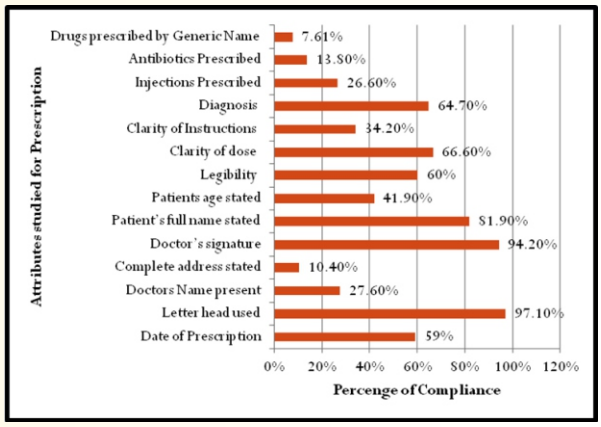
Scaling up the Paradigm of Patient Safety Challenge: Medication Without Harm

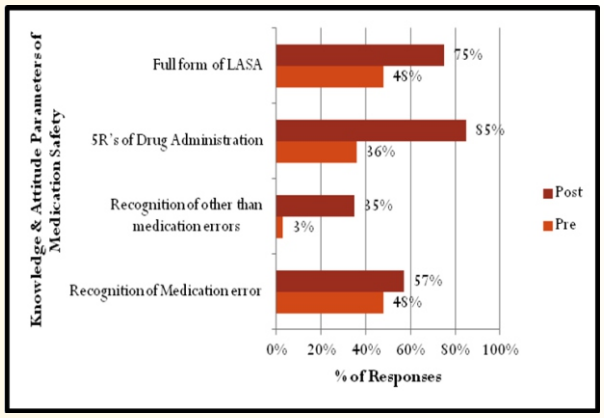
Patient Safety is about preventing medical error that may lead to adverse events and harm. It demands a complex system, wide effort, involving a wide range of actions in performance improvement, environmental safety and risk management, including infection control safe use of medicines, equipment safety safe clinical practice and safe environment of care [World Health Organization (WHO), 2002].

Unsafe medication practices and medication errors are a leading cause of injury and avoidable harm in health care systems across the world. Almost everyone in the world has taken medication at one time or another in their life. Most of the time the medications are favourable or at least they do no harm but on occasion they do harm the person taking them. Sometimes these harms are due to errors occurred during medication use process which can be prevented. In hospitals, errors occur in every step of medication use process starting from procuring the drug to prescribing, transcribing, dispensing, administering and monitoring its effect. Annually 7000 mortalities have been reported due to medication errors. In India, the medication errors and medication related problems are mainly due to irrational use of medications. In response to this, WHO has identified Medication Without Harm as the theme for the third Global Patient Safety Challenge. The Goal is to ***Reduce the level of severe avoidable harm related to medications by 50% over 5 years, globally.***

Considering the huge burden of medication-related harm, Medication Safety has also been selected as the theme for World Patient Safety Day 2022. **The three areas for early priorities of action includes: high-risk situations, polypharmacy, and transitions of care. It is pertinent to mention here that medication safety has a "cultural" component to it, implying that one size does not fit all. It should be kept in mind that these medication errors signify faulty system rather than faulty medical professionals** High-risk situations are more often associated with

significant harm due to unsafe medication practices or medication errors. The three main factors that contribute to high-risk situations: i) medications, particularly high-risk (high-alert) medications, ii) provider/ patient factors, and iii) systems factors (work environment). One or more of these factors, acting alone or in combination may trigger unsafe medication practices or medication errors. A Sstudy conducted at Tertiary Care Teaching Institute, Lucknow reveals that IEC(Information, Education & Communication plays a significant role in improvement in KAP (Knowledge Attitude & Practice) of the staff.





Polypharmacy is the routine use of four or more over-the-counter, prescription and/or traditional medications at the same time by a patient. Polypharmacy increases the likelihood of side effects, as well as the risk of interactions between medications, and may make adherence more difficult. The standardization of policies, procedures and protocols is critical to polypharmacy. This applies from initial prescribing practices, to regular medication reviews. Prescription errors are one of the most common medication errors. They are preventable by developing system made approach and set standards. A study was conducted to randomly audit prescriptions received at OPD Pharmacy of tertiary care teaching institute in luck now. The number of prescriptions with single drug & with two drugs were nearly same as 14.2%. The prescriptions with three drugs were 20% and rest of the prescription had more than three drugs which ranged from 4 to 14 drugs. The Layout, Legibility, Clarity and Adequacy of Labeling Of Prescriptions was not found up to the mark.

Compliance for Attributes of Prescription

The patients and their attendants who came to pharmacy outlets were interviewed regarding their knowledge about dosage of drugs and frequency of administration. It was found that knowledge level was 55.7% Patients can play a vital part if provided with the right information, tools and resources to make informed decisions about their medicines. Technology can also serve as a useful aid.

Transitions of Care occur when a patient moves between facilities, sectors and staff members; for example: a transfer from the emergency room to the intensive care unit, from a nursing home to a hospital, from a primary care doctor to a specialist, or from one nurse to another during a shift change. Transitions of care increase the possibility of communication errors, which can lead to serious medication errors. Patients are at increased risk during transitions of care and so serious mistakes can and do occur at these times, in particular. Good communication is vital, including a formal comparison of medicines pre- and post-care, so-called medication reconciliation. Patients can be valuable and active participants in this process by maintaining a current medicine list that is updated when any medicine changes occur.Standardize nursing handover have been known to improve outcome, reduce errors & enhance communication. In this regard a study conducted at Tertiary Care Teaching Institute at Lucknow reveals that the Nursing staff understand the importance of the nursing handoff & agrees that the Standardize template can improve nursing handover but were not aware of SBAR template of Communication. There was significant

improvement in almost all elements of the nursing handover after introduction of ISBAR system of communication. The intervention was welcomed by the staff though there was resistance in using ISBAR template for every patient stating high workload and lack of nursing staff as a reason, fair level of compliance was achieved within few weeks of intervention. This study also reflected the least compliance with patient communication during handovers.

A proper curriculum on Medication safety is required to be established to guide the healthcare providers about the serious implications of medication errors on patients and healthcare system. Developing an effective Medication Error Reporting System and learning from it is one of the key strategies to reduce medication errors in long run. NABH is playing a vital role by ensuring that the accredited hospital monitors medication errors and performs effective root cause analysisof the reported errors. More than the harm introduced by medicines themselves, the harm caused by medication errors is often more threatening. Hypothetically, achieving absolute medication safety is conceivable in all healthcare settings. Reaching the target of absolute medication safety will cost our commitment, care,determination and bringing forth innovative interventions towards the cause of medication safety.

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MEDICATION SAFETY:

STRATEGIES FOR BETTER HEALTH CARE

Medication is a boon but it does not take too long to turn into a nightmare if consumed irrationally. This danger involves both caregivers and patients. Caregivers are under constant stress of delivering the healthcare to ever-increasing patient load, while patients have developed an odd sense of empowerment in today's times of internet where every superficial information is at the tip of finger.

Weak practices involving drugs dispensing and consumption are growing more than ever and the end-user is at the ultimate risk. It takes several years if not decades for a drug to make its way into the commercial market passing through rigorous clinical trials and quality checks hence the drugs available to mankind are limited. With advent of irrational medication practices, we are looking at the threat of drug-resistance like never before.

Healthcare has seen an evolution in India post emphasis on accreditation by regulatory authorities. Healthcare delivery has penetrated deepest parts of the country by now and is evolving continuously. Cutting-edge sophisticated technology has paved its way in the clinical set-ups in private sectors and also in public sectors. But at the same time, in a country like India with such humongous population, diverse socio-economic and cultural profiles and relatively moderate literacy levels in many parts, there is overall laxity in service uptake and pertinent issues. Medication safety involves both healthcare givers and receivers.

Issue of medication without harm can be discussed under few core areas as follow:

RAISE

In a country where OTC (over-the-counter) is the preferred way of medication dispensing in general, awareness about safety in medication is not only limited to indoor patients but is the rampant need at every household level. As the waves of Covid19 pandemic keep coming, home-isolated cases, teleconsultations, tele-prescriptions shared through WhatsApp and OTC dispensing of drugs - are increasing. Sadly, this is not limited to only Covid19 anymore. Similar models are being followed for many other healthcare needs too. Therefore, need for awareness on medication safety is of topmost concern .

More often than not, issues like medication safety get neglected in the chase for more sophisticated needs of physical healthcare infrastructure in many developing nations. While western countries are already addressing issues like medication safety via their well laid-out SOPs in every set-up, in India, it still has to go a long way.

WHO has launched the strategic framework of the Global patient safety challenge which depicts the four domain of the challenge : patients and the public, health care professionals, medicines and system and practices of medicine .

Each domain further has 4 subdomains with key areas of polypharmacy, high risk situations and transitions of care and form an inner circle .

Due to accreditation good practices have started not only in some private setups and corporate hospitals, but also public sector healthcare delivery settings like primary, secondary and tertiary care hospitals and the need to understand this has evolved with formulating relevant SOPs, sensitizing the staff and incorporating the right practices in their daily routine due to standards and protocols of NABH.

ENGAGE

When it comes to medication safety, all stakeholders from top to bottom need to be sensitized. Different training and advocacy programs are being designed encompassing all cadres of healthcare delivery system be it administrators, owners, medical officers, superintendents, staff nurses, pharmacists, laboratory technicians or any other concerned cadre. Accreditation is an important tool to bring forth required discipline in this area and can be used effectively.

The chapter MOM of NABH addresses all the aspects with robust audits on sentinel events, drug drug interaction, drug food interaction , therapeutic duplication ,sentinel events, Pharmacovigilance and medication recalls.

The concept of a designated community pharmacist is little blurred in Indian context who would be an ideal candidate to promote issues and right practices related to medication safety. At peripheral healthcare centres in rural areas, pharmacists posts are vacant at several places. While efforts can be made to fill up the vacancies, parallelly, all these human resource issues can be temporarily managed by making the most of available human resource. In public sector, many national vertical health programs running at PHCs, CHCs, taluka/district hospitals and tertiary healthcare centres already have provision for counsellors (e.g. Counsellors in National AIDS Control Program at STI clinics and Integrated Counselling and Testing Centres or PMTCT centres).

Same human resource (along with designated pharmacists) can be trained to address issues of medication safety at grass-root levels like Prescription errors (no labels, incomplete details, no prescriptions in lowercase, no stop orders, etc.), Transcription errors (indent issues, etc.), Dispensing errors (no cross checking by pharmacist or nurse before dispensing, etc.) and Administering errors (like hand washing before administering, storage, verifying patient records with medication labels before administering, explaining drugs and indications before administering, proper documentation, narcotics, high risk medications etc.). All these are thoroughly addressed in the Quality Indicators captured for the audits and through proper RCA and CAPA the errors are looked into.

From my personal and professional experience I find the best Nursing minds, Drs and Pharmacy people are involved in implementation of the standard guidelines and it is extremely refreshing when most of them mention that that their journey started through NABH and the explicit guidebook helped in achieving these higher standards .

Antibiotic stewardship programs and detailed analysis of drug resistance which is addressed in the NABH standards brings a deep insight to the staff knowledge .

EMPOWER & SCALE-UP

Community participation is the mainstay of any large-scale movement involving greater good of community. Only political will or commitment from one side of healthcare i.e. healthcare delivery system – will not be self-sustaining in longer run. Onus is on community at large. This can happen and self-sustain by community awareness, concurrent behaviour change and ultimate community participation.

Mass-media campaigns involving dangers of improper medication, errors in medication, hazards of self-medication and drug resistance - are the need of hour. These campaigns need not to be generic and boring in nature but highly customized and specific to target audience. They can be timed for print and electronic media with careful analysis of content consumption trends of areas. Core content of such community awareness campaigns can revolve around 3 components as prescribed by WHO for medication without harm – **'Know, Check & Ask'.**

Patients and people in general are to be encouraged for bringing all their medications along with them while visiting any doctor (especially people with poor record-keeping of prescriptions and poor recall). They also need to be encouraged for 'asking the healthcare giver' if the medication is right - before consuming. Mouthwashes/Gargles, rescue inhalers, eye drops, nasal drops/sprays, creams/ointments, insulin/Injections under the skin etc. fall under self-care medications. For all other medications, patients and communities, are to be encouraged for proper consultation of doctors or at least the pharmacists.

Pandemic of Covid19 has seen a remarkable uptake of digital payment system like UPI. An average Indian citizen is most receptive currently for any digital innovation that can make his/her life more convenient. There cannot be a better time for introducing and promoting easy-to-navigate mobile apps for record-keeping of all medications one is on, along with proper details on dosage, schedule and follow-up.

Colour coding of medications has been effectively used in public sector be it syndromic management kits of STIs or DOTS. Such innovations can be good reference points for future strategies. DOTS under Revised National Tuberculosis Program (RNTCP) is a shining example of how drug compliance and adherence can be increased manifolds by simple tweaking of conventional drug dispensing by involving active prominent citizens as DOTS-providers. Patient seeking treatment has to pay regular visits to these providers in order to fetch timely medication. Loss of follow-up was also significantly minimized because of DOTS. Such innovations can be thought about involving issues of medication safety. Even after such highly successful innovations, MDR and XDR-TB rose in India. This underlines the need to take up issues pertaining to medication safety as urgently as possible in our existing system before it's too late.

Medication without harm aims to reduce severe avoidable medication related harm by 50 % globally in the next five years. (Global Ministerial Patient Safety Summit in Bonn, Germany on 29th March 2017.)

Role of the Drug and Therapeutic committee, Pharmacovigilance with spontaneous reporting forms and active patient follow up through Cohort Report Monitoring (CEM), passive surveillance and targeted clinical investigations need to be strengthened .

Quality assurance in Pharmacy with emphasis on drug recalls, pharmacy fraud, waste and abuse program, retrospective drug utilization reviews needs to be emphasized and implemented.

Staff encouragement and hand holding so that the health care personnel are confident to come forward and bear the onus of responsibilities as well as any error however minor plays a key role for the identification and addressing of any medication harm is needed for aspiring to proceed on .

As Lucian Leape righty quoted: “The single greatest impediment to error prevention in the medical industry is that we punish people for making mistakes”.

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TO ERR IS HUMAN-

"To Err is Human", however, in healthcare profession this could lead to serious consequences and in severe cases, can lead to loss of lives also. As we are getting civilized, more and more people are getting admitted into the hospitals and reportable incidents of medication errors are also rising. Instead of denying this fact, many developed countries have stepped forward and published their "mistakes" so that other people can take lesson from them. The goal of medication therapy is the achievement of defined therapeutic outcomes that improve a patient's quality of life while minimizing patient risk. There are inherent risks, both known and unknown, associated with the use of medications (prescription and nonprescription).

The outcomes or clinical significance of many medication errors may be minimal, with few or no consequences that adversely affect a patient. In addition, numerous medication errors go unrecognized and are not detected or reported. Tragically, however, some medication errors result in serious patient morbidity or mortality.Thus, medication errors (including close calls) must not be taken lightly, and risk-reduction strategies and systems should be established to prevent or mitigate patient harm from medication errors.

Reason stated that humans are imperfect, and errors should be expected. A system-based approach should be undertaken at institutions to prevent future errors; this approach strives to change worker conditions and build defenses, barriers, and safeguards to prevent errors from occurring or mitigate the harm if errors do occur. Blaming healthcare workers involved in errors or passively encouraging them to be more careful will not prevent errors since it does not change the underlying conditions that contributed to the error

Medication administration errors are typically thought of as a failure in one of the five "rights" of medication administration (right patient, medication, time, dose, and route). These five "rights" have been historically incorporated into the nursing curriculum as the standard processes to ensure safe medication administration. Recent literature, however, has emphasized that medication administration is part of a complex medication use process, in which a multidisciplinary care team works together to ensure patient-centered care delivery. As such, it has been emphasized that the five "rights" do not ensure administration safety as a standalone process. Therefore, four additional "rights" were

proposed to include right documentation, action/reason, form, and response. As modern healthcare delivery systems continue to evolve, emphasis on system design (i.e. technology & clinical workflows) has become a priority to complement the medication administration process. System-related causes of medication administration errors may include inadequate training, distractors, convoluted processes, and system misconfiguration.

Despite error reduction efforts through implementing new technologies and streamlining processes, medication administration errors remain prevalent. In a review of 91 direct observation studies of medication errors in hospitals and long-term care facilities, investigators estimated median error rates of 8%–25% during medication administration. Intravenous administration had a higher error rate, with an estimated median rate (including timing errors) ranging from 48%–53%.

