North Cumbria University Hospitals NHS
NHS Trust

TRUST BOARD

Date of Meeting: 11/09/2012	**Agenda Item No:** 8.2	**Enclosure:** 9
Intended Outcome:		
For noting ✓	**For information**	**For decision**
Title of Report: Improving Patient Safety by Indentifying the Potential Causes of Harm		

Aims:
To update the Board on an innovative initiative to improve patient safety by identifying the potential causes of harm

1. Executive Summary:

The Medial Directors office has developed a Trust wide plan for ensuring the Trust has robust systems in place to identify patient harm and the impact on patient safety.

The plan been designed to achieve two objectives;

- To provide a system which will identify the potential causes of patient harm and through this enable clinical teams to continuously improve the safety and quality of patient care through lessons learned
- Identify any factors contributing to the Trusts current measures for mortality rates including aspects of clinical care and the way in which clinical information is processed for example clinical coding

The principle tool for indentifying harm which will be used in the plan is the IHI Global Trigger Tool for Measuring Adverse Events which provides an easy-to-use method for accurately identifying adverse events (harm) and measuring the rate of adverse events over time. This tool is used internationally by the highest performing hospitals to support the delivery of patient safety and high quality of care.

Tracking adverse events over time is a useful way to tell if changes in clinical practice trust systems and models of care are improving safety and quality. Through this plan the Trust will be aiming to provide the highest quality of patient care and ensure that the risks of harm are reduced to the lowest possible level.

2. Background

As a provider of healthcare it is essential that effective systems are in place to understand and reduce the risk of harm including the causes of mortality and morbidity within our services. Mortality measurement is a complex issue and has a key role to play in monitoring safety and quality performance. It is however essential that the mortality data quality accurately reflects the clinical management of patients and the organisations activity.

Traditional efforts to detect harm through adverse events have focused on reporting and tracking of errors (through incident reporting systems such as Ulysses used by the Trust). However, public health researchers have established that