ICHA Convention for Patient Safety

ICHA: Safe Healthcare for All

27-29, November 2009, New Delhi

International Partners

National Patient Safety Agency
NHS Manchester PCT

World Health Organization | Patient Safety
A World Alliance for Safer Health Care

CMA
Commonwealth Medical Association

ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA
ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA
ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA
ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA ICHA

ICHA: Safe Healthcare for All

ICHA FRATERNITY
Constituent Associations

1. Association of Surgeons of India (ASI)
2. Association of Physicians of India (API)
3. The Federation of Obstetric & Gynaecological Societies of India (FOGSI)
4. Indian Society of Anaesthesiologists (ISA)
5. All India Ophthalmological Society (AIOS)
6. Academy of Hospital Administration (AHA)
7. Indian Association of Physical Medicine & Rehabilitation (IAPMR)
8. Paediatric Orthopaedic Society of India (POSI)
9. Indian Co-operative Oncology Net Work (ICON)
10. Indian Academy of Neurology (IAN)
11. Indian Association of Gastrointestinal Endo-Surgeons (IAGES)
12. Indian Association of Dermatologists, Venereologists & Leprologists (IADVL)
13. Indian Association of Medical Informatics (IAMI)
14. Indian College of Pathologists (ICP)
15. Association of Clinical Biochemists of India (ACBI)
16. Indian Society for Health Care Risk Management (ISHCRM)
17. The Brain & Spine Foundation (BSF)
18. The Trained Nurses Association of India (TNAI)
19. Nursing Research Society of India (NRSI)
20. Indian Society of Psychiatric Nurses (ISPN)
21. Indian Pharmaceutical Association (IPA)
22. Indian Hospital Pharmacists' Association (IHPA)
23. Indian Pharmacy Graduates Association (IPGA)
24. All India Occupational Therapists' Association (AIOTA)
25. The Indian Institute of Architects (IIA)
26. Consumer Coordination Council (CCC)
27. All India Management Association (AIMA)
28. All India Institute of Local Self Governments (AIILSG)
29. Jansankhya Sthirta Kosh (JSK) a.k.a. National Population Stabilisation Fund

Affiliate Associations

30. Association of Minimal Access Surgeons of India (AMASI)
31. Association of Health and Hospital Administrators (AHHA)
32. Indian Association of Surgical Oncology (IASO)
33. Institute of Science & Social Services (Jharkhand) (ISSS)
34. Association of Medical Consultants (Mumbai)

Affiliates, Individual & Organizational ≈700

(see enrolment register on our website : www.icha.in)

ICHA Convention for
Patient Safety

ICHA: Safe Healthcare for All

Communication Address: C/o Dr. A. K. Sangal, D-II/A 2496, Netaji Nagar, New Delhi- 110 023

Website: www.icha.in • E-mail: akhil.sangal@gmail.com

Contents

Dr. APJ Abdul Kalam
Former President of India

26 November 2009

I am delighted to know that the Indian Confederation for Healthcare Accreditation in Partnership with number of Government and Non-government agencies is organizing Convention for Patient Safety on 27-29 November 2009, where large number of delegates from India and abroad are participating. I consider that this is an important meeting since the results of these deliberations will directly benefit the patient who is the customer in a hospital. He deserves administration of quality healthcare in time, at an affordable cost.

Institute of Health in US in a survey found that 95,000 deaths occur per year in the United States due to medical errors. Though this information can be debated, this information was found to be very disturbing. It was recognized that there is a need for change in approach in Medicare to improve the safety and quality of care to patients. In this connection, it was felt that it is important to train the doctors, the nurses, paramedics, technicians and everyone connected with medicare. Modern hospital is a very complex organization and there are challenges ahead to improve the safety of the patients. Quality medicare is possible only when people work together as a team. Recently a seminar was conducted in Johns Hopkins where there was a brainstorming session between the doctors, Medicare personnel, patients and the relatives of the patients which brought out all these factors very clearly.

I will be very happy if all the hospitals and Medicare centres in India conduct such type of review periodically in the combined meeting of doctors, nurses, paramedical staff and the patients or patients relatives. This is particularly important in respect of cases which results in mortality. The feedback from these meetings will become a valuable training document for the doctors and staff of the hospital. Another important aspect of quality medicare is the design of the hospital itself.

Hospital design is to provide doctors, nurses and other staff with a conducive work environment. A place where they can provide the best care they are capable of. For this, hospital's working environment has to be transformed using an integrated approach that addresses the "mind, body, and spirit" of the hospitals. The "mind" part of the equation refers to work design and processes in hospitals; the "body" focuses on the physical design of the hospital workplace; and the "spirit" refers to the soul of an organization its vitality, values, and attitudes - its culture. These three components overlap and interact. The idea is to transform hospitals into places that not only provide treatment but promote healing, and where better work processes and culture increase institutional vitality and enhance patient care. The hospital has to be so designed to ensure that there is no hospital induced infection on patients. The hospital environment has substantial effects on patient health, safety, care, efficiency and in infusing confidence and strength on near and dear attending on the patients.

While I was in Nepal, I met the Chief Monk Choakyi Nyima Rinpoche and exchanged few books. The Monk has written with Dr. David R. Shlim a book titled "Medicine and Compassion". I liked this book and read it during my journey from Kathmandu to Delhi. This book gives six important virtues which a medical practitioner has to possess towards their patients.

First virtue is generosity; the second virtue is pure ethics; third is tolerance, fourth is perseverance, fifth is cultivating pure concentration and the sixth virtue is to be intelligent. These virtues will empower the care givers with a humane heart. I am sure all the care givers participating in this convention will propagate these virtues among their colleagues, friends, juniors and students. This will be the greatest contribution of the medical community towards the society.

My best wishes to all the participants success in their mission of enhancing patient safety through well designed hospitals and healthcare systems.

DR. APJ Abdul Kalam

10, Rajaji Marg, New Delhi 110 011, India
Email: apj@abdulkalam.com, www.abdulkalam.com

NATIONAL RURAL HEALTH MISSION
राष्ट्रीय ग्रामीण स्वास्थ्य मिशन

गुलाम नबी आज़ाद
GHULAM NABI AZAD

सत्यमेव जयते

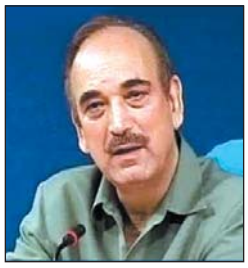
D.O. No. 1752 /MFW/2009

स्वास्थ्य एवं परिवार कल्याण मंत्री
भारत सरकार
निर्माण भवन, नई दिल्ली-110108

Minister of Health & Family Welfare
Government of India
Nirman Bhavan, New Delhi-110108

4 NOV 2009

October, 2009



Dear Prof. Madhok,

I acknowledge the receipt of your letter regarding organization of ICHA Convention for Patient Safety at New Delhi from 27th to 29th November, 2009.

I assure our full support towards the objectives of the Convention.

With regards,

Yours sincerely,

(GHULAM NABI AZAD)

World Health Organization

DH Department of Health

20, AVENUE APPIA – CH-1211 GENEVA 27 – SWITZERLAND – TEL CENTRAL +41 22 791 2111 – FAX CENTRAL +41 22 791 3111 – WWW.WHO.INT

Tel. direct: +41 22 791
Fax direct: +41 22 791
E-mail :

In reply please refer to:

Your reference:

Please reply to:

Department of Health
Richmond House
London SW1A 2NS
United Kingdom

Tel:+44 (0)20 7210 5150-4
Fax:+44 (0)20 7210 5407
liam.donaldson@dh.gsi.gov.uk
www.dh.gov.uk/cmo

11 November 2009

Akhil Sangal, Chief Executive
Indian Confederation for Healthcare Accreditation
D II / A – 2496, Netaji Nagar
New Delhi – 110 023
INDIA

Dear Dr Sangal,

Recent years have seen a great many advances in our understanding of patient safety. For the first time, we are realizing the extent to which patients can be harmed by the health care we provide. We now appreciate that safety cannot be achieved by relying on individual excellence, but requires improved systems, better teamwork and the demolition of rigid hierarchies.

WHO Patient Safety is pleased to support this conference with speakers representing three important strands in our work. Reporting of medical errors is essential if we are to learn from our mistakes. Lord Naren Patel chairs the UK National Patient Safety Agency, which is a world leader in implementation of reporting systems. Healthcare associated infections contribute greatly to the burden of harm caused by unsafe care. The WHO First Global Patient Safety Challenge, represented by Dr Cyrus Engineer, is working worldwide to implement strategies to tackle this major problem. Finally, to make the system safer, we need to provide training on patient safety to the people who deliver health care. Professor Walton's work on the WHO Patient Safety Curriculum Guide has contributed greatly towards this goal.

I am pleased the Indian Confederation for Healthcare Accreditation is hosting the ICHA Convention for Patient Safety. This convention is an opportunity for the leaders in patient safety to meet and share ideas about how to improve health care for patients in India.

I regret that I am unable to join you personally but I wish you every success in your quest to make patient safety a reality in India. The public expect that the health care they receive is safe. As professionals, we have a duty to ensure that it always is.

Yours sincerely

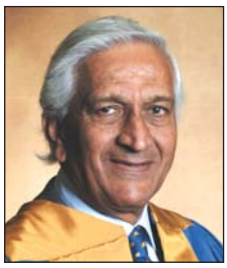
L. Donaldson

SIR LIAM DONALDSON
CHAIR, WHO PATIENT SAFETY

National Patient Safety Agency

NPSA
4-8 Maple Street
London
W1T 5HD

Tel: 020 7927 9500
Fax: 020 7927 9501
enquiries@npsa.nhs.uk
www.npsa.nhs.uk



November 2009

It is a pleasure and a privilege for the NPSA to be a part of this National Convention on Patient Safety in Delhi, India. My chief executive, Martin Fletcher, and our India envoy, Rajan Madhok, have already worked closely in developing a programme of work to address the problem of unsafe care, and hopefully the convention will help to consolidate this and in addition help create a roadmap for future action. I am looking forward to the outcomes of your lively discussions, and more importantly a clear plan of action so that the NPSA can identify how it can assist your efforts in the future.

With best wishes

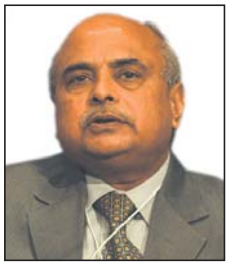
Lord Naren Patel

सत्यमेव जयते

Dr. R. K. SRIVASTAVA
M.S. (Ortho) D.N.B. (PMR)
DIRECTOR GENERAL

भारत सरकार
स्वास्थ्य सेवा महानिदेशालय
निर्माण भवन, नई दिल्ली.110 011

GOVERNMENT OF INDIA
DIRECTORATE GENERAL OF HEALTH SERVICES
NIRMAN BHAVAN, NEW DELHI-110 011
TEL. NO. : 91-11-23061438, 23061063
FAX NO. : 91-11-23061924
E-mail : dghs@nic.in



Date : 17/11/2009

I am happy to note that the Indian Confederation for Health Care Accreditation (ICHA) in collaboration with WHO's World Alliance for Patient Safety is organizing a National Convention for Patient Safety from 27th to 29th November, 2009 in New Delhi.

Patient Safety is prevention of harm to patients while receiving Health Care. It is about eliminating preventable medical mistakes, guarding against the impact of human error and establishing systems to safeguard patient health and well being.

Medical errors not only result in additional costs for hospitalization, litigation hospital acquired infections, lost income and disability etc. but also erosion of trust, confidence and satisfaction among the public and Health care providers. Govt. of India has signed pledge to work reducing health care associated infections in collaboration with World Alliance for Patient Safety, in July 2006. Since then, Govt. of India has taken up the Patient Safety issues on priority basis and many interventions have been introduced for improving patient care but still a lot more is required to be done for this area. We all should aim for a safe, error free and healthy outcome of patient care.

I am sure that this unique opportunity provided by the National Convention will be gainfully utilized by all the participants for learning patient safety concepts and their implementations in their organizations. In long run this will benefit patients and improve quality of patient care in India.

I take this opportunity to convey my best wishes to the organizers, delegates and speakers for success in their endeavour.

(DR. R. K. SRIVASTAVA)

WELCOME

On behalf of the Organizing Committee of the convention we are pleased to welcome you to the "ICHA Convention for Patient Safety". Your active participation and support will go a long way in ensuring "Safe Healthcare for All" as also the success of this convention.

We are very grateful for the support of the faculty, from all over the world, who will be sharing their rich experience with us all. We also thank the members of the organising committee and our sponsors for their wholehearted support- this convention would not be possible without them.

This Convention is a significant milestone in a journey embarked with 11 events held throughout India during this year. These events, led by ICHA in conjunction with WHO-Patient Safety, received enthusiastic and helped to raise awareness and galvanise colleagues. We hope to build on these events and create a roadmap for promoting patient safety in India over the next few years.

The presence of a large number of partners Professional Councils, Academic & Provider Institutions and India's largest health systems bear testimony to the commitment and willingness to move forward.

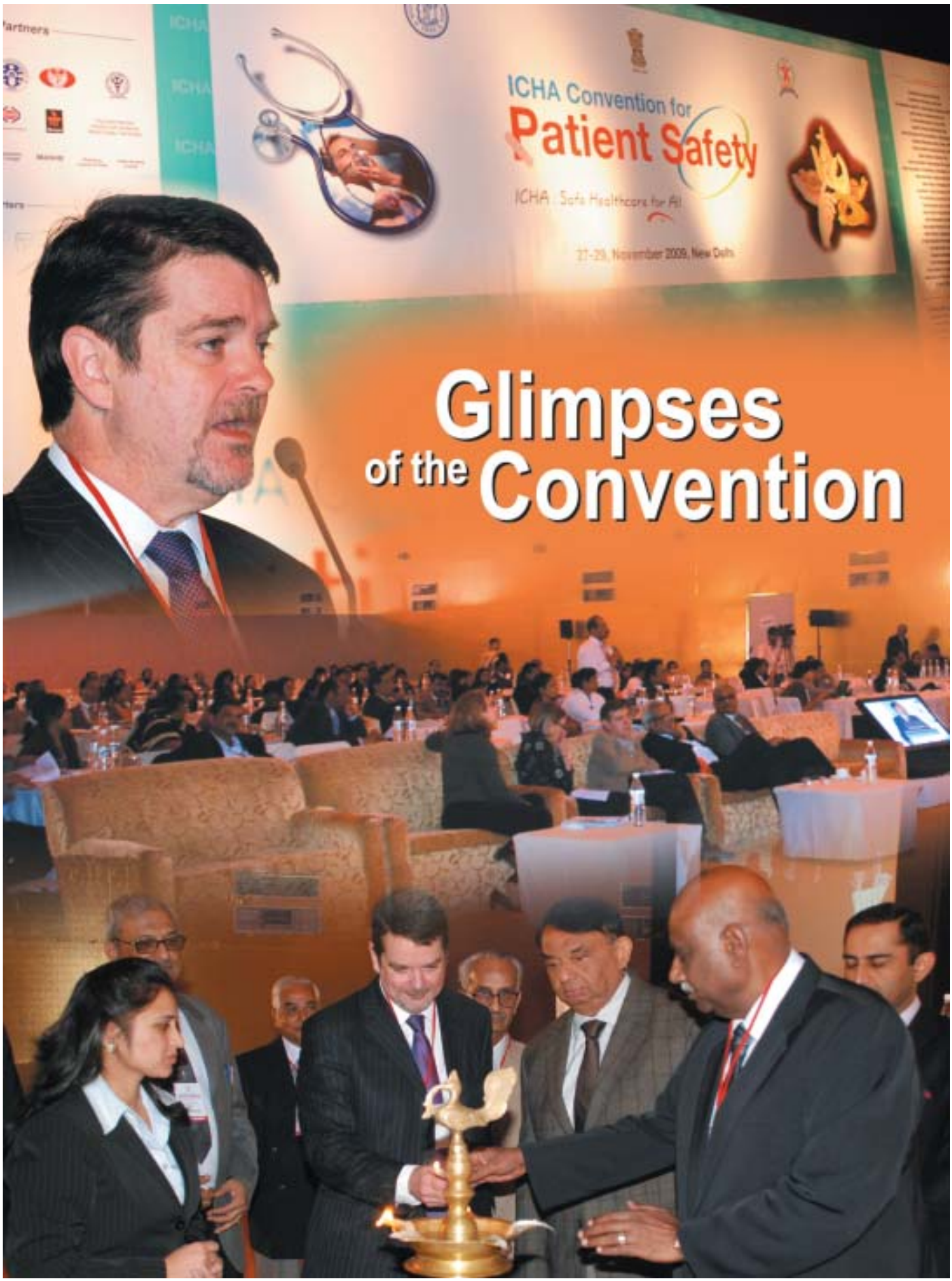
We know that there is a lot to do before we can ensure safe and affordable health care for the people of India and are pleased to receive so much support for this cause.

We are looking forward to our discussions over the three days and thank you for making the time to attend and participate.

With very best wishes

Akhil Sangal

Rajan Madhok


ICHA Convention for
Patient Safety
ICHA : Safe Healthcare for All
27-29, November 2009, New Delhi
Glimpses
of the Convention


Patient Safety


Safety


Patient Sa


Pat
RAJAN MADHOK
MARTIN FLETCHER


Patient Safety
Patient Safety


Maternal Mortality


SRI RAMACHANDRA
CHENNAI


Patient Safety


Sir Liam Donaldson


Lilly D.Engineer


ICHA Conventi
Patient


Patient Safety


Patient Safety
GEETA MENTA
T.S.JAIN


Patient Safe
P.V.RAJARAGHVAN


Dr.Atul Gawande


Making Surgery


Electrical Safety Demystified


Safe Healthcare for All
SNEH ANAND


Patient Safety


ICHA Co ntion for
Pati t Saf


ICHA Convention
Patient


ICHA Convention for
Pati Safety


Patient Safety


Patient Safety

Foreword
ICHA Patient Safty Initiative

Dr. Rajesh Upadhyay
Director ICHA (API Nominee)
Ar. Vijay Garg
Director ICHA (IIA Nominee)

The recent massive explosion of medical technology, techniques and the vast array of available drugs has made an important impact in improving treatment of diseases world wide. The complexity of treatment, however, has simultaneously exposed patients to risk during the healthcare delivery. You will see startling figures about the magnitude and costs of unsafe care in following pages. The irony is that this is unintentional! **This severe hazard of unsafe care is a systemic issue and is worsened by the individual "blame and shame paradigm". Some of the major contributors are lack of knowledge /awareness, lack of / improper communication, adverse drug reactions, and sometimes human factors.** Also there is a lack of focus and resources assigned.