A substantial proportion of medication administration errors occur in hospitalized children. This is largely due to the complexity of weight-based pediatric dosing, which encompasses medication doses based on calculations from weight and sometimes height. Variability of weights used for calculation can increase medication dose errors. Given this variability, dose preparation is uniquely challenging in pediatric populations, which increases risk for wrong dose administration.

Outside of the hospital setting, patients and caregivers are also at high risk for making errors. Errors in the home are reported to occur at rates between 2-33%. Wrong dose, missing doses, and wrong medication are the most commonly reported administration errors. Contributing factors to patient and caregiver error include low health literacy, poor provider–patient communication, absence of health literacy, and universal precautions in the outpatient clinic.

MEDICATION ERROR PREVENTION

Both low- and high-tech strategies have been designed to ensure safe medication administration and align with the nine rights of medication administration. Many low-tech strategies support

all nine rights, including the use of standardized communication strategies and independent double check workflows.

Low-tech solutions

Standardized communication: Health system communication standards are used to ensure right medication. Tall man lettering is used in various electronic health records (EHRs), product labeling, and drug information resources to alert readers to "look alike, sound alike" drug names. Additionally, standard abbreviations and numerical conventions are recommended by The Joint Commission.The 'do not use' list includes general standards for expression of numeric doses. Of note, leading and trailing decimals (i.e., 0.2mg and 2.0 mg) are discouraged due to the potential for misreading (i.e., 20 mg).

Patient Education: To mitigate risk of error in the home, it is important for health care professionals to use clear communication strategies and routinely provide education to patients, especially when medication regimens are modified.

Patient education is a core component of medication management, particularly with high-risk medications such as anticoagulation therapy. Patients are educated routinely to ensure understanding of indication for therapy, intended outcomes, and signs and symptoms of adverse events.

Optimizing Nursing Workflow to Minimize Error Potential: In health care settings, distractors during the medication administration process are common and associated with increased risk and severity of errors. Minimizing interruptions during medication administration and building in safety checks through standardized workflows are key strategies to facilitate safe administration. Areas of increased high-risk medications administrations, such as the intensive care unit or emergency department, may have decreased compliance with non-interruption zones due to workflows and frequency of medication passes and titration events. Health systems should identify the area where medication administration preparation by nurses occurs to ensure that minimal disruptions are present (i.e., medication rooms, medication carts).

Additionally, strategies such as independent double checks are part of optimizing medication safety through nursing workflows. Double check processes involve a completely independent evaluation by a second nurse prior to administration. Due to the additional time burden added to existing nursing workload, these double checks should be strategically targeted to the highest-risk medications and processes. Another crucial educational tool for health systems is the use of medication pass audits or medication safety rounds. Audits of the administration process not only validate adherence to protocols but may highlight system processes that may need improvement to facilitate nurses' compliance.

Focusing in on High-Risk Agents: Some classes of medications have a higher likelihood to result in patient harm when involved in an administration

error. Examples of these “high alert” medications include anticoagulants, insulins, opioids, and chemotherapeutic agents. A multipronged approach is recomended to mitigating risk with use of these agents. Strategies to mitigate potential for an administration error include protocolized prescribing, simplified instruction, robust documentation, and use of standardized administration practices such as dual nurse verification at the bedside. Health systems are encouraged to develop robust guidelines for use of these agents.

Standardized labeling, clear storage requirements, and various clinical decision support strategies are used to ensure correct medication selection and administration technique. The appearance of the medication itself may serve as a valuable safeguard. This distinguishing feature may be helpful for caregivers and patients alike, especially given that low-vision patients frequently use these medications. Similar techniques are employed with institutional labeling. If a medication is supplied in a consistent manner with specific labeling, this may also reduce error. Pharmacy-prepared emergency kits frequently employ standardized labeling and instructions for this reason. Ensuring that certain medications are only supplied in a 'pharmacy kit' is one strategy for helping to standardize process and reduce opportunity for error during administration.

High Tech Solutions

High-tech solutions commonly implemented within health systems include: barcode scanning of medication to ensure right medication, patients arm bands to confirm the right medication and the

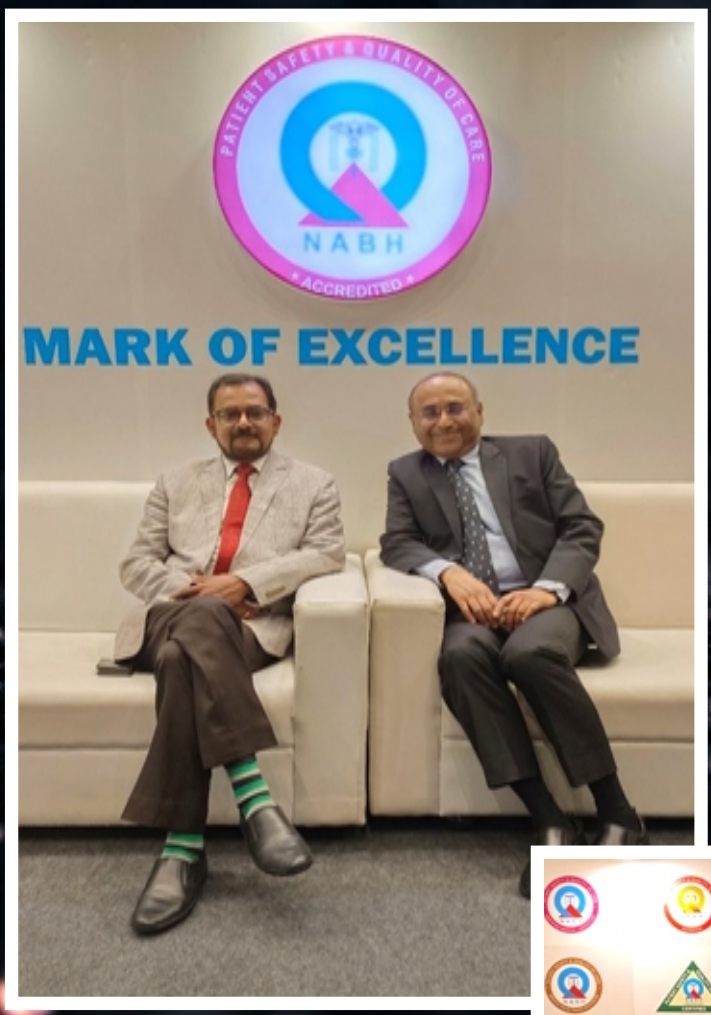
right patient, and smart infusion pumps for IV administration to confirm the right administration rate (a derivative of right dose and route) with technology that inhibits over- and underdosing of titratable drips during pump programming.

Smart infusion pumps: The use of smart infusion pumps, or infusion pumps with Dose Error Reduction Software (DERS), has increased substantially in recent years. Although smart pumps offer numerous safety advantages, they are also prone to implementation and human factors problems, such as difficult user interfaces and complex programming requirements that create opportunities for serious errors. Given the complexity of manual pump programming, technologic advances allow for smart pump interoperability with the EHR, which allows the smart infusion pump screen to be pre-populated with information from the EHR.

Some new technology supports the caregiver in assessing for the correct patient response to a medication. For example, some patient-controlled analgesia pumps (PCAs) can be linked to an End Tidal CO2 monitor. If retention of CO2 is detected, above a set threshold, this may indicate over sedation and respiratory depression. Based on this trigger, the pump can stop the PCA infusion, which may, in turn, reduce the possibility of further respiratory decline. While this a helpful tool, manual assessment of patient response for medication therapy still remains of the upmost importance.

NABH PARTICIPATION IN CAHOCON-2022

NABH participated as one of the partners in the CAHOCON-2022 Conference conducted on 2nd & 3rd April, 2022 at Kochi.



GLOBAL STROKE ALLIANCE

NABH had participated in the 2022 Global Stroke Alliance at Brazil in the month of August 2022.

LAUNCH OF AHCI 2023

Dr. Atul Mohan Kochhar, CEO, NABH along with Chief Guest Shri Lav Aggarwal, Additional Secretary, Ministry of Health and Family Welfare and other senior representatives launched the Advantage Healthcare India 2023 (AHCI) organized by FICCI, on 26th August 2022.

MEDICATION SAFETY FROM NURSES POINT OF VIEW

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Principal, College of Nursing,
AIIMS, New Delhi

MEDICATION SAFETY
Working Together to Make Health care Safer

Introduction

Medications have proven to be effective and everyone uses it for various reasons such as to diagnose, cure, treat or prevent illness at some or other point of time in their life. It is also essential for the public to know that medications can also induce harm if not correctly prescribed, stored, dispensed, administered or not monitored for side effects.

In the ICUs, on an average, patients exposed to 1.7 errors/day and medication errors account for 78% of medical errors. The strategies of 'Avoidable harm in health care' include prevention of medication errors and unsafe medication practices. World patient safety day 2022 has selected the theme 'Medication safety' with the slogan **'Medication Without Harm'.** It is the responsibility of all the health care workers involved in medication management, as well as the patients and their families to promote medication safety.

MEDICATION WITHOUT HARM
Global Patient Safety Challenge

Global Patient Safety Challenge: Medication Without Harm

WHO initiated the third Global Patient Safety Challenge: Medication without Harm (2017). It is aiming to reduce the level of severe, avoidable harm related to medications by 50% over the next five years, globally. The challenge was launched in March 2017, at the Global Ministerial Summit on Patient Safety in Bonn, Germany.

Global Patient Safety Challenges identify a patient safety burden that poses a significant risk to health, then develop frontline interventions and partner with countries to disseminate and implement the interventions. Each challenge focuses on a topic that poses a major and significant risk to patient health and safety.

Error Prone Processes

Medication error refers to any preventable event at different stage of medication process such as prescription, transcription, distributing medication, and administration, which can lead to incorrect use of medicines or damage to the patient. Lack of medication knowledge of physicians and nurses and weak inter-professional collaboration between physicians and nurses is one of the main causes of medication errors.

- **Prescribing errors-** incorrect dose, route, frequency, drug name, duplication and illegible order by the physicians
- **Transcription errors-** wrong drug, dose, route, frequency or wrong bed number by the nurses
- **Administration errors-** Wrong medication, Wrong patient, Wrong time, Wrong dose, Wrong route, Wrong documentation
- **Dispensing errors-** wrong drug / strength by the pharmacy, Delays – when dispensing time exceeds 15 minutes for Stat orders, Discharge medications delay 30 minutes and 45 minutes for regular orders.

Few studies have indicated that one of every three medication errors could be attributed to either a lack of knowledge about the medication or a lack of knowledge about the patient.

Near Miss Events, Adverse Drug Reactions (ADRs), Adverse Drug Event (ADE)

A patient safety event that reaches the patient but does not cause harm also needs a close call. Prescription Errors, Transcription errors and dispensing errors are caught before they reach the patient and they are called as near miss events. The errors caught by the prescription audit team in the pharmacy are also included in this category.

An adverse drug reaction is an undesirable response associated with use of a drug that either compromises therapeutic efficacy, enhances toxicity, or both. ADRs can be manifested as diarrhoea or constipation, rash, headache, or other nonspecific symptoms.

Adverse drug event includes any response to a drug which is noxious and unintended and which occurs at doses normally used in humans for prophylaxis, diagnosis or therapy of disease, or for the modification of physiological function.

Flagship Areas to improve Medication Safety

The challenge aims to improve medication safety by strengthening the systems for reducing medication errors and avoidable medication-related harm. The three flagship areas of the challenge defined by WHO are: Polypharmacy, High-risk situations, Transitions of care

- **Polypharmacy**

  Polypharmacy means the use of five or more medications daily by an individual including prescription, over-the-counter and complementary medicines. Polypharmacy continues to grow in recent days because of increase in aging populations. Polypharmacy is not necessarily ill-advised. It can lead to negative outcomes or poor treatment effectiveness. Polypharmacy is often associated with a decreased quality of life, including decreased mobility and cognition.

- **High-risk situations**

High-risk medicines are associated with significant patient harm or death if they are misused or used in error. Three main factors contributing to high-risk situations are: medications, particularly high-risk (high-alert) medications, provider/ patient factors, systems factors (work environment). The important five high-alert medications are insulin, opiates and narcotics, injectable potassium chloride (or phosphate) concentrate, intravenous anticoagulants (heparin), and sodium chloride solutions above 0.9%.

- **Transitions of care**

Transitions of care are recognised as an area of high clinical risk for patients. Passing from one care setting to another, particularly for patients with complex and chronic care needs, opens the potential for mistakes, oversights, misunderstandings and often, a marked absence of vital information that should flow from the hospital to the receiving carer.

Strategic Framework: Working Together to Make it Safer

The Strategic Framework for medication safety needs commitment to reduce medication errors and medication-related harm and strengthen measurement and safety monitoring systems.

Four fundamental problems lay the ground for the strategic framework:

- Patients and the public are not always medication-wise. They are too often made to be passive recipients of medicines and not informed and empowered to play their part in making the process of medication safer.
- Medicines are sometimes complex and can be puzzling in their names, or packaging and sometimes lack sufficient or clear information. Confusing 'look-alike soundalike' medicines names and/or labelling and packaging are frequent sources of error and medication-related harm that can be addressed.
- Health care professionals sometimes prescribe and administer medicines in ways and circumstances that increase the risk of harm to patients.
- Systems and practices of medication are complex and often dysfunctional, and can be made more resilient to risk and harm if they are well understood and designed.

The actions planned in this Challenge are based on four domains of work, one for each fundamental problem identified. These are: **• Patients and the public • Medicines • Health care professionals • Systems and practices of medication.** In each of these domains, there are many ways in which using medications can cause avoidable harm. There are many ways, too, in which care could be made safer.

Best Practices for improving medication administration

- Maintain up-to-date references of current medications and have those references available at the time the drug is prescribed.
- Understand the patient's condition and diagnosis and indications for the medication considered, including all alternative therapies.
- Consider conditions that may affect the efficacy of the medication, such as dosages, route of administration, patient weight, renal and hepatic functioning, and other important patient characteristics, such as pregnancy.
- Understand the potential interactions between a newly prescribed medication and other medications already being used by the patient, including non-prescribed medications and supplements, as well as therapies being considered (including surgical treatments).
- Recognize the potential risk of high-alert medications, those drugs that bear a heightened risk of causing significant patient harm if there is an error in the medication-use process. Eg. Intravenous oxytocin.
- Effective handover of responsibility of the patient to another health care professional during shift changes and inter or intra hospital transfers
- Post-hospital medication reconciliation reduces the likelihood of medication errors and adverse drug events
- Identify patients on hospital admission who are most 'at risk' from medication-related adverse drug events and actions
- Periodic education on the use of antibiotics for the doctors and nurses.
- Suitable updates on patterns of resistance, newer drugs, food and drug interactions, problems encountered etc., shall be also communicated to the doctors and nurses periodically by intranet or in departmental meetings

Safe Prescription of Medication orders

The Medication orders should be legible and should include the following components: name of the

5 Moments for Medication Safety - WHO

The 5 Moments for Medication Safety are the key moments where action by the patient or caregiver can greatly reduce the risk of harm associated with the use of their medications.

drug, dose, route of administration and frequency. Use Zeros and decimal points (eg, always write 0.1, never write 1.0), Standardized abbreviations and Verbal medication orders should be limited to urgent situations in which written (or electronic) medication orders are not feasible.

Stakeholders' responsibility in reducing medication errors

Hospital governance, senior administrative leadership, clinical leadership, and safety/risk management leadership need to work collaboratively to reduce medication errors

- **Provide staff training:** Create a multidisciplinary team that includes physicians, nurses, pharmacists, and information technology personnel. Assess opportunities to reduce medication errors using a self-assessment process (ISMP Medication Safety Self-Assessment for Hospitals, 2011). Create and deliver monthly or quarterly education on medication error and patient safety updates.
- **Create protocols:** Create a universal checklist for medication administration that includes: Patient name, List of patient's current medicines, Medication to be given and its: • Dose • Route • Timing • Documentation, Systematize tools and practices, including checklists, for Patient allergy and medication interaction checks on every patient
- **Systems change with technology:** CPOE (Computerized Provider Order Entry), Medication barcoding, Patient education and adherence, Correct and on-time medication administration (Acute Care Guidelines for Timely Administration of Scheduled Medications, 2011) can be monitored with the help of technology.

