Mortality Meetings: Peer Review

Structured M&M meetings have the potential to contribute to the Governance of patient safety. They can improve the accountability of mortality data and support quality improvement without compromising professional learning especially when facilitated with the engagement of stakeholders. MHC has structured protocols for reviewing all mortality cases. The review is done by Peers of the same specialty, as well as multidisciplinary teams where required.

To improve the process a standard process within set timelines has been implemented. These are summarize below:

- A Checklist to identify triggers
- Setting different levels of Mortality review.
    - Level-1 (Medical Admin/Quality Team) (with in 48 hrs)
    - Level-2 (Departmental Peer review) (within 14 days)
    - Level-3 (Collation of forms by Medical Admin)
    - Level-4 (Monthly Mortality Meeting)
    - Level-5 (Monitoring and Decisions that needs escalation to be discussed in Medical Advisory Council)
    - Level-6 (All minutes to reach Clinical Director and if needed taken to General Medical Advisory Council)
- Holding Educational Seminars. More than 800 doctors underwent training
- Holding regular review on the progress of Audits for Mortality meetings
- Sharing of Root cause Analysis and common Learning's from the Mortalities in the form of Mortality Dashboard
- Evaluation of Mortalities in to different categories:
    - **Category I** – Terminal condition at time of admission.
    - **Category II** – Death that occurred due to complications. Death may not have been expected at time of admission, but was expected at time of death.
    - **Category III** – Case of unexpected death.

Level 1: By Medical Admin Team

Evluate as per template (within 48 hours of mortality)

Level 2: Peer Review: Department level MM

Each case is peer review:

- assess Level 1 and complete Level 2 assessment form

- Categorize mortality into # 1,2 or 3

- Mention contributing factors

- Give specific recommendations for improvements (send from to MS within 2 weeks of mortality)

Level 3 : By Medical Admin Team

- Collate all forms

- Tabulate learning's / Recommendations

Level 4: By M & M

Monthly Unit Level Central M & M Under Leadership of Chairperson:

- Discussion of Category 3 mortality
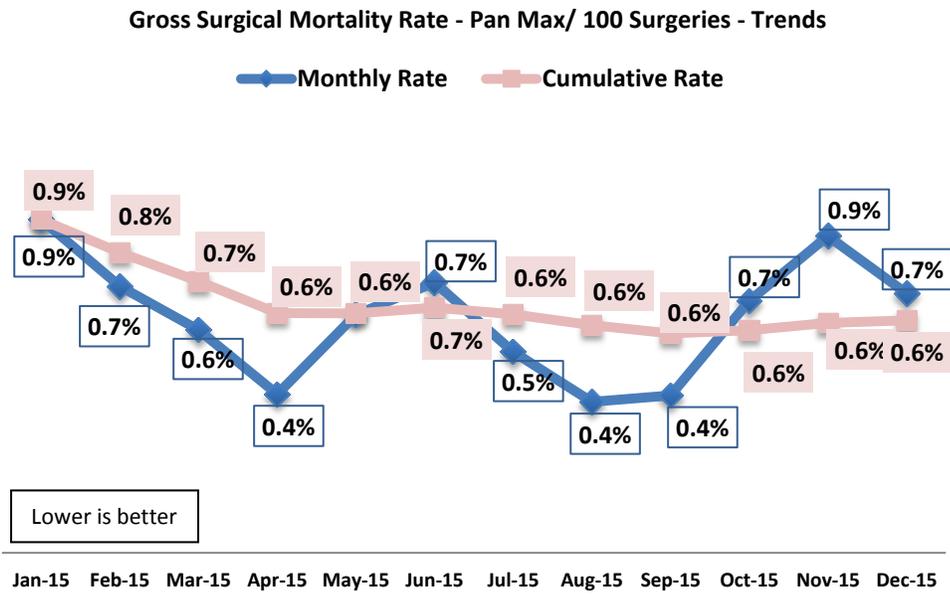
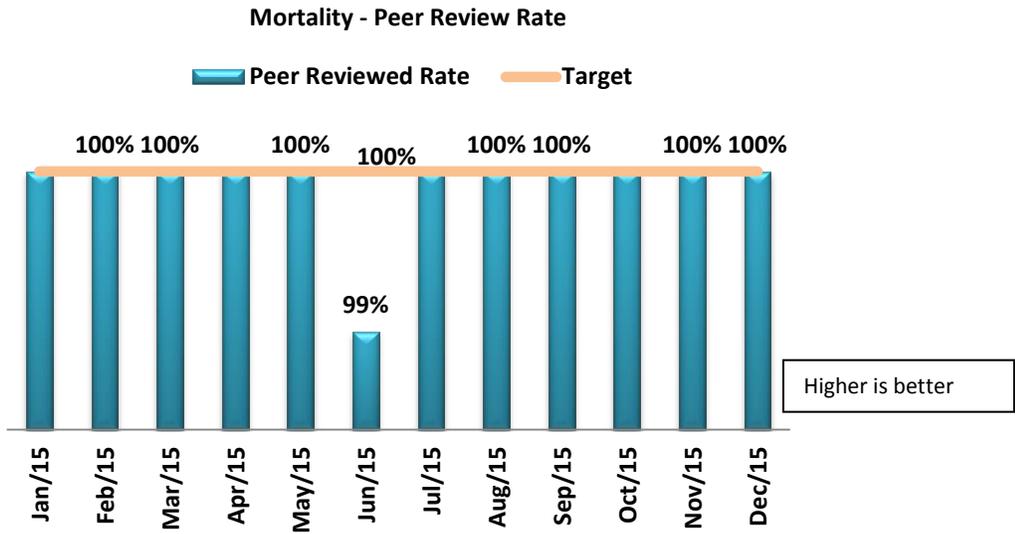- Agree on recommended solutions