It is important to remember that 'patients may die because of diseases but should not be allowed to die because of medical treatment'. This raises the important issue of patient safety. The question is 'who is responsible for patient safety'? Is it the doctors, nurses, and other personnel involved in patient care as also the patients or the systems/ environment created by the authorities/ institutions? Clearly, the safety of patients cannot be a sole responsibility of anyone but a collective responsibility of all stake holders involved in health care including patient groups themselves.

We have no estimate of the number of deaths occurring in India due to medical errors. However, if we transpolate the American data into the current Indian scenario, our own rough estimate would be at least 5 to 10 lacs deaths per annum. This is a huge human loss which needs to be prevented.

ICHA Patient Safety Initiative: Safe Healthcare as the cornerstone of Healthcare Excellence has been ICHA**'s credo**. After a lot of deliberation we at ICHA, in collaboration with WHO - Patient Safety started creating awareness about patient safety in India to sustain and carry forward this mission. We conducted country wide programmes in order to disseminate WHO - Patient Safety action plan, help generate local data and focus on India centric priorities and contributions to prevent the hazard. The first milestone in this journey was the **"ICHA Convention for Patient Safety"** held during 27 -29 Nov. 2009 at New Delhi.

The convention has been a unique experience in many ways. The convergence and active participation of all stake holders in health care including health care planners, institutions, funders, architects, engineers and patient groups etc. to deliberate on patient safety was a unique achievement. Almost all of 300+ registered participants contributed financially to the convention resulting in a committed congregation. These are additions to the ICHA fraternity of Patient Safety Champions. The large number

of delegates from all walks of life, all corners of India as also participation from all over the world showed interest and enthusiasm in patient safety.

A pictorial ode "Safe Caring Hands"; Another unique contribution by the award winning artist Ms. Ritu Sangal to ICHA. Her depiction of "Safe Caring Hands" reinforced the convention theme and mission of ICHA. The widely appreciated work of art also adorns the front cover.

The convention, in collaboration with WHO-patient safety, National Patient Safety Agency – NHS UK, Commonwealth Medical Association, also had large number of International and Domestic partners including the Medical/Dental/Pharmacy and Nursing Councils of India. It was also successful in bringing together major health care systems together viz. Railways, ESIC, CGHS, DHS – Delhi Govt., JSK and their priority states, State Govts., MCD Delhi. It also had the participation of ICMR, DGHS, Armed Forces Medical Services and various educational institutions including MAMC, LHMC, RML and AIIMS.

The galaxy of eminent International and national faculty created a rich resource and had important, meaningful deliberations pertaining to patient safety and way forward. The convention summation by Mr. Martin Fletcher, CEO – NPSA, NHS UK is a succinct guide.

After three days of in-depth and extensive deliberations the convention concluded with the following concrete learnings and action plan.

Lessons:

1. Patient Safety interests, and generates enthusiasm, in everybody but a committed contribution and funding is a key requirement.
2. Awareness is paramount but is resource intensive.
3. A lot of knowledge and experience exists which needs collaboration – communication – coordination.
4. There is willingness to share the best practices and experiences.
5. Implementation is feasible though requires commitment, sustained efforts and continuous awareness. Monitoring and observation enhances the success rates.

Action Plan:

1. ICHA alliance for patient safety will form Action Area Groups. The responsibility of these focus groups would be to sustain and carry forward the Patient Safety mission continually. To a name a few specifically:-
   - I. Patient Safety Education in educational institutions through professional councils and online programs
   - II. Best practices implementation in provider institutions
   - III. India Centric concerns like Maternal and Neonatal Safety

IV. Partnerships with major public and private Healthcare systems

to bring about the desired change and reinforce ICHA's mission: "Patient Safety as the core of Healthcare Excellence".

2. ICHA would in collaboration with the Biomedical Engineering Group of IIT's and other institutions develop technology solutions to patient care safer

3. Expand avenues like research projects, Scholarships/Fellowship, Safety Prizes etc.

All in all, we think it has been no mean achievement. This would not have been possible without the support and contribution we received from everyone to make this effort a success. We would like to thank all who have supported and contributed towards ICHA mission for patient safety but would also like to remind that this is just the beginning of our journey and that together `we have promises to keep and miles to go before we sleep'.

"**Jai Ho! Patient Safety."**

A guide to this publication:

Through the pages you would find a wealth of information about the constituent Associations of ICHA, important messages and speeches, write up on ICHA Patient Safety implementation plan, Role and stake of corporates, abstracts of various presentations made available to us. You will also see our partners, financial supporters – sponsors, exhibitors, advertisers who made this effort financially possible. The contributions of the members of the organising committee and ICHA fraternity though not mentioned would be visible throughout. A selection of photographs is printed in this publication, however, the convention web site www.ichapatientsafetycon.com has the following which can be viewed / downloaded:-

1. The PowerPoint presentations made in pdf format.
2. Photo Gallery: Most of the photographs
3. The soft copy of this publication.

These will be available on this website www.ichapatientsafetycon.com till April 30, 2010.

Inaugural Address

Dr. Ketan Desai
President Elect World Medical Association &
President Medical Council of India

Honourable dignitaries - on and off the dais, invited guests, delegates, friends, ladies and gentlemen: **At the outset, I deem it imperative to extend my heartfelt congratulations to the Indian Confederation for Healthcare Accreditation, for taking the much desired initiative in holding this convention on the theme of Patient Safety, which is timely, apt, of consequence and relevance as well.**

It needs to be appreciated that the entitlement of the citizens globally to health is a human right. The constitutional mandates governing the countries have translated this core human right into a fundamental right as well, meaning thereby, that the governing state is responsible and accountable for ensuring that the entitlement of the citizens on this account is met with, at all costs. In the context of this Indian Constitution, the concept of welfare state enshrined therein guarantees every citizen equal opportunities of existence, sustenance, development, in the domain of equity and equitability, blended in liberty, fraternity and dispensation of the justice. It is in this paradigm, that the concept of Patient Safety needs to be viewed, conceptualised, articulated and then actualised.

The extension of health as a right to every citizen entails extension of quality healthcare, and the quality so envisaged has to be based on the twin principles of efficacy and safety as well. If we take into consideration the intervention of treating mechanisms in the form of drugs under the curative domain; core concept would be drug discovery, getting translated into drug development, manifesting into drug manufacture and ending in drug marketing. The entire process through various intervening critical mechanisms aim at generating efficacy of care for the purposes of rendering the desired best, ensuring safety, so as to cause none or minimal side effects. It is in this backdrop, the concept of patient safety has been developed and guidelines thereof also have been postulated.

The World Health Organisation report of the Institute of Medicine, USA, indicated that as many as 44,000 to 98,000 patients died in hospitals each year as result of medical errors, which is about 16% more deaths than the number accruable to work related injuries. The figures in developing part of the world probably are bound to be comparably higher. This highlights the core fact that the patients' safety issues are not just limited to hospitals but stand extended to several other healthcare settings like clinics, nursing homes, urgent care centres and for that matter even to the carers who deliver care at home.

Operationally speaking, medical errors resulting in compromised safety experienced by patients turn out to be very costly. The sufferers on this account are not just patients alone, but also their family members and even the providers as well as the payers. Hence, the concerns and challenges, pertaining to patient safety are wide and vivid and they need a comprehensive, objective discussion and deliberations so that the core areas are analytically focused.

Going by the analogy on which WHO has articulated guidelines governing the patients' safety; it is evident that it is primarily to fulfil the charter of legitimacy of expectations, which ought to be accruable to any and every citizen globally. The validation and actualisation of this charter of expectations governs the area, scope, ambit and mandate of the concept of Patient Safety.

Significant number of patients are harmed due to healthcare, either resulting in permanent injury, increase in length of the stay in the hospital or at times even death. The adverse event resulting in compromised patient safety occurs not because there is a deliberate intention behind it, but because the system of healthcare today is complex and the successful treatment and outcome thereof is dependent on a host of factors and not just on the capacity and the competence of an individual healthcare provider. The complex team of healthcare providers today includes doctors, nurses, pharmacists and allied health workers; it becomes more difficult to ensure care and cure unless the system is designed to facilitate timely and complete information and understanding by all health professionals.

Well blended with this are the ethical and legal issues including greater awareness of consumers which has resulted in an enlightened citizen. Resultantly, in regard to the patient care, the levels of patient safety that is required to be catered to have also increased several folds. As a result of this, several grey areas of concern have emerged and have remained untouched as well as unanswered. These are the ones which merit discussions, deliberations and analytical applications of mind by intelligentsia in a dispassionate manner.

This convention, therefore in my opinion turns out to be significant, in as much as the learned deliberations would not only aim at the actualisation of the governing principles of patient safety, but viewing the same in the light of the complexities that have generated as of now and even many more which would be in the pipeline and render a new way out.

The mounting concern within the healthcare system over ways to address the patient safety issues has been characterised to a large extent in the last 5 years. Despite the credible success of accreditation of the healthcare providers, patient safety has become a major challenging issue for healthcare today. We have reached a point where increased attention to patient safety has become a focal point for several prominent reasons.

We have experienced a significant evolution in the healthcare over the last decade, which would have far reaching consequences for the quality of patient care. We have witnessed a virtual evolution of availability and use of treatment facilities in areas which were un-served till now. We have seen the dramatic changes in how healthcare is provided and delivered and we have also seen as to how all types of healthcare from a primary to tertiary and even upto a Superspeciality levels are struggling with the need to provide better and better care with the fewer resources. At the same time the rapid

explosion of knowledge in medical science has made it increasingly challenging for the practitioners to stay current with newer and newer developments, simultaneously relying on traditional information resources.Technological advances have made possible complex medical procedures requiring high level skills and knowledge to be moved outside specialised hospital settings.

In general, the workload has become heavier, creating increased stress for healthcare professionals. Considering all the factors, in my opinion, an ideal system for evolving patient safety should include:

1. Correct reporting of errors, so that we can understand the epidemiology of the causation of errors.
2. To analyse the underlying cause of errors so that we can understand the risk points and process failures.
3. To design the safety procedures based upon the inputs derived from the epidemiological analysis of the underlying errors.
4. Wide dissemination of knowledge about errors so as to maximise prevention of errors elsewhere, and last
5. To bring out necessary attitudinal changes in the outlook of the team where the treating doctor is the captain of the team.

These factors can serve as a broad framework for devising better criteria for ensuring greater patient safety.

I would only request this august gathering that while deliberating over these issues due care be given to the following 3 important measures in devising the selection criteria for indicators of the patient safety:

1. It has to relate to an important performance aspect, and
2. It has to be medically sound and accepted by the peer groups, and
3. It has to be potentially feasible and easily accessible.

Nonetheless, the quest has to be for finding pragmatic solutions to identify concerns and problems. I'm sure, that the convention by its analytical disposition would not only be able to dispel the misconceptions but also ensure the incorporation of the desired changes to actualise globally the much needed concept of patient safety in a realistic and a meaningful way in the interest of the man and the mankind.

With these few words I wish the organisers all the best for all the success of the convention and I'm sure after your due deliberations, the conclusions will be of immense help to the Medical Council of India also. And in whatever way and manner in which your organisation needs any assistance, help, advice, counsel from Medical Council of India, for the purpose of patient safety, you're most welcome.

Convention Summation

Martin Fletcher
CEO National Patient Safety Agency (NPSA) UK

Thank you Dr. Akhil, I just want to say again how much I've enjoyed being part of the Convention and just how fantastic the discussions have been. I've learnt so much from listening to the presentations and the discussions. It was quite a difficult task to try and sort of pull out some of the key action points. I do apologise in advance if I've missed anything important. But I just wanted to try and summarise some of the themes that I've heard in the discussions over the past three days.

1. **Need to see patient safety in the local context and recognise need for health system reform within PEST context:** First of all, I think we have recognised that we need to see patient safety in the local context of India and recognise it within the wider context – the health system reform, and I guess the wider PEST context. PEST as you probably know stands for **Political, Economic, Social and Technological**. So I think the approach to patient safety has to be right for India, even though as we've talked a lot over the last three days there's a lot we can learn from each other in terms of different ways of tackling this issue.

2. **Patient safety is about doing what we do now but doing it differently:** This is about what physicians and nurses and other members of healthcare teams have always done – which is to care for patients but in an environment of increased complexity, of technology as we've heard this morning, new diseases demand that we need to think about doing it differently to make sure that it is as safe as possible.

3. **We need to embed patient safety into education of tomorrow's health workers and continuing professional development:** We had a very good discussion yesterday about the challenge of embedding patient safety in the education of tomorrow's health workers as well as ensuring that it's a feature of the continuing professional development of our current health work force.

It was heartening to note the commitment of Dr. Ketan Desai, President, Medical Council of India and all professional councils to embed Patient Safety Education in the Curriculum. Prof. Arun Agarwal, Dean MAMC (pilot site in India WHO Curriculum Guide) and Addl DGHS (Education), on behalf of the Ministry of Health, Govt. of India, assured implementation of the Patient Safety Education in Medical College Curriculum of all the 300+ Medical College Institutions in India in a progressive manner.

4. **Start with measuring, understanding and improving the safety culture within your organisation:** We heard about the importance of safety culture within organisations. That came up in a number of presentations and the suggestion from the presentation yesterday from Lilly Engineer of Johns Hopkins, if you start somewhere; start with measuring, understanding and looking. In fact you can improve the safety culture in your own organisation. We also heard about the very good work from Andhra Pradesh in trying to better understand safety culture.

5. **Harness the many examples of organisational good practice from which we can all learn – celebrate good practice:** We had a very strong message from Dr. Akhil about the importance of celebrating good practice. There is a lot that we can build upon, there are lots of good examples of excellent work that we can learn from and we should harness that and build on that as much as we can.

6. **Not just about resources - simple measures save lives – safe surgery checklist, hand hygiene, patient falls:** We heard in many of the examples of initiatives underway in organisations, that it's not just about resources. Of course it's important to have resources, but there are lots of simple measures that can make a huge difference to saving lives and improving patient safety. We heard a lot about the safe surgery check list, initiatives in hand hygiene, examples of work underway to reduce risks around patient falls, all those very good examples of simple things we could start to do tomorrow.

7. **Understand and apply systems concepts and adapt learning from other industries:** We talked a lot about the systems concepts and we heard that through a number of presentations and the importance of understanding what we mean by systems when we talk about patients' safety and how we apply them and the opportunities particularly from industries such as aviation, for looking at how we can learn and adapt the lessons from their experience.

8. **Research – qualitative and quantitative; need to build capacity:** There was an extensive discussion about the role of research, whether we need to invest our efforts in terms of building new knowledge and knowledge also about implementation and recognition of the role of both qualitative and quantitative approach, but also the need to build capacities - gaining capacity as part of our approach to research.

9. **Measurements in order to improve – do it well but don't make perfect the enemy of the good:** We discussed about measurement and the importance of measurement in patient safety and I think somebody said that if you can't measure it you can't improve it. We also heard the note of caution that lets not get so focused on getting the measures technically perfect that we lose the point, and we stop doing things that are important to do. So again if we start with simple measures, we can do something tomorrow that is useful to do.

10. **We are all patients – it is about us:** This morning we've heard all about the role of patients and families and at the end of the day we are all, if not now then sometime in the future probably going

to be patients of healthcare, so this is about us and it's about our stake in safety and the role we can play in partnership with healthcare providers to improve safety.

11. **Make the most of levers and systems for change such as accreditation:** In a number of examples we heard about where institutions were looking at accreditation and that had provided a framework and an impetus for safety as a part of a wider systems approach. The opportunities of how these levers are used to drive this agenda forward.

12. **Things we say we don't have time for are critical for quality care – hand hygiene, information giving to patients:** I think we heard this interesting point about sometimes the things that are good for safety may get dropped off because we are faced with the demands of critically ill patients. However, the reminder that we need to see things like hand hygiene information giving as part of good care rather than something there isn't time for is worth keeping in mind.

13. **Ongoing process – needs continuous reinforcement (staff turnover):** We had lots of examples about the need for ongoing education. For example – in view of high staff turnover, we can't just run a training program once and then expect that everyone knows what they need to know and not do it again. The need for continuous reinforcement, the need for continuous innovation really, in approaches to patient safety.

14. **Without strong and visible leadership, we will not succeed:** Throughout, I think, we've seen many examples of this in the presentations – the value and the importance of strong leadership from you as senior clinicians and senior people in the health system to really drive patient safety as a priority agenda and the importance of the need for what we want to achieve.

15. **We all need to work better in teams and breakdown silos:** The imperative need of working better in teams and the need to break down silos came out very strongly in deliberations and examples of successful outcomes. Much of what we need to do in safety is about good teamwork, good communication, good information sharing.

16. **Technology has an important role to improve patient safety but there is no silver bullet:** We had a fantastic session on technology today and the role that technology can play in helping to reduce risks and improve safety. I think we all recognise that there is no silver bullet, there is no single answer and we've also got to look at the new risks sometimes technology can create and make sure that we've understood those and then managing those well. The collaboration between the needs of healthcare providers and the solutions from technology was strongly brought about. **This will be something to look forward to due to its inherent potential.**

17. **Ask yourself:** We had some great questions I think from some of the presentations about the things we should be asking ourselves. These are the three I pulled out:-
    - Would I feel safe to be treated as a patient here or would I want my mother or my father or any member of my family to be treated here; is a very good test of what you think about the safety of the organisation you are a part of.

- The experience from the work in Hopkins of not just waiting until somebody's harmed but actually going and asking people how do we think we are going to harm the next patient in the hospital and
- Not only knowing that but what we can do to prevent it and doing something about it.

These are some great practical questions we could all be asking in our own organisations.

18. **Talk about it, talk about it, talk about it:** We heard about the importance of - talk about it, talk about it, talk about it. The importance of awareness and dissemination, of really reminding people that this is a very important issue not only for this health system but for all the health systems around the world.

19. **JDI! Don' wait for permissions:** The need for action also was evident: the JDI which is Just Do It and that we shouldn't just talk about things, we also want to do things and we shouldn't just wait for permission, we should act. The available best practices – Clean Care is Safer Care and Safe Surgery Saves lives, are a good place to start with for early plucking of low lying fruits.

20. **Patient safety is everyone's business!** Finally the message that came up in the opening presentations that because patient safety is everybody's business, we all have a part to play in making patient care as safe as possible. So let us join together and take this forward.

I hope that captures the main themes of the discussions and as I said it's been a great honour and privilege to be part of the meeting and I wish you all the best as you move this very important agenda forward.