Empowering patients and families in safe use of medications

Engaging patients to actively participate in their care has become a priority for policy makers, with the goal of improving health care delivery system quality and efficacy. Patients gain knowledge of their health conditions, treatment plans, or health care access through providers, communities, or policy interventions. Self-determination empowers patients to seek more health information, acquire more knowledge of their health from providers or other sources, and become more confident.

Future Areas of Research in Medication Safety

The recent Institute of Medicine (IOM) report on medication safety 2 identified several areas needing future research, including the following:

- What are the most effective mechanisms to improve communication between patients and clinicians regarding the safe use of medications?
- What are the most effective mechanisms to improve patient education about the safe use of medications?
- Which self-management support strategies are effective in improving patient outcomes?
- How can information about specific medications be effectively used by patients? What is the impact of that information on patients' adherence and communication with clinicians?
- How can patient-centered approaches to medication safety decrease errors associated with medications and improve patient outcomes?
- How can medication-related competencies become a core competency among the current workforce?
- What is the impact of free samples on patient adherence and health outcomes?

Conclusion

Medication management is a complex multi-stage and multi-disciplinary process, involving doctors, pharmacists, nurses and patients. Errors can occur at any stage from prescribing, dispensing and administering, to recording and reporting. There are a number of safety mechanisms built into the medication management system and it is recognised that nurses are the final stage of defence.

STRATEGIC MEETINGS – NABH

NABH had conducted its Internal Strategic Meet from 24th to 27th March, 2022 at Rishikesh. The team had discussed and planned the ways to implement and work together to achieve the goals of the organization

NABH STRATEGIC MEET - 2022

NABH had conducted NABH Strategic Meet for 2 days on 6th and 7th August at New Delhi with the theme “Introspect, Transform, Deliver”

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SALAAMATI

Keep safety in mind

(A thriller story about Medication safety based on true events)

DR. EBINESH ANTONY
Analyst, NABH

(Disclaimer: The stories used are based on true events. The names of the actual characters have been changed for ethical purposes.)

The evening sun cast long shadowed on the ground. The slanting rays of the setting sun gave a warm orange tinge to the sky. The sky was ablaze with the fire of the setting sun. The night sky was aglow with bright city lights. The pale crescent moon was shining like a silvery claw in the night sky.

Mrs. Shantidevi aka Shanti, a 55-year-old woman had just finished her cooking and was walking towards the drawing room. Mrs. Shanti suddenly took on a pale look, as if she'd been painted with white-wash - even her lips were barely there. Then with one step backwards she crumpled like a puppet suddenly released of their strings. She developed distressing symptoms including uncontrollable shaking, head bobbing, and tongue darting in and out of her mouth. She fell on the ground shouting for help, “Shreya.... Shr..ee..yaa... (the voice tone lowering)” and started closing her eyes. Shanti's daughter, Shreya heard the sound and came running to the drawing room. Adrenaline coursed through her veins and a thin layer of sweat covered the nape of her neck. She ran here and there in fear to help her mother. As time progressed, Shanti's eyes started to close. Shreya tapped her mom's cheeks and shouted aloud, “Mumma... mumma..” Shreya picked up her phone and dialled 108. The ambulance arrived in a blur of light; sirens could be heard from miles away. Every heart on the street skipped a beat as the ambulance weaved through, blue lights ablaze. There was something in the intensity of the moment, as if the way it was being driven gave some emotional urgency to the street. Shanti was carried on the stretcher and the ambulance rushed in an intense to the hospital.

At the other end of New Delhi, Bittu, an 8-year-old kid running here and there round the house after his dinner. His mother called him out, gave him a tablet with a glass of water and put him on bed to sleep. The day dawned crisp and clear. The rays of the new sun poured through Bittu's window. Bittu's mother went to wake him up, tapping his back as usual. When she touched Bittu's back, his body felt very cold and pale. She scrambled backward, trying her best to keep herself from screaming as her eyes locked into the lifeless stare of the dead body before her. She bit her hands, trembling, mustering everything she had inside to control her sobbing. But in a very high tone, she screams out with fear, "Bittuuuu..."

35-year-old Mr. Vikram, he's been a cop for the past 8 years, Assistant Commissioner by designation, long in the tooth but good at his job. He had a passion for solving adventurous crimes, and so much interested in art and music. Six feet tall with medium brownish black hair and of medium built. The headlines flashed on a very popular news channel, "Back-to-back more than 10 incidents of unusual faints and deaths since last 10-15 days, admitted to hospitals in New Delhi." Vikram was on the phone and sounded furious watching this news. His Hindi accent sharpened his already cutting words. He was content and serene. He arrives to the police station in a haste. With the phone ready to ring with his arrival to his cabin, he picks up the call and gets happy to find the case being handed over to him from the senior officials.

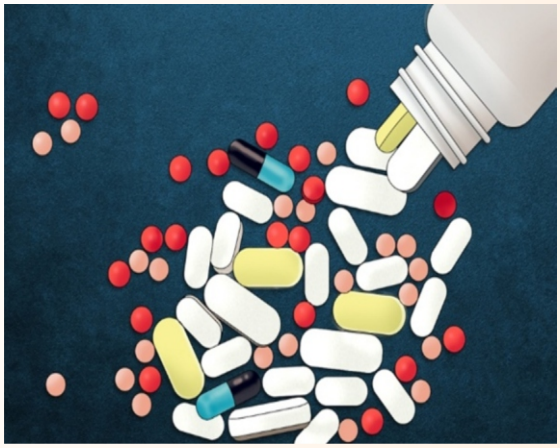
Rajesh, his wife Gauri and their family friends were waiting for a table at a crowded but a famous cafe in Connaught Palace, New Delhi when Gauri got a muscle cramp in her left arm. It wasn't her first one that day either. Earlier in the afternoon, she had a muscle spasm in her left leg and left arm while getting ready. She'd also been having severe headaches for days - sinus pressure, she thought. By the time the couple and their friends were seated for dinner, the cramping in Gauri's arm had subsided and conversation turned toward the couple's upcoming cruise trip. That's when their friend, John, started to notice something was off with Gauri and told her to stop mumbling.

John proceeded to ask Gauri, a series of questions: whether she could smile, for instance, or raise her arms. Gauri, somewhat oblivious to what was happening, played along. Her right arm came up without any trouble, but her left arm was limp at her side. So, Rajesh reached out and he grabbed her left arm at his wrist, he kind of pulled it up to her chest level. And he let go of it, and it just fell immediately into her lap. Yes, Gauri was having a stroke, the left side of her face was drooping, it looked "totally melted", her vision suddenly got blurred, she lost her balance and fainted off. John had called 108 and the paramedics rushed Gauri to the closest hospital, where the doctors right away diagnosed a stroke which led her to coma. The medical team met with Rajesh and their friends and informed them that Gauri was brain-dead. Rajesh could not accept this. "What do you want us to do?" asked the friends. "Give her time," replied the doctor.

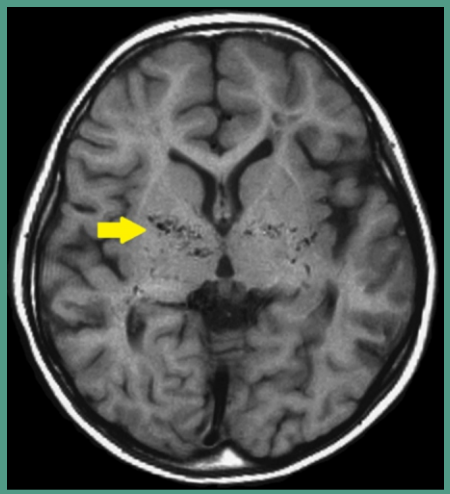
Mr. Vikram starts the investigation with his special task force including forensic experts assigned for this case. They started off with interrogation of Shreya, Bittu's parents, Rajesh, John and then the tenants near their houses followed by all the relatives of all the victims of the serial events. The team did all possible things they could do in the best way only leading to no proper clues to the cause of the incidents.

The maps, newspaper collections, the photographs of the victims, and other investigation materials spread all around the room but all failing without a lead even after 10 days of active investigation, days and nights. Vikram was furious and frustrated, throwing off the sheets. The shouting was a violence in the air, a way to take the anger from Vikram and transfer the tension. He didn't just raise his voice, his muscles tensed and he got right in close for maximum impact. What was once peaceful became polluted with disturbance of emotions. Everyone tensed. Amar, one of the team members and a very good friend of Vikram, brought a medicine to lower Vikram's hypertension. Taking the tablet strip, he gulped a tablet with a glass full of water. And that was an instance, when the thing “medicine” popped in his mind. “Medicine”, he shouted loud. “Yes, medicine... It is the lead.” As the flowers open in the spring, happiness bloomed in the room.

Vikram and his team rushed to ask the doctor-incharge of Shanti who said sympathetically that this condition of Shanti was Parkinson's disease and there was nothing to be done. In the course of the conversation, the doctor mentioned that the only Parkinson's she had ever seen alleviated was drug-induced. Vikram went to Shanti's house along with Shreya where he happened to glance at her long list of medications and had a moment of inspiration. They returned to the doctor and asked, "Considering the number of drugs she is on, is there any possibility this might be drug-induced Parkinson's?". The doctor said the only way to find out was to take her off the medications.



The report of Gauri was that she began having spells of numbness in her arms and legs. A neurologist had diagnosed her as having a rare form of migraine that caused numbing instead of headaches. He prescribed a drug in the triptan family, a class of drugs that alleviates migraine headaches by constricting the arteries. And then several days later, Gauri suffered a massive stroke in the cafe that left her in a coma. After the stroke, doctors realized she had Moyamoya, a disease that causes narrowing and blockage in the arteries at the base of the brain. Her numb spells were not migraines, but mini-strokes. By constricting her arteries, the triptan had turned her mini-strokes into a full-blown stroke.



Similarly, the autopsy report revealed that instead of Bittu's usual medicine, L-tryptophan, Bittu had toxic amounts of a powerful muscle relaxant drug called Baclofen in his system. Buddy had died from a medication mix-up. Upon analyzing the medicine remaining from Bittu's prescription, the forensic report revealed that the amount of medicine was precisely the amount required to produce the L-tryptophan mixture – but it was the wrong drug. Someone in the lab had mistakenly used Baclofen powder instead of L-tryptophan powder. The resulting liquid contained enough Baclofen to kill an adult, but it looked and apparently tasted the same as the L-tryptophan mixture. Once the mistake was made, it was impossible to tell the difference.

Finding out and gathering all the evidences after getting proper leads, Vikram remembers the actual incident of his flashback that happened 5 years back with his baby-girl whom he loved the most. 5 years back, Vikram and his wife took their two-week-old baby girl, Zoya, for a routine check-up. The paediatrician ordered two injections of vitamin K. At the clinic pharmacy, Vikram was given two vials of medicine to take to the nurse for the injection. The paediatrician was on the telephone, but made a hand gesture to the nurse to indicate just one injection. The nurse gave the baby one injection and returned the second vial of medicine to the parents. The baby cried loudly and continued to cry after the parents put her in the car. When she suddenly stopped crying, her parents realized she was no longer breathing. They turned the car around and raced back to the clinic. Vikram took Zoya in his arms and ran into the clinic, where the staff immediately began CPR. Although they were able to resuscitate her, the baby girl passed away later that afternoon. As the grieving parents tried to understand what had happened, they looked at the vial of medicine they had remaining. It said EPINEPHRINE. They realized Zoya had not been given vitamin K as they had thought. They later learned that the dose on the epinephrine bottle was dangerously high for a small baby like their little girl. Clinic staff told them that the vitamin K and epinephrine bottles were similar in size and colour and were easy to confuse.

In the present, Shreya had stopped all her mother's medications without further consultation. Fortunately for Shreya, no permanent harm was done. After a week of withdrawal symptoms, including hallucinations and disordered thinking, all Parkinson's symptoms disappeared, never to return. Shanti was now able to resume her usual daily trip to town and return to an independent life.

Taking a large number of drugs without regular medication reviews can have a devastating impact on quality of life and patient safety, especially in older people. Patients and families should make a practice of routinely going over the need for all medications with their health care providers and should be cautious about trying to stop medications without medical supervision.

Two weeks later, Gauri opened her eyes. Two weeks after that, she regained full consciousness. With intense physical therapy, Gauri slowly improved. After five months she was able to leave the hospital and return to her work. Family, friends, and even complete strangers chipped in to help Gauri's family survive financially.

The migraine drugs this woman had been given was labelled with clear warnings that it should not be taken by patients with a history of stroke or mini-strokes. Nothing had been done to rule out mini-strokes as a cause of her symptoms. It is important for health care providers to be certain they have the correct diagnosis before prescribing high-risk medications.

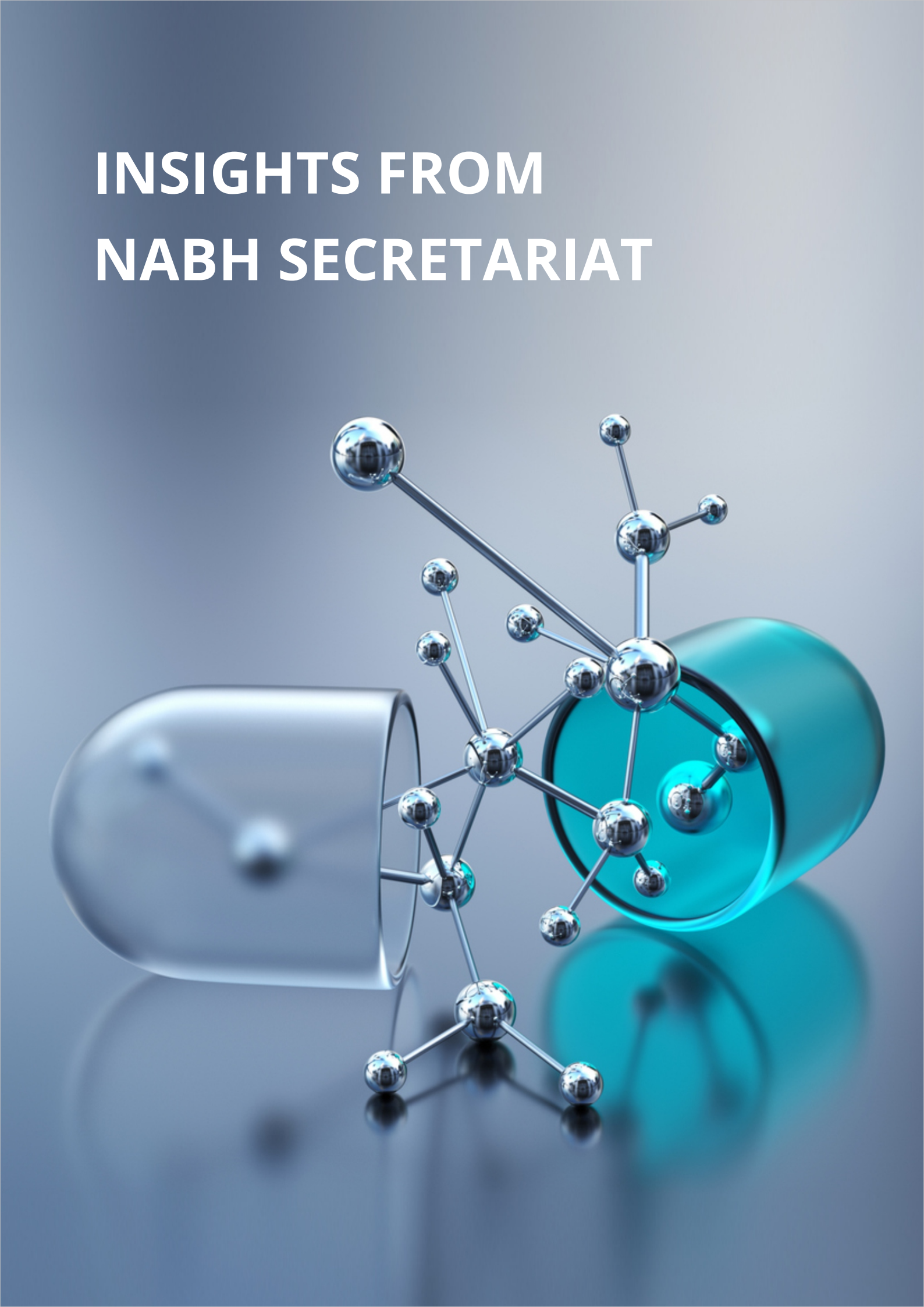
In the present, Vikram had remembered the drastic incident that happened in his life, with his eyes full of tears seeing the video of her little girl playing happily. Vikram and his team are in the entrance of the court getting the orders from the justice to arrest all the doctors, the pharmacists and the paramedic professionals involved in all these incidents of medication errors, hence closing the case.