- ATR of previous meetings

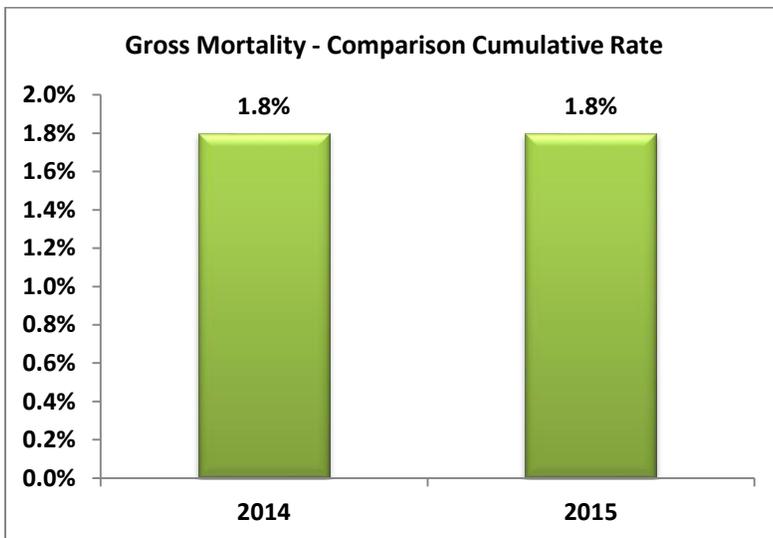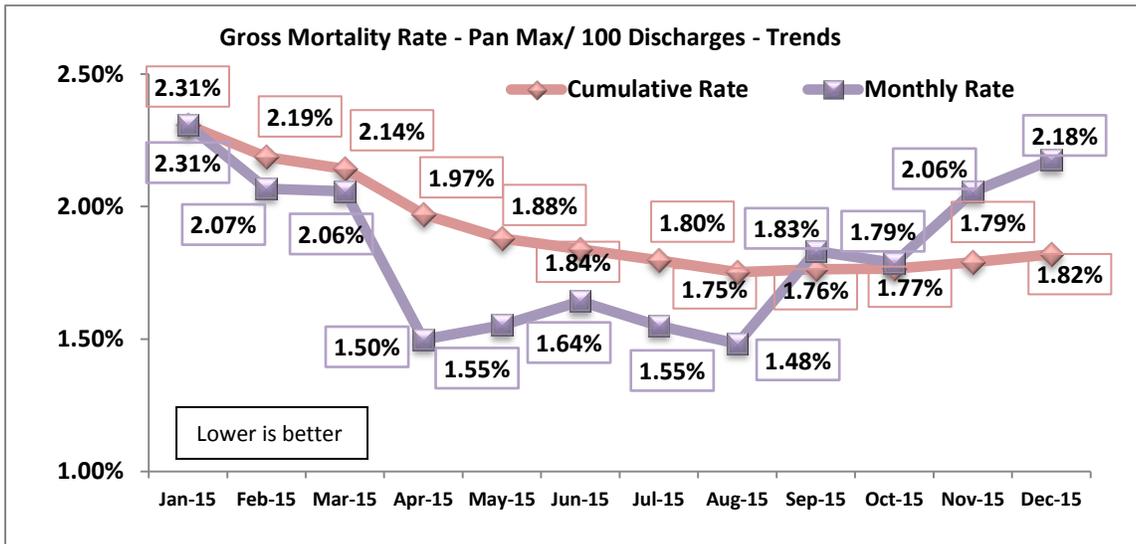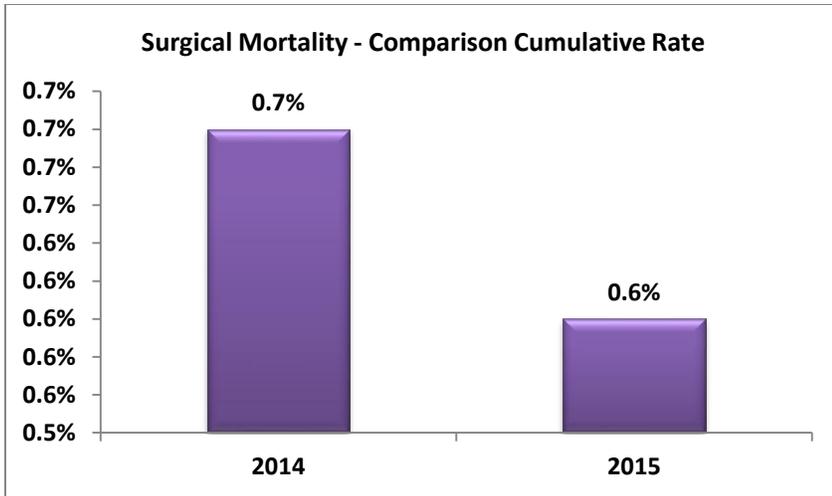**Level 5: By Medical Advisory Council**

- Monitoring and decisions that need escalation

- Follow up by MS/ Dy MS

Level 6: Clinical Directorate

All minute reach CD and if needed taken to General Medical Advisory Council

The success with peer reviews has been close to 100%. Mortality Rates are also on the lower side:
 Some new policies have been developed and implemented as part of our journey of continuous learning. These include massive transfusion protocol, ER discharge templates for patients, documentation templates for cardiac arrest, enteral feed policy, care of patient discharged with invasive devices and standards for pre-anesthesia check up.

Mortality - Peer Review Rate

Peer Reviewed Rate ▬ Target

100% 100% 100% 100% 100% 100% 100% 100%
100%
99%

Jan/15 Feb/15 Mar/15 Apr/15 May/15 Jun/15 Jul/15 Aug/15 Sep/15 Oct/15 Nov/15 Dec/15

Higher is better

Gross Surgical Mortality Rate - Pan Max/ 100 Surgeries - Trends

◆ Monthly Rate ■ Cumulative Rate

0.9% 0.8% 0.7% 0.6% 0.6% 0.7% 0.6% 0.6% 0.9% 0.7%
0.9% 0.7% 0.7% 0.6% 0.7% 0.6% 0.6%
0.7% 0.6% 0.5% 0.6% 0.6%
0.6% 0.4% 0.4% 0.4%