Patient Safety leading to Healthcare Excellence
Implementation Plan – ICHA

*"When we are ill, we want to know that we **have** a doctor whose technical knowledge and skills we can be **sure** of, on whose **honesty** we can **rely** and who will treat us **empathetically** with the **respect and courtesy** to which we are entitled. We need to be sure that the hospital or primary care team to which our doctor belongs works **effectively and safely**, so we can be assured that we are getting good quality care. And we need **good access** to care."*

- Sir Donald Irvine – President GMC 2003

Introduction

However, healthcare today evokes highly emotional responses from all stakeholders. Everybody feels the crying need for improvement. Healthcare has become complex, costly and risky. The drastic improvement in healthcare is what everybody needs and wants and yet few are willing to do something about it. However, these issues can be addressed, but not on an individual or piecemeal basis. **It is a systemic issue and needs redressal as such.**

Magnitude and costs of Unsafe Healthcare

Consider the following perspectives to appreciate the current dismal picture:

"The tsunami was a highly visible, unpredictable and largely unpreventable tragedy...Every hour more than 1,200 children die away from the glare of media attention. This is equivalent to three tsunamis a month, every month, hitting the world's most vulnerable citizens—its children..... With today's technology, financial resources and accumulated knowledge, the world has the capacity to overcome extreme deprivation..." - Human Development Report 2005: UNDP pp1

In Healthcare there is a tsunami everyday .....We don't realize it!

A quick glance at the figures below is enough to prove the claim. These are just the tip of the iceberg!

- At any time, over 1.4 million people worldwide are suffering from infections acquired in health-care facilities (HAI). In intensive care units, HAI affects about 30% of patients and the attributable mortality may reach 44%
- Traumatic injuries and surgical procedures are on a rise. WHO's global estimates are:
  - 63 million trauma cases
  - 31 million malignancies
  - 10 million obstetric complications

- Surgery rates ≈ Child birth rates
- 234 million major operations worldwide each year. Surgeries are the most complex health services and costliest. Hence **Safe Surgery is a Public Health Priority.**

- Hospitalization is bankrupting worldwide ....and so is a **PUBLIC HEALTH ISSUE.**
- *...Various medical procedures are used inappropriately as much as one third of the time in the United States. The director of the Congressional Budget Office, Peter Orszag, stated in August 2008 that "a variety of credible evidence suggests that health care contains the largest inefficiencies in our economy. As much as $700 billion a year in health care services are delivered in the United States that do not improve health outcomes." Reports abound of needless or low-benefit procedures, some performed for fear of litigation, some out of venality, some demanded by importunate patients, and some representing the mindless repetition of established routine:* "That's the way we do things here." – New England Journal of Medicine (Perspective) Oct. 30. 2008.
- Studies show that unsafe care leading to additional hospitalization, litigation costs, infections acquired in hospitals, lost income, disability and medical expenses have **cost some countries between US$6 billion and US$29 billion a year.**

Though no reliable Indian data is available, but healthcare experiences, media reports and estimates by WHO and other global agencies suggest a worse, definitely not any better, situation in India.

We need solutions urgently!

What can be done? How can it be done? *We are at a crossroads!*

An interesting worldwide study showed that 85% of errors occur due to ignorance or lack of awareness, while less than 2% errors only are wilful and intentional!!

There is a general agreement of the urgent need to appreciate that:

1. Healthcare is everybody's concern
2. It is also everybody's responsibility
3. To improve it, we all need to work together

We also need to create awareness and build trust.

.....Good outcomes that are achieved efficiently are the goal, not the false "savings" from cost shifting and restricted services. Indeed, the only way to truly contain costs in health care is to improve outcomes: in a value-based system, achieving and maintaining good health is inherently less costly than dealing with poor health.

.....Second, employers have a vested interest in their employees' health. Daily interactions with their workforce enable employers to create value by developing a culture of wellness, enabling effective

prevention and screening, and directing employees to high-value providers. Employers can also foster competition and drive broader system improvement in ways that are difficult for government entities to replicate. To motivate employers to stay in the system, we must reduce the extra amount they now pay through higher insurance costs to cover the uninsured and subsidize government programs.

– Michael E. Porter, Ph.D: A Strategy for Health Care Reform — Toward a Value-Based System (*in healthcare)* - This article (10.1056/NEJMp0904131) was published on June 3, 2009, at NEJM.org.

The World Health Assembly 2002 had passed a resolution calling upon Member states: "To pay the closest possible attention to the problem of Patient Safety and to establish evidence-based best practices/systems necessary for improving patients' safety and the quality of health care". Improving Patient Safety requires the highest level of commitment and action by all WHO Members State.

Despite the recognition that "safe healthcare for all" is fundamental to deliver desirable healthcare, insufficient resources have been invested/allocated to address the problem in a concerted and consequential manner.

How ICHA proposes to address the issue?

We, ICHA, propose to implement the above in our country with our technical and professional competencies covering the areas of education, awareness and best practices implementation thus bring about the desired change.

The economic benefits of this activity itself would bring returns several times the investment required. The social and public benefits are a bonus of immeasurable dimensions.

ICHA Patient Safety Initiative – What ICHA has done?

ICHA has embarked on **Patient Safety implementation** through the WHO – Patient Safety, Action Areas and Global Patient Safety Challenges (GPSC I, II) as below:-

A. **Commonwealth Fellowship Programme:** 4 scholarships have been secured for this year as pilot.

B. **On-line learning program on Patient Safety** through Peoples Uni

C. **Multi – location events:** One day events have been conducted all over the country. The first event was at KEM Hospital, Mumbai on April 19th 09. The subsequent programs were at Bhopal on 10th May followed by programs at Jaipur, Jalandhar, Hyderabad, Kolkata, Ranchi, Bangalore, Lucknow, Vellore, Chennai and a scheduled program at New Delhi. (For a summary of one day events see Page 37).

D. Develop partnerships with Healthcare Systems.

E. **ICHA Convention on Patient Safety: 27 – 29 November 09 at New Delhi:** Details about ICHA and convention are on website www.ichapatientsafetycon.com. A galaxy of International and Indian experts were speakers / participants. The diverse bouquet of topics and comprehensive address of Patient Safety implementation was the key focus.

What ICHA needs?

ICHA is seeking support for seed funding and partnerships to be able to progressively generate funds through enrolments, projects and activities. It shall be fully self-sustaining thereafter.

Why ICHA?

About Indian Confederation for Healthcare Accreditation (ICHA) – Strengths, Outreach & Activities

Indian Confederation for Healthcare Accreditation is a professionally owned and driven Not-for-Profit organisation incorporated as a Section 25 Company. The basic aim of ICHA is to strengthen our health system using modified accreditation as a tool. Addressing comprehensively the complexities of health system requires a collaborative team effort of all stakeholders. **ICHA is the National multi-stakeholder Confederation of National Associations/ Institutions for establishing validated excellence in healthcare in line with similar bodies in all developed countries. ICHA comprises all stakeholder groups viz. Providers, Receivers and users, Payers and funders and Educators and regulators.**

Today all the major National associations of Medical (Clinical, Lab, Admin), Nursing, Pharmacy, Therapy, Consumers, Management and Architects are subscribers (34 Associations- see list on the front inside cover page). All the associations are well established, recognized as respective apex bodies. Details about ICHA are on ICHA web page at www.icha.in or www.indmedica.com/icha.

ICHA logo depicts its mission of Patient Centred Healthcare. Patient Safety is the hallmark of excellence and our chosen path to achieve excellence.

The major strengths of ICHA are: -

a. Multi-stakeholder body comprising all stakeholders. Constituent National Associations / Institutions ensure high credibility of ICHA.
b. Structure engenders opportunity to contribute by all and still circumventing politicking and individualism while achieving balanced outcomes.
c. Nearly 700 Affiliates (as of now) from all walks and all over the country. Many of these very senior people are the virtual advisory panel. This resource capability assures ICHA being a "one-stop-shop" for all inputs needed for strengthening health systems in all its diverse aspects.
d. Trust – Transparency – Transactions as the core values.

e. Follow the key concepts of quality as non-threatening, educative process to help upgrade all.
f. Validating achieved excellence through peer review for credible and quality system.
g. ICHA is empanelled with DFID for Quality Assurance in Health Sector.
h. ICHA is a member of Credibility Alliance.

A summary of major recent projects and assignments:

1. We did the pioneering National Convention in 2005 supported by Govt. of India and WHO India Office.
2. A regional convention at Bangalore in April 2007.
3. Member working group for 11th Five year plan.
4. Sensitization and enrolment in ICHA through awareness creation at various events.

It took FIFTY years in UK, USA, Canada and Australia to achieve, what we have achieved in these few years.

Current projects at hand:

1. We have submitted draft MOUs to Uttarakhand and Jharkhand Govts. to develop model Healthcare delivery system. Two districts in each state shall be taken up to pilot the implementation.
2. We are amongst the six organizations globally to be invited by Ministry of Health and Population, Govt. of Egypt to assist set up their systems.
3. ICHA has embarked on **Patient Safety implementation** through the WHO – Patient Safety Action Areas and Global Patient Safety Challenges (GPSC I & II) as below:-

A. Commonwealth Fellowship Programme: Overwhelming response from the fraternity through dissemination, applications and nominations was the first step of this pilot project. On-line Pt. Safety learning program through Peoples University, http//:peoples-uni.org. Many more such opportunities will be available continually.

B. Multi – location events: One day events have been conducted all over the country. The first event was at KEM Hospital, Mumbai on April 19th 09. The subsequent programs were at Bhopal on 10th May followed by programs at Jaipur, Jalandhar, Hyderabad, Kolkata, Ranchi, Bangalore, Lucknow, Vellore, Chennai and a scheduled program at New Delhi. *For a summary please see page 37*.

C. During these events we have covered the following:

- **"Clean Care is Safer Care":** This first Global Patient Safety Challenge (GPSC) challenge was launched in an event by WHO on May 5, 09 for **implementation by Healthcare Facilities.** Govt. of India is a signatory to this since July 2006.
- **"Safe Surgery Saves Lives":** This is the second GPSC Challenge of WHO. ICHA member, Association of Surgeons of India, has also published a combined booklet of first and second challenge for India.

- Sensitize participants to all WHO-Patient Safety Action Areas and participation as appropriate.
- Consultation and Interaction for participation in the above and Grand Convention in November 09. To identify Patient Safety Champions and Action Area teams.

D. Develop partnerships with Healthcare Systems.

E. ICHA Convention on Patient Safety: 27 – 29 November 09 at New Delhi.

The convention had detailed deliberations on various aspects of Patient Safety and focus on all WHO-Patient Safety Action Areas. Special focus was on India centric priorities and contributions. The outcomes were that ICHA fraternity with Global Partners:

- **ICHA Alliance for Patient Safety:** To form Action Area Groups to sustain and carry forward the Patient Safety mission continually.
- Bringing together major Health Systems viz. Railways, ESIC, CGHS, DHS – Delhi Govt., JSK and priority states, MCD Delhi.
- **ICMR, DGHS** and Various educational institutions including MAMC, LHMC, RML and AIIMS.
- **Professional Councils viz. Medical, Dental, Pharmacy and Nursing**
- Technology solutions in collaboration with Biomedical Engineering Group of IITs and other institutions.
- Expand avenues like research projects, Scholarships / Fellowships, Safety Prizes etc.

ICHA Patient Safety Initiative – The Future Focus

I. Patient Safety Education in educational institutions through professional councils and online programs

II. Best practices implementation in all areas

III. India Centric concerns like Maternal and Neonatal Safety

IV. Partnerships with major public and private Healthcare systems

V. Technology Innovations

To bring about the desired change thus reinforcing ICHA's mission "Patient Safety as the core of Healthcare Excellence".

Summary of ICHA Patient Safety Initiative
One-day events at various locations

As a part of ICHA Patient Safety Initiative, it was planned to organize one day events on Patient Safety at various locations all over the country for the following objectives:-

- **"Clean Care is Safer Care":** The first GPSC challenge by WHO for **implementation by Healthcare Facilities.**
- **"Safe Surgery Saves Lives"**: The Second GPSC challenge by WHO for **implementation by Healthcare Facilities.**
- Sensitize participants to all WAPS Action Areas and participation as appropriate.
- Consultation and Interaction for participation in the above and Grand Convention in November 09.To identify Patient Safety Champions and Action Area teams.
- Bring major Healthcare systems – both public and private together
- Partnership with Professional Councils to implement Patient Safety education.

The following have been additional initiatives:

- **WHO Medical Curriculum being implemented at MAMC, New Delhi as a pilot site** while other sites being encouraged to implement on their own.
- Global Pulse Oximetry project being undertaken by **Indian Society of Anaesthesiologists. Association of Surgeons of India** has taken a lead role by publishing a combined booklet for GPSC I & II and making available to all associations and implementing institutions / hospitals.

All the events so far have been extensively covered by the media and have generated very enthusiastic response.The highlights of the events are tabulated below:

Date	Location	City	No. of Participants	Organized by
April 19, 09	KEM College & Hospital	Mumbai	84	Dr. Nikhil Datar / Dr. Vijay Belani
May 10, 09	Gandhi Medical College & SZH	Bhopal	135	Dr. Neeraj Bedi / Dr. Aruna Kumar
May 23, 09	Fortis hospital	Jaipur	85	Dr. Santosh Kumar
May 24, 09	Hotel – IMA Jalandhar branch	Jalandhar	350	IMA Jalandhar Br.
May 31, 09	Nizam Institute of Medical Sciences	Hyderabad	175	Dr. Rajan Shukla / Dr. K.T. Reddy
June 06, 09	Calcutta Medical Research Institute	Kolkata	148	Mr. Rupak Barua
July 08, 09	Rajendra Institute of Medical Sciences	Ranchi	280	RCH Deptt., Govt. Of Jharkhand
July 27, 09	API Bhavan	Bangalore	320	Dr. U. Vasudeva Rao
August 18, 09	SGPGI of Medical Sciences	Lucknow	170	Prof. R. K. Sharma / Dr Hem Chandra
August 28, 09	Christian Medical College	Vellore	70	Dr. Atanu Jana / Dr. Pushpraj Singh
August 29, 09	Sri Ramachandra Medical College	Chennai	265	Dr. Mahesh Vakamudi / Dr. S. Arulrhaj

Indian Confederation for Healthcare Accreditation Structure

(Not-for-Profit Company Incorporated and Licensed U/S 25 of the Companies Act. Limited by Guarantee – Not having a Share Capital)
(License No. 2/18/T-1 /2004/D dated 5th July 04 & Certificate of Incorporation No. U85118DL2004NPL129651 dated 4th October 04).

Key point summary of the Memorandum and Articles of Association

1. A section 25 Not-for-Profit Company limited by Guarantee with registered office in Delhi. 7 associations viz. API *(Association of Physicians of India)*, ASI *(Association of Surgeons of India)*, ISA *(Indian Society of Anaesthesiologists)*, AIOS *(All India Ophthalmological Society)*, IPA *(Indian Pharmaceutical Association)*, IHPA *(Indian Hospital Pharmacist's Association)* and AHA *(Academy of Hospital Administration)* – the requisite number signed as the initial subscribers.
2. To develop, implement and upgrade a comprehensive Healthcare Accreditation System thereby bringing about all round improvement in Healthcare delivery for the benefit of all.
3. An autonomous body that is widely held (i.e. all stakeholders – providers, users, payers & funders, educators and regulators) and is driven by professionals. Has consensus based approach to encourage and ensure collaborative relationships. Consideration of all aspects of healthcare delivery and views of all stakeholders with trust and transparency to ensure credibility and continued participation.
4. Not for profit but aim to be economically self-sustaining in the long run. Volunteering to work but recognition and rewards for contribution and excellence.
5. Focus on Quality and its continuous improvement internally as well as externally.
6. Provisions for utilizing futuristic technology and dynamic to be in tune with the times.
7. Long-term perspective incorporating appropriate safeguards for continued value of purpose.
8. Non-political, unbiased structure ensuring equity and opportunity for all to contribute.
9. Two levels – Membership with voting right limited to national associations represented by their nominees (with provision for invitees / observers as necessary) and Affiliates comprising individuals, individual organizations / hospitals and regional / local associations or specific purpose bodies.
10. Neutral Chairperson and Vice-chairperson. Periodical rotation through Board of Directors (eligibility limited to National Associations) – Technical Council – General body to ensure shared responsibility, dynamism and inclusion. The proportion composition of the Company at all levels to be in ratio of contribution; need and availability of stakeholders *(see 15 below)*.
11. Corporate functioning to ensure timely goal achievement and maintain focus through dedicated

Chief Executive Officer (CEO) supported by a team at various levels as per need and progress.

12. Board of Directors shall be selected preferably by volunteering or elected on the basis of their willingness to contribute to their role as owner/business managers by the Technical Council. An Executive Committee of Board of Directors (3 or 5 as per need) to supervise and support day-to-day functioning of the CEO and ICHA.

13. Work by those who volunteer but to ensure responsibility, timeliness and purpose to be compensated / recognized / rewarded appropriately. This shall ensure a focus and high quality. The Technical Council shall be responsible and determinant of the technical content. All stakeholders shall represent it. The seats shall be allocated in respective categories in their proportionate representation on the basis that the first round shall accommodate all specialties / categories. If seats are available then only the 2nd round of seats may be catered to and so on depending upon also on the number of members from each area / category / speciality. The choice of representation in case of more than one member of the same major specialty / subspecialty / category shall be decided within the group either by consensus, rotation or voting as the group may deem fit. Thus leading to limited voting if necessary by the General Body.

14. Mandatory articles as per companies act and to ensure special status. Eligibility for various exemptions, reliefs and special Income–Tax status. Exempted from Income Tax: Registered under section 12A read with section 12AA(1)(b) of the Income Tax Act, 1961 vide letter No. DIT(E) 2005-06/I-1052/04/131 dated 12th May, 2005. Donations to Indian Confederation for Healthcare Accreditation are exempt from Income Tax as per Section 80G of the Income Tax Act 1961 vide letter No. DIT(E)2009-2010/I-1052/1772 dated 24/09/09 issued by the Director Income Tax (E), New Delhi valid from A.Y. 2010-11 to A.Y. 2012-13.

15. The composition of ICHA at all levels i.e. General Body, Technical Council and Board of Directors shall be as below: -

National Professional Association(s) of Healthcare Providers:	60 %
National Association(s) of Facility Owners/Providers:	10 %
National Association(s) of Consumers Organizations:	10 %
National Association(s) of Media:	03 %
National Association(s) of Law/Legal professionals/Chartered Accountants:	02 %
National Association(s)/Organisation(s) of Funders or Payers (break up as under):	10%
(i) Government 5%	
(ii) Insurance 2%	
(iii) Companies 3%	
National Professional Councils/Educational/Research Bodies in areas of Healthcare	05 %

With Best

Compliments

From

BIO-RAD

Bio-Rad Laboratories (India) Pvt. Ltd

86-87, Udyog Vihar Phase IV, Gurgaon - 122 015 (Haryana).