Bittu's parents have begun a campaign to require reporting of medication errors to a database in the city they live in, and they hope that other cities in the country will follow the suit. While pharmacy errors are believed to be high in our low-middle-income country, the actual number and type are not known. "I think that when there is transparency, training can happen, review of policy and procedures can happen, intervention can happen", Bittu's mother said. "Nothing can bring Bittu back to us. However, in his caring spirit we want the laws to protect all people," she concluded.

"Not following medication safety measures is the failure of the healthcare system and a crime."

"Avoid the worst, Put medication safety the first."

INSIGHTS FROM NABH SECRETARIAT



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आत्मनिर्भर भारत

निर्भरता एक ऐसी स्थिति हैं जो किसी को किसी के सामने विवश, मजबूर और औपचारिक कर सकती हैं। ये एक भाव हैं जो सही या ग़लत की पहचान को धूमिल कर सकता है। आम तौर पर किसी भी जीवंत वस्तु, जाती या मनुष्य को कभी भी निर्भर कहलाना पसंद नहीं, क्योंकि निर्भरता सूचक हैं मानव की कमजोरी, शक्तिहीन और सामर्थ्यहीन होने का। ये शक्ति ही हैं जो आज भारत विश्व मे अपनी अर्थव्यवस्था को पाँचवे स्थान पर ले आया। और ये सामर्थ्य ही हैं जो आज भारत सैन्य शक्ति मे विश्व मे चौथे स्थान पर विराजमान हैं। आज आत्मनिर्भरता एस शब्द हैं जो चारों और गूंज रहा हैं और भारत अपनी पहचान विश्व मे एक उभरते देश के रूप मे करने मे सक्षम रहा हैं।

हमे जरूरत हैं फिर से अपने मूल से मिलने की, अपने नीव से जुड़े रहने की। आज पाश्चात्य सभ्यता इतनी हावी हो गई हैं की हम सभी चीजों मे कारण ढूंढते अपने इतिहास और परंपरा से पीछे छूटते जा रहे। आजादी से पूर्व क्रांतिकारियों ने स्वदेशी मूवमेंट का पालन कर ये बताया था की हम तब भी किसी और पर निर्भर नहीं थे। इसके प्रमुख उदाहरण हैं श्री रवींद्र नाथ टागोर और महात्मा गांधी। श्री म स स्वामीनाथन जिन्होंने पूर्ण स्वराज और स्वदेशी को अपने लक्ष्य बनाया क्योंकि वो जानते थे की स्वदेशी चीजों का उत्पादन, उनका व्यापार देश और प्रांत मे रोजगार बढ़ने के साथ साथ बाहरी कारखानों को पीछे छोड़ने मे मदद करेगा। और इसी इतिहास को दोहराने माननीय प्रधानमंत्री श्री नरेंद्र मोदी ने इसका आवाहन मई 2020 मे कोरोना महामारी के बाद किया। हालांकि आत्मनिर्भर भारत का चयन सन 1969 मे चौथी पंचवर्षीय योजना के रूप मे किया गया था मगर इसकी पहचान और महत्व का आभास होने पश्चात भारत आज विभिन्न क्षेत्रों मे आजादी के 75 वर्षों के बाद स्वदेशी, स्वराज और आतमनिर्भर बनने की राह पर प्रगति से बढ़ रहा।

यदि हम इस पूरे अभियान की शुरुआत से समीक्षा करे तो ये ज्ञात होगा की ये अभियान देशवासियों को आत्मनिर्भर बनाने के लिए शुरू किया गए। कोरोना महामारी ने बहुतों से रोजगार और उनके अपनों को छिन लिया। ऐसे मे देश मे गरीबी, बेरोजगारी ने देश के लिए मुश्किले और भी बढ़ा दी। आत्मनिर्भर भारत योजना के तहत देश की जनता के लिए 20 लाख करोड़ रुपये के राहत पैकेज की घोषणा की गई। इस योजना का मुख्य उद्देश्य भारत को एक समृद्ध देश बनाना हैं। ये योजना इस बात का भी प्रमाण हैं की देश का नेतृत्व एक सुखद और संपन्न भारत की तरफ़ हो रहा जहां आने वाली विपदा का अंदाज़ा करते हुए उसके समाधान की तैयारी की जाए। इस बात में कोई दो राय नहीं की कोरोना महामारी ने देश की अर्थव्ययस्था को क्षति पहुँचाई है। आत्मनिर्भर भारत की योजनाएँ देश की शशक्तिकारण की तरफ़ एक पहल है। ये इस बात का भी प्रमाण है की भारत अपनी इसी सूझबुझ और सबको साथ लेते हुए बहुत जल्द अर्थवयस्था के मापदंडों में आगे बढ़ेगा।

प्रेस इन्फ़र्मेशन ब्युरो द्वारा दिए गई जानकारी के अनुसार भारत को आत्मनिर्भर बनाने मे पांच स्तम्भ मदद करेंगे:

- **अर्थव्यवस्था** – वर्तमान की भारत की अर्थव्यवस्था एक मिश्रित प्रकार की अर्थव्यवस्था है जिसमें परिवर्तन किया जाना संभव है।अर्थव्यवस्था ही एक ऐसा साधन है जो भारत को आत्मनिर्भर बनने की और मोड सकता है।
- **तकनीकी** – भारत मे तकनीकी काफी विकसित है और इसी तकनीक के चलते भारत विश्व शक्ति बनने का साहस रखता है। भारत की तकनीकी इसी का एक मुख्य अंग है जो भारत को आत्मनिर्भर बनाएगा।
- **इन्फ्रास्ट्क्चर** – भारत का इन्फ्रास्ट्रक्चर इतना मजबूत है की यह भारत को आत्मनिर्भर बनाने के लिए मदद करेगा।
- **मांग** – भारत में कच्चे माल की मांग इतनी ज्यादा बढ़ रही है की हमे पड़ोसी देश पर निर्भर रहना पडता है। अगर हम कच्चे माल निर्माण भारत मे करते है तो उस स्थिति मे भारत आत्मनिर्भरता की ओर अग्रसर हो सकेगा।
- **बढ़ती जनसंख्या** – भारत की जनसंख्या भी जंगल मे आग की तरह फैल रही है, इस पर नियंत्रण भी जरूरी हैं।

उपर्युक्त दर्ज स्तम्भ का ध्यान रखते हुए भारत की लड़ाई खुद से ही शुरू हो गई है जहां हमें एक होकर अपनी आत्म निर्भरता को सम्पूर्ण विश्व के सामने लाटें हुए भारत को विश्वगुरु बनाना है।

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Medication Safety
An overview

Medications are the most common treatment intervention used in healthcare around the world. When used safely and appropriately, they contribute to significant improvements in the health and well-being of patients. Medications sometimes cause serious harm if incorrectly stored, prescribed, dispensed, administered or if monitored insufficiently. Each year millions of people visit the hospitals due to the harm resulting from medication use.

Medication safety is absolute necessary for providing quality of healthcare services and ensuring patient safety. According to 'Institute for Safe Medication Practices Canada 2007', Medication safety is defined as freedom from preventable harm with medication use. Harm from medications can arise from unintended consequences as well as medication errors. The ongoing COVID-19 pandemic has significantly exacerbated the risk of medication errors and associated medication-related harm. It is in this context that **'Medication Safety'** has been selected as the theme for World Patient Safety Day 2022, with the slogan 'Medication Without Harm' by World Health Organization.

The United States National Coordinating Council for Medication Error Reporting and Prevention defines a medication error as any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the health care professional, patient, or consumer. Such events may be related to professional practice, health care products, procedures, and systems, including prescribing; order communication; product labelling, packaging, and nomenclature; compounding; dispensing; distribution; administration; education; monitoring; and use.

Medication errors can occur at many steps in patient care, from ordering the medication to the time when the patient is administered the drug. In general, medication errors usually occur due to wrong order, wrong dispensing, wrong prescription, wrong transcription, wrong administration and wrong monitoring of the patient post medication administration. Medication errors are most common at the ordering or prescribing stage. Typical errors include the healthcare provider writing the wrong medication, wrong route or dose, or wrong frequency.

There are various factors pertaining to healthcare providers, environment and patients which contribute to the medication errors. e. g. lack of therapeutic training, inadequate drug knowledge and experience, overworked or fatigued health care professionals, poor communication between health care professional and with patients, lack of standardized protocols and procedures, naming of medicines, labelling and packaging, system of prescribing, patient characteristics (e.g., personality, literacy and language barriers), physical working environment etc.

Medication error can cause minor to major harm including death of the patients. Health care professionals also sometime experience profound psychological stress due to real or perceived errors. The threat of impending legal action may compound these feelings. Clinicians at many time equate errors with failure, with a breach of public trust, and with harming patients despite their mandate to "first do no harm." Medication errors can be prevented by following the Rights of Medication administration which are:

- Right patient • Right drug• Right dose
- Right medication • Right route • Right time
- Right frequency • Right documentation
- Right education

In addition to practicing the rights of medication usage we should focus on conducting regular medication reviews and reconciliation, enhancing effective communication, incident reporting and conducting root cause analysis, implementing efficient automated information systems, and fostering the medication management education and trainings. NABH Accreditation aims to improve medication management with its pre-defined performance standards on Medication Management. The NABH standards on medication management provides comprehensive guidelines to the healthcare organizations right from the procurement of medication to storage, dispensing, prescribing, administering, monitoring, measuring outcome and adverse events related to medication safety. NABH accreditation promotes the culture of self-reporting of the incidents e.g. medication error, doing root cause analysis and implementing the necessary corrective and preventive action.

It is obvious that medication errors are a pervasive problem, but the problem is preventable in most cases. There is much need to give impetus on urgent actions required for reducing medication errors. Preventing the Medication errors becomes predominant given the large and growing global volume of medication use.

Patient safety is fundamental to healthcare and is everyone's business so, all healthcare professionals, patients and associated caregivers must come forward to strengthen the system together and follow best medication practices. By working together, we can all make a difference

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POLYPHARMACY AND MEDICATION SAFETY

Polypharmacy is the use of multiple medications at the same time. Although there is no universal definition, polypharmacy is commonly defined as the use of five or more medications on a regular basis. Over-the-counter, prescription, and/or traditional and complementary medicines used by a patient are all included. Despite its increasing prevalence, polypharmacy still lacks a clear universal definition.

The goal is to reduce inappropriate polypharmacy (the irrational prescribing of too many medicines) while ensuring appropriate polypharmacy (the rational prescribing of multiple medicines based on the best available evidence and taking individual patient factors and context into account).

Polypharmacy has been described as a major public health issue. It increases the likelihood of negative effects, which can have a significant impact on health outcomes and health-care spending.

Appropriate polypharmacy recognizes that patients can benefit from multiple medications if their clinical conditions, comorbidities, allergy profiles, potential drug-drug and drug-disease interactions, and the medicines are prescribed based on the best available evidence are all taken into account. As a result, distinguishing between appropriate and inappropriate polypharmacy is critical.

The most vulnerable patient groups to polypharmacy risks include drug-drug interactions, an increased risk of falls, ADRs, cognitive impairment, nonadherence, and poor nutritional status. Vulnerable patient groups frequently include patients over the age of 65 and those in nursing homes.

The goals of polypharmacy management should be broad, addressing issues such as improved patient and population health outcomes, increased patient involvement in therapeutic decision-making, and cost-effectiveness of health care systems and resources.

- Medication reviews are widely used around the world to address inappropriate polypharmacy. It provides a structured evaluation that can be used to prevent harm, optimize treatments, and improve outcomes for each individual patient by optimizing the use of medicines. Medication reviews in polypharmacy should consider the

effectiveness and risk-benefit ratio of medication treatment options, and these criteria should be examined for the specific patient group in which the medication is used. Medication reviews should be performed in collaboration with the patient or caregiver whenever possible. The primary goal of medication reviews is to improve medication appropriateness, reduce harm, and improve outcomes. As a result, it's critical to ensure that the review isn't just a way to cut costs.

Polypharmacy initiatives can be complex, requiring strong leadership and management. Identifying a lead organization and assigning responsibility could make regional or national polypharmacy management initiatives easier to implement. To achieve effective polypharmacy management, organizational leadership is essential in driving change. The need to address polypharmacy is universal, but the challenge of leading change involves organizational policies and culture, necessitating the active participation of policymakers, health care professionals and managers, as well as patients, families, and caregivers.

Consider the building blocks of the existing healthcare service as an important first step in applying systems thinking to polypharmacy management. The WHO defines six components that comprise a complete healthcare system.

- Service delivery: How will emergence of polypharmacy management affect current practise and other services?
- Health workforce: Does polypharmacy management invites new roles and responsibilities, and does it involve training?
- Health information: Is the polypharmacy data available accessible to all healthcare professionals.?
- Medical technologies: what disease-specific clinical practise guidelines are professionals following, and how does this impact polypharmacy management?
- Health financing: are reimbursement and payment schemes in line with polypharmacy management goals?
- Leadership and governance: Do existing legislation and policies support polypharmacy management implementation?

The irrational use of medications is a worldwide problem. According to a 2004 WHO report, The World Medicines Situation, half of all medicines are inappropriately prescribed, dispensed, or sold. Furthermore, half of all patients do not take their medication as directed. This can be harmful to patients, as it leads to ineffective therapies and resource waste, resulting in an unnecessary burden for both the patient and society as a whole.

Effective policies such as supportive incentive structures, education and management, clear clinical guidance, and appropriate training are considered far-reaching to address the challenge at the system level. To achieve medication safety in polypharmacy management, a strategy based on the third WHO Global Patient Safety Challenge: Medication Without Harm could be developed. Patients and the general public, medicines, health care professionals, and medication systems and practices are among the key domains to be addressed as part of this framework.

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"Medication Error
An Avoidable Fallacy"

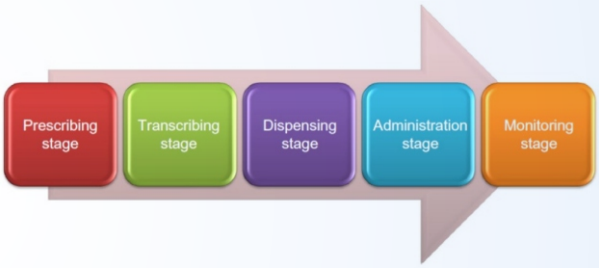
WHAT IS MEDICATION ERROR?

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

WHERE CAN MEDICATION ERROR OCCUR?

Medication error may be related to professional practice, health care products, procedures, or systems and use by the patient. Medication errors may be due to human errors, but it often results from a flawed system with inadequate backup to detect mistakes

Medication error occurs at one of the following steps:



The most common system failures include- Inaccurate order transcription, Drug knowledge dissemination, failing to obtain allergy history, Incomplete order checking, Mistakes the tracking of the medication orders, Poor professional communication, Unavailability or inaccurate patient information

TYPES OF MEDICATION ERRORS

- Prescribing
- Omission
- Wrong time
- Unauthorized drug
- Improper dose
- Wrong dose prescription/wrong dose preparation
- Administration errors include the incorrect route of administration, giving the drug to the wrong patient, extra dose, or wrong rate

- Monitoring errors such as failing to take into account patient liver and renal function, failing to document allergy or potential for drug interaction
- Compliance errors such as not following protocol or rules established for dispensing and prescribing medications

6 RIGHTS OF MEDICATION ADMINISTRATION

1. Right Patient

Always verify about the correct patient before giving them medication.

2. Right Drug

Make sure to administer correct drug as given in the prescription and their medical record.

3. Right Dose

Always check the dose of drug as it should be according to the Age and Weight of the patient.

4. Right Route

Route of administration of drug should always be checked from the file.

5. Right Time

The time between two doses should be as per prescription.

6. Right Documentation

Everything should be recorded. Time of medication, amount of medication, any side effect. Assessment should be done to evaluate how the patient is responding to the medication.

MEDICATION SAFETY- HEALTCARE LEVEL

- Use generic names for drug.
- Avoid trade names, use generic names.
- Avoid using abbreviations (eg-QD, QID, BD, TDS, etc)
- Write clear instructions (capital letters)
- Use leading zero before decimal point (eg 0.5mg)
- Avoid trailing zero after decimal point (eg-5 mg)
- Avoid verbal orders
- Identify patient drug allergies
- Have proper reporting system
- Have a strong communication system.
- Have regular training of staff regarding medication safety.
- Proper storage of Look-alike sound-alike drugs.
- Do not hesitate to check the dose and frequency if you are not sure.