Lower is better

Jan-15 Feb-15 Mar-15 Apr-15 May-15 Jun-15 Jul-15 Aug-15 Sep-15 Oct-15 Nov-15 Dec-15

Surgical Mortality - Comparison Cumulative Rate

Year	Rate
2014	0.7%
2015	0.6%

Gross Mortality Rate - Pan Max/ 100 Discharges - Trends

Legend: Cumulative Rate, Monthly Rate

Lower is better

Month	Cumulative Rate	Monthly Rate
Jan-15	2.31%	2.31%
Feb-15	2.19%	2.07%
Mar-15	2.14%	2.06%
Apr-15	1.97%	1.50%
May-15	1.88%	1.55%
Jun-15	1.84%	1.64%
Jul-15	1.80%	1.55%
Aug-15	1.75%	1.48%
Sep-15	1.76%	1.83%
Oct-15	1.77%	1.79%
Nov-15	1.79%	2.06%
Dec-15	1.82%	2.18%

Gross Mortality - Comparison Cumulative Rate

Year	Rate
2014	1.8%
2015	1.8%

Table – MHC Inhospital Mortality as per ASA Levels

ASA Levels	MHC In Hospital Mortality	Various Studies
ASA 1	0.06%	0-0.3%
ASA 2	0.14%	0.3 -1.4%
ASA 3	1.25%	1.8 - 4.5%
ASA 4	5.77%	7.8-25.9%
ASA 5	14.75%	9.4 - 57.8%

ASA Level wise Mortality Rate from Jan 2014 to Dec 2015
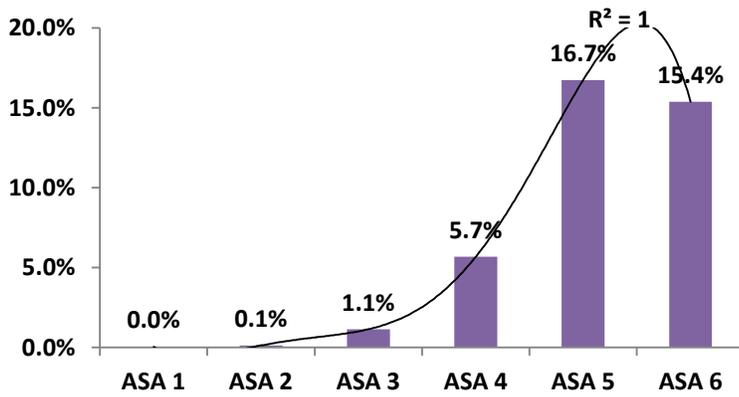
Ratio of Expected to Observed Deaths	Target: 1
Jan-Mar 15	0.93
Apr-Jun 15	0.94
Jul-Sep 15	0.94
Oct-Dec 15	0.95

Ratio of Expected to Observed Deaths

	Jan-Mar 15	Apr-Jun 15	Jul-Sep 15	Oct-Dec 15
	0.93	0.94	0.94	0.95

Higher is better

Reference line at 1.00 = 1
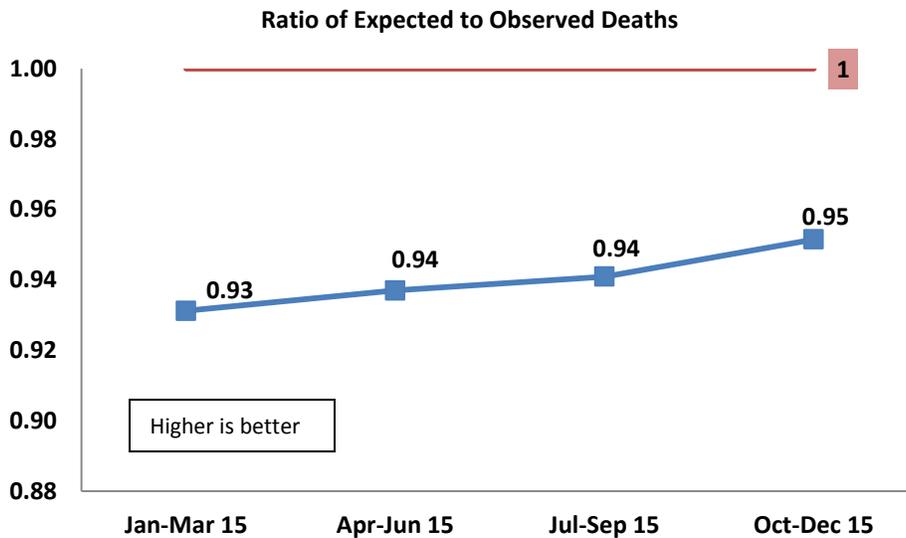
VTE Prophylaxis

