Title/Project Name : Integration of Emergency Patient Care Services Across Max Network for Improved Clinical Outcomes and Operational Efficiencies.

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ABSTRACT

Emergency services have the most visible impact on patient outcomes and reflect the quality of care provided. As a network of 14 hospitals (including 3 day care centers) Max Healthcare is in a unique position to provide seamless Emergency care through standardization of clinical protocols, optimization of infrastructure and manpower resulting in more saved lives and better clinical outcomes.

We had to rethink how we structure and govern our ER departments. World was moving away from one Chair concept to an executive group with accountabilities for standardized trainings, credentialing, clinical guidelines and protocols.

As part of a new clinical governance model CESC(Central Emergency Services Committee) was instituted. CESC is unique in India and given the positive results we have seen it has potential to be replicated to other clinical departments and hospitals. This model of governance will only benefit the patients and community at large.

1. **Key Words:** Central Emergency Services Committee, standardization, governance

2. Introduction:

Max Healthcare has the Largest Emergency footfall in Delhi NCR region (private healthcare) having 124 ED beds with 24x7 super specialty & diagnostic backup. It is manned by 133 ED Physicians, 226 ED nurses, 56 Support staff, 92 GDAs, 61 Paramedics. Flagship Emergency Department at Max Superspeciality hospital at Saket is Accredited by Joint Commission International and National Accreditation Board for Hospitals.

Max network of EDs was not reaching full potential for its patients because of lack of standardization, integration within and lack of coordination between pre hospital care and hospital care. There are 11 Emergency Departments in each of the 11 hospitals.

All of them were working in isolation. There was limited collaboration with Ambulance services and non in clinical processes and reviews.

Methodology or Process: SIPOC was used as a tool to identify key departments in the care delivery value chain(CDVC) and Project sponsor and lead were identified. One on one indepth discussions were held with all stakeholders along with departmental heads. . Separate discussions were held with International and National authorities of Emergency medicine - Prof Kumar Alagappan – (Professor & Chair, Department of Emergency Medicine, MD Andersen, University of Texas) and Prof Peter Cameron - (Academic Director, The Alfred Hospital, Monash University, Australia). As a result there was fundamental rethink on how we structure and govern Emergency departments. It was agreed that world was moving away from one Chair concept to an executive group with accountabilities for standardized trainings, credentialing, clinical guidelines and protocols. This led to first of its kind clinical governance model in India - Central Emergency Services Committee (CESC). CESC is chaired by Group Clinical Director and it's permanent members are ER heads of each Max Unit, Nursing Head, Ambulance Head, Head of Service Quality, IT, Legal.

Terms of reference for CESC were framed and approved by apex management body of Max Healthcare. Max ER Motto, Patient expectations and Strategic plan were listed and monthly reviews were established. Key focus areas identified by CESC were:

- Staff: Trained, qualified, motivated, appropriate skill and grade mix
- Infrastructure: Size, resuscitation areas, Vulnerable area, triage, waiting area, reception, staff and patient conveniences, equipment maintenance, consumable stocks
- ER processes: Standard protocols (Head injury, MI, Stroke, Sepsis, Major trauma), Triage instruments
- Coordinated emergency care throughout the patient pathway: Shared ownership, collaborative approach with specialists, diagnostics
- Monitoring and knowledge of outcomes: IT Based, adverse event reporting, mortality and morbidity review, complaint monitoring to highlight system and or individual failure
- Commitment of senior management to ensure adequate resources (finance, equipment, and infrastructure) and active visible management engagement with Emergency, leading to empowered and motivated Emergency Department staff.

Our initiative was aimed to assure our patients of faster and better emergency medical care. A questionnaire was adapted from IFEM standards to assess the Emergency Department on various parameters such as complexity/acuity of care and Emergency footfall. Based on the feedback, Emergency units across network were accorded levels and deployment plan for each level of ER was established. Uniform credentialing, privileging, hiring, deployment norms were established. Admission to discharge from ER criteria were established for each unit to ensure best possible care. Transfer to higher protocols were established to ensure patients are

transferred to a better facility for life threatening conditions when infrastructure in a particular unit was inadequate to benefit the patient.

Through the high-powered management team representation resource allocation was ensured and ER dashboard (comprising of 28 structure, process, and outcome measures) was reviewed monthly. Through this rigour in Governance and laser sharp focus on Emergency service we have been able to build trust with local communities our 14 facilities serve and the same is visible in feedback we received. Impact of refined processes can be seen from the improvement in feedback scores (collected by third party KANTAR IMRB).