MEDICATION SAFETY - PATIENT LEVEL

- Keep a record of all medicines in a medication list
- Use a medication app or pill sorter to keep track of medication schedule
- Look up information on high-risk drugs and interactions
- Report drug reactions immediately to health care provider
- Never take unnecessary or drug without doctor's prescription
- Always check expiry date of drug before administration

CONCLUSION:

Medication safety is not only in the hand of healthcare organisation and its staff but it is also in the hand of patient themselves. Small steps to ensure safety at home and hospital can go a long way in preventing any adverse event associated with medication error. Medication safety and taking precautionary steps are extremely important to prevent adverse reactions, overdoses and death. Whether a patient is prescribed an opioid or a general antibiotic, they should follow general steps to ensure medication safety.

"SAFETY IS PRIORITY WHERE QUALITY IS STANDARD!"

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DR. NAVNI MEHTA
Analyst, NABH

"Medication Safety Starts with you"

But for medication safety, we can say not only prevention, but PRECAUTION is most necessary. For a layman, especially after COVID-19, it has been a very unchallenging task to be a "self-doctor" or a "google doctor". But as a medico, it's our core task to create awareness for medication safety.

Sometimes the drug itself can wind up making things worse for us rather than making them better. It can hurt us if it's not managed well. Some ways which lead us to make mistakes are;

- Taking the wrong medicine
- Consuming it in excess.
- Mixing up the medications.
- Failure to take medication at the correct time.

Some of the following precautions are mandatory to be taken care by medical personnel and patients to avoid medication errors:

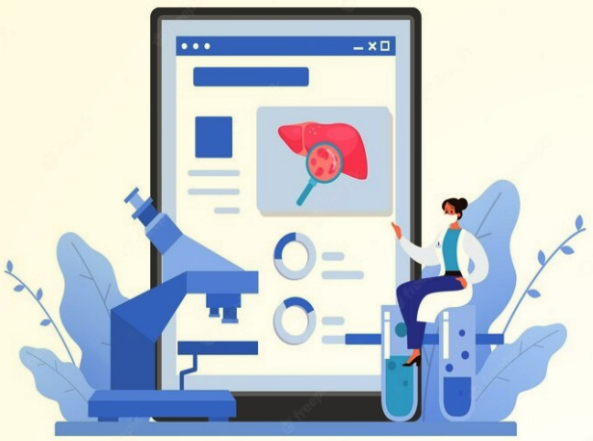
By patients

- Reading the drug label carefully and comprehending the dosage and intended use are essential for ensuring pharmaceutical safety.
- Taking the medication on time and through the right route.

By medical personnel

- Proper storage of the medications, if necessary, differentiating them using color codes.
- Mandatory prescription of MD physician for high-risk medicines such as narcotics, opioids, or sedatives
- Doctors' prescriptions should be easily readable with type, route, dose, and frequency of medication
- Frequent training to pharmacist staff regarding updatation of drugs and their safety practices.

In this situation, NABH is crucial to medication safety. To guarantee the safest possible use of drugs and devices, all NABH (National accreditation board for Hospital and Healthcare Providers)



accredited hospitals in India are required to follow the MOM guidelines and objective aspects appropriately.

Medication safety, the most crucial component in determining a country's growth, is evolving as the key to patient safety, high-quality healthcare, and providing world-class services. Medication without Harm is the subject of WHO's third global patient safety challenge for 2020. 80% of drug errors, according to the WHO, are avoidable.

The importance of having an expert, such as a clinical pharmacologist, in charge of overseeing the medication safety procedure has also been ingrained by NABH through its 5th edition hospital standards. Numerous research articles, it has repeatedly demonstrated the crucial role played by clinical pharmacologists in establishing this safe practice. Clinical pharmacologists are trained professionals with a special understanding of the various integral systems needed to establish and manage medications in any healthcare organization.

These errors are mostly caused by the healthcare system's growing complexity, and it might be challenging and impractical to expect humans to provide flawless service in such a challenging work environment. In such a healthcare system, a professional like a clinical pharmacologist can not only report but also identify and reduce such errors, systematically address the issues, and help to encourage quality patient care. It is difficult to reduce or eliminate such errors if they are unreported, imprecise, and inadequate. Determining the efficacy of the methods employed to stop the errors is also quite difficult. Medication mistakes can happen at any level, from medicine acquisition and storage to administration. A multidisciplinary approach is required to solve the problem of medication errors and establish a safe medication practice.

We all know that the pharmacy plays an important role in overseeing or managing the pharmaceuticals at any hospital or healthcare facility. In addition to facilitating efficient drug management and patient care, a well-equipped and well-managed pharmacy also aids in bringing in money for the organization. NABH emphasizes the significance by offering a few recommendations, such as the need for oversight of all pharmaceuticals kept outside of pharmacies, proper storage with regard to expiration dates, and temperature monitoring. And again, all of this needs to be thoroughly documented.

Hospitals can ensure medication safety by applying the MOM chapter's standard and objective elements in the most accurate and suitable way.

I would like to say that to err is human, but to be precise is also in our hands. So as a healthcare service provider precision should be our topmost priority and should try to deliver err free medication practice.

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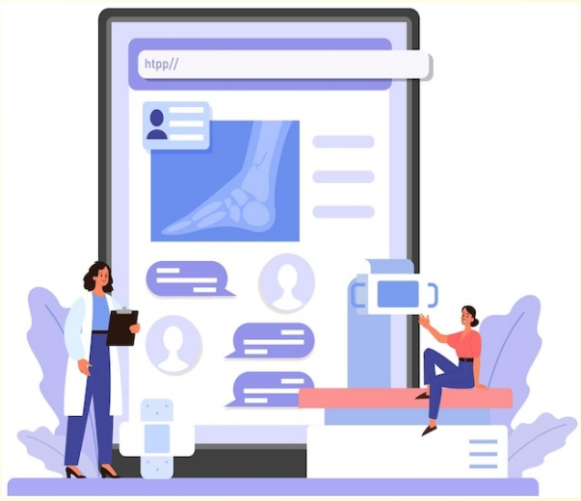

MOU SIGNING BETWEEN NABH-QCI AND SMILE TRAIN FOUNDATION

MOU signed between NABH and Smile Train India for
ft surgery
2022

MOU SIGNING BETWEEN NABH-QCI AND FOGSI

NABH-QCI and FOGSI have signed an MoU on 29th August, 2022 for third party assessments of the partner hospitals as per Manyata standards.

SANJEEVANI-2022

INDIA HEALS Curtain Raiser
Event organized by SEPC

BEST PRACTICES

DR. J. JEYAVENKATESH BSMS
MD, MPH, MPhil, PhD Medical Head,
Kokila Siddha Hospital and Research Centre
(NABH Accredited), Kunnanampatti,

Documentation of patient safety and efficacy of Siddha Treatment among COVID 19 Patients – An Interventional Prospective Cohort Study

INTRODUCTION: SARS CoV-2 (Severe Acute Respiratory Syndrome Coronavirus-2) infection became a global public health threat and had a large economic impact. Since December 2019, when the coronavirus infection 2019 (COVID-19) was found ,approximately 100 million confirmed cases and 2 million deaths have been reported worldwide. World health organization (WHO) had announced COVID-19 as a pandemic in March 2020. There are currently no medications available due to the virus's novelty and broad clinical reach. In the absence of viable treatments, traditional remedies were used as an integrated treatment for COVID-19, as they had been for other infectious diseases in the past .Traditional Indian medicines include Ayurveda, Yoga, Naturopathy, Unani, Siddha, Sowa-Rigpa , and Homoeopathy (AYUSH). The Siddha system of medicine is largely practised in India's southern states and Tamil-speaking countries around the world. The Ministry of AYUSH of India has provided therapeutic instructions for AYUSH practitioners to prevent and manage COVID-19, including the use of Kabasura Kudineer , a polyherbal siddha formulation. Traditional and complementary medicines were observed to be particularly. beneficial in the management of seasonal diseases. Siddha is one such traditional medicine practiced in south India for over 12,000 years. According to Siddha system of medicine, the pathophysiology and associated signs & symptoms of COVID-19 are classified under the disease category of iya suram. According to Siddha medicine, Covid 19 could be compared with Kabasuram .

AIM: The current study aims to investigate the efficacy, safety, and scientific validity of Siddha treatment among COVID-19 patients.

STUDY POPULATION: The patients experiencing mild to moderate symptoms such as fever, body ache, dry cough, throat soreness, dizziness, mild dyspnoea etc. Patients who tested positive for COVID-19 and were willing to engage in the study were chosen for the current study.

STUDY DESIGN: The current clinical study is an interventional prospective cohort study to measure the effectiveness of Siddha treatment carried out at COVID care centre, Kokila Siddha Hospital and Research Centre, Madurai, Tamil Nādu.

OUTCOME: The most notable outcome of this study is a reduction in clinical symptoms and an increase in oxygen saturation. Because this was an observational trial, the medications were administered to the patients and the results were monitored. The disappearance rate of the main symptoms (fever, shortness of breath, sore throat, body pain, cough, loss of smell, taste, and diarrhoea) after the intervention period also carefully noted for both the groups. Without the use of synthetic steroids and the minimum needed measured dose of oxygen support, Siddha herbal and Herbo-mineral combinations are safe and effective in the early inflammatory phase of SARS-CoV-2 infection and in moderate to severe instances with hypoxia. Patients did not experience any negative effects throughout the period of treatment. Siddha intervention is also safe and helpful in SARS-CoV-2 infection for patients with severe hypoxia. All the patients in the study reported that their quality of life was satisfactory. Telephonic follow-up was made for 45 days after the discharge to confirm that there is no evidence of Mucor mycosis.

GENERALIZABILITY: It had been well observed about the good prognosis among all the mild and moderate cases although the delay in modern test results. At the time of discharge all the patients cured from COVID signs and symptoms and also the improvement was found in modern laboratory tests and Siddha neerkuri and neikuri assessment. Another important finding of current study is regarding the safety of using a siddha medicinal preparation. A common misconception regarding siddha system of medicine is to consider all Siddha medicines to have high level of toxicity on Liver and Kidney. The safety study of the Siddha treatment among covid patients was good after the assessment of Liver Function Tests, Kidney Function tests and found within the range.

CONCLUSION: Siddha treatment is effective in covid treatment, so Government of Tamil Nādu provided more than 150 COVID care centres in Tamil Nādu for the benefit of covid patients at the time of COVID pandemic. The metal based medications Brahmanantha bairavam, Poornachandrodhayam, Gorochanai tablets along herbal decoctions have been proven to be safe and efficacious in the covid treatment. It also showed metal-based prescriptions given for a specific period does not cause untoward effects on liver and renal functions. Although the number of patients in this case series including normal and hypoxia state was small, treating critically ill Covid19 patients with a combination of given Siddha drugs, diet regimen and external therapies seems effective and safe for the management of COVID patients.

PATIENT CONSENT FOR PUBLICATION: We state that informed consent was taken from all the patients for this study.

SOURCE OF FUNDING: No funding or grant in aid was not received.

AVAILABILITY OF DATA AND MATERIALS: Full de-identified data of the analyses are available upon request to the corresponding author.

SHALBY MULTI-SPECIALITY HOSPITALS, SURAT

Medication Safety

Online Verification of Authenticated drugs

Khushbu Jariwala
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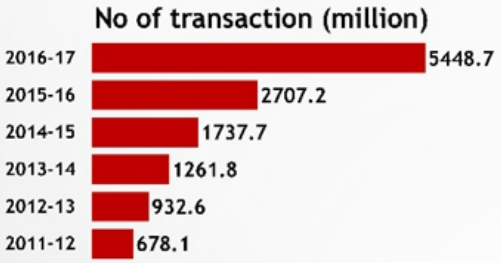
SHALBY MULTI-SPECIALTY HOSPITALS

Background

- E-Pharmacy is one of the technology advancements that is about to create a huge demand in the upcoming days.
- In today's world, when most of the products and services are conveniently being delivered to the consumers' doorstep, there is a huge demand for online delivery of medicines.



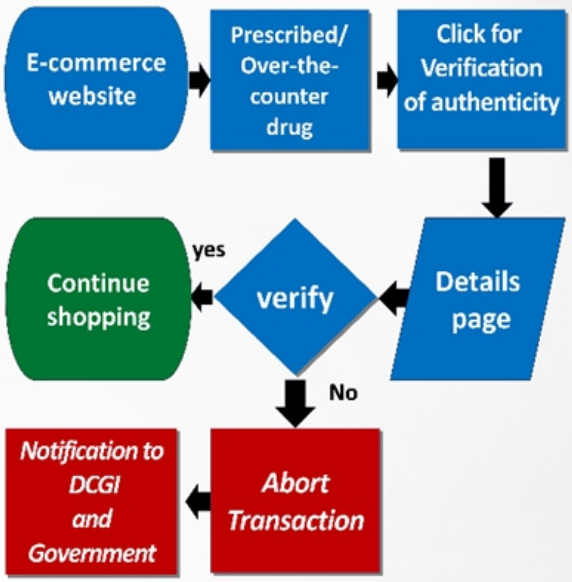
Rationale

- With growing e-commerce ,there is also raise in the market of counterfeited and fake drugs.
- Companies are many times aware and unaware of such counterfeiting of drugs which leads to degrade their reputation in the market and customers also gets cheated due to this.
- As there is no such system at present to distinguish authenticated drugs over counterfeited, the initiative is required to be taken to overcome this problem.

Objective

This study proposes a model for India to distinguish between the counterfeited drug and authenticated drug for e-commerce.

Flow diagram



Description

- The buyers will have to click on the verification hyperlink attached to a medicine while purchasing medicine online; this link will be redirected to DCGI regulatory and will verify the medicine's authenticity.
- This will give a rapid diagnosis of counterfeited and faulty drugs which will be very convenient for consumers as well as manufacturers.
- As this is e-commerce system, authenticated manufacturing companies need to be registered under IT act 2000.
- If developing countries like India adopt such model, it will definitely lead to provision of qualitative care and decrease in Red zone as well as Grey Zone selling which will help to strengthen the health system.

SAKRA WORLD HOSPITAL,BENGALURU

BEST PRACTICES ON MEDICATION SAFETY

We,at Sakra World Hospital,Bengaluru are very committed and focussed to Medication Safety practices.Here,we put a lot of emphasis on "Medication without harm" for all clinical staffs right from induction training to regular trainings, assessments and periodic campaigns,observance of safety weeks time to time.

Our Standard Operating Procedures (SOPs) on Medication Management incorporate all these best practices from ISMP.Accordingly,High risk,LASA drugs are also identified with reference to ISMP guidelines.Staffs are trained on SOPs,and these are available on our intranet site for ready reference of any staff.

Medication Management is monitored at Pharmacies(OP,IP) and all clinical areas(ER,IP,ICU,CCU,Dialysis,OT,Cathlab,Daycare,Vaccination Areas)All doctors,nurses and pharmacists whoever is handling medication is trained on all aspects of Medication Safety.

Regular Audits and Checks are in place to monitor compliance at multiple levels.We have a dedicated team of Clinical Pharmacists who are always on with live medication chart audits.There is a very deep level of prescription and drug chart audits done by the pharmacists,on spot interaction with on duty doctors and closure of errors identified.Parameters captured are correct medicine name, route, dose,documentation compliances.This also includes titration of narcotic drugs.This reduces the transcription errors mostly and also transcription led indenting or administration errors.Our nursing staffs are regularly trained on medication management,handling,storage,indenting medications.This includes high risk drug handling,narcotic drug handling and also Look alike sound alike medication management.

Our team of Clinical Pharmacologists support our clinicians in literature review of new drugs,suggest newer and more efficacious drugs,pre-empt therapeutic duplication,drug - drug interaction and foof-drug interaction.Literature review is also aided by introduction of Clinical Key in Sakra My Portal which gives access to clinicians to know any drug related journal or paper update.Even the patients are educated by our pharmacists on medication administration at home safely at the time of discharge,possible side-effects,and how to best avoid drug drug and food-drug interactions.

All the Adverse Drug Reactions and Events(ADR and ADE) are encouraged to be reported by whoever comes to know of them.There are ADR drop boxes in all clinical areas with forms,so that it is never missed.ADRs reported undergo analysis on Naranjo scale by Clinical Pharmacology Team and discussion with stakeholders on how best to prevent it.

Key Performance Indicators(KPIs) on Medication Safety are monitored every month.These include Medication Error Rate,Stock outs Rates,Local Purchase Rates and Inclusion/Exclusion in Hospital Drug Formulary.