Phone : 91 - 124 - 402 9300 (30 Lines)

Fax. : 91 - 124 - 239 8115

ICHA Convention for Patient Safety

ICHA: Safe Healthcare for All

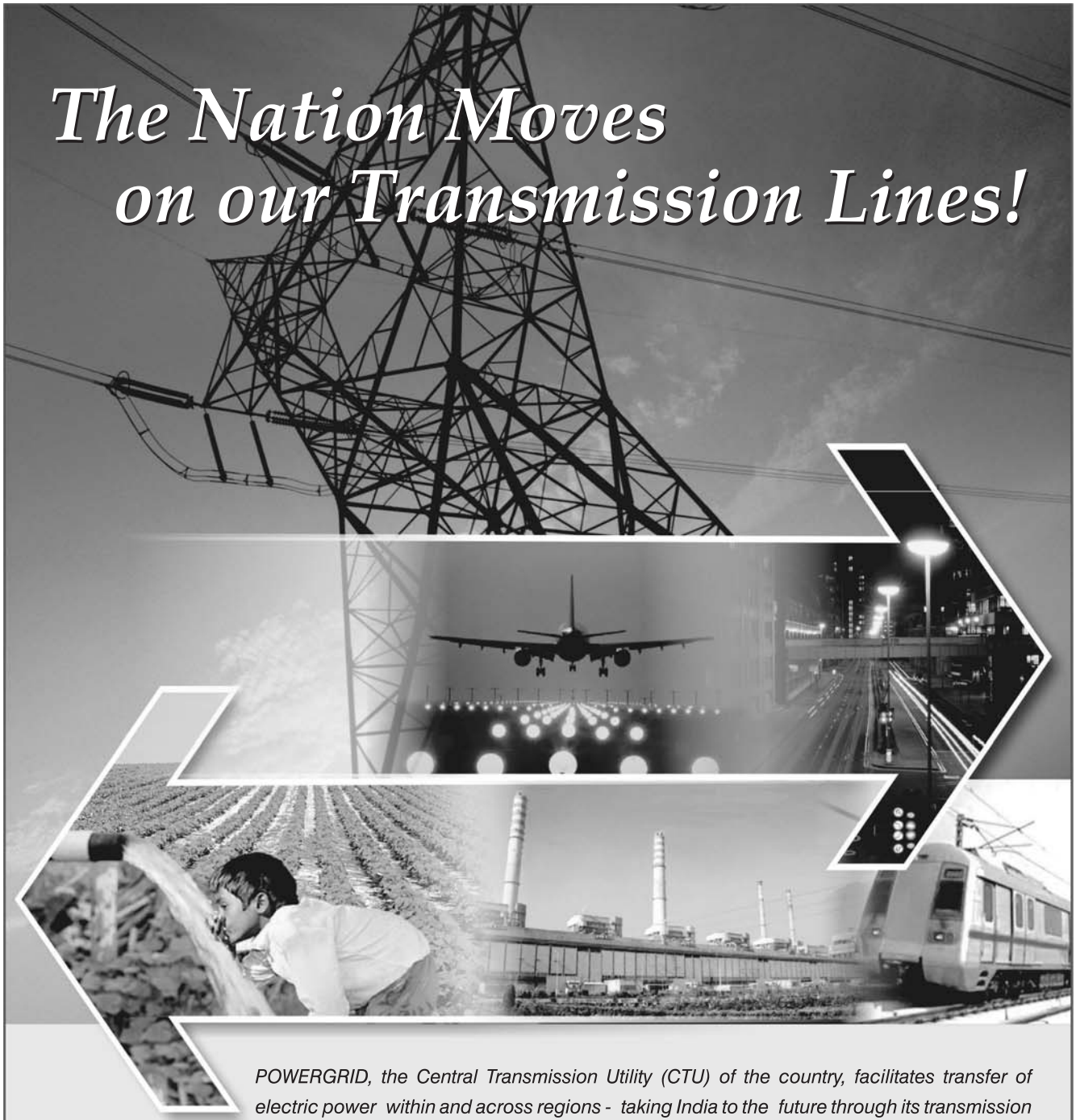
DAY - I

- **India Centric concerns in Patient Safety**
- **India Centric Concerns- Overview**
- **Maternal and Neonatal Safety**
- **Research for Patisent Safety- Epidemiology/Public Health**

Sponsor

JANSANKHYA STHIRATA KOSH
(NATIONAL POPULATION STABILISATION FUND)

The Nation Moves on our Transmission Lines!



POWERGRID, the Central Transmission Utility (CTU) of the country, facilitates transfer of electric power within and across regions - taking India to the future through its transmission network of 71,500 circuit kms.

The 'Navratna' organisation is playing a vital role in the power sector. A technology frontrunner, POWERGRID has already established National Power Grid and Regional Grids for integrated operation. It is now performing impressively in the challenging terrain of telecom and overseas consultancy services. One of the largest Transmission Utilities in the world, POWERGRID leverages its world-class infrastructure to bring India to light.

Perfect10

पावरग्रिड

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)

"Saudamini", Plot-2, Sector-29, Gurgaon, Haryana-122 001 (India)

www.powergridindia.com

Involving Private Professionals to Improve Quality of Care & Patient Safety to Reduce Maternal and Neonatal Mortality

Dr. Amarjit Singh, IAS,
Executive Director, Jansankhya Sthirata Kosh (JSK)
(National Population Stabilisation Fund), Ministry of Health and Family Welfare, Government of India

More women die in India during childbirth than anywhere else in the world. The Maternal Mortality Rate (MMR) is 254 and Infant Mortality Rate (IMR) is 57 in India as per SRS 2007.

Historically, Gujarat also has had an extremely unfavourable (MMR) and (IMR). In 2003 the Infant Mortality Rate (IMR) was 57 and Maternal Mortality Rate (MMR) stood at 202, (SRS 2003). This was primarily due to poor access of the socio-economically weaker sections to institutional deliveries. There was a severe shortage of obstetricians to provide specialised obstetric services in Government Hospitals in the rural areas.

To address this issue the Chiranjeevi Yojana (CY) was developed in Public Private Partnership mode to involve the private obstetricians to reduce both the maternal and infant mortality rates in the state. The scheme was launched on a pilot basis in five districts of the state in December 2005, and extended to whole state in 2006 to provide safe delivery facilities to the pregnant women from the Below Poverty Line (BPL) families.

Results: *M*ore than 800 obstetricians have joined the scheme and 370024 poor women have delivered in private facilities in last 2 years. We estimate that the coverage of deliveries among poor women under the scheme has increased from 54% to 82% between April 2007 and September 2009. The data also shows that there is substantially less reported maternal and new born deaths in the beneficiaries of the scheme as compared to the expected deaths in absence of the scheme, in the poor.

Conclusions: This study of an innovative program shows that at least in some areas of India, it is possible to develop large scale partnership with private sector to provide skilled birth attendance and EmOC to poor women at a relatively small expenditure. This study shows the possibility of addressing the human resource deficit in the public system in rural areas of developing countries to achieve MDG 5. It also shows poor women will take the advantage of skilled delivery care rapidly, if they do not have to pay for it.

To Characterize Safety Profile of Non Invasive Cardiac Monitoring Device

N. Gupta, J. Singh, S .Kumar, D Gupta, C. Rekha
Department of Cardiology, All India Institute of Medical Sciences, New Delhi
Department of Clinical Research, Max Neemqn International, New Delhi

Western nations have strict regulatory policies to ensure the quality of medical devices but in India no such regulatory mechanism for the quality assurance of biomedical devices exists due to which patient safety often get compromised.

Total 89 patient admitted with heart failure in cardiology care unit were asked to continuously use for 3 months an electronic device which recorded physiological signals transmitted via an adhesive patch. Patients with known hypersensitivity to adhesive hydro gel were excluded. By correlating these physiological signals to events of heart decompensation, treatment outcome can be improved.

The main device related complications were; contact dermatitis 51%(n=46),headache 38%(n=34), dizziness 28%(n=25) and syncope 3.3% (n=3). Based on the severity , contact dermatitis was mild: 29%(n=24),moderate :14%(n=13) or severe : 10%(n=9) ,headache was mild :19% (n=17), moderate : 13% (n=11) or severe : 6% (n=7) and dizziness was mild : 13% (n=11), moderate :10% (n=9) or severe : 5% (n=5). Overall 64% (n=58) had device related complications with 30% (n=27) having one or more mild complications ,21%(n=19) having one or more moderate complications and 13%(n=12) having one or more severe complications.

There should be extensive clinical studies and regulatory mechanisms to evaluate safety of medical devices so that the interests of device users are safeguarded by not exposing them to health risks.

Epidemiology of Patient Safety in India- Making Research Measurable, Monitored and Meaningful.

Joseph Mathew

"The quality of health-care research in India (conduct and/or report), is usually constrained by one or more of the following:
(i) inappropriate design and methodology, (ii) weak definitions, (iii) limitations in measurement(s), (iv) deficient quality control, and (v) tendency to ignore the local context.

A similar scenario exists with research examining the epidemiology of Patient Safety. Systematic literature review with an exhaustive search strategy using multiple terms, identified a handful of publications, with the common characteristics of small sample size, single-centre setting, variable definitions, less-than-robust measurements, etc. Nevertheless, these limited data suggest that Patient Safety issues could be a significant problem in our country.

Responding to the need for robust data on Patient Safety in India, INCLEN Executive Director, Prof. NK Arora has recently initiated a research programme to establish the epidemiology of Patient Safety in India. The objectives of this programme include measuring the incidence of medication error, procedural error & adverse events, identifying risk factors for these, and examining feasible steps to reduce the burden. The additional goal is to build individual and institutional research capacity in the process. Some of the hallmarks of this programme include (i) multi-centric setting spanning the entire country, (ii) sufficient sample size (for each outcome), (iii) clear and unambiguous definitions, (iv) use of reliable, reproducible and transparent measurement tools, and (v) stringent quality control including pre-research training of personnel, pilot testing of instruments, serial on-site monitoring, & central monitoring.

This 18 month research programme will yield robust data on the existing situation in India, setting in motion changes in practice and policy favoring Patient Safety, and provide a baseline to measure the change against."

Evidence for the Efficacy and Safety of Interventions Used in Healthcare: The South Asian Cochrane Network & Centre

Prathap Tharyan
Professor of Psychiatry & Associate Director, Christian Medical College, Vellore 632002 Tamil Nadu, India
prathap@cmcvellore.ac.in

Reliable, timely and unbiased evidence for the efficacy and safety of interventions used in healthcare is necessary for optimal healthcare decisions.

To describe the contributions of the Cochrane Collaboration (www.cochrane.org) and the South Asian Cochrane Network & Centre (www.cochrane-sacn.org) in preparing, maintaining and disseminating reliable evidence for the effects of interventions in healthcare

Examples of situations where the endorsement and use of unreliable evidence resulted in suboptimal care and resource use and harm to users will be presented. The methods used by the Cochrane Collaboration and the South Asian Cochrane Network & Centre in combating this will be described. Efforts to change relevant health policies in light of relevant evidence and to ensure accessibility to reliable evidence will also be presented as will efforts to improve safe and effective health delivery in the region by increasing capacity.

Systematic reviews and meta-analyses of good quality randomized controlled trials of interventions prepared by the collaborative review groups of the international Cochrane Collaboration and published in *The Cochrane Library* (www.thecochranelibrary.com) are now available free of cost of all in India and many parts of the world. These reviews have helped inform health decision making, improved healthcare outcomes, improved patient safety and changed health policy.

Reliable and readily accessible evidence for the efficacy and safety of interventions used in healthcare is an essential ingredient of safe healthcare for all.

Prathap Tharyan is Professor of Psychiatry & Associate Director Christian Medical College, Vellore 632002 Tamil Nadu and India Director, South Asian Cochrane Network & Centre, Prof. BV Moses & ICMR Centre for Advanced Research & Training in Evidence Informed Healthcare, Christian Medical College, Vellore 632002, Tamil Nadu

Patient Safety in Andhra Pradesh: The Urgent Need for Baseline Data

Mala Rao, Shailaja Tetali, Nanda Kishore Kannuri
Indian Institute of Public Health, Hyderabad

The setting of this work is in Andhra Pradesh (AP), the fourth largest state in India, with a population of 76 million. Recently, the AP patient safety alliance (APPSA) was launched, and this paper describes the substantial work being undertaken by the alliance (Government of AP, Indian Institute of Public Health, Hyderabad, Indian Confederation for Healthcare Accreditation, WHO and the UK Patient Safety Agency), and makes a case for the need for data in patient safety in AP.

Hospitals in India are struggling with providing routine healthcare. The underlying problem is the ignorance across the health care sector about the importance of patient safety. In addition, there are no systems in place for recording, monitoring and evaluating medical errors. APPSA was launched to address this serious gap and to give a high priority to patient safety as part of AP's ongoing health sector reforms. The strategic framework adopted by the alliance was based on two of WHO's Global Patient Safety Challenges, "Clean Care is Safer Care" and "Safe Surgery Saves Lives".

Extrapolating the risk of hospital acquired infections, and applying it to the huge populations in India meant that the burden is extremely high, in terms of absolute numbers. It called for urgent changes on a large scale, which would need strategic commitment at the senior most leadership of the government of AP. As a first step it was agreed that baseline information on the current status in patient safety, would be necessary. The Indian Institute of Public Health (IIPH), as a collaborating institution of the alliance has planned a study to assess the patient safety culture and barriers to the implementation of patient safety actions in AP's health sector. A facility audit and an assessment of the training needs of the health care sector are also being undertaken as a part of the overall study.

The results of the research are expected to be known by the end of October '09. Together, these will inform policy makers as to where the gaps are, and to plan and roll out a capacity building programme. Training two hundred 'patient safety champions', accreditation of hospitals, devising monitoring information systems to track patient safety, are envisioned as follow –up actions to translate the research findings into practice.

QA and best practices in Laboratory Medicine

R. Selvakumar
Department of Clinical Biochemistry, Christian Medical College, Vellore, India

Today the medical world is moving towards evidence based medicine and the medical professionals heavily depend on the laboratory results for the diagnosis and treatment. There are several organizations which accredit hospitals with a lot of emphasis on patient safety. But when it comes to laboratories even though there are recommended good laboratory practices and accreditation process these are not mandatory. Therefore, in India out of more than 100,000 laboratories less than 100 labs are accredited by NABL and other international accreditation agencies. When patient samples are analyzed by laboratories 3 types of errors can occur – pre analytical, analytical and post analytical. When a laboratory reports a wrong result for a patient sample the physician goes by these results and the patient's safety is seriously compromised. The Indian Council of Medical Research has brought out a manual on good laboratory practices which is available for any laboratory. The NABL and other accreditation bodies also recommend several practices to be implemented by the laboratories which will improve the quality of the patient's sample testing. One of the most important but often ignored criteria is performing quality control. The use of precision and accuracy controls, good practices in using quality control samples and how to interpret quality control results are important. True examples of wrong results being delivered due to the lack of quality control seriously jeopardize the patient's welfare.

R. Selvakumar works in the Department of Clinical Biochemistry, Christian Medical College, as a Professor since 1976.The Department of Clinical Biochemistry is accredited by NABL/ISO 15189:2007.He has held several administrative posts in The Christian Medical College; Vellore, like Registrar for Academic affairs, CMC Council Secretary and The General superintendent of CMC Hospital. He is an executive committee member of the Association of Clinical Biochemists of India and Convener of the EQAS committee of the Association .He also serves the Indian Council of Medical Research as an expert in the committee formed to establish the Reference Intervals for Indian population. He has published more than 30 research papers in national and international journals.

Laboratory Management and Patient Safety

Dr. Shyamali Pal
Chief Biochemist, Peerless Hospital & B.K.Roy Research Centre
360 Panchasayar, Kolkata- 700094
shy23_pal@yahoo.co.in

The basic job of any hospital worker is to add value to patient safety. A good laboratory management contributes a lot to patient safety.

The areas of importance are;

Blood/sample collection. We are all aware of pre analytical errors during blood collection. The blood collection is important. During sample collection direct contact with the sample must be avoided. The instance of being infected during collection is not uncommon.

The analytical Care; the analytical part consists of few steps. This part involves the dedication of laboratory workers who directly process the sample.

The automation and the maintenance of the automated systems and good quality control; To add value, the rigorous maintenance of quality control is a good practice but the process should not jeopardize daily reporting. Turn around time is important to a clinician than rigorous QC.

Value to be given to regular interaction; A good laboratory management needs to be interactive with the patients and clinicians. A good interaction increases the confidence limit of both the patients and clinicians. Global studies have proved that laboratory tests are sometimes being ordered at random. A good interpretation may contribute to the cost affectivity of the health system.

Motivation for performing special tests; The tests specially designed for a particular study needs attention of the clinical chemist. The clinical chemist should interact with the clinician and design the test module.

The global reports suggest that an experienced and dedicated clinical chemist can play an important role in the safe and effective delivery of health services to the ailing subjects.

Designing Emergency Department of Hospitals from the Point of View of Patients Safety

Dr. Vijay Agarwal
Executive Director, Pushpanjali Crosslay Hosital, Ghaziabad

The Emergency Department is one of the most important areas of the hospital and as the name implies, it demands that those reporting at its gates receive urgent attention and delivery of care. It is also very important from the administration viewpoint as almost 50% admissions in the hospital may happen through ER. It has been acknowledged in recent times that the layout and design of the Hospital has a significant bearing on patient safety and patient outcome. This is more than true with reference to the ER department.