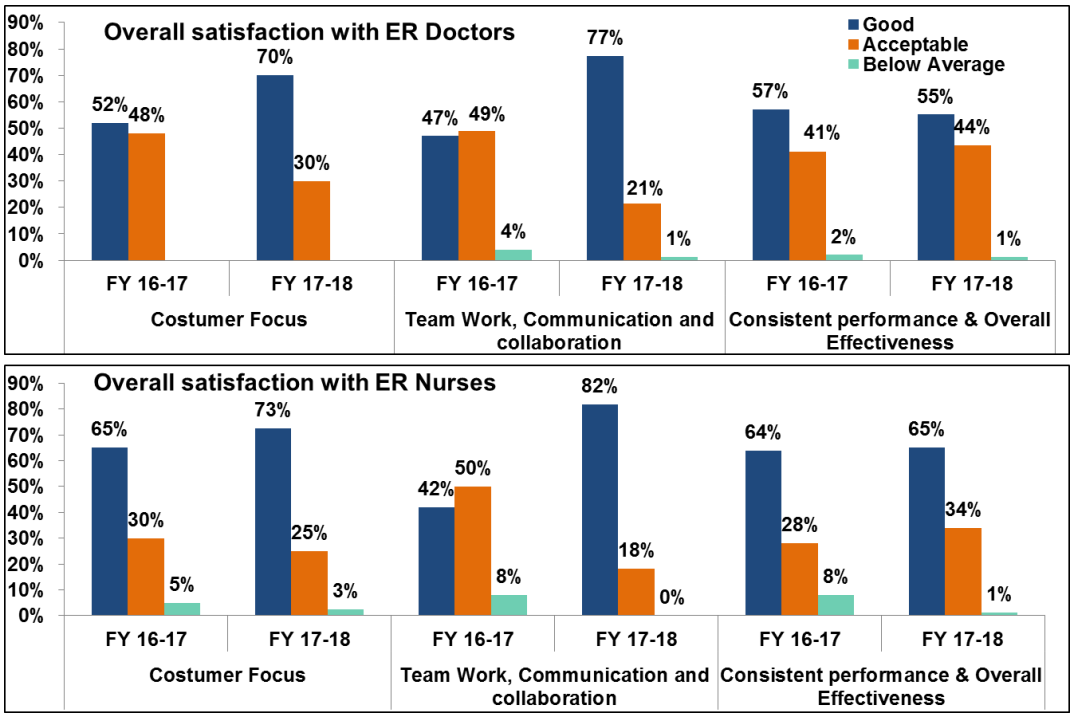
Emergency Department Motto: Every Patient to the Right Clinician at the Right Time in the Right Clinical Setting

Results/Strategic Impact

- Higher Patient Satisfaction (significant improvement in Emergency patient satisfaction scores from **46%** (Oct'18) to **70%** (Jun'18). It is done by third party (KANTAR IMRB) to avoid biases.

Project CTQ	PRE-PROJECT	Oct'16 (Implemented)	Jun'18	% IMPROVEMENT VS PRE PROJECT
Emergency IMRB Score	No Patient satisfaction survey	46%	70%	24%

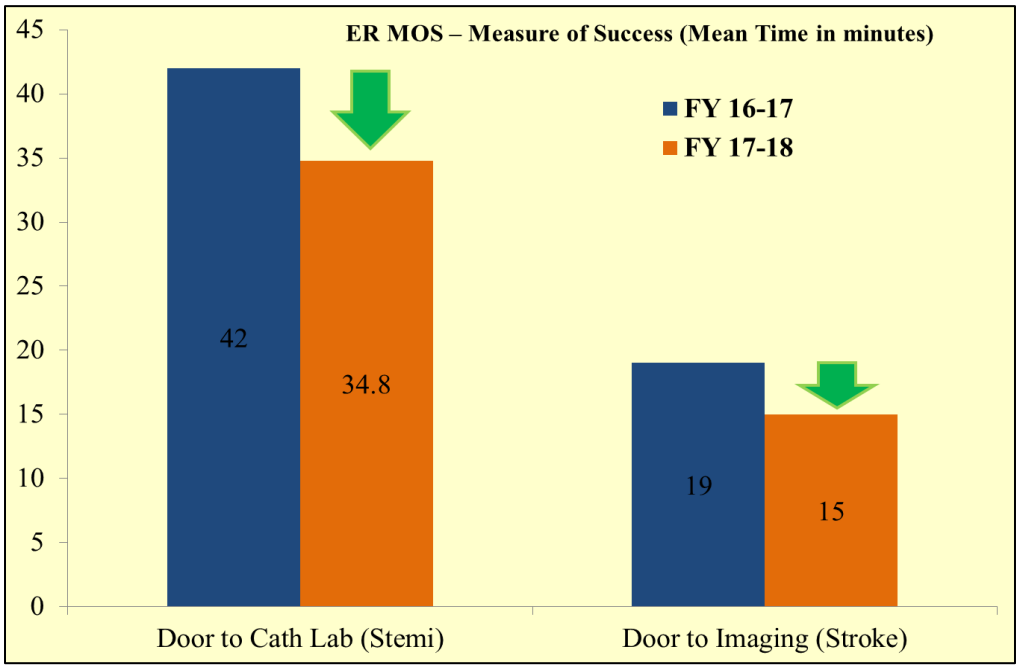
- Higher Employee (physicians & nurses) Satisfaction in ER across all parameters