There is a multidisciplinary PharmacoTherapeutic Committee(PTC) which oversees all activities on Medication Safety.The committee has senior clinicians of our hospital who reviews the Medication Errors,ADRs and approve any new drug inclusion in our drug formulary,which includes implants and medical consumables also.

All Chemotherapy drugs are admixtured under supervision of clinical pharmacists in the Chemotherapy Daycare wards.This is carried out in Biosafety cabinet.Side effects of Chemo drugs are also captured as a Daycare KPI.

Our hospital is also registered with the Pharmaco Vigilance Programme of India(PvPI) and actively participates in it by reporting the Medication Errors regularly.

Going forward,we plan to undertake few Clinical Audits also in the areas of Medication Management.

NABH TEAM MEETING WITH CHAIRMAN, NABH

NABH Team Meeting with Chairman, NABH Prof. (Dr.) Mahesh Verma on how to take effective healthcare initiatives and new heights

The External Evaluation Award Committee (EEAC) of the ISQua External Evaluation Association (ISQua EEA) in its meeting held on 7th June, 2022 has endorsed the recommendation to award organisation accreditation to NABH. Organization accreditation of the National Accreditation Board for Hospitals and Healthcare Providers (NABH) is from June 2022 through to June 2026. This is the third cycle of ISQua accreditation of NABH (organizational accreditation).

(from right to left) Mr. Adil Zainulbhai, Chairman, QCI, Prof. (Dr.) Mahesh Verma, Dr. Ravi Singh, Secretary General, QCI, and Dr. Atul Mohan Kochhar, CEO at NABH in discussion for strategizing ease of processes, digitalization, and expanding foot prints of NABH across the healthcare industry.

Dr. Atul Mohan Kochhar, CEO, NABH received the Eminent Medical and Health Education Teacher Award by Delhi Medical Association for his immense contribution in the field of Medical and Health Education

NABH
NEW INITIATIVES

MR. VIKASH CHAUDHARY
Administrative Officer, NABH

Co-Authors
DR. EBINESH ANTONY
Analyst, NABH

NABH COST EFFECTIVE "GO GREEN" INITIATIVE

Plastic pollution has become one of the most pressing environmental issues, as rapidly increasing production of disposable plastic products overwhelms the world's ability to deal with them. Recycling takes a little effort on everyone's part, but makes a huge difference to the world. After years of planning and preparation, the ban on single-use plastic kicked in on 1st July, 2022 all over India. NABH has initiated a small step to save the mother earth.

As a way to reduce our negative impact on the environment and to commence with a solution, NABH thought of very basic action leaving a positive impact on nature and has come up with a very cost-effective and environment friendly initiative of sending the Accreditation and Certification Certificates in recyclable cardboard cylindrical boxes. Previously, the certificates were sent to the hospitals and the healthcare organizations in a plain black cylindrical plastic box containers. Every month around 500 NABH accreditation/ certification certificates are dispatched to our stakeholders in India.

Through this initiative of NABH, the cost of the boxes has been reduced to almost half the initial price. The new box is completely biodegradable also smaller in size and lighter in weight than the previously used plastic boxes which resulted in the reduction of the dispatch and courier charges too. Adding to this, NABH has come up with a very good branding plan in the same price where the logo and the details of NABH are printed on the outside of the carton box and is sent as shown in the picture. The cost has now been revamped to plastic free cylindrical packing which is 50% less per piece then previous one having NABH logos. Better packages work to provide the Gold Standard in secure, efficient and reliable carton closure.

Thus, through this initiative NABH has not only set an example but has become an ambassador for GO GREEN INITIATIVES, "Plastic free world is also a choice but a commitment to the next generation."

#plasticfree #savetheplanet #ecofriendly

Previously used plastic cylindrical container

New Cardboard Biodegradable

National Health Authority (NHA) joins hands with Quality Council of India (QCI) to accreditate ABDM compliant healthcare solutions like HMIS/LMIS

NABH, QCI will accreditate and rate the ABDM integrated healthcare solutions on various parameters, that will enable a prospective buyer (hospital/ lab) to make an informed decision/choice

The National Health Authority (NHA) has onboarded the Quality Council of India (QCI) for six months to accredit and rate HMIS (Health Management Information System)/ LMIS (Laboratory Information Management System) solutions that have integrated with Ayushman Bharat Digital Mission (ABDM). The National Accreditation Board for Hospitals and Healthcare Providers (NABH), the constituent board of QCI is responsible for national accreditation in the domain of healthcare. NABH will undertake the responsibility of accrediting and rating the ABDM compliant solutions on various parameters, including ease of usage, user interface, pricing, number of modules/features and value for money/pricing so that prospective purchasers may get credible information.

Talking about the purpose of this initiative, Dr. R. S. Sharma, CEO, NHA said - "With ABDM, we aim to encourage innovations by streamlining delivery of health tech services in a significant way. We plan to develop a framework to ensure that ABDM compliant digital healthcare solutions are accredited and rated and to adequate information is available to consumers for choosing one solution over another. For this, we are partnering with the QCI to develop a review plan and complete the accreditation and review of at least 10 HMIS solutions (public and private) that have successfully integrated with ABDM in the next six months."

Addressing the impact of the initiative, Shri Adil Zainulbhai, Chairman, QCI said - "The way NHA is revolutionizing public healthcare access in India

through its digital health initiatives is simply phenomenal. This programme for accreditation of software solutions under ABDM for management of hospitals, labs, and clinics is a big leap for health tech in India. I am delighted that QCI & NABH will join hands with the NHA in shaping this programme. Accredited health tech solutions will help healthcare organizations manage their patient journeys and business more methodically in accordance with ABDM standards. And ultimately, this initiative will help the citizens of India get better and more timely healthcare and help India become one of the leaders in digitization of healthcare in the world"

This accreditation exercise will be conducted in a phased manner. Phase I shall focus on accreditation and rating of HMIS solutions successfully integrated with ABDM. Subsequent phases shall include other subjective parameters and other categories of healthcare solutions like LMIS, Health Lockers, Health Tech, PHR (Personal Health Records) apps etc.

As part of this initiative, NABH, QCI will onboard digital health experts for developing an accreditation standard for digital health solutions across various categories of products (e.g., HMIS, LMIS, Health Locker etc.) that have successfully completed their ABDM integration. The test environment for the review parameters shall be provided by NHA. Applicants like public health programs, software providers, hospitals, labs, healthcare aggregators etc. who wish to get this accreditation are required to submit their 'Accreditation Application' to NABH along with their compliance to accreditation standards and the ABDM requirements.

The solutions shall be reviewed on the finalized accreditation standards (based on international standards in the healthcare software ecosystem as well as the indicative list of technical standards provided by NHA). An independent team of experts engaged by QCI will then rate the accredited healthcare solutions and monitor them periodically for their operational performance, compliance with minimum viable requirement as per guidelines and maintenance of standards, and user experience. Users will also be able to submit their feedback which will be added to the rating mechanism. The ratings and reviews for the solutions shall be published on ABDM Website along with the platform suggested by QCI.

With this initiative, NHA aims to enable a prospective buyer to make an informed decision by comparing healthcare solutions that fall under the same category (like HMIS, LMIS, health locker, health tech etc.). The QCI is an autonomous body instituted by the Ministry of Commerce and Industry, Government of India with the objective to provide a credible, reliable mechanism for third party assessment of products, services and processes which is accepted and recognized globally.

More details on ABDM compliant digital healthcare solutions available here: https://abdm.gov.in/our-partners

BRANDING WITH SUBSTANCE

Secure Tamper Proof NABH Certificate

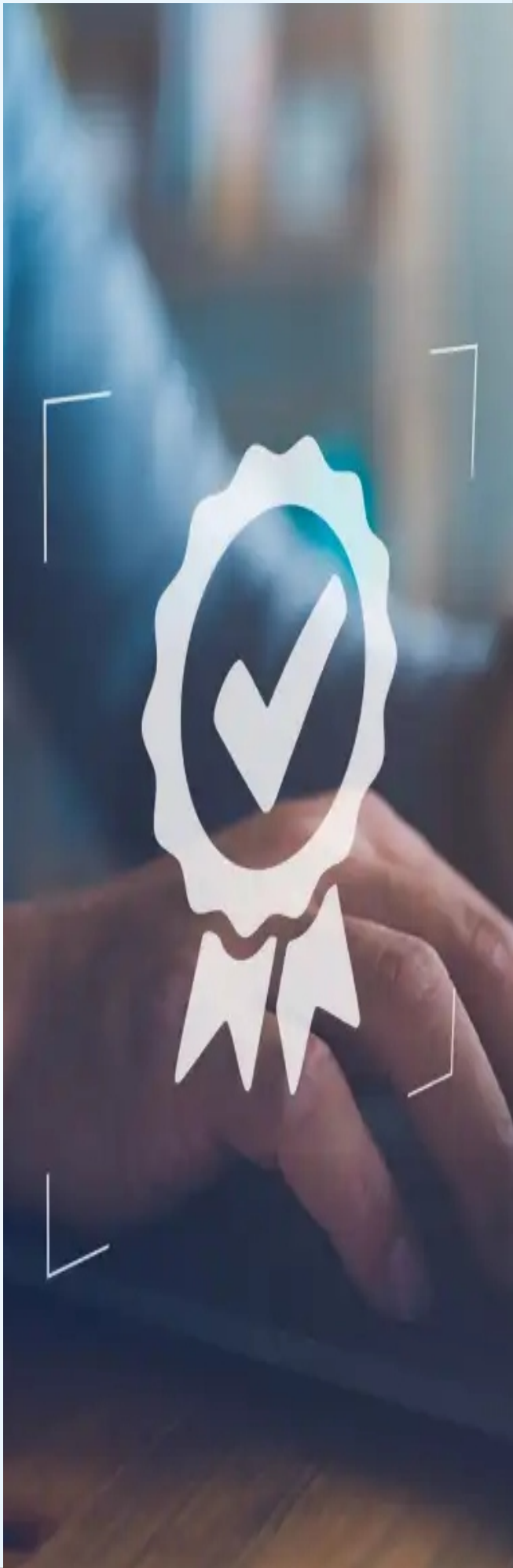
MR. VIKASH CHAUDHARY
Administrative Officer, NABH

Fake certificates can damage the reputation of well-established organizations that have to observe strict rules when issuing certificates, and with industry estimates pointing to a 30-35% annual rise in the number of fake certificates in circulation, this is clearly a major concern.

Keeping the above in view, NABH has Re-designated a secure certificate printing technology with security features that will protect certificate as well safeguard the reputation of the organizations

Re-designing of NABH Accreditation & Certification Certificates: The revised design has following Security Features:

- **Nano Text:**
  Micro text printing with variable Certificate number, which can only be readable through special 60x lens only.
- **Copy Protect:**
  When original document is copied than word "COPY" will appear.
- **Quick Read Code:**
  QR code carrying variable data may be name, address and Certificate number.
- **Non Scannable Security:**
  Can print variable content and it is laser generated security. It will shine automatically in the presence of light, which cannot be scanned or photocopied by any means.
- **Bar Code:**
  Bar-code carrying serial number of the certificate
- **Prismatic Mark Patch:**
  This is a special security feature whose content can only been seen through Decoder
- **Media:**
  Polyethylene Terephthalate Non -Tear able and Waterproof media



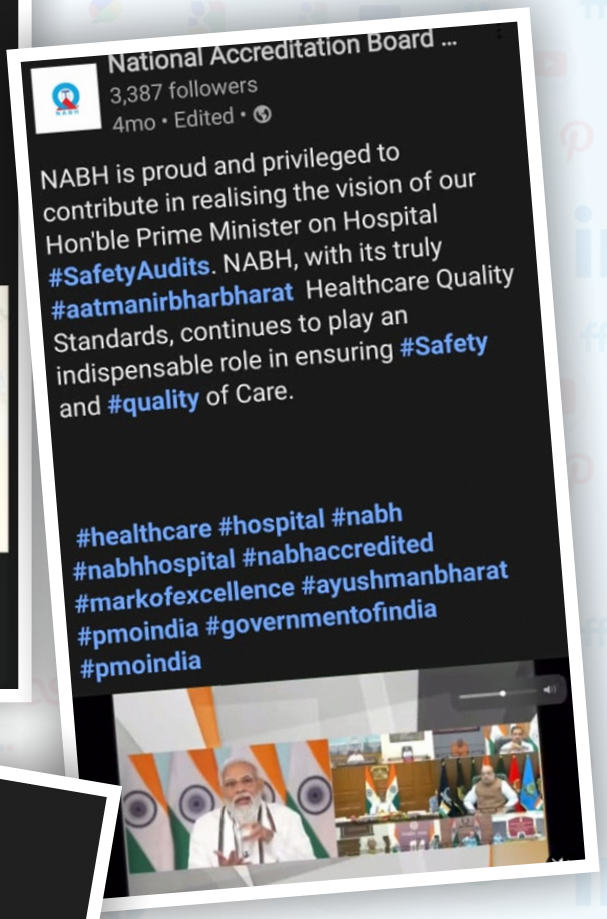
Know NABH New Certificate with Above Security Features for Accreditation Program

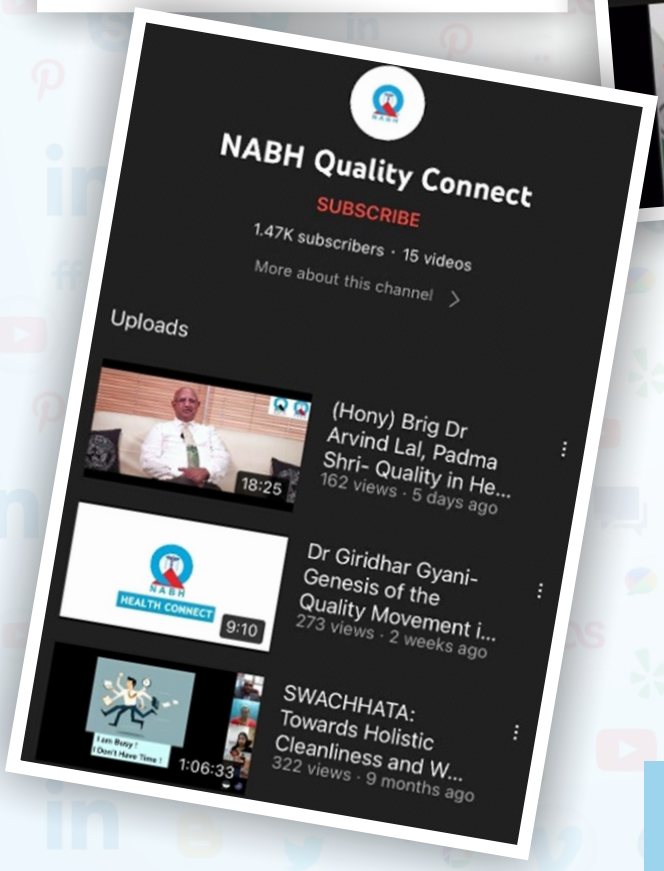
Know NABH New Certificate With Above Security Features For Certification Program