"Many factors influence the patient throughput in and out of the Emergency Department. Clarity in layout and simplicity in operations are keys to streamlined flow"…… (James Warrel)

The ER department of Pushpanjali Crosslay Hospital was developed with the following dictums:

- Access to ER should be direct and immediate
- Nurses and EMOs to be competent to triage patients upon arrival.
- Provision of a dedicated area for the family and accompanying attendants with adequate availability of drinking water and toilets
- All patients be visible
- Dedicated spaces for Resuscitation and Emergency Operations and Procedures
- Adjoining ICU, Blood bank and Diagnostic facilities
- Dedicated areas for training activities, billing and Front Office

ICHA Convention for
Patient Safety

ICHA: Safe Healthcare for All

DAY-II

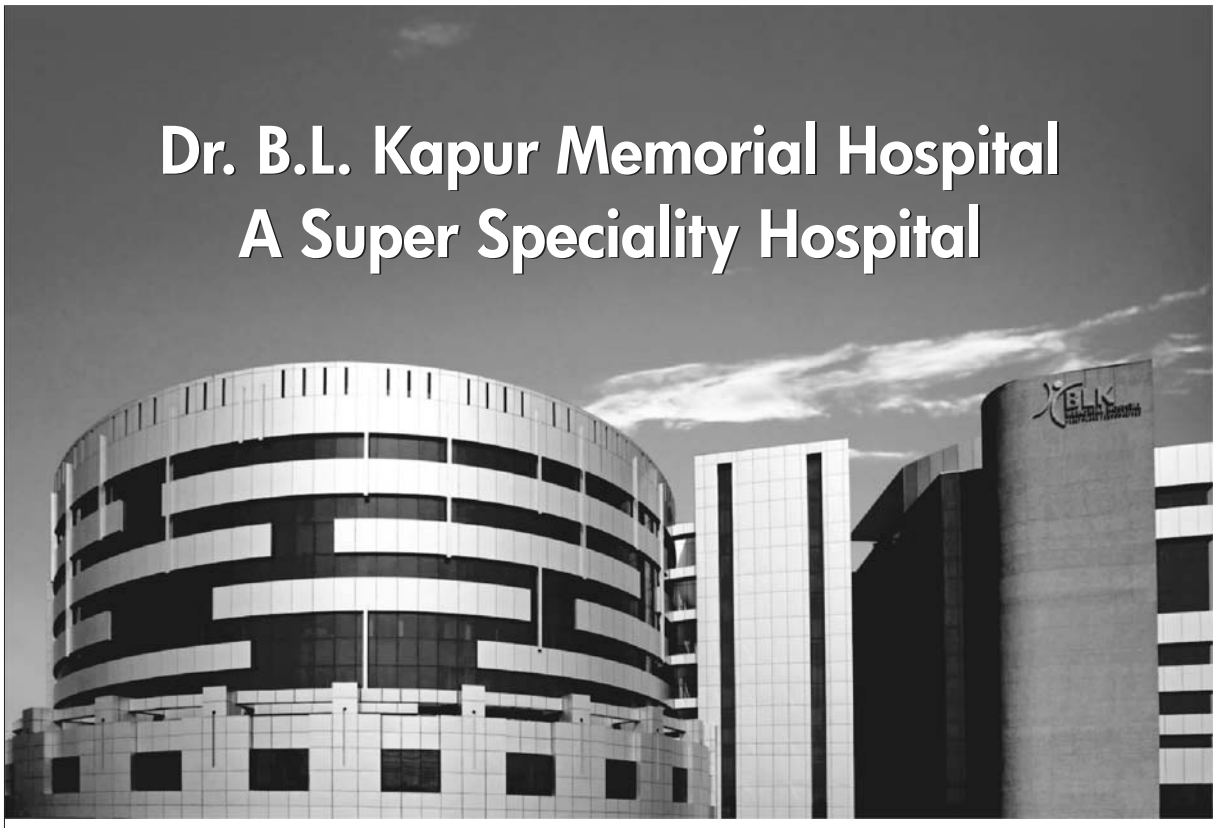
- **Patient Safety & Building Safety Culture**
- **Research for Patient Safety**
- **Education for Patient Safety**
- **Extended Parallel Session- Patient Safety Education**
- **Best Practices-WHO Gobal Patient Safety Challenge-I**
- **Best Practices-WHO Gobal Patient Safety Challenge-II - Safe Surgery Save Lives**

Sponsors

Group sanofi aventis
Because health matters

HOSPITAL INFECTION SOCIETY INDIA

ETHICON
a Johnson&Johnson Company



Your health is a top priority...
That's why we offer healthcare ... personalised.

BLK Memorial Hospital sets the standards in quality healthcare with a peerless combination of state-of-the-art technology and personalised care.

- A New Era in Healthcare
- Harnessing Latest Technology to Offer the Best Treatment
- Robust Infection Control Systems
- Promoting WHO Safety Initiatives
- Medical Audit to Control Quality and Efficiency
- Culture of quality, accountability and ethics

Walk-in for Free Consultations:
8.30 am to 10.30 am & 5.00 pm to 7.00 pm

HELPLINE 30 40 30 40

BLK
MEMORIAL HOSPITAL
HEALTHCARE PERSONALISED

adWit

A Super Speciality Hospital

Cancer treatment: Medical + Surgical + Radiation + Bone Marrow Transplant + Heart & Heart Surgery + Critical Care & Respiratory Medicine + Endocrinology + ENT + Gastroenterology: Medical & Surgical + General Surgery + Internal medicine + IVF Lab + Minimal access surgery + Nephrology + Neurology + Neurosurgery + Neonatology + Obstetrics & Gynaecology + Orthopaedics & Joint Replacement + Paediatrics + Paediatric Surgery + Plastic & Reconstructive Surgery + Psychiatry + Urology + Nuclear Medicine + Interventional Radiology + Radiology + Dental

B L Kapur Memorial Hospital, Pusa Rood, New Delhi - 110 005
Metro Station: Rajendra Place | email: info@blkhospital.com | www.blkhospital.com

Patient Safety in Remote Health Facility in India

H. S. Misra
Deputy GM-HS,
IFFCO, Allahbad

To evaluate patient safety data in remote township.

Patient safety has to be in outdoor as well as indoor in hospital, during transportation and at home of physically as well as mentally ill patients. This retrospective study has been done to assess the effectiveness of patient safety and medical services in a population of about 5000 residents being looked after by a health facility. This 10 years(from 1998 to 2007) study has been done by asking each head of the family to fill a questionnaire having questions about incidence of disease, drug allergy, prevalence of disease, death in the family, cause of death etc. This information was confirmed with the health centers records which caters to the medical and health needs of this population.

Not even a single patient suffered from iatrogenic disease or died because of negligence of hospital / doctors / paramedical staff. Prevention of diseases and complications are hallmark of patient safety. Making systems and procedures at every step and following them is most important if we wish to keep our patients safe. Timely and prompt availability of health professionals is a must to prevent the things going haywire and avoiding iatrogenic diseases.

If personalized and effective health care is provided to patients at right time by trained and experienced staff with effective communication and timely transportation, our patients are safe both at home and in hospital. Absolute patient safety can be achieved by sincere medical care and accountability of providers. This study can be a model and opens the doors for further study and improvement.

Promoting Patient Safety Culture and Mitigating Errors– Learning Lessons from Aviation

Gp. Capt. Sanjeev Sood
Sr. Med Offr. and Hospital Administrator Air Force Station, Jodhpur-342011
doc_ssood@yahoo.com

Aviation and healthcare are two industries that are critically dependant on safe work culture and error free environment for their successful operations. Improving safety and reducing errors is a challenge faced by both all over the world.

The author with his background in aviation medicine and healthcare management has outlined the similarities and differences between the aviation and healthcare environment and discussed how health care providers are learning from aviation safety. It is well established that, like aviation mishaps, the majority of adverse events in health care are the consequence of human error, particularly failures in communication, leadership, group dynamics and decision-making.

Thus, there are compelling reasons among health care facilities and managers to deliver standardized patient care with in framework of checklists, SOPs, crew briefings and optimum resource management, collaborative communication and clinical protocols to achieve superior outcomes using demonstrated strategies and 'strong interventions' borrowed from aviation safety models.

Some safety models and intervention strategies that have been successfully adopted from aviation are-Crew Resource Management for effective team and resource management, WHO recommended pre and post operative surgical/anesthetic checklist, voluntary reporting of errors, developing important patient and staff safety policies & procedures , establishing a blame free culture and employing analytic techniques used in aviation accidents.

In spite of these similarities, there are some important differences between health care and aviation. Thus, there are limitations in translating aviation safety concepts to healthcare delivery. On the whole, the experience of the aviation industry provides strong direction for improving patient safety, especially regarding how teamwork can be improved.

Quality Improvement in Sri Ramachandra Medical Center Chennai

Dr. P. V. Vijayaraghavan
Prof & HOD Orthopedics & QIPST Coordinator

There are no structured quality improvement programs for health care institutions in India. Many institutions lack even a mission and an organizational structure to carry out quality improvement activities.

In order to achieve quality standards, there should be certain intent statements (structure) and policies for the organization both organization centric and patient centric. The processes need then to be defined for implementation. Using certain measurable quality indicators the outcome could be measured.

At SRMC the structure, process, outcome model was used on a hospital wide approach for quality improvement in –order to increase the probability of desired patient outcomes and criteria were evolved to priorize the area of focus.

Methods

Quality indicators for the medical center were divided into process indicators, outcome indicators, infection indicators and primary statistics (volume indicators). The organization structure was created through the creation of quality improvement and patient safety team and area core teams, who were educated and trained to look into these aspects. Data collection and presentations were done on a weekly basis initially and later on a monthly basis and compilation was done.

Based on the data collected it was compared with international and national bench marks over a one year period. The standards studied and the indicators used to asses are attached herewith.

Results

At SRMC due to the sustained effort of the core team members and Quality Improvement Patient Safety Team (QIPST), the Medical Director & Chief Operating Officer all the quality indicators studied showed that the organization was of a high quality, striving to get well below the international bench marks.

Our Journey in Patient Safety

Anupam Sibal
Apollo Hospitals, New Delhi, India
anupamsibal@apollohospitals.com

Apollo Hospitals, New Delhi, became the first hospital in India to be accredited by the Joint commission International (JCI) in 2005 and the first to be reaccredited in 2008. The JCI accreditation journey involved a multitude of initiatives in various structures and processes involving patient care, staff, equipment and the facility. Patient safety initiatives formed a substantive part of these efforts.

The Patient Safety Model, which was initiated at Apollo Hospitals, New Delhi, was further evolved, matured and adopted to extend across all the hospitals of the Apollo Group, within India and overseas; this resulted in seven hospitals being JCI accredited. The areas under focus include but are not limited to the following issues:

Healthcare associated infections formed a major thrust area in patient safety. An infection control plan with defined goals and targets set the stage for an extensive campaign involving implementation of bundles, education and training, hand washing surveillance, introduction of safety canule, isolation practices and barrier nursing. The results were an impressive reduction in VAP by 73%, BSI by 65% and UTI by 63% from 2006 to 2009.

Medication safety entailed devising a pocket sized formulary for doctors for crosschecking all aspects involved with Medication Systems including prescription accuracy, standardizing prescriptions and training for correct transcription of prescriptions. The Pharmacy had complete oversight of all prescriptions. Even 'look alike' and 'sound alike' drugs were segregated and special storage and administration precautions were implemented, reducing medication errors by more than 30% between 2007 and 2009.

Surgical safety was ensured through preoperative site marking, pre printed preoperative checklists and 'time out' that has been implemented and is being religiously followed in the operating rooms. Policies clearly define **correct patient identification** and extensive awareness is ensured for the same amongst the staff. Consultants are appointed through a process of **credentialing and privileging** which is evidence based. All medical and paramedical staff has their degrees verified through primary source verification. At the same time **Facility safety** was also given due emphasis encompassing the entire spectrum of healthcare services.

Today, having 26 years of rich experience in Quality Healthcare, Apollo has the wherewithal to provide the highest levels of Patient Safety and best in class clinical services for provision of quality care.

Professor Anupam Sibal is **Group Medical Director, Apollo Hospitals Group, Adjunct Professor of Paediatrics School of Medicine, University of Queensland, Brisbane, Australia, Senior Consultant Paediatric Gastroenterologist and Hepatologist Apollo Centre for Advanced Pediatrics** Indraprastha Apollo Hospital New Delhi 110076, India

Research for Patient Safety – Framework to Conduct Patient Safety Research and Improvement

Lilly Dhillon Engineer
MD, DrPH, MHADepartment/Institution
Department of Anesthesiology and Critical Care Medicine and Health Policy and Management, Johns Hopkins UniversityAddress :624 N.Broadway,Room 428, Baltimore, Maryland, USA

Background

The global burden of the patient safety problem is huge with millions of patients suffering unintended harm due to unsafe care e.g., health care associated infections, adverse drug events, unsafe injection practices, and other. One of the research priorities set forth by WHO is *"to facilitate the design and testing of locally effective, affordable solutions to patient safety problems, thereby supporting applied and evaluative research as the top priority".* WHO's research agenda indicates a need to 1) recognize the magnitude and type of different adverse events that lead to patient harm, 2) understand the causes of patient harm, 3) identify solutions to make health care safer, and 4) evaluate the impact of solutions in real-life settings.

Methods

Frameworks are heavily utilized in quality improvement sciences and for systematic organization of thought for quality management. Usually frameworks include multiple performance domains, multiple enablers (organizational factors) and assume a dynamic relationship between implementation of stated enablers and performance. Drawing from these and the patient safety field, a framework was developed to conduct patient safety research and improvement.

Aims of this session

This session will discuss the framework domains including steps to develop a patient safety research agenda, setting priorities, evaluating progress, translating evidence into practice, assessing and improving patient safety culture, identifying and mitigating hazards and evaluating the association between organizational characteristics and outcomes.

Road ahead

Patient Safety is a relatively new applied science where research and improvement activity must go hand in hand.This framework is an effort to enable that in a scientifically sound and feasible manner.

Integrating Patient Safety in to the Culture of the Organization- How to do it?

Krishnan Sankaranarayanan
Tawam Hospital, Al Ain, UAE

Patient safety is relatively a new initiative to hospitals in the Middle East and Tawam Hospital based in the garden city of Al Ain in the United Arab Emirates has been pioneering in this direction.

Tawam Hospital is currently establishing a patient safety culture in the hospital under the auspices of Johns Hopkins Medicine International (JHMI). We have created a patient safety team at Tawam, and have been working with the Johns Hopkins Medicine Center of Innovations (JHM COI) in developing our patient safety program. The patient safety program initiated at JHMI is a time tested approach and has elevated the safety cultures across many clinical units not only at Hopkins but also at many facilities out side the US.

The Comprehensive Unit based Safety Program –CUSP, is currently being piloted in 3 units at Tawam. The CUSP creates a culture that targets system failures and not individual faults. CUSP is a 6-step patient safety program that begins and ends with staff assessments of safety in the workplace. CUSP advocates safety for health care providers and their patients, and provides an avenue of open communication for all staff- from senior executives to unit clerks. CUSP bridges the gaps between hospital leadership, department chair/unit managers and frontline caregivers.

These safety initiatives upon implementation considerably reduced incidence such as Surgical Site infection, Ventilator Associated Pneumonia, Length of Stay, Blood stream infection, Wrong site surgeries, etc.

Key audience benefits:

1. Understand the principles of the Science of Safety
2. How to Evaluate culture of safety
3. Review the organizational characteristics that foster a culture of safety
4. Discuss the Comprehensive Unit-based Patient Safety program
5. How to conduct Executive Walk rounds

Krishnan Sankaranarayanan, MBA is the Senior Officer Patient Safety at Tawam Hospital in Al Ain, UAE. Krishnan holds a double Master's Degree MA in Public Administration and an MBA specializing in Hospital Management, both from Annamalai University India. In 2007 he completed an online program on healthcare risk management from the University of South Florida; in 2008 he completed a one year distance learning program on Continuous Quality Improvement offered by Canadian Healthcare Association. He is also a Certified Hipaa Professional.

He is a member of the American College of Healthcare Executives (ACHE), National Association Healthcare Quality (NAHQ) and American Society for Healthcare Risk Management (ASHRM). Krishnan is the founder member and the Vice-President of the ACHE Healthcare Executives Group of MENA. He has had the opportunity to lecture at various forums on Patient Safety.

Prevention of Ventilator Associated Pneumonia by Implementing VAP Bundle in Indian ICU settings

Sr Uma Maheshwari
Sri Rama Chandra Medical Centre, Chennai

Introduction

Ventilator Associated Pneumonia, a Nosocomial Infection which increases the mortality and morbidity as well as the cost of health care is chosen as an infection prevention quality indicator in our ICUs. So, VAP Bundle was implemented and observed for the reduction of infection rates in Mechanically Ventilated Patients.

Methods

Audit of VAP conducted prospectively for all Ventilator cases in ICUs using the Clinical pulmonary Infection Scoring System. For all patients on Ventilator, VAP was diagnosed based on results of Bronchoscopic alveolar lavage (e"10^4 cfu/ml) ,Non- Bronchoscopic alveolar lavage (e"10^5 cfu/ml),Endo-Tracheal aspirate (e"10^6 cfu/ml)specimens and clinical suspicion of VAP.

Results

VAP was being analyzed from January 2008- January 2009 and there was a gradual increase in VAP infection rates till June 2008. 17 episodes of VAP were observed in all ICUs screened among 5981 patient Ventilator days. So strict adherence to VAP Bundle such as Hand hygiene, Head end elevation, Oral care 6^{th} hourly, No routine change of Ventilator circuit were followed from March - 2008 and brought down the VAP Infection rates. Awareness among the Health care workers at the time of joining and updating were initiated.

Conclusion

Strict adherence to VAP Bundle combined with education and feedback to healthcare workers reduces the risk of Ventilator Associated Pneumonia.

Reporting Medication Errors – Is it Bane or Boon

Sanjeeva Reddy, T. Martha Mary SNS
Prof & HOD of Obstetrics & Gynecology, Chairperson P&T Committee, SRMC – Chennai
Medication Safety Nurse SRMC – Chennai

Medication error is an important quality indicator in all types of health care settings all over the world however medication error continues to be the largest single category of reported incidents in the hospitals. That is the reason why the Joint Commission International has included medication errors as one of the important quality indicator in the accreditation process. At SRMC medication errors were closely identified and monitored for better patient safety.

Medication Error is identified by the Audit Team and reported through the incident reports (ADRs)

Number of Medication Error in a month

Types of Medication Error:

a. Prescription Error – Incorrect drug selection, dose, dosage form, quantity, route, concentration, rate of administration or instructions for use of a drug product ordered or authorized by a physician

b. Transcription Error – The errors that are made by the personnel during transferring a prescription.

c. Dispensing Error – Error that occur during dispensing of a prescription from the pharmacy by the pharmacists to the patient care area.

d. Administration Error – These are the actual errors that occur due to deviation in administration of a prescribed medication according to five 'R's.

Total number of doses dispensed in a month (Total number of medication error in a month/ Total number of discharges) X 100= Medication error rate per hundred discharges.

Total medication error from September 2004 to till date August 2009 at SRMC - 17 , 2005 – 166, 2006 – 198, 2007 – 137, 2008 – 622, 2009 - 618

Medication Safety Programme started in 2004 with one Medication Safety Nurse. In the initial period the errors were very low because of ignorance. We have introduced floor pharmacists and 24 hour auditing and intensive education programmme to doctors, nurses and pharmacists. Resulted in high incidence of reporting of error and finally it has come down to present level due to better aware ness and strict auditing.

IPSG Goal 6 : Redcuce the Risk of Patient Harm Resulting from Fall

Sr. Usha, Usha Vishwanath
Skin Care Nurse, Chairperson Safety Committee & Deputy Coordinator QIPST
SRMC, Chennai, India

Patient falls is an important quality indicator in all types of Health care settings all around the globe then however patient falls continues to be the largest single category of reported incidents in the hospitals.This is the reason Joint Commission International Accreditation includes these falls as one of the IPSG.

This study was started in Jan 2006 and is followed till date.

A patient safety team was created and patient's vulnerability to fall in our hospital setting was identified. Patients considered at high risk for falls were given a yellow band and fall leaf sign board at foot end of the cot.

A total number of falls were documented and analyzed in this period.

