A review of Acute Care Quality Indicators relating to mortality factors and the role of electronic patient tracker in the Acute Medical Unit

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Background
Acute Medical Units have a major role to play in delivering efficient, cost-effective and high-quality care to patients, who are admitted as an emergency or become acutely unwell during their hospital stay. In order to improve the quality of care and performance, the Society for Acute Medicine (SAM) proposed the expected standard of care using key indicators applicable to all Acute Medicine Units (AMUs).

We, at Blackpool have been carrying out audits on AMU BVH using SAM Care Quality Indicators (CQIs) since 2012. The latest review covered the performance of AMU from July 2015 to December 2015, and looked into the effectiveness of new electronic Patient Tracker whilst studying mortality in relation to SAM CQIs.

The AMU Patient Tracker was introduced in May 2015 on AMU. The AMU Patient Tracker is a Health Informatics application, which displays patient information from time of referral up to their destination (i.e. discharge, transfer, RIP), clinical input from doctors, nurses and pharmacists with date and time stamps. It can be accessed using individual login from any desktop in the hospital. The LCD tracker display screen fitted on AMU gives an up to date patient information 24/7, and has proved to be a useful handover tool.

Objectives
• To measure the effectiveness of e-tracker on improvement in acute CQIs relating to Mortality rates vs. conventional auditing from medical notes
• To compare performance of AMU BVH to Society of Acute Medicine standards

Methodology
Retrospective analysis of mortality data using AMU Patient Tracker, which takes into account the parameters set by SAM and additional warning indicators.

Results
• Total of 116 patients out of 8323 admissions died between Jul to Dec 2015 with mortality rate of 1.39%. Mortality rate from previous audit (May to July 2013) was 1.32%.
• The EWS based colour-coded triage prioritized, and accelerated the clinical assessment as compared to writing the EWS score on the whiteboard.
• 95% patients were triaged within 15 minutes of arrival.
• 70% patients were clerked within 1 hour of arrival as compared to 21% and 31% in previous audits.
• 74% had consultant review in < 12 hours in contrast to 37% and 20% in previous audits.
• 100% documentation of times of assessments was achieved.
• Out of hour referrals of deceased increased to 79% as compared to 10% in previous audits.
• 74% had DNACPR forms completed, 35% were highlighted for end of life care, 21% were considered appropriate for Amber care bundle, 59% were highlighted as ‘Unwell’ on senior review. Previous audits did not include the warning indicators other than DNACPR documentation.
• The top 6 causes of death had been pneumonia (23%), Sepsis (16%), cancers (13%), CCF (8%), COPD (7.83%), AKI (7%). The previous audits broadly identified the causes of death as Infections, Respiratory, Cardiac & Gastroenterology.

Conclusions
• The use of e-tracker system resulted in rapid and accurate audit completion within one week.
• The e-tracker highlighted mortality related warning indicators.
• The e-tracker facilitated a marked improvement in compliance with SAM Care Quality Indicators.

References