NABH ACTIVITIES

NABH SOCIAL MEDIA PRESENCE

NABH SOCIAL MEDIA PRESENCE





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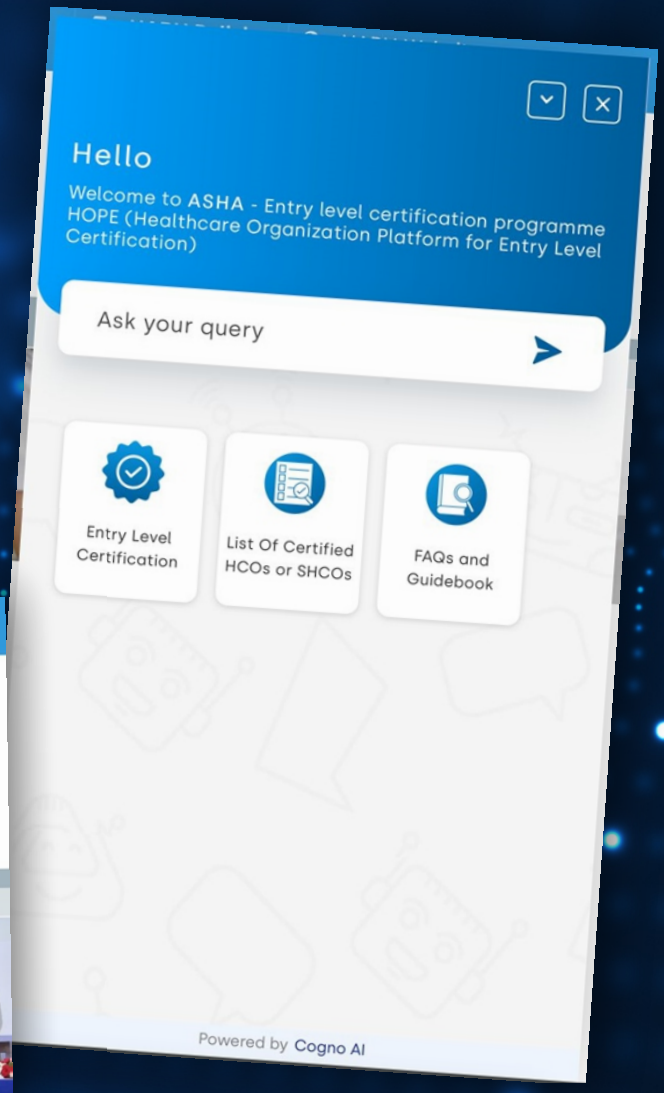
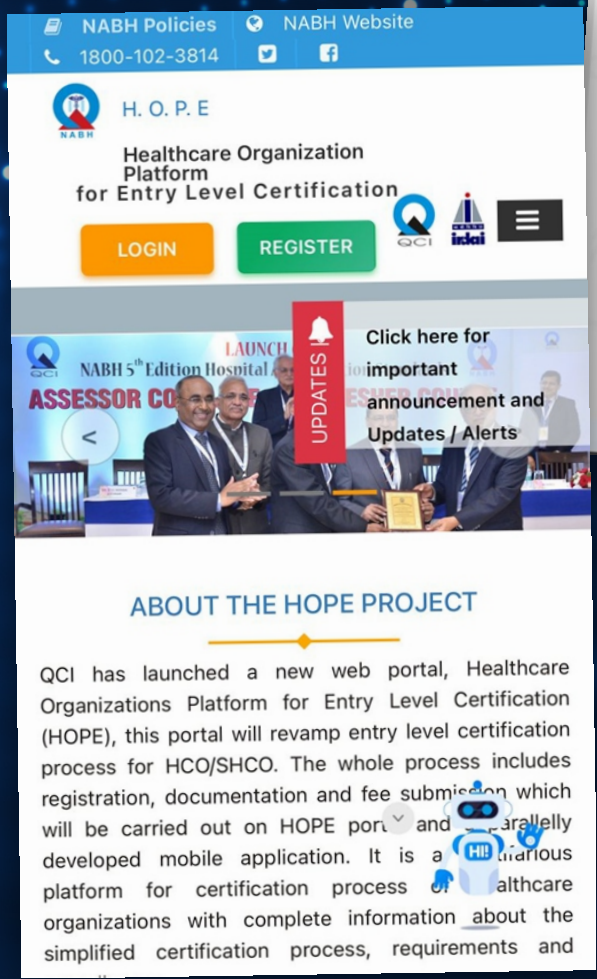
HOPE CHATBOT - ASHA

With the objective of providing complete guidance to the hospitals starting from information about the programme till certification under HOPE portal, a Chatbot has been designed by NABH.





Visit us at:

www.hope.qcin.org

Celebrations AT NABH

Diwali Celebration

Holi Celebration

INDEPENDENCE DAY CELEBRATION

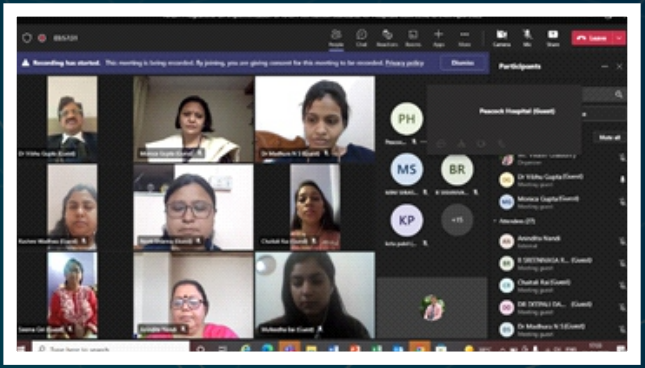
Birthday Celebrations AT NABH

Women's Day Celebration

SPORTS ACTIVITIES at NABH

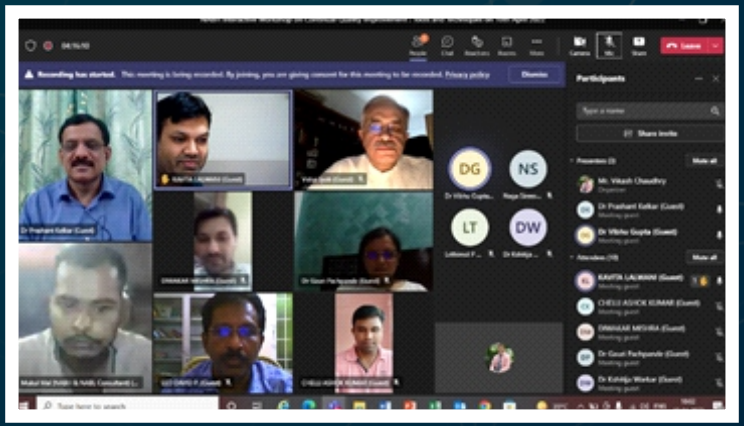
QUALITY CONNECT
LEARNING WITH NABH

NABH announced the enriched continuation of "NABH Quality Connect-Learning with NABH" initiative under which free monthly training classes, webinars and seminars will be conducted. The training topics will cover all aspects of patient safety, including: Key Performance Indicators, Hospital Infection Control, Management of Medication, Document Control etc.



NABH Program on Implementation on 5th Edition Hospital Standards on 22-24 April 2022 at Virtual

Conducted Onsite Program on Implementation on 5th Edition Standard for Students of Masters in Hospital Administration at Chitkara University, Chandigarh on 4th to 6th June 2022



NABH Interactive Workshop on CQI on 10th April 2022 at Virtual Platform

QUALITY CONNECT LEARNING WITH NABH

QUALITY COUNCIL® OF INDIA
Creating an Ecosystem for Quality

BACK TO ROOTS

SPECIAL NABH POI COURSE FOR UNIVERSITY/ COLLEGE STUDENTS

Program on Implementation (POI) of NABH 5th Edition Accreditation Standards for Hospitals

We are pleased to inform that NABH is initiating a series of 3 days training workshop "Programme on Implementation of NABH 5th Edition Accreditation Standards for Hospitals" specially for University / College Students

The program will be specifically conducted only for closed group of Colleges / Universities offering Bachelors / Masters in Healthcare / Hospital Management. The students pursuing these courses shall be the intended participants for this program

Objective of the Programme

The objective of this programme is to train the young professionals on healthcare quality and implementation of NABH standards in healthcare organisation. The aim of the programme is to sensitise there bright students to the world of quality in healthcare and help them to work towards implementation of best patient safety practices, achieving accreditation and maintaining the same.

Course material and certificate for participants

Each training participant will receive a specially curated students course kit including the 5th Edition Standard Guidebook (worth Rs. 6000), official NABH merchandise, learning and reference material. The training will be a combination of theory, demo and panel discussions and will involve active participation.

Upon successful completion of workshop, candidates will be provided with a verifiable certificate of participation

For more details of the program, please connect to Mr. Vikash Chaudhary, Administrative Officer - NABH

Phone: 011-42600622, 9873380280 | E-mail: vikash@nabh.co

Other Activities:

1. Launch of revised NABH standards and guidebooks for all the programs- MIS, SHCO, Entry level certification standards, Blood Centers, Allopathic Clinics, Nursing Excellence, Dental Healthcare Service Providers, MLP, Dermatology & aesthetics standards are in process
2. Initiating work on Physiotherapy / Homecare / Dialysis
3. Initiating formulation of NABH excellence standards for various specialties of Modern Medicine.
4. Launch of new portal for Hospitals
5. Addition of new areas for trainings and workshops under Quality connect initiative of NABH
6. Conducting Gap analysis for three Government hospitals associated with medical colleges in Delhi under DGHS, MOHFW.
7. Granting accreditation according to revised timelines thereby decreasing the turnaround time for applications.
8. Strengthening NABH-International program.
9. Publishing NABH Text book of Patient safety & Quality etc

COMPETITIONS WINNERS

ESSAY COMPETITION

1 PRIZE

Dr. Sharvari Mali
Consultant anaesthesiologist,
Wockhardt hospital,
Nashik

Digital health interventions post pandemic: Boon or Bane?

It's a tiny story of Meera. Meera is a 10-year-old autistic girl, with tremendous phobia towards public transport, which just worsened during pandemic. But now she along with her therapist, uses 'Virtual Reality' apps to visualise and imagine public transport scenes, applies 'Cognitive Behaviour Therapy' and soon she aims to travel thru a bus. A beautiful new life awaits ahead.

Covid not only affected 'Lungs' but 'Lifestyle' too. People restricted to remain indoors, worked online, learned online, did their kid's school online and they realised, life went on. And they started seeking 'On demand healthcare' from anywhere they needed and at any time they want. That initiated the need of better online patient engagement platforms. Telemedicine literally engaged them and made them feel 'Informed, Empowered and Heard' about their health status.

Digital platforms prepared patients mentally by delivering relevant educational contents and tracked them at their homes after discharge. Sent them reminders about post-operative treatment protocols, connected to surgeons thru surgical wound images, supervised mobility scores. It certainly made patients feel more involved and more responsible towards their health, surely leading to better surgical outcomes. Was it just about patient's benefit? No. Healthcare providers could take better informed clinical decisions, could focus better on their core clinical competencies and could do efficient time management. What else do we need to call DHI a “boon”?

If we look at history of human evolution from Homo Erectus to us, we agree, it moves around advances in innovations, writing, data-keeping, and communicating. So, digital interventions are a part of this process. If we desire it or not, the so called “Big Data” is being made thru all digital platforms like online transactions, social medias. So, why not to make it beneficial towards health care system, by identifying frequent fliers to hospital patients, by predicting future admission rates and equip ER with adequate staffing?

Everyone is different and has different health goals. Ram is preparing for marathon. He uses fitness tracker wristband monitoring his physical activity, heart rate, blood pressure. On the contrary, Sham is diabetic with autonomic dysfunction. And he uses sweat meter, advanced wearable device to avoid

sudden un-noticed hypoglycaemia. Ram and Sham, both achieve their respective health goals and also feel 'sense of ownership' towards their health. On other hand, insurance companies keep track about these devices and can stratify their exact risks to calculate premium. Looking at their consistent increase in numbers consumed, in spite of high cost proves that it is a “boon” and soon going to be affordable to all.

Imagine a patient with long medical records history with a chronic ailment, and in a different city. Electronic medical records (EMR) prove to be a boon for patient as well ER doctors, to start earliest emergency treatment. It gives absolute quick idea about clinical data, allergies, medications, helping to save his own life.

Mr John stays alone as his both kids stay abroad. He is under treatment for chronic heart failure and is aware, he may face real emergency any time. He is connected to a hospital by 'Remote Patient Management' digital tools, which detect any worsening of his vital parameters and exactly know, when he should be shifted to hospital by ambulance. His kids take a good night sleep, just because of a boon named “Digital Health Interventions”.

If we have a boon, there are always limitless dimensions to its use, just the way, new smartest phones launch in market every day. It's up to us to decide our budget. “Digital twinning” is upcoming advancement in DHIs, which digitally replicates and checks any device, new drug, advanced surgery before its official use. Sky is the limit, if we consider IT in healthcare.

Digital health interventions just reflect overall digital interventions, which are proven boons. People wish to save time in online surfing, they don't wish to read the whole website. Let it be jobs or movies, they love to chat with a chatbot powered by Artificial Intelligence. And the same way, they wish to answer AI powered questionnaire, and wish to be doubly sure, about exact speciality doctor they should visit.

Virtual reality tools make communication between doctors and patients effective and powerful like never before, with enhanced awareness about disease and potential interventions. Through VR tools, doctors can elevate teaching and learning experience in medicine, learn most significant value: Empathy or allay patient's anxiety.

If we can recollect Meera, Ram, Sham and John's example and their respective DHI tool, they certainly look foreword to DHI as 'Hope' to lead their life positively. Digital Health Interventions have enormous potential to improve healthcare delivery by improving effectiveness, efficiency, accessibility, safety and personalisation.

I remember writing an essay “Television: A boon or bane?” in my 8th standard. I don't recollect my stand. But does it really matter? As, today TV is indivisible part of our life, as 'Boon or Bane' as per individual's choice.

Similar way, Digital Health Interventions, in various forms are definitely “Boons”, till the day we use them cautiously, smartly and conscientiously, with an attention to protect cybersecurity, privacy and interoperability.

Dr. Vikramaditya Singh
Katni life care Hospital and Research center,
Katni (M.P.)

DIGITAL HEALTH INTERVENTIONS POST-PANDEMIC BOON OR BANE

Introduction

Digital Health –the health care with the use of technology - digital health includes categories such as mobile health, healthcare information technology (IT), wearable devices, telehealth and telemedicine, and personalized medicine. From mobile medical applications and software that support the clinical decisions healthcare professionals make daily to artificial intelligence (AI) and machine learning, digital technology has been driving a revolution in patient care. The digital health apparatus has the vast potential to improve our ability to accurately diagnose and treat disease and to enhance the delivery of health care for patients.

Digital health technologies use software platforms, the internet, applications, and sensors for healthcare and related uses. These technologies are across a wide range of uses, from mobile applications in general wellness to software for medical devices. They include technologies intended for use as a medical product, in a medical product, as companion diagnostics, or as an addition to other medical products and services like devices, drugs, and biologics. They may also be used in the research development of medical products. Digital tools are giving healthcare providers a more holistic approach to patients' health through access to healthcare data and giving patients more control over their health. Digital health offers a real opportunity to perk up medical outcomes and reduce inefficiency. These technologies can allow consumers to make better-informed decisions about their health and provide new options to facilitate prevention, early diagnosis of life-threatening diseases, and management of chronic conditions outside traditional health care settings. Providers and other stakeholders are using digital health technologies in their efforts to increase efficiencies, improve access, more Cost-effective, increase quality, and Make medicine more personalized for patients.

Digital health technologies allow patients and consumers to better manage and track their health and wellness-related activities The use of technologies, such as smart devices, social networks like Facebook and Instagram, and internet apps, is not only changing how we communicate with each other, but also providing innovative ways for us to keep an eye on our health and well-being and give us greater access to healthcare data and information. Together, these advancements are leading to a union of people, information, technology, and connectivity to improve health care and health outcomes.

Advantages of Digital health

The patient enjoys digital data access, patients have access to retrieve and share their health information. In Digital Health, patients get quicker access to test results, they get their test reports online in form of email, etc. so they don't have to visit the clinic, lab, or hospital for reports, and they don't have to carry the physical form of records all the time to visit the doctor.

It is easy to pay the bills – bills can be paid online, with digital payments, etc. You get the ability to share information with your family members and take feedback for a second opinion, it also offers clinicians notes and feedback. The patient can

review information for medical errors because the Instructions and Information are simple and easy to document. The patient has a better approach and access to the medical records, which saves time.

Disadvantages of Digital Health

The digital healthcare process can be complicated and complex, which could cause concerns for the patient's Doctor's reports and could elevate patient-provider's relationship concerns. Hackers can approach and access patients' records, It needs to be upgraded regularly as per new regulations. Digital health records are expensive and complex, and composite processes are also technology dependent.

Conclusion

The COVID-19 pandemic has forever changed health care; it has taken a heavy toll on many people in the world. Terror of the virus and necessary mandated lockdowns and changes in patient behavior has resulted in a loss of connectivity to healthcare professionals and systems.

This starts a revolution in digital health technologies as the need for value transformation could not be more urgent. Across the world, hundreds of thousands of health care systems are considering a central question: how do we connect with our patients?