Total number of patient fall between 2006 till date is	116
Accidental fall	– 50
Unanticipated Physiological Fall	– 53
Anticipated Physiological Fall	- 13

Introduction of the Morse fall scale tool showed that identifying risk factors for patient fall at an early stage helped to prevent actual fall.This goes to prove that once the risk factors have been identified early and an appropriate tool chosen a strong fall prevention strategy can be developed to reduce the number of patient falls in hospitals.

The WHO Patient Safety Curriculum Guide for Medical Schools

Professor Merrilyn Walton
Sydney Medical School
Faculty of Medicine
University of Sydney, Australia

Patient safety is a complex topic which includes new areas of knowledge such as human factors, systems, quality improvement methods and risk reduction. Patient safety principles and concepts apply to all areas of medicine. This makes it a challenge to teach and to integrate into medical curricula. The literature on patient safety education in medical schools is underdeveloped and shows that patient safety teaching is varied and ranges from single-session interventions to educational programs fully integrated across all years of school-based training. While many more schools teach patient safety than reported in the literature it is far from universal. Some medical faculties and clinician educators are yet to be convinced that patient safety is an essential part of the undergraduate medical curriculum and remain reluctant to incorporate knowledge that originates from outside medicine.

We will put the case for patient safety education in medical schools. It will also describe the Patient Safety Curriculum Guide - why it was developed, why the focus on medical students, how the Guide should be used, the evidence underpinning the curriculum topic and the importance of capacity building of faculty in patient safety principles and concepts.

The Educational Approach to Implementing the WHO Curriculum for Patient Safety

John Sandars
Medical Education Unit, Leeds Institute of Medical Education, University of Leeds, Leeds, UK,
j.e.sandars@leeds.ac.uk

Implementing the WHO Patient Safety Curriculum into medical schools is a challenge to all educators. Essential decisions have to be made about what to teach and how to teach it.

Patient safety is a fundamental aspect of all clinical care and generic competences, such as team working and communication, and specific competences, such as analysis of adverse events, have to be developed. Integration with the existing curriculum is essential and priority areas have to be identified.

Teaching and learning about patient safety will require raising the awareness of the importance of safety. New knowledge, skills and attitudes that result in changed behaviours have to be developed. Understanding the key aspects of how people learn allows effective educational interventions to be made. These approaches have to be aligned and assessment, both formative with feedback and summative, have an important role to play in both directing student learning but also to ensure that there is a change in clinical practice. The importance of authentic and workplace assessment is highlighted.

Faculty development is an essential component of curriculum delivery and there are important parallels between the culture of teaching and the culture of safety that have to be addressed if the WHO curriculum is to achieve its full potential.

Dr John Sandars is Senior Lecturer, Medical Education Unit at University of Leeds. He holds MB MSc MD FRCGP MRCP Cert Ed degrees. He is Programme Director for the online Postgraduate Certificate in Patient Safety and Clinical Risk [http://patientsafety.leeds.ac.uk/]. He has recently been a co-developer and tutor on the Peoples-Uni module on patient safety.

WHO's First Global Patient Safety Challenge - "Clean Care is Safer Care"

Dr. Cyrus Engineer, Dr PH, MHA, MHS
World Health Organization, Patient Safety Program Geneva, Switzerland
engineerc@who.int

The World Health Organization's first Global Patient Safety Challenge "Clean Care is Safer Care" was launched in 2005 to galvanise action on improved hand hygiene to address the growing burden of preventable health care associated infections. Despite the overwhelming evidence of association between good hand hygiene and lower health care associated infection rates, compliance to this simple evidenced based intervention remains low even in the developed nations. This poses serious risks to the lives of patients treated in health care facilities globally. In addition, it contributes to increased societal costs that can be easily avoided.

Examples of the many activities and actions of the First Global Patient Safety Challenge will be described including results associated with the adoption of the WHO multi-modal hand hygiene strategy in different health care environments around the world. The **SAVE LIVES: Clean Your Hands** global initiative launched on May 5, 2009 was a global "call to action" to health care facilities to demonstrate their commitment to preventing health care associated infections through better hand hygiene. To date over 5801 health-care facilities from 125 countries have demonstrated their support by signing up and the numbers continue to grow.

Within the span of just four years, the first Global Patient Safety Challenge has generated global momentum by mobilizing countries, stakeholders, patient organizations, health care facilities to focus on hand hygiene and in making it a priority for infection control in healthcare everywhere.

Dr. Cyrus Engineer works for the World Health Organization in Geneva and is associated with the Patient Safety Program within the Information, Evidence and Research cluster. He also serves as a guest faculty and co-teaches courses on patient safety, problem solving in public health and quality assurance at the Johns Hopkins University's Bloomberg School of Public Health in Baltimore. Cyrus is currently transitioning to Baltimore at Johns Hopkins from where he will continue to work on WHO's Patient Safety projects including the Safety Scholars Programme, Programme Evaluation and the Hand Hygiene project. Cyrus has an interest in seeing patient safety research translate into practice quickly through innovative approaches at the health care delivery level. He believes that the Safety returns are greater if existing evidence is appropriately integrated within systems, rather than being overly dependent on human beings to avoid error and harm.

Hand Hygiene Practices in Critical Care Units of Pediatric Tertiary Care Hospital

Manchanda Vikas, Saikia Bornali, Makkar Sapna, Amrita
Surveillance and Infection Control Division,
Chacha Nehru Bal Chikitsalaya, Govt of NCT of Delhi, Geeta Colony, Delhi, INDIA

Background

Hand hygiene has been cornerstone of hospital infection control practices. Efforts are being made world-wide to increase compliance in day-to-day clinical practice.

Methods

Setting: Neonatal intensive care unit (NICU) and pediatric intensive care unit (PICU) of pediatric tertiary care public hospital. *Period of study:* Study was carried out through July 2009 to October 2009. *Tools:* WHO hand hygiene monitoring tool was used and data was recorded on daily basis by infection control nurses during their routine rounds in NICU and PICU. During first month of observation the critical care unit staff was not informed about monitoring. In subsequent month they were told that they are being monitored for their hand hygiene practices. At the end of second month retraining was done for the staff was done with emphasis on hand hygiene. The compliance was once again monitored for two subsequent months.

Results

Overall hand hygiene compliance improved from 53% to 78% in two critical care units. Doctors were found more compliant to the hand hygiene practices compared to nursing staff of respective units. Compliance rate of hand hygiene procedures were higher in health care workers at NICU (79%) than PICU (60%). Compliance increased significantly after the employees were told that they are being monitored for hand hygiene compliance. Retraining of hand hygiene procedures had little effect in improvement of hand hygiene.

Conclusions

Monitoring hand hygiene practices have positive impact on its compliance. There is an urgent need to improve attitude and behavior of healthcare workers to keep hand hygiene compliance at higher levels.

Implementing a Hand Hygiene Improvement Program in Adult Critical Care Units of a Tertiary Care Cardiac Hospital

Arora Anita, Gupta Anu, Sharma Shweta, Mathew Daisy, Sneha
Clinical Microbiology and Infection Control Division, Escorts Heart Institute and Research Centre, a Fortis Network Hospital, Okhla Road, Delhi, INDIA

Background

It is a well known fact that effective hand hygiene reduces health care associated infections and enhances patient safety. However, the constant challenge for infection control professionals is how to implement a successful hand hygiene campaign in order to motivate health care workers in improving hand hygiene compliance.

Methods

Setting: Adult medical critical care unit (HCC) and adult surgical critical care unit (RR) of a tertiary care cardiac hospital. *Period of study:* April 2009 to October 2009. *Tools:* Using the WHO hand hygiene monitoring tool data was collected on a daily basis during routine rounds in HCC and RR. Once a health care workers practice was recorded he/she was immediately informed that their practice had been documented and what corrective action if any was needed. During the study period a program to promote hand hygiene was reinforced by (i) use of educational posters including the WHO poster "Your 5 moments for Hand hygiene", (ii) organizing Patient Safety Week (18-25 May 2009) with one whole day dedicated to hand hygiene- talks and slogan competition, (iii) placing multiple screen savers on all computers in patient care areas, and finally (iv) Celebrating Global Hand washing Day (15 October 2009)

Results

Overall hand hygiene compliance improved significantly. Nursing staff was found more compliant compared to the doctors. Compliance increased after staff was informed that they are being monitored.

Conclusions

Reminders by interventions and feedback of hand hygiene procedures had a positive impact on hand hygiene compliance. Further study may be required to evaluate the sustainability of such campaigns.

Dr Anita Arora, MBBS, MD, Senior Consultant and Head, Lab Sciences, Infection Control and Quality Chairperson, Infection Control Committee Escorts Heart Institute and Research Centre, a Fortis Network Hospital, Delhi, India.

a. Laboratory: Supervision of staff responsible for identification and sensitivity of microorganisms

b. Clinical: Daily rounds with the Intensive Care team, and available as a consultant and information source for infection related issues in patients.

c. Infection Prevention and Control: Tracking and analyzing HAI data.

d. Administrative: Supervision of residents and all laboratory and infection control staff, supervision and monitoring of all activities of the **Quality Team.**

e. Other: Secretary, Hospital Infection Society of India (HISI); Internal Auditor for ISO, NABH; **National Accreditation Board for Hospitals and Healthcare Providers (NABH) assessor**;

Member of the **Healthcare Worker Safety Advisory Board** in India dealing with safety related to Needlestick Injury and Bloodborne Body Fluid Exposure (working with EPINET);

DIVISIONS AT A GLANCE

- **CRITICAL CARE** Division
- **COPAS** Division
- **SPECIALTY** Division
- **ONCOLOGY** Division
- **HYGEA** Division
- **RINON** Division

With best compliment from :

UNITED BIOTECH (P) LIMITED

Bagbania, Baddi-Nalagarh Road, Distt. Solan (HP) - 174 101
E-mail : ubpl@vsnl.com, Website : www.unitedbiotechindia.com

Hand Hygiene 'Best Practices' at Indraprastha Apollo Hospitals - Sharing an experience

Raman Sardana, M.D., FIMSA
Sr.Consultant Microbiology and Additional Director Medical Services
Indraprastha Apollo Hospitals, New Delhi

Introduction

Hand hygiene is an integral component of any infection control program. Although hand hygiene is generally accepted as the single most important procedure for prevention of infections, yet globally, increase of compliance with hand hygiene continues to remain one of the challenges faced by any healthcare facility.

Measures adopted at our institution

The strategies towards increase of compliance in this institution have been based upon and adapted from the organizations like WHO and CDC and indigenized.

I. Ensuring permanent availability of hand hygiene rub at every bed side at the most accessible and visible area.
II. Introducing hand hygiene to all staff at the time of induction to the institution irrespective of employee status- medical or nonmedical
III. Carrying out a baseline evaluation on compliance and setting up annual targets
IV. Formulating strategies aimed at increasing the compliance, mainly through:
    - training and education
    - Awareness drives
    - Visual workplace reminders
    - Motivational exercises
    - Evaluation and feedback
    - Periodic monitoring
    - Healthy involvement of patients / Visitors through education
    - Involvement of all health care workers

Measurement of compliance is by direct observation for each professional category calculated as the percentage of performed hand hygiene actions over the hand hygiene opportunities.

Conclusion

A re-look into the surveillance give encouraging results as we inch forwards to our target of 100%. However, essential to remember is that sustaining these efforts remains the cornerstone.

Hand Protection vis-à-vis Hand Hygeine

Dr. Kamna Munjal
Associate professor, Dept. of Microbiology, M.G.M. Medical College, Indore (M.P.)

A small & simple survey was conducted in the Microbiology laboratory of a large tertiary care 1175 bedded hospital using a combination of written & oral questionnaires along with observational rounds to study the prevalent hand hygiene practices along with presence or absence of limiting factors. A total of 17 staff members, varying from sweeper to lab technicians were included in the study. Questions were formulated so as to gain maximum information regarding educational qualification, nature of work, extent of exposure to potentially infective material, condition of hands, method of hand protection practiced viz hand washing, use of hand rub & gloves in relation to work & toilet.

A compilation of results showed the education status of staff to vary from level 3rd to post graduation with maximum being graduates. Seven of them were in direct patient contact while for 10 members the nature of contact was indirect; of these 8 were handling potentially infectious material while 2 of them handled non-infectious material. These two were excluded from the study thus reducing the study group strength to 15. Skin of hands was found to be normal in 14 while one had superficial cuts on the thumb. Nails were found to be plucked in 13 members while 2 had unplucked nails. Rings were worn by 7 staff members varying from 1-4 in number & 7 were wearing either a watch or bangles or band on the wrist. Hands were being washed by 14 people – 4 washing them pre & post procedure, 10 washing them post procedure & 1 not washing them at all. Seven of the staff members applied hand rub – 2 applying it after washing hands pre & post procedure, 2 applying it after post procedure hand wash & 3 practicing a random application. Nine staff members were using hand gloves while doing procedures – 8 using latex while 1 using plastic gloves.

Certain corrective actions observed during the survey included plucking of nails by the ones caught with unplucked nails, an increased consciousness for any kind of hand injury sustained with an attempt to cover it by bandaging or using gloves & also an increase in usage of gloves during procedure.

Hand protection must be practiced specially in a health care setting. Factors limiting its practice may be either a non-availability of resources eg. water, soap or hand rub or noncompliance on the part of the workers because of ignorance, forgetfulness or simply a casual attitude. Whatever be the reason a good hand hygiene practice needs to be followed by all health care workers so as to reduce risk of transmission of infections & thus reduce the morbidity & mortality burden. A continuous IEC programme with regular motivation & follow up can work wonders.

Level of Awareness among Medical Staff and Patients on Infection Control Measures in a Tertiary Care Institute

Dr Rachna Agarwal
IHBAS, Delhi

Several quality and safety measures have been taken by the health system in India to ensure patients and employees safety and infection control, since 1990s. Therefore, the aim of this study was to assess the level of awareness and satisfaction in employees and patients on Hospital Infection Control (HIC) and Biomedical waste management (BWM) program implemented in the Institute of Human Behaviour & Allied Sciences (IHBAS), Delhi, a tertiary care institute for neuropsychiatry disorders.

As part of NABH activity, a questionnaire was developed to assess awareness and satisfaction regarding HIC and BWM program followed in hospital. In person interviews were conducted with patients and employees in charge of patient's safety and infection control.

Employees including consultants, resident doctors, nursing and laboratory staff were interviewed on HIC program (n= 44) and BWM program (n= 57). Most of the staff was aware of HIC activities but 60% were not satisfied with the training and study material provided on infection control and prevention. 80% employees washed hands whenever they examined or conducted a procedure on patients. 70% were aware how to handle the accidental injuries. 17% did not know that segregation of waste is done at its source of generation and 96% were aware of infected waste disposal in different colours bags.

The survey was conducted among patients regarding their awareness and satisfaction with HIC program (n= 50). Most of the patients were aware of HIC activities implemented in the hospital. 71% patients observed that doctors and nurses wash their hands whenever they examined them and 43 % said that hospital staff discussed with them prevention of infection. However, 10% were not satisfied with infection control measures while 64% were satisfied with the cleanliness facility at hospital.

The level of awareness among medical staff and patients regarding HIC program was satisfactory but it requires more aggressive training of staff to improve it further.

Hospital Acquired Infection and Control for Patient Safety

Neha Gupta - Agarwal
IIHMR, Jaipur

Infections acquired in health care settings are among the major causes of death and increased morbidity among hospitalized patients. According to WHO at any time, over 1.4 million people worldwide suffer from infectious complications acquired in hospitals? The highest frequency of infections was reported from hospitals in the Eastern Mediterranean and South-East Asia Regions (11.8 and 10.0% respectively) in intensive care units and acute surgical wards. The incidence of Nosocomial infections was retrospectively studied in five surgical wards in March- April 2009 in a 1050 bedded government hospital undergoing 2nd phase of NABH. The sample size included 50 Nurses and 50 Doctors for checking the cognizance regarding hospital acquired infection and control, 800 patients admitted to surgical wards effectuating the inclusion and exclusion criteria. Infected patients were identified through surveillance using standard criteria given by WHO. The study has revealed various aspects of such infection not based on theoretical assumptions but on practical experiences substantiated with adequate statistical evidences. According to the questionnaire majority of the nursing staff (72%) were unaware about the term Nosocomial infections and the universal precautions. Only 50% of the doctors believed that hand washing is the most crucial measure to prevent infections while only 14% of the nurses agreed to this. Check list used for the internal assessment of HIC activities showed that out of 60 objective elements 27% had poor compliance and 0% excellent compliances. The crude infection rate came out to be 16.25% with the maximum occurrence of surgical site infections (38.26%) with E.coli to be the most causative organism. Average length of stay (ALOS) of the patient increased by 6.23 days. Costs of additional stay and antibiotics accounts for tremendous increase in the budget. Hospital acquired infections levy a significant financial burden on the already scarce resources available for public hospitals in developing countries like India. In spite of the efforts being taken in the government sector for quality improvement, this study shows a lot is to be done in this regard. Credentialed policies and procedures need to be implemented and most importantly surveillance activities to be carried out by the infection control committee.

The Effect of Risk Stratified Protocol based Perioperative Chemoprophylaxis on Nosocomial Infection Rates in a Series of 31,927 Consecutive Neurosurgical Procedures (1994-2006)

Manish S Sharma, Ashma Vohra, ,Ponnamma Thomas, Arti Kapil Ashish Suri
P Sarat Chandra,Shashank S Kale, Ashok K Mahapatra, Bhawani S Sharma
Departments of Neurosurgery and Microbiology
All India Institute of Medical Sciences Ansari Nagar, New Delhi-110029 India
manishsinghsharma@gmail.com

The use of prophylactic antibiotics has been shown to significantly decrease meningitis following neurosurgery; however, its effect on extra-neurosurgical site infections has not been documented. The authors explore the effect of risk stratified protocol based perioperative antibiotic prophylaxis on nosocomial infections in an audit of 31,927 consecutive routine and emergency neurosurgical procedures.

Infection rates were objectively quantified by bacteriological positivity on culture of cerebrospinal fluid (CSF), blood, urine, wound swab, and tracheal aspirate samples derived from patients with clinico radiological features of sepsis. Infections were listed as pulmonary, wound, blood, CSF and urine, total number of hospital acquired infections (HAI) and number of patients infected. A protocol of perioperative antibiotic prophylaxis of variable duration stratified along patient risk factors was introduced in the year 2000, which was chosen as the historical watershed. The chi square test was used to compare infection rates. A P value $\leq .05$ was considered significant.

31,927 procedures were performed during the study period 1994-2006; 3686 (11.6%) patients developed 5171 (16.2%) culture proven HAI. The commonest infection was pulmonary (4.4%) followed by bloodstream (3.5%), urinary (3.0%), CSF (2.9%) and wound (2.5%). The incidence of positive tracheal, CSF, blood, wound and urine cultures decreased significantly after the year 2000. Chemoprophylaxis however altered the prevalent bacterial flora and may have lead to the emergence of Methicillin Resistant Staphylococcus aureus.