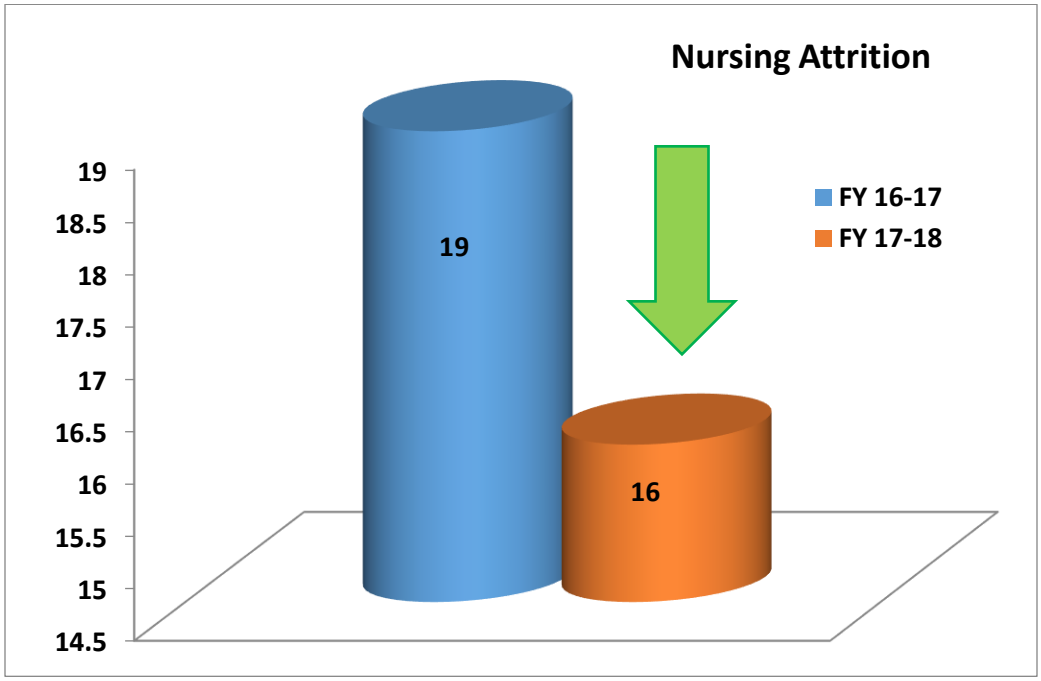
- Uniform policies and clinical protocols across the Max network of hospitals

- **LAMA Policy**
- **Sexual Assault Victim Policy**
- **MLC Policy**
- **Policy for handling febrile illnesses**
- **Legal Escalation Matrix**
- **ER to ICU transfer Policy**
- **Code Poly Trauma, Code Stroke, Code MI implemented to save time and life**
- **Transfer to higher center for key emergencies**
- **Admission criteria from ER to specialist established (to ensure admission to under right speciality)**
- **Policy ensuring dispatching of manpower in ambulance from nearest unit**

- Improved outcomes demonstrated by reduction in time between receiving the patients and start of definite treatment (Door to Cath Lab and Door to Imaging time)



- Reduction in nursing attrition and increased nursing training hours



- ERs across network were categorized into level 1,2,3,4 basis acuity, footfalls and service profile of hospitals

- Appropriate skilling and deployment of physicians and nurses basis the level of ER
- Infrastructure upgraded, as an outcome of patient feedback and time in ER report
- Seamless pre hospital and hospital care though better alignment between ambulance fleet and ER doctors
- Real time monitoring of patient vitals while in-transit using ViOS monitor
- ERC(Emergency Response Centre) setup was made to ensure appropriate history is taken and right ambulance with right staffing is dispatched. Also, till the ambulance reaches, attendants are kept advised on steps to be taken.

Conclusion:

Our innovation in Clinical Governance has paved the way to meet and surpass expectations of patients when they are in extreme pain or facing life and death situations. In such times they need to know that they are in safe, empathetic environment where qualified teams are working in tandem to bring them timely relief and save their lives.