Venous thrombo-embolism (VTE) is a potentially preventable complication in every hospitalized patient. The spectrum varies from asymptomatic DVT (Deep Vein Thrombosis) to sudden unexplained death due to Pulmonary Embolism (PE). Long-term sequelae include chronically swollen leg and venous ulcers which are difficult to manage, and entail considerable costs to the patient as well as the society. Timely risk assessment and appropriate use of prophylaxis to prevent VTE in those at risk is a critical safety practice in MHC.

The organization has taken up an ambitious goal to ensure that all patients at risk for VTE are assessed and given the correct prophylaxis. With close follow up with clinical teams, and indigenously developed software that analyses clinical data, we are able to track improvements efficiently, and use the data for planning interventions in identified areas that need improvement. Clinical alerts are sent to all Clinicians, for patients at risk. In a very short time, the graphs have shown significant improvement. Our target is to reach 100% by the next year.

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        ┌──────────────────┐
        │ DVT risk assessment │
        │  done by doctor    │
        │ within 24 hours of │
        │    admission       │
        └──────────────────┘
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DVT risk assessment done by doctor within 24 hours of admission

Adequate DVT prophylaxis instituted as per risk stratification

Real time identification of any oversight & taking corrective measures

E- Alert : CPRS generated alert if patient not on any DVT propylaxis

Contact consultant if no anticoagulant in place and no abvious contraindication

Empower nurses to place SCDs in patient on no prophylaxis as standing order (if no contrindications)

Human Alert: Always discuss regarding DVT prophylaxis for your patients, during rounds

Compliances calculated - While improving process compliance (documentation compliance) was our major target, finer level compliances such as order compliance, risk compliance, risk segregated action compliance were also calculated to give insights to doctors on correctness of the process being followed for documentation.

Process Compliance	For all patients at VTE risk for how many VTE notes were processed
Order compliance	For all patients for whom VTE was processed, for how many there was an order entered.
VTE Prophylaxis risk compliance	For all patients for whom VTE was processed, for how many there was a risk and order entered.
Risk segregated action Compliance	For all patients for whom risk category was mentioned for how many was the order appropriate

Compliance Data Analysis - Department level VTE compliance numbers were calculated for each CPRS based hospital from the month of July 2015 to October 2015. The model also allowed clinicians to even delve deeper and check compliance numbers for each doctor if required.

For non-CPRS Max hospitals showing low VTE documentation compliance, the units were asked to collect prospective data at department level in order to have better departmental focus in future.

Initiatives taken:

- Consolidated data for each unit was circulated to respective unit Medical Admin Manager/ Medical Quality Manager.
- Prioritized top 10 departments based on two parameters – i) High Volume of patients with VTE risk ii) Low VTE compliance
- MS/DMS initiated dialogues with focus departments
- Presentations to Internal Medicine, Cardiology, Oncology and MAMBS departments at SKT
- Regular trend update to units and follow-up wherever the trend was not going up
- IT driven implementation of mandatory reminder VTE acknowledgement for CPRS units

Future Initiatives:
- Design an audit process for VTE
- Conduct regular audits at units to ensure not only the documentation is happening but it is happening correctly and risk categories and orders are filled appropriately.