A risk stratified protocol of perioperative antibiotic prophylaxis may help significantly reduce not only neurosurgical but also extra-neurosurgical site body fluid bacteriological culture positivity.

Patient Safety in India: WHO "Safe Surgery Saves" Lives Program

Dr. Atul Gawande MD, MPH
Brigham and Women's Hospital and the Dana Farber Cancer Institute in Boston, Massachusetts. USA.

Over the past year the WHO Surgical Safety Checklist has been met with great enthusiasm from surgical teams, professional societies, and governments worldwide. In India, the Checklist is supported by public and private health facilities as well as endorsing organizations such as the Association of Surgeons of India, the Indian Confederation for Healthcare Accreditation, and the Indian Institute of Public Health Hyderabad working with the Andhra Pradesh government. The use of this simple 19-item checklist during major operations was shown to reduce the rate of surgical deaths and complications by more than one third in both low and high-income countries. The Checklist's effect on reducing morbidity and mortality has not gone unnoticed, particularly at Saint Stephen's Hospital in Delhi. This hospital was one of the pilot sites studies in 2007 and 2008 and they observed a significant reduction in their surgical complication rates.

By following each step on the Checklist failures and mistakes can be reduced during surgery. The Checklist aims to accomplish two main goals: 1) to improve performance on critical process measures [like antibiotic use or encouraging the use of sterility indicators] and 2) to improve communication among team members. Even a small change, such as having surgical team members introduce themselves before incision, can have important consequences later on should a member of the team develop a concern during the operation. Earlier studies have shown that lack of communication is fairly common in operating theatres, with junior members of the team often hesitant to speak up. Giving team members a chance to say their names and what their role is, makes it more likely that they will speak up later, promoting a culture of open communication in the operating theatre. The Checklist is a tool that helps make certain that everyone on the operating team carries out their role to keep the patient safe, while promoting teamwork and improvement. These simple factors can save lives.

Atul Gawande is a general and endocrine surgeon at Brigham and Women's Hospital and the Dana Farber Cancer Institute in Boston, Massachusetts. He is an Associate Professor in the Department of Surgery at Harvard Medical School and the Department of Health Policy and Management at the Harvard School of Public Health. His research has concentrated on strategies to improve medical performance and public health. He became director of the World Health Organization's global campaign to reduce surgical deaths in 2007. Dr. Gawande served as a senior health policy advisor in the Clinton presidential campaign and White House from 1992 to 1993. He has been a staff writer for the New Yorker magazine since 1998. In 2006, Dr. Gawande received a MacArthur Award for his research and writing. His nonfiction writing has been selected to appear in the annual Best American Essays collection three times and in Best American Science Writing seven of the last eight years. His book COMPLICATIONS: A SURGEON'S NOTES ON AN IMPERFECT SCIENCE was a finalist for the National Book Award in 2002 and is published in more than twenty languages. His most recent book, BETTER: A SURGEON'S NOTES ON PERFORMANCE was a New York Times bestseller and selected as one of the ten best books of 2007 by Amazon.com and the Sunday Times of London.

Components of Safe Surgery

Dr U Vasudeva Rao
Manipal Hospital, Bangalore, India

There are many aspects of safe surgery right from the time a patient is admitted to undergo the procedure till his discharge. But two most important conditions that certainly make the difference in terms of outcome are venous thromboembolism and surgical site infection. If patients who are at risk of developing these complications are identified and appropriate prophylaxis is given the complication rate can be significantly reduced thereby making the surgery safe for the patient.A brief account of risk factors and methods of prophylaxis for both these conditions is given along with recommendations based on evidence.

With Best Compliments from

SOLVAY
SOLVAY PHARMACEUTICALS

Mortality Prediction in Cardiac Surgery Patients: Comparison of Two Risk Stratification Models for Patient Safety

Dr Eesha Arora
IIHMR, Jaipur

Safe surgery is the second global Patient Safety challenge. The mortality of surgery can be reduced by doing risk assessment and corrective measure before and after the surgery. Hence there is a great need for a reliable risk stratification model.

The retrospective study was conducted with **objective** to assess the validity, performance and applicability of Parsonnet Risk Stratification model in Cardiac Surgery against EURO model in different operative sub-groups and to compare the Predicted and Observed Mortality between the two models. The data on risk profile prescribed by the two models was collected for those who underwent cardiac surgery during the year 2008. The mortality outcome was correlated with the predictive risk criteria of the two models.

The analysis of the data shows that **outcome** quality of Parsonnet Model was 1.38% compared to 1.2% of EURO Model against the International benchmark of 1.02% (t=-0.0456.). The study finds that EURO SCORE Model is a better predictor of mortality than Parsonnet model which can be primarily attributed to the redundancy of parameters in the Parsonnet model.

Hence it is **concluded** that the risk stratification models would act as an indicator of quality for patient safety, would facilitate proper and timely allocation of limited resources, would be a suitable model of fundamental importance for benchmarking, can be used for audit purposes, would remove the bias factor and would form a basis for surgeon and patient on decision making.

B·R·A·H·M·S

cpc

PCT (Procalcitonin) a reliable bacterial sepsis Marker for diagnosis & Prognosis

- For the early diagnosis of severe bacterial infection and sepsis
- For differential diagnosis of the etiology of the disease
- To monitor the course of the disease
- For therapy control
- To assess the prognosis of the outcome

Helps in avoiding empirical usage of Antibiotics – significantly reduces antibiotic resistance, and saves cost.

CONTACT US

Tel : +91 44 24993989
Fax : +91 44 24993357
Mail : immuno@cpcdiagnostics.in

cpc DIAGNOSTICS PVT. LTD
#9, 5th Floor, Gokul Tower, No. 9 & 10, C.P. Ramaswamy Road, Alwarpet, Chennai 600 018. Website: www.cpcdiagnostics.in

IMPORTERS • DISTRIBUTORS • STOCKISTS

Total Hip, Knee, Elbow, Shoulder and Wrist - Replacements, Trauma Management Systems, Revision Implants & Instruments

zimmer U.S.A. INOR ORTHOPAEDICS LINK

Duoderm & Kaltostat Dressings

ConvaTec A Bristol Myers Squibb Company

Neuro- Spinal Implant Systems

Medtronic SOFAMOR DANEK

Pneumatic, Battery & Electric Power Systems
Arthroscopy - Endoscopy Systems

CONMED LINVATEC

Calcium Tri Phosphate Bone Substitutes & Implants

SCIENCE FOR BIO MATERIALS FRANCE

Surgical Instruments for all Disciplines

GEOMED MEDIZIN-TECHNIK GERMANY

Cotton & T.E.D. Compression Stockings

Switzerland

Bone Cements

DePuy CMW PALACOS

AHUJASONS SURGICALS
C-108, Ground Floor, Dayanand Colony, Lajpat Nagar - IV, New Delhi - 110024 - Phone(s): 011-45766500-501-519-520
Fax: 91-11-46566566 Email: ahujasons@airtelmail.in
Web: www.ahujasonssurgicals.com

ICHA Convention for Patient Safety

ICHA: Safe Healthcare for All

DAY-III

- **Technology for Patient Safety-IIT Biomedical Group**
- **Patients for Patient Safety**
- **Valedictory**

Sponsor

एन आर डी सी
NRDC

With Best

Compliments

from

Aravali Printers & Publishers Pvt.Ltd.

W-30, Okhla Industrial Area, Phase- II, New Delhi- 110020

With Best
Compliments
From

RAYMEDICA PHARMACEUTICALS

6/27/13, Opp. Bala Nagar Indl. Area, Hyderabad-500037

E-mail: rayamedica.pharma@gmail.com

Role of Stem Cells in Providing Human Third Dentition in Elderly Population: A Myth or a Reality?

Dr. Aswini Kumar Kar, Prof. Hari Parkash
***Senior Lecturer*,** ITS Centre For Dental Studies & Research,
Murad Nagar, Ghaziabad, U.P, INDIA-201206
***Director General*,** ITS Centre For Dental Studies & Research, Murad Nagar,
Ghaziabad, U.P., INDIA-201206

The dawn of this century is brightened by the growing understanding & experimentation with stem cells as primary tools in the expanding regenerative medicine & tissue engineering revolution. The concept of two dentitions in the lifetime of a human-being have been later revolutionized through "***Third Dentition***" by the discovery Oral Implantology or through Tissue Engineering. The tradition of using prosthetic artificial implants to restore lost or damaged dental tissue will gradually be supplemented by more natural alternatives, including Biological Tooth Replacement or Indution. Mammalian tooth development is largely dependent on sequential & reciprocal epithelial-mesenchymal interactions. These processes involve a series of inductive & permissive interactions that result in the determination, differentiation, and organization of odontogenic tissues. The practice of dentistry is likely to be revolutionized by biological therapies based on growth & differentiation factors that accelerate and/or induce a natural biological regeneration. The molecular control of key processes in tooth development are being increasingly better understood to the point where this information can be used as the basis for approaches to produce Biological Replacement Teeth ***(Bioteeth***). This presentation will outline current approaches, ideas , and progress in clinical use of stem cells in the production of Bioteeth that could form an alternative method for replacing lost / damaged teeth or third dentition in elderly population.

Safety Standards in ECT Practices: An Engineering Perspective

Vittal S. Candade, B.N. Gangadhar
Director, Niviqure Meditech Pvt. Ltd., Bangalore, India; Medical Superintendent, NIMHANS, Bangalore, India.

NIMHANS Committee was formed in collaboration with National Institute of Quality and Reliability (NIQR) in 1992, for arriving at standards in ECT practice and instrumentation. Electro convulsive Therapy (ECT) is a form of treatment provided to Psychiatric patients for best therapeutic benefit. Optimized electrical current pumped directly into the human scalp. The instrumentation and software developed has been put to use in several studies.

Integrating biomedical engineering principles to enhance the safety standards of ECT practice;. The electrical charge is optimally set based on a scientific study (age, sex, inion-nasion distance) conducted at NIMHANS. Also, EEG and ECG monitoring is made (as per NIMHANS set protocol) during and after ECT administration.

Brief-pulse, constant current ECT machines either as a stand-alone or software programmable, integrated with physiological monitoring was developed and put to use. The ECT, EEG and ECG monitoring instrumentation and software is designed to optimize the performance for NIMHANS format.

Several research findings have partially validated the fidelity of the system, stimulus and monitoring. In addition to providing SPO2 signals, the physiological monitoring can be continued using detachable, battery-operated module that can record and store the physiological signals in a preprogrammed format. The options include online or offline monitoring and manual event-markers. Sampling rate of the signals can be varied if the amplifiers have to be used for other purposes like Heart Rate Variability (HRV), or for intermittent long hours recording (such as sleep pattern analysis over a period of 24 or 48 hours).

Sensitivity is optimally designed to amplify seizure EEG signals and has not been validated for EEG recording in other clinical practice.

Intraoperative Pulse and Blood Pressure Recordings of Neurosurgeons – A Pilot Study of Human Cardiovascular Performance

Dr Manish Singh Sharma, Amit Thapa, Sharat P Chandra, Ashish Suri
Manmohan Singh, Vinay K Bahl, Bhawani S Sharma.
Departments of Neurosurgery and Cardiology All India Institute of Medical Sciences New Delhi-110029, India
manishsinghsharma@gmail.com

The hemodynamic changes in anesthetized patients remains well documented, yet there is no study to quantify the effect of operating stress on the neurosurgeon. The authors present a unique study of intraoperative (IOP) pulse and blood pressure (BP) recordings obtained from neurosurgeons and compare these with rest (R) and exercise (Ex) values. This prospective single blind comparative analysis used an ambulatory blood pressure device to record IOP, R and Ex BP and pulse. The student's t test and the chi square test were used for statistical analysis.

Five neurosurgeons performed ten aneurysm clippings and one vestibular schwannoma excision. The average IOP pooled Systolic (SBP), Diastolic (DBP), Mean blood pressures (MBP) and pulse rates were 140, 103, 116 mm Hg and 94 beats per minute (bpm) respectively. Corresponding R and Ex values were 116, 75, 89 mmHg and 76 bpm and 130, 99, 109 mmHg and 128 bpm respectively. Average IOP MBP and DBP were significantly elevated over rest readings ($P = 0.032$, $P = 0.023$). Episodes of severe IOP BP (SBP/DBP $\geq$ 180/110 mm/Hg) accounted for 28% of all readings and were significantly increased over R values ($P < 0.001$). The incidence of abnormal IOP BP (SBP/DBP $\geq$ 140/90 mm/Hg) was also significantly greater than Ex and R values ($P < 0.001$). Peak intraoperative SBP, DBP, MAP and pulse records were also significantly elevated over their respective average intraoperative values. The incidence of hypertensive episodes with a diastolic blood pressure exceeding 120 mmHg was greater than 10% of all recorded readings during surgery. The incidence of similar episodes at rest was 1.3%. Exercise did not induce any such episodes.

Neurosurgery can induce a significant hemodynamic stress response in the operating surgeon. Blood pressure readings recorded during surgery can exceed values that define the clinical entity of accelerated hypertension in normal human subjects and may be sufficient to produce intracerebral hemorrhage. The correlation of this occupational hazard to long term health and longevity remains to be studied.

An Introduction to the Safety of Medical Equipment

Dr. Niranjan D. Khambete
Engineer (Instrumentation), Biomedical Technology Wing,
Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvananthapuram 695 012

Equipment safety is of major concern for medical devices used in all aspects of patient care. Safety involves many elements including operator training, electrical safety, mechanical safety, performance assurance, use of correct disposables as well as the cleaning and disinfection or sterilization prior to reuse. Electrical Safety is one of the most important parameters of an electro-medical equipment. A manufacturer of such equipment would design, fabricate, and test the equipment as per the International standards (e.g. IEC 60601) and obtain certification from appropriate regulatory agencies of the country before sale of any such equipment to the hospitals. However, subsequently it is the responsibility of hospital administration to carry out inspection and electrical safety testing on all incoming equipment prior to clinical use as well as to carry out similar periodic testing on all the electro-medical equipment in use as per International standard IEC62353.

In order to carry out these tasks effectively, strong support of well trained Clinical Engineering staff as well as availability of suitable electrical safety testing equipment should be considered as an essential requirement of every hospital. Furthermore, the process of hospital accreditation is spreading rapidly in our country and quality control measures such as comprehensive safety testing would soon become mandatory for hospitals. Thus, there is an urgent need to increase awareness regarding safety testing among all the stakeholders of the healthcare delivery system. Attempts are also required to systematically address the requirement of trained human resource and indigenous and cost effective test equipment. This paper would outline the initiatives of this Institute in this regard.

Other Side of "Patient Safety": Patients' Perspective

Prof. A K Gupta, Dr. Mahesh Devnani
Medical Sudt.cum HOD; Sr. Resident, Dept. of Hospital Administration
PGIMER, Chandigarh, India

The paper is an analysis of selected complaints pertaining to "patient safety threats" as perceived by patients and/or their attendants, received in the "Medical Superintendent office" of a 1593 bed tertiary care teaching, research and referral hospital attached to a healthcare institute of national importance of India between 2005-2009 and lodged in various consumer dispute redressal commissions against the said institute in last 10 years.

The patient during his/her visit/stay in the hospital expects a safe and secure medical care. When s/he perceives a breach/threat in this, s/he complains to hospital authorities and/or chooses a legal course.

This analysis revealed various "patient safety threats" as perceived by patients and/or their attendants, this included:- non-availability of lifesaving drugs/consumables when required, non-availability/out of order ventilator, faulty oxygen pipeline connection, politics and egoism amongst doctors leading to lack of follow up after surgery, lack of coordination between various departments leading to delay in initiation of treatment, delay in laboratory reports due to nonfunctioning of equipment leading to delay in surgery, doctor-medical representative-chemist nexus for substandard drugs, improper cleaning of wards/coolers/toilets/beds/shelves/trolleys, presence of cobwebs in wards, rodents/ cockroaches/ants in wards, bee and wasp hives at different places in hospital, naked electric wire leading to electric shock to the patient, wrong diet prescription (high protein diet to a patient of liver failure), understaffing, asking patient's attendant to perform the medical tasks which are assigned to nurses, involvement of hospital employee in blood trade, too many points of contacts leading to delay in admission/initiation of treatment/investigation/surgery, change of blood sample at blood sample collection centre, entry of unauthorized persons in wards/impersonation and thefts.

Corporates' Stake & Role in Safe Healthcare

Dr. Akhil K. Sangal
CEO & Ex-officio Director - ICHA

*"When we are ill, we want to know that we **have** a doctor whose technical knowledge and skills we can be **sure** of, on whose **honesty** we can **rely** and who will treat us **empathetically** with the **respect and courtesy** to which we are entitled. We need to be sure that the hospital or primary care team to which our doctor belongs works **effectively and safely**, so we can be assured that we are getting good quality care. And we need **good access** to care."*

- Sir Donald Irvine – President GMC 2003

Introduction

Healthcare today evokes highly emotional responses from all stakeholders. Everybody feels the crying need for improvement. Healthcare has become complex, costly and risky. The drastic improvement in healthcare is what everybody needs and wants and yet few are willing to do something about it. However, these issues can be addressed, but not on an individual or piecemeal basis. **It is a systemic issue and needs redressal as such.**

Magnitude of Unsafe Healthcare

Consider the following perspectives to appreciate the current dismal picture:

"The tsunami was a highly visible, unpredictable and largely unpreventable tragedy...Every hour more than 1,200 children die away from the glare of media attention. This is equivalent to three tsunamis a month, every month, hitting the world's most vulnerable citizens—its children...

With today's technology, financial resources and accumulated knowledge, the world has the capacity to overcome extreme deprivation..." - Human Development Report 2005: UNDP pp1

In Healthcare there is a tsunami everyday .....We don't realize it!

A quick glance at the figures below is enough to prove the claim. *These are just the tip of the iceberg!*

- At any time, over 1.4 million people worldwide are suffering from infections acquired in health-care facilities (HAI). In intensive care units, HAI affects about 30% of patients and the attributable mortality may reach 44%
- Traumatic injuries and surgical procedures are on a rise. WHO's global estimates are:

- 63 million trauma cases
- 31 million malignancies
- 10 million obstetric complications
- Surgery rates ≈ Child birth rates
- 234 million major operations worldwide each year. Surgeries are the most complex health services and costliest. Hence **Safe Surgery is a Public Health Priority.**

Hospitalization is bankrupting worldwide and so is a **PUBLIC HEALTH ISSUE.**

Costs of Unsafe Care

Countries are estimated to lose from US$ 6 Billion to 29 Billion Annually!