This can be exemplified in every admission that could have been averted by earlier treatment in a digital or tele clinic, a virtual visit that would have been prevented by better engagement and Remote Patient Monitoring, and home monitoring or care that might have been averted by more effective preventive care. Digital health has been used as a stopgap in many cases to continue the essential functions of health systems. These chasms in communication between patients and providers have the potential to worsen in a post-pandemic world if we do not harness the power found in the digitization of health care. As the post-pandemic world and our "new normal" come into focus, further needs will have to be met with digital patient interaction, with an eye toward value transformation. One barrier to fully leveraging digital tools is the lack of a framework for classifying the type of digital health care. This can limit our ability to design, deploy, evaluate, and communicate through digital means. One of the positive aspects of the COVID pandemic has been in pushing digital health adoption to the forefront, bridging gaps in care on a large scale. As this article has reviewed, there are many examples of how digital health delivery, digital access, and digital monitoring can improve efficiency, and patient satisfaction, and reduce the cost of care. Still, much research is needed to better define the outcome measures and correlate the benefits seen in studies thus far. By taking advantage of the pandemic-fueled digital health explosion, future evidence is likely just around the corner. Sifting through the data, it is clear that the value of digital health does not come down to a single device, platform, or technology. Instead, it is the culmination of learning how to use digital devices and enhanced workflows to better contact and communicate with patients. In the end, what matters is how we provide care. Digital health is not a new , but instead a new delivery mechanism for health care's. In the future, we hope that just as "telebanking" has become banking, or "teleconferencing" has become conferencing, so "digital health care" will become simply "health care." It is imperative to invest in human resources and the science of care provision to allow full use of the technology at our disposal. Only then will we fully realize the benefits of value-based care.

Dr.Rajashri Sanjeev Waidande
Bharati Vidyapeeth deemed to be university Medical College & Hospital,Sangli

"Impact of NABH Accreditation in improving and maintaining quality patient care"

Introduction of NABH Accreditation-It is part of quality council of India. It means we are adhering to quality standards prepared by NABH Body and implementing it across the hospital. Hospitals that have gone for accreditation and achieved it, have seen many changes in multiple area. All these changes have resulted in improved quality patient care. When accreditation occurs, no doubt patients are biggest beneficiary, so in that hospital the attitude looking to patients & their care will change.

First thing to occur during accreditation, Hospital starts thinking patient care improvement measures. Whether it is wheel chair with belt, stretcher with belt, beds with side rails. Doctors attending patients care improves, there is definitive care plan which most of the doctors unheard, gets exposed to new NABH terminology like initial assessment within defined time frame. Care plan, SNDT, countersignature by In charge consultant, medication reconciliation, LASA,CAPA, Severity index form etc. Doctors have got exposed to variety of forms related to patient care. This helps & protects doctors legally also as it is proof with documentation if any deviation has occurred to patient care.

Doctors does reassessment and importantly documents it with SNDT. Doctors take consent for all procedure with explaining alternations, risks, benefits, & complications in patient's own language, which is good for patient/relative. Along with consent forms, doctors prepare relatives mind for consequences.

Doctors write drug history in a defined medical chart. Drugs with capital letter with dose with dosage with frequency. This will help in reducing medication error which is the important fact global is facing. Most of the deaths occur with medication errors. Which we all are trying to reduce. But NABH has taken great step for its preventive implementation. Finally which contributes to great extent in reducing error. Because of capital letters, nurses can administer drugs without any error. Implementation of HRM drugs, have continuous patient monitoring hence early warning signs related ADR or anaphylactic reaction can be reduced. Doctors planned discharge summary given patient /relative to prepare for their financial

clearance.

Nurse Patient Ratio has done a great impact in the hospital. Though management is aware of nurse shortage but not ready to recruit nurses. But accreditation makes them to flexible towards recruiting nurses for patient care.Set SOP and policy has helped all workers to follow patient care uniformly without any bias. Training I feel has contributed the end result and ultimum.Without training we cannot travel for long distance. It is the TRAINING,TRAINING,TRAINING contributes to improved quality patient care. Bombarding awareness to all category with training has improved patient care a lot. Now HK staff knows what is spill kit and hand hygiene steps, using PPE. Accreditation has played a major role in infection control practices in any hospital. It has contributed in reducing infections to a great extent. Best example hand hygiene very well known

by nursing & HK staff. Cleaning practices like using good disinfectant, using good cleaning protocols, cleaning hi touch surfaces etc. Though small work but accreditation has made aware to our staff clarity about it. Broomstick has come out of OT, really has made indirect & direct contribution for

sterile practices in OT. Two or 3 Bucket system for cleaning has come back. Regular mop cleaning has contributed in reducing infection. Best injection practices, prophylactic use of appropriate antibiotics, cases of MDRO, Phlebitis score, proper biomedical waste segregation incidence of needle stick injury have improved infection control practices.

Surveillance methods like active & passive has been achieved to a very great level. Air sampling, cultures,fogging are best implemented in accredited hospitals. Patient identification bands and UHID has done improvement in patient safety.Improved patient identification.Surgical safety checklist has crossed all levels to avoid sentinel events. Because of NABH,each hospital is bound to do it. Site marking, preop checklist filling has created awareness among doctors.Modular OT for superspecility branches like Hip/Knee Replacement,CABG has benefitted.

When it comes to maintenance plan of all biomedical equipments,no hospital was bothered to PM plan,but now it is mandatory hence for management financial benfit.Maintenance plan for Other Hospital Equipments,Condemnation policy has made hospital better.For AHU,Chiller daily checklist has given ideal temperature for OT.Facility rounds has contributed a good platform for hospitals in terms of cleanliness, showcase for hospital.Regular washing of water tanks,water testing.endotoxin for RO water has improved patient safety at a higher level.

Safety measures from smoke detector s to water sprinkler has made all hospital staff & patient life safe to some extent.Fire safety audit has contributed to fire safety.Safety codes has made a great contribution in preventing any hospital mischaps.Regular employee health checkups, vaccination has increased employee safety.

Management definitely in long runs gets financial help, community boosting, credential & privileged staff to work for patient care. Management adheres to all statutory compliances without failure.

Overall opportunity to work in accredited hospital has proven a great leadership for employees and so better opportunities later in life. Continuous professional development has motivated all categories of staff for further acquiring training skills. Hence with all above training needs, NABH has made HRD to grow exponentially. Concept of quality coordinator, quality managers in house has become more in demand. Definitely in due course quality managers shall get good payment structure.

Overall satisfaction of NABH accreditation is much worth than any cost. As it is voluntary, there is no force for hospital to go for accreditation; hospital has all right to decide to take up challenge for accreditation. Hence any hospital tries for accreditation; definitely it is showing great interest in quality patient care. Though benefits of tie up with third party insurances provides hospital increased revenues. For staff with all categories there is more chances for recruitment. Hence all levels have good impact with NABH ACCREDITATION.

“ JAI HIND”

POSTER COMPETITION

PRIZE

Vidya Mani
Deputy Manager
Medical Administration
Quality Fortis Hospital,
Chennai.

PRIZE

Nidhi Vijan
Quality Manager,
Satyam Hospital,
Ludhiana

PRIZE

Dr. Malona Lilly Philip
Baby Memorial Hospital

PRIZE

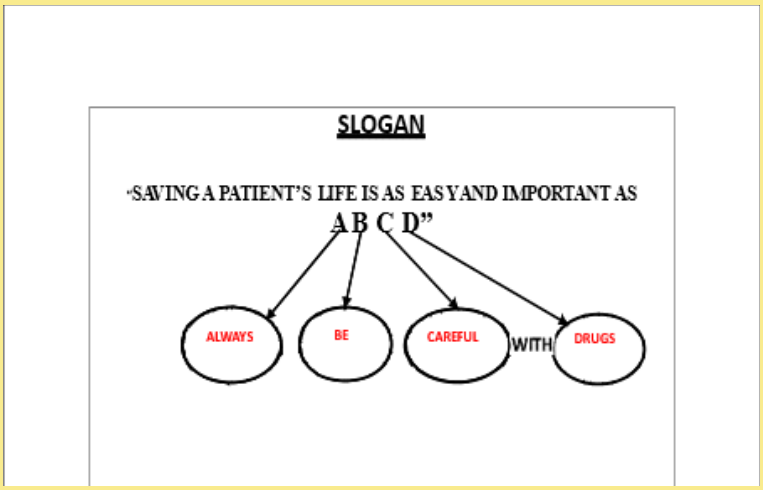
VINUSHA

SLOGAN COMPETITION

PRIZE

Dr. Sourav Maiti
Clinical Safety officer,
Ruby General Hospital,
Kolkata

From the riches to rugs,
All we need safe drugs.
Deviation from safety,
Cost you hefty.
Until you know,
How do you show?
Conquer the trepidation,
And practice safe medication.



PRIZE

Sreeraj Sajeev
Quality Executive,
Pushpagiri Medical College
Hospital, Thiruvalla

3

PRIZE

Dr. Swati Marwaha
Assistant Manager
Medical Quality,
Max Super Specialty Hospital,
Mohali

DOCUMENTATION OF BEST PRACTICES

Dr. Abith Baburaj

Clinical Pharmacist

Baby Memorial Hospital, Kozhikode

Leela Nair

Director Nursing

Metro Hospital, Faridabad

Khushbu Jariwala

Head - Quality Assurance

Shalby Hospital, Surat

Acknowledgement to other participants

We appreciate and congratulate other participants for their efforts.

SLOGAN COMPETITION PARTICIPANTS		
S.no	**Name of the participants**	**Designation & Organization**
1.	PRIYANKA KALA	Quality Manager DRISHTI EYE INSTITUTE,DEHRADUN
2.	Manidipa Ghosh	Nursing Supervisor Tata Medical Center
3.	Sunidhi Padhiyar	Manager , Quality assurance Sterling Hospitals. Ahmedabad
4.	Dharmistha R. Patel	U. N. Mehta Institute of Cardiology
5.	Ravi Teja	Officer , Quality Control
6.	Dr.Priyanka Barua	Sr.Manager - Quality & Systems Sakra World Hospital
7.	Nihar Bhatia	Head Operational Excellence and Quality Assurance CK Birla Hospitals, Jaipur
8.	Bibin Benny	Quality Officer
9.	Anjitha Sivan	Pushpagiri Medical College Hospital, Thiruvalla
10.	Meenu Benny	Kozhikode Medical College,
11.	Dr (Mrs) Rekha Singh Ganguli	Chief, Medical Services The Tinplate Co. of India Limited, Golmuri, Jamshedpur – 831003
12.	Leela Nair	Director Nursing Metro Hospital, Faridabad.
13.	Dr Beegum Sheena and Dr Blessy Samu	Baby Memorial Hospital,
14	Sapna bisht	Nursing Officer Sir Ganga Ram Hospital
15.	Ashwitha Veigas	Father Muller Medical College Hospital

POSTER COMPETITION PARTICPANTS		
S.No	**Name of the participants**	**Designation and organization**
1.	Dr.Priyanka Barua	Sr.Manager - Quality & Systems Sakra World Hospital
2.	Dr (Mrs) Rekha Singh Ganguli	Chief, Medical Services The Tinplate Co. of India Limited, Golmuri, Jamshedpur – 831003
3.	Nihar Bhatia	Head Operational Excellence and Quality Assurance CK Birla Hospitals, Jaipur
5.	Dr Sourav Maiti	Clinical Safety Officer Ruby General Hospital, Kolkata
6.	Leela Nair(Arya Mohanan , Chinchu Saju)	Director Nursing Metro Hospital, Faridabad.
7.	kajal Ankush Sanas	Infection control Nurse Masina hospital Trust
8.	Khushbu Jariwala	Shalby Hospital, Surat
9.	Nargis bano	Sir Ganga Ram hospital
10.	tenzin woeser	Nursing officer Sir Ganga Ram Hospital
11.	Kannu Sharma	Quality Manager Holy Family Hospital, Delhi
12.	Dr. Jayvardhan Borkar	MBBS Rao Nursing Home, Pune.
13.	pratibha koundal	Sir Ganga Ram hospital
14.	Sapna bisht	nursing officer sir ganga ram hospital
15.	Mr. Sachin Dwivedi	Nursing officer(Research) Regional Ayurveda Research Institute, Lucknow
16.	Dr. Shruthi Prakash	Sachetana Eye Clinic and Microsurgical Centre
17.	Ashwitha Veigas	Father Muller Medical College Hospital

ESSAY COMPETITION PARTICIPANTS		
S.NO	**Name of the participants**	**Designation and Organisation**
1.	Sunidhi Padhiyar	Manager , Quality assurance Sterling Hospitals. Ahmedabad
2.	Dr. Amarjeet Mitra	SGPGIMS, LUCKNOW
3.	Dr. Akanksha Chowdhary	Department of Hospital Administration, SGPGIMS
4.	Krishna Veni	Sr. Manager / HOD- Quality Continental Hospitals
5.	Dr (Mrs) Rekha Singh Ganguli	Chief, Medical Services The Tinplate Co. of India Limited, Golmuri, Jamshedpur – 831003
6	Dr.Priyanka Barua	Sr.Manager - Quality & Systems Sakra World Hospital
7.	Dr. Rashmi Singh, Dr. R. Harsvardhan	Assistant Manager-Medical Quality SGPGIMS, Lucknow.
8	Dr. Swati Marwaha	Max Super Specialty Hospital, Mohali
9.	Nihar Bhatia	CK Birla Hospitals, Jaipur
10.	VALENTINA MICHAEL CHRISTI	U N MEHTA INSTITUTE OF CARDIOLOGY AND RESEARCH CENTRE
11.	Chaithanya KS	Quality Officer
12.	Biji Annam varghese	Quality Officer
13.	Meenu Benny	Kozhikode Medical College,
14.	K.Vidhya Saravanan	Quality Officer
15.	Priyanka Tiwari	Quality Officer
16	Usha Ajith	Assistant Nursing Superintendent Tirath Ram Shah Charitable Hospital

ESSAY COMPETITION PARTICIPANTS		
S.NO	**Name of the participants**	**Designation and Organisation**
17.	Dr Sakha M Puthooran	Sr Clinical Pharmacist Baby Memorial Hospital,
18.	Vidya Mani	Deputy Manager Medical Administration- Quality Fortis Hospital, Chennai.
19.	Sapna bisht	Nursing Officer Sir Ganga Ram Hospital
20.	Anasuya Sandyalatha	Quality Officer
21.	Snehal Parmar	Quality Officer
22.	Lavita Pearl	FMMCH Kankanady
23.	Fagun Soni	Exc Operations, Trainer and Process development. N.M.Wadia Institute of Cardiology, Pune.
24.	Anup Kumar Mishra	GM- Operations and Quality Capitol Hospital, Jalandhar, Punjab
25.	Vishwanath Koppad	Cloudphysician Healthcare Private Limited
26.	Sasikala.N.R.	Senior Quality Executive Sri Sai Hospitals, Bangalore.

DOCUMENTATION OF BEST PRACTICES		
S.NO	**Name of the participants**	**Designation and Organisation**
1.	Dr. Priyanka Barua	Sr. Manager - Quality & systems Sakra World Hospital
2.	Riyank Gangawat	Quality officer Geetanjali Medical College & Hospital, Udaipur

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QUALITY CONNECT LEARNING WITH NABH

ONLINE WORKSHOP ON DOCUMENTATION REQUIREMENT FOR PATIENT SAFETY AND QUALITY IMPROVEMENT

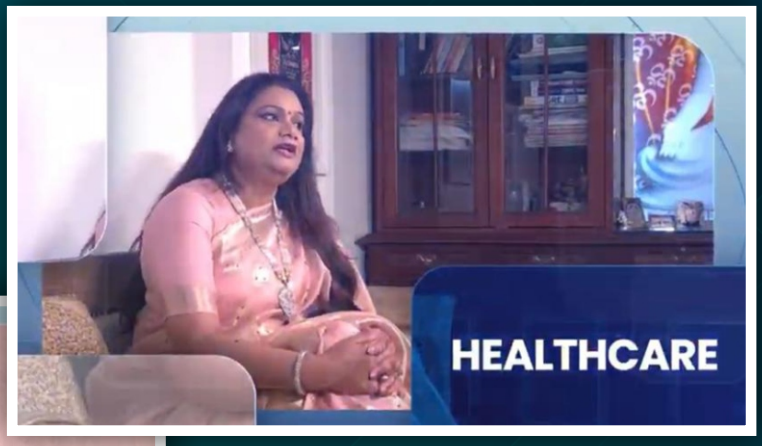
PROGRAMME ON IMPLEMENTATION OF NABH 5TH EDITION STANDARDS FOR HOSPITALS

ONLINE WORKSHOP ON CLINICAL AUDIT

ONLINE WORKSHOP ON CONTINUAL QUALITY IMPROVEMENT TOOLS AND TECHNIQUES (CQI)

NABH
HEALTH CONNECT

QUALITY CONNECT PODCAST



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NATIONAL ACCREDITATION BOARD FOR HOSPITALS AND HEALTHCARE PROVIDERS (NABH)

3rd EDITION

AUGUST 2022

NABH ACCREDITATION STANDARDS FOR SMALL HEALTHCARE ORGANIZATIONS

NATIONAL ACCREDITATION BOARD FOR HOSPITALS & HEALTHCARE PROVIDERS (NABH)

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