VTE Compliance in Documentation & Prophylaxis
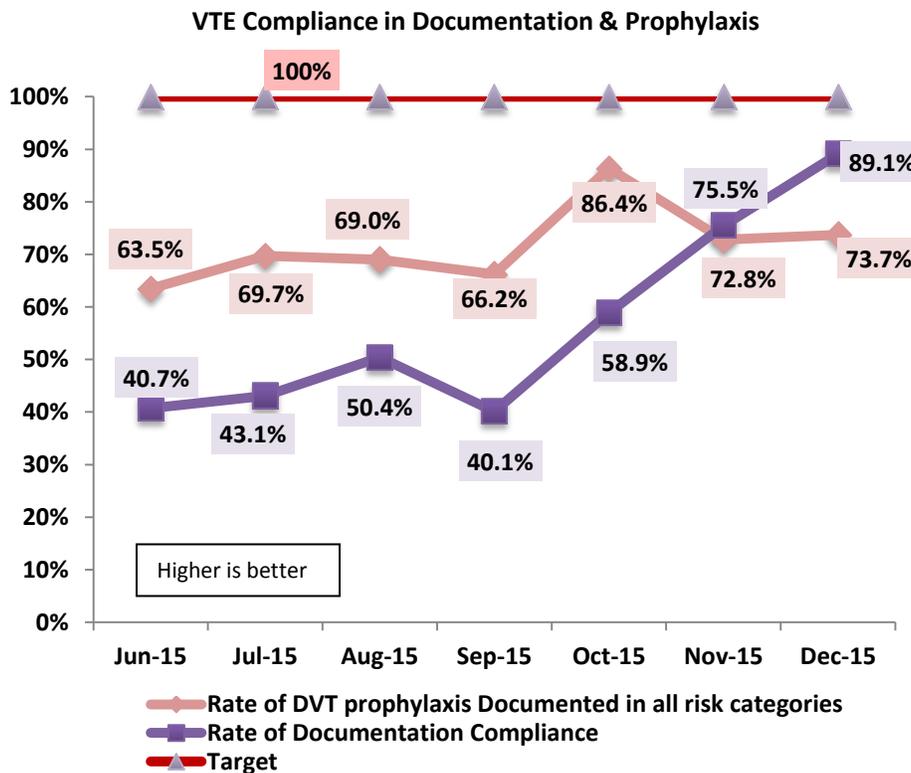
Second Opinion Service

It was felt that there is a need to provide a structured platform for MHC patients and clinicians to take a second opinion thereby making it easier for the patients and the treating physicians to make an informed decision regarding patient's healthcare needs. Getting a second opinion can also fill an important emotional need by providing reassurance and acceptance for the patient. From a cost-effectiveness point of view, second opinions can save health insurance providers money by establishing the certainty of a clinical need (or lack of need) for certain procedures.

With the above aim in mind, Clinical Directorate has engaged with a third party provider which has several nationally and internationally renowned faculty on its panel. The pilot has been initiated at Saket since January'16. The program will be rolled out Pan Max post a successful 3 months pilot. Detailed flow chart for second opinion process is attached in the Appendix.
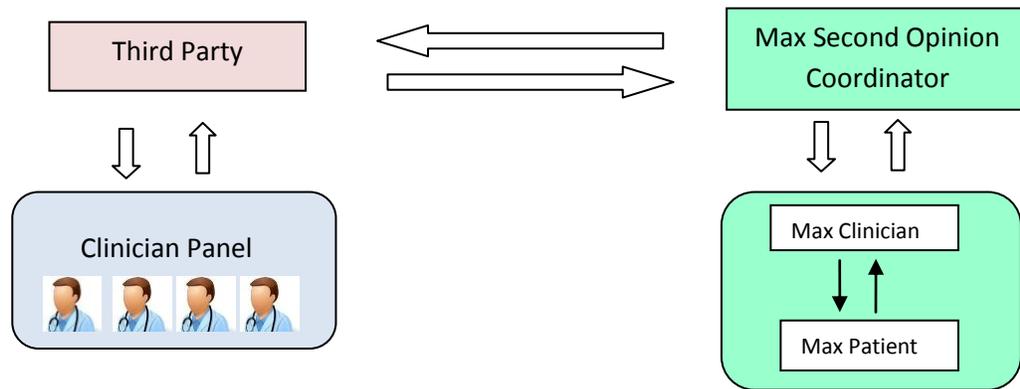
Figure – Flow of Second Opinion Program