...Various medical procedures are used inappropriately as much as one third of the time in the United States. The director of the Congressional Budget Office, Peter Orszag, stated in August 2008 that "a variety of credible evidence suggests that health care contains the largest inefficiencies in our economy. As much as $700 billion a year in health care services are delivered in the United States that do not improve health outcomes." Reports abound of needless or low-benefit procedures, some performed for fear of litigation, some out of venality, some demanded by importunate patients, and some representing the mindless repetition of established routine: "That's the way we do things here." – New England Journal of Medicine (Perspective) Oct. 30. 2008.

Various studies have yielded this alarming picture:

- Every year medical errors cause 98,000 deaths (some studies suggest the number is twice that) and one million injuries. This is not a statistic. This is a national health emergency. These are obviously incalculable costs.
- Medical errors kill more people each year than breast cancer, AIDS, or motor vehicle accidents.
- Little more than half of patients receive the known best practices in care.
- Less than half of doctors in large practices provide the recommended care for patients with chronic diseases.
- Thirty to forty percent of the money we spend on health care – more than half a trillion dollars a year – is spent on costs associated with "overuse, under-use, misuse, duplication, system failures, unnecessary repetition, poor communication and inefficiency."
- One-fifth of medical errors are due to the lack of immediate access to patient information.
- Eighty percent of medical errors were initiated by miscommunication, including missed communication between physicians, misinformation in medical records, mishandling of patient

requests and messages, inaccessible records, mislabelled specimens, misfiled or missing charts, and inadequate reminder systems.

- Three out of every 10 tests are reordered because results cannot be found. Patient charts cannot be found on 30 percent of visits.
- As much as $300 billion is spent each year on health care that does not improve patient outcomes – treatment that is unnecessary, inappropriate, inefficient, or ineffective.

Though no reliable Indian data is available, but healthcare experiences, media reports and estimates by WHO and other global agencies suggest a worse, definitely not any better, situation in India.

Interestingly and seemingly strange is the fact that vast majority of above is unintentional and occurs due to systemic factors. Analogy of aviation sector and nuclear sector is a point in case.

How Corporates pay for Healthcare

- **Taxes**: Various taxes – direct & indirect
- **Insurance – ESI / Premia** – Insurance is based on spread of risk. However, if the risk is larger the premium / cost will go up. Corporates may be paying a higher premium.
- **Reimbursements** – Insurance is only to the extent of cover. Being a employee friendly / considerate employer there would be extra payments needed.
- **Loss of Productivity** – Most critical indirect cost. Can be voluminous! The developed countries gained a lot of productivity due to control of infections prior to World War II.
- **Extended family / Society** – In India when a person falls ill, due to our social culture the entire family is affected. Not only that the relatives and friends get undeniable leave and incur costs to look after / visit the ill!
- **Loss of focus:** Disruptions due to ill health become the first priority overshadowing everything else.

Lessons from USA

The response of US corporates has resulted in setting up and financing Leapfrog group comprising nearly 200 of Fortune 500 Cos. The group rewards and recognizes excellence – Hospitals / Physicians. The details are at www.leapfroggroup.org**.**

US healthcare system is today accepted as the most broken System: The culture of Litigation by ambulance chasers, control by Insurance and the vicious circle perpetuating the two are the main reasons for the current dismal state. Unfortunately we are **trying to copy it!**

The Corporate thinking in India

Hospitals are thought of as the healthcare industry even by the various chambers of commerce. As is evident from above, there is gross overlooking of a much larger picture of concern.

The thought process, about healthcare and contribution to it, in the Corporate World has over a period of time evolved from Charity and donation to philanthropy. The current brand being CSR!

In my opinion it needs to be looked as business investment like any other venture with real returns. Without such a thought process it is likely to remain as peripheral activity getting varying degrees of step-motherly treatment with disastrous consequences.

Despite the recognition that "safe healthcare for all" is fundamental to deliver desirable healthcare, insufficient resources have been invested/allocated to address the problem in a concerted and consequential manner.

How ICHA proposes to address the issue?

We, ICHA, propose to implement the above in our country with our technical and professional competencies covering the areas of education, awareness and best practices implementation thus bring about the desired change.

The economic benefits of this activity itself would bring returns several times the investment required. The social and public benefits are a bonus of immeasurable dimensions. This is a clarion call for all to come together and contribute for our own sake and get immense returns – financial as well as social.

Please see details about ICHA plan at page no 31 and also from ICHA web sites www.icha.in & www.indmedica.com/icha.

With Best

Compliments From

Dr. Shailesh K Mittal
Director

Embee Healthcare Pvt. Ltd.

235, Sant Nagar, East of Kailash, New Delhi - 110 065.
Phone : 011 - 2623 0926, 2628 6094, Fax : 011 - 4162 1508.

KANWARJI CONSTRUCTION CO.

Builders, Engineers & Contractors

With Best

Compliments

Head Office : D-26, Green Park (Main), New Delhi-110016
Phone : 011-26862529, 26862942, Tele Fax : 011-26862529, 26862942

Transit Office : 2/86, Lalita Park, Laxmi Nagar, Delhi-110092
Phone : 011-22512529, 22512942

Website : www.kcc.co.in
E-mail : contactus@kcc.co.in

SET YOUR STANDARDS HIGH. BE ACCURATE

Presenting biomedical testing and calibration equipments from the world's leading manufacturer - Fluke Biomedical

Fetal Simulator

Electrosurgery Analyzer

Patient Simulator

Electrical Safety Analyzer

NIBP Analyzer

Ultrasound Transducer Leakage Tester

Ultrasound Wattmeter

Gas Flow Analyzer

Defibrillator / Transcutaneous Pacer Analyzer

Pulse Oximeter Simulator

Infusion Pump Tester

Gas Flow Analyzer

Also Available: Calibration Services

V-CARE

helix CORPORATION

878, 17th Cross, 9th 'B' Main Road,
ISRO Layout, Bangalore-560078
Tel : 080-26860687 / 89
Fax : 080-26860692
Email : mail@helixindia.com
Web : www.helixindia.com

FLUKE Biomedical

Better products. More choices. One company.

Om Sakthi

WITH BEST COMPLIMENTS FROM

ADHIPARASAKTHI COLLEGE OF NURSING

MELMARUVATHUR - 603 319
KANCHIPURAM DISTRICT
TAMIL NADU, INDIA.
PHONE: 044-27529581(OFFICE), 044-27504075, 044-27529089(PRINCIPAL)
FAX: 044-27529581
E-MAIL: apcon_mel@yahoo.com, contactapcon@gmail.com
Website: www.apcon.org

COURSES OFFERED	DURATION	ELIGIBILITY
Ph.D. (Medical Surgical Nursing, Obstetrical Nursing, Paediatric Nursing)	5 Years	M.Sc.(Nursing)
M.SC.(N) All speciallites	2 Years	1 Year after B.Sc, Registration
B.SC.(N)	4 Years	+2 Passed with 45% in Science Group 5% Relaxation for SC/ST
D.G.N.M.	3 1/2 Years	+2 Passed with any Group

With Best Compliments From

Ortho Clinical Diagnostics
a division of Johnson & Johnson Limited

www.orthoclinical.com

Biotechnology Process / Know-how From NRDC

Bio- Pharmaceuticals

1. Ca-phosphate Nanotechnology for Gene/Drug delivery
2. Improved formulation (for Ketorolac and other NSAIDs eye drops) for ocular delivery
3. Improved formulation for Amphotericin B using Nanoparticle for using against systemic fungal infections
4. Virosome based Targeted Gene Delivery System
5. Thrombinase a thrombolytic agent
6. Silver Nanoparticles as an antidandruff agent
7. Cyclosporin-A
8. Autograft cultivated from adult epidermal stem cells
9. DNA Rabies Vaccine
10. BRAIN TARGETTED NANOCURCUMIN FOR CEREBRAL ISCHEMIA

Diagnostics

1. Hypo osmotic swelling (HOS) test solution Kit
2. Synthetic Milk Detection Kit
3. Nested PCR Technology for T.B. Detection
4. Thermostable ELISA Kits for cortisol, progesterone, 17α-OH progesterone, estrone glucuronide, androstenedione, corticosterone and human chorionic gonadotropin
5. Sperm Function Test Kit
6. Water based Spermicidal Vaginal Contraceptive
7. IBD Diagnostic Kit for Poultries
8. Leptospirosis Detection Kit

Animal Biotechnology

1. Foot & Mouth Disease (FMD) vaccine for cattle
2. Infectious Bovine Rhinotracheitis (IBR) Vaccine
3. Classical Swine Fever Vaccine
4. Sheep Pox Vaccine
5. Live attenuated Peste des Petits Ruminants (PPR) Vaccine
6. Goat Pox Vaccine
7. Enterotoxaemia Vaccine
8. “Crystoscope” for Determination of Optimum Time of Fertile Oestrus in Cows and Buffaloes
9. Hemorrhagic Septicemia Vaccine
10. Area Specific Mineral Mixture

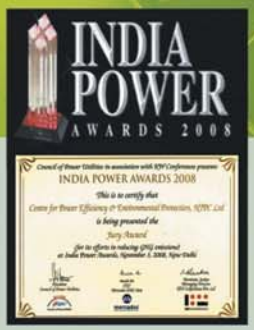
Plant Biotechnology

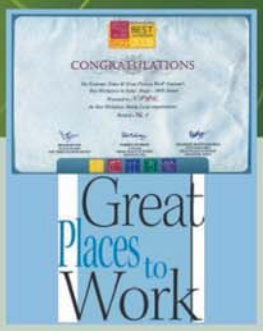
1. Plant Tissue Culture Apparatus
2. Spirulina Algae
3. Mosquito Larvicidal Formulation Based on BACILLUSTHURINGIENSIS VAR ISRAELENSIS
4. Neem Based Pesticide Formulation
5. Bio-control agent against White Grub
6. Trichoderma as Bio-control agent
7. Media for mass production of Bacillus thuringiensis

For further details please contact:

Sh. D. C. Joshi/A.Mishra
National Research Development Corporation
20-22 Zamroodpur Community Centre, Kailash Colony Extension,New Delhi 110048
Ph: 011-29240401-08, E.mail: dcjoshi@nrdc.in/amishra@nrdc.in

Indian pride held high across the globe





- **NTPC Vindhyachal** (2 x 500 MW) Stage-III has been conferred the **IPMA SILVER MEDAL** for Project Excellence by International Project Management Association, at the IPMA Congress, held in Rome, Italy, for implementation of project in record time and achieving excellent environmental, economic performance and giving outstanding support to the local community.
- Ranked **#1 Independent Power Producer in Asia** in the **THIRD ANNUAL PLATTS TOP 250 GLOBAL ENERGY COMPANY AWARDS** - 2008 for outstanding Global Financial and Industrial performance at the award ceremony in Singapore. The Corporation has been simultaneously ranked **# 15, overall in Asia amongst the energy companies.**
- **NTPC – CenPEEP (Centre for Power Efficiency & Environment Protection),** set up in collaboration with USDOE has been conferred Jury Award at **"INDIA POWER AWARDS 2008"** for its efforts in reducing GHG emissions by Council of Power Utilities.
- **GOLD TROPHY** in **SCOPE MERITORIOUS AWARDS - 2006-07** for **CORPORATE SOCIAL RESPONSIBILITY & RESPONSIVENESS** in recognition of its commitment and commendable contribution in the area of CSR.
- Ranked **# 1 Best Workplace in India** among Large Organizations for the year 2008, by **Great Places to Work Institute's** India Chapter in collaboration with **The Economic Times**.
- **Leadership Award for CMD, NTPC** in the **4th Global Leadership Summit** by Amity University for Sectoral Excellence in Power Industry for his outstanding contribution to the growth of Indian business and bringing glory to the country through his pioneering leadership.

एनटीपीसी
NTPC

NTPC Limited

(A Government of India Enterprise)

Powering India's Growth

www.ntpc.co.in

INSTITUTE OF HEART & VASCULAR DISEASES

" The Institute is dedicated to redefining Heart Care through cost effective and state-of-the-art medical technology"

CARDIOLOGY SERVICES

- Coronary Angiogram
- Coronary Angioplasties with Stenting through hand
- Pacemaker (PPI, ICD, B.V) Implantation
- Device closure for ASD, PDA
- Diagnostic E.P. Studies
- Radiofrequency Ablations

CARDIOTHORACIC & VASCULAR SUR

- Open Heart Surgery (CABG)
- Surgery of Aneurysms
- Surgery of Heart Valves
- Vascular Surgery
- Thoracic / Pulmonary Surgery

OTHER SERVICES

- Cardiac OPD (9 am - 9 pm) daily
- Specialised Cardiac ICU
- Ambulance - 24 Hours services
- Physiotherapy and Rehabilitation Department
- Specialised Nutrition and Dietetics Department

HEARTLINE NO. 011-47033333

Jaipur Golden Hospital , Institute Of Heart & Vascular Diseases

5th Floor, 2,Institional Area, Sector-3, Rohini, Delhi-110 085

Emergency Contact No. : 9891507002, 9891998700

Pursuing Our Purpose

BD

Helping all people live healthy lives

BD is a leading global medical technology company that develops, manufactures and sells medical devices, instrument systems and reagents. The Company is dedicated to improving people's health throughout the world.

BD is focused on improving drug delivery, enhancing the quality and speed of diagnosing infectious diseases and cancers, and advancing research, discovery and production of new drugs and vaccines. BD's capabilities are instrumental in combating many of the world's most pressing diseases.

Founded in 1897 and headquartered in Franklin Lakes, New Jersey, BD employs approximately 28,000 people in approximately 50 countries throughout the world. The Company serves healthcare institutions, life science researchers, clinical laboratories, the pharmaceutical industry and the general public.

For more information, please visit www.bd.com

Becton Dickinson India Pvt. Ltd.
6th Floor, Signature Tower-B, South City-I,
Gurgaon -122001, Haryana, INDIA
Tel.: (91-124) 2383566
Fax: (91-124) 2383224 / 5 / 6
Website : bd.com/india
Email: bdindia@bd.com

http://peoples-uni.org

The People's Open Access Education Initiative (Peoples-uni http://peoples-uni.org) is helping to build international Public Health capacity using Internet-based e-learning.

- Education is based on high quality materials published on the Internet
- More than 50 academics and Public Health professionals from 14 countries form an international volunteer faculty
- Awards are provided at the Certificate and Diploma level, with plans to upgrade to a Masters of Public Health. The education covers both the 'foundation sciences' of Public Health, and 'major problems in Public Health'
- A combination of freely available resources on the Internet and an international volunteer faculty allows learning modules to be developed and delivered at a very low cost
- Students have come from 28 countries to date: (each semester lasts 12 weeks, enrol in April and September each year)

Patient Safety is one of 12 course modules running currently, to help build capacity to understand and prevent threats to patient safety globally.

"Patient safety is a global issue affecting countries at all levels of development. Understanding the magnitude of the problem and the main contributing factors is essential in order to devise appropriate solutions." *(World Health Organisation)*.

For more information or applications, go to the web site: http://peoples-uni.org

Or contact:

Dr Joseph Mathew, Leader of Patient Safety module, jlmathew@rediffmail.com,

Dr Akhil Sangal, CEO, Indian Confederation for Healthcare Accreditation, akhil.sangal@gmail.com,

Professor Rajan Madhok, Chair of Trustees Peoples-uni, Rajan.Madhok@manchester.nhs.uk,

Professor Dick Heller, Coordinator Peoples-uni, rfheller@peoples-uni.org

Note: one of the modules on the Foundations of Public Health is available for public access at http://courses.peoples-uni.org/course/view.php?id=53

10 million tons by 2010

Making it India's largest single location integrated steel plant

- Where the untested contemporary is preferred over the proven conventional
- Where a people approach is as world-beating as cutting-edge technology
- Where peak capacity is only the beginning of a fulfilling journey
- Where 'stretching' beyond accepted standards is really quite the standard
- Where projects have qualified and have been registered as CDM projects by the CDM Executive Board of the United Nations Framework Convention on Climate Change (UNFCCC).

Pellets, Slabs, HR Plates, HR Coils, CR Coils, Galvanised, Galvalume*, Pre Painted, Long Products

JSW Steel Limited
www.jsw.in

JSW - Corp Comm \ 09-07

Thank You

Technical Partners

Pharmacy Council of India

Indian Nursing Council

IMANHB, TN

Event Partners

King Edward Memorial Hospital & Seth Gordhandas Medical College, Parel Mumbai

Gandhi Medical College & SZH Bhopal

Fortis HEALTHCARE JAIPUR

IMA Jalandhar

NIMS HYDERABAD

PUBLIC HEALTH FOUNDATION OF INDIA
IIPH Hyderabad

The Calcutta Medical Research Institute

Govt. of Jharkhand RIMS, Ranchi

Manipal Bangalore

Sanjay Gandhi Post Graduate Institute & Medical Sciences

Christian Medical College Vellore, India

Sri Ramachandra Medical College Chennai

Supporters

ETHICON a Johnson & Johnson Company

Indraprastha Apollo Hospitals touching lives

JSW Steel

COPPER

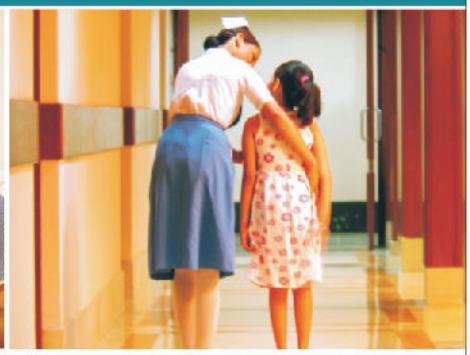
Group sanofi aventis

BIO-RAD

पावरग्रिड

helix CORPORATION

Apollo Hospitals Group



CYBERKNIFE

320 SLICE CT SCAN

Centres of Excellence

- Cardiology and Cardiothoracic Surgery
- Neurology and Neurosurgery
- Orthopaedics and Joint Replacements
- Medical, Surgical and Radiation Oncology
- Organ Transplants (Renal and Liver)
- Advanced Pediatrics

Cutting Edge Technology

- 320 Slice CT Scan at Apollo Hospitals, Chennai
- 64 Slice CT Scan
- 16 Slice PET CT
- Infection Free Operation Theatres
- Flat Panel Cardiac Cathlabs
- 3 Tesla MRIs
- Birthing Suites
- Hyperbaric Oxygen Therapy
- Computer Navigation System for Joint Replacements
- CyberKnife - Robotic Radiosurgery System
  (at Apollo Super Speciality Cancer Hospital, Chennai)

Apollo HOSPITALS
TOUCHING LIVES

Indraprastha Apollo Hospitals, Delhi
Sarita Vihar, Delhi Mathura Road, New Delhi – 110076 (INDIA)
Phone: +91-11-26925858 / 26925801 Fax: +91-11-26823629
E-mail: helpdesk_delhi@apollohospitals.com

India's First JCI Accredited Hospital