

Mortality update for May 2016 Board of Directors

SHMI and CRAB data review

As previously reported verbally to Board the latest SMHI for the period Oct 14 to Sep 15 is 1.127 (0.905 – 1.105), this is 'worse than expected'. The main diagnostic groups contributing to this are respiratory and sepsis.

The CRAB data for last month shows that the level of patients with multiple triggers was normal and the Trust continues to have excellent risk adjusted mortality for Surgery. The surgical observed/expected complications ratio is within normal confidence intervals. The return to theatre rate is also within expected limits. In surgical patients, the shock/cardiac arrest and nosocomial (hospital acquired) pneumonia groups are within normal range.

Both medical and surgical readmission numbers are above the normal ranges. In order to explore the reasons behind this an audit of readmissions is being undertaken.

The data shows a rise in Sepsis. From being at a moderate level in June last year, sepsis has risen in the last 3 months. See below re Dr Foster sepsis outlier alert.

In medical patients, the shock/cardiac arrest group is within normal range however nosocomial (hospital acquired) pneumonia and acute kidney injury (AKI) continue to be above the expected limits. This reflects the high acuity of medical admissions.

The lack of level 2 (HDU) facilities for care of higher risk medical patients remains an issue.

Dr Foster have been engaged to undertake an external review of hospital mortality.

Imperial College Dr Foster mortality outlier alert – Septecimia

The Trust has received a new Imperial College Dr Foster mortality outlier alert for Septecimia. The alert indicated that there was a significantly higher than expected mortality for patients with Septecimia. They explain that there are a number of possible reasons for these results, including random variation, poor data quality, coding problems, and case-mix issues, and therefore there are no firm indications of what has resulted in these figures.

Figure 1. Southend University Hospital NHS Foundation Trust: Septecimia (except in labour)
This chart indicates that on at least one occasion in the three months to Dec 2015, risk-adjusted mortality of double the expected rate was recorded at this trust for this diagnosis or procedure.



Below is a summary of the findings:

- The analysis of hospital data of cases with diagnosis of Sepsis reveals a mortality rate of 26.3% against Dr Foster's data of 27.5%
- In the last period for which the data is available for SHMI (Oct 14 – Sep 15), SUH had 361 admissions attributed to Septecimia. Of these, there were 105 deaths giving a mortality rate of 29%. The expected mortality for the Trust should be around 18%.
- The dataset from the Critical Care performance indicator shows that patients with sepsis are particularly ill on admission and therefore at high risk of death. This correlates well with previous data that indicates patients admitted to ITU at SUH are more seriously ill than other similar units nationally.
- The Trust joined UCLP sepsis breakthrough improvement collaborative in 2015 with the objective of improving outcomes for sepsis patients. An analysis of the data collected for this shows that the Trust are poorly compliant with instituting robust processes to prevent further deterioration of sepsis patients once they are admitted to the wards.
- Although there is no specific dataset for sepsis from our local CRAB data, the closest surrogate marker is 'positive blood cultures' for Medicine and Surgery. The dataset shows that while surgery falls within acceptable limits for positive blood cultures, there were 3 occasions between Jan 15 – Dec 15 when the relevant limits were exceeded in medicine
- The 2015/2016 national Sepsis CQIN data shows that the Trust achieved the set objectives for sepsis screening of eligible patients admitted to ED and for administration of antibiotics within 1 hour of diagnosis. These figures suggest that processes for screening and antibiotic administration are currently robust in ED

Recommendations and actions:

- Disseminate the findings to the whole consultant and senior nursing body so that they are aware of the extent of the problem, and that they have a part to play in improving outcomes. This is a truly multidisciplinary/multiprofessional issue.

- The entire hospital needs to actively engage with the sepsis team as we move our activity to the ward areas. Up to now we have focussed our efforts at the front door and have achieved good results. However, inertia has been a real problem.
- The sepsis team will undertake serial QI initiatives in the next 12 months, and monitor progress using 8 process indicators, and 3 outcome indicators. Integral to this is robust compliance with the sepsis 7 initial management bundle of care, which we will also audit
- Sepsis outcomes should be reviewed as a standing item at the Mortality Review group to provide the high level governance oversight
- We aim to sign up to the 2016/2017 national sepsis CQUIN, which focusses on screening and time to antibiotic administration
- We will continue to work with the UCLP sepsis collaborative so that we benchmark our outcomes regionally
- We are investigating an add-on to the nerve centre software which has the capability to trigger for sepsis. However, this is not a certainty at this time.

Update on previous Dr Foster Mortality Outlier Alerts

Intestinal obstruction without hernia

- repeat audit being undertaken in May 2016

Acute Bronchitis - case note review undertaken:

- coding issues related to palliative care and clinical recording / coding of initial and final diagnoses are being addressed (see below)
- no avoidable deaths identified

Assessment of avoidable mortality

Following NHS England's letter regarding standardised structures for mortality review and reporting, the Trust has established the Mortality Surveillance Group (MSG). The group meets on a monthly basis with dates confirmed for the remainder of the year.

The process for retrospective case note review has been instigated.

Coding issues

Reviews have previously taken place and these confirm that coders are coding correctly in accordance with coding rules.

Meetings have commenced between the coders and the clinical teams to ensure a mutual understanding of the coding process and to improve the quality of medical record keeping. The particular areas being covered are the recording of the initial diagnosis and the correct identification of patients with advanced malignancy in whom death is expected.

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