Progress

Figure – Timeline for Second Opinion Program

Anti Microbial Stewardship (AMS) Program

MHC has a commitment towards rational use of Antibiotics. Towards this, we have a robust **Anti Microbial Stewardship (**AMS) program in place. An antibiotic policy is in place, which also ensures procedures for justification, escalation and de-escalation and monitoring multidrug resistant organisms. This includes development and release of regular antibiograms for reference and use by physicians across the network. A mobile app is in use to facilitate easy access, which is available to all our physicians. By using this mobile app, a clinician can access the antibiotic policy any time of the day at patient bedside to initiate rational empirical antibiotic therapy. The same app can be used to escalate and deescalate the antibiotic therapy. The outcome

indicators being captured for AMS app will be usage pattern as well the Drug Resistance Index (DRI). The DRI for 2014 has already been calculated. The same for 2013 and 2015 is under consideration.

Universal application of the AMS program across our network leads to a safer and more effective environment for our patients.

Physician Scorecard

An important new initiative has been designed to evaluate Physician performance. The criteria cover clinical care, process compliance, behavioral and academic activities. This physician scorecard will pave the way for objective evaluation of physician performance. The criteria are common across specialties and some that are specific to the specialty.

Clinical Performance Indicators: 2015-2016						
Department : ABC						
Consultant: Dr. ABC						
Parameters	**Departmental Average**	**Goal**	**Bench mark**	**Reference**	**Sep**	**YTD**
Volumes						
OP Consults						
IP Admissions						
ALOS Ward						
Clinical Results						
Mortality Rate(%)						
Category 2 and 3 Deaths Rate						
Catheter Associated Urinary Tract Infection per 1000 catheter days						
Ventilator Associated Pneumonia per 1000 ventilator days						
Catheter Associated Blood Stream Infections per 1000 catheter days						
Unplanned Re-admission Rate (%)						
Medication Order TAT for new patients in ward(Min)						

Rate of Compliance to VTE Risk Documentation (%)						
Rate of VTE Prophylaxis Documented in all risk categories (%)						
Sentinel Event Incidents						
Service Quality						
Complaints /Legal Cases						
Behaviour (At Risk)						
Medical Record Documentation Compliance%						
Teaching and Academics						
DNB/Fellowship/other Teaching Hours /week						
CMEs attended (hours)						

MHC Healing Hands Award

This prestigious award recognizes clinical excellence within the MHC network of hospitals. The best performing hospital is given a trophy. In choosing the metrics, an in depth exercise was undertaken, to identify reliable measures of clinical processes that impact efficiency and patient safety, and could be applied across all hospitals. The measures are also critical to quality and safety. A set of nine measures were rolled out simultaneously across all hospitals and a comparative dashboard was published monthly. These included 4 process measures, 4 outcome measures and one training measure. Process measures included: turnaround times for medication orders, medical documentation compliance, compliance to DVT prophylaxis and peer review of death cases.
The outcome measures included HAI rates and category 2 and 3 death rates. The training indicator measured the number of new resident doctor's who have undergone medical induction.
The hospitals have worked very hard through the last year, raising the standards uniformly across and the winner has won by a very close margin.

Healing Hand Award Scores on Clinical Excellence Metrics

Hospital	Score
Hospital 1	0.35
Hospital 2	0.33
Hospital 3	0.36
Hospital 4	0.31
Hospital 5	0.35
Hospital 6	0.34
Hospital 7	0.33
Hospital 8	0.32
Hospital 9	0.22
Hospital 10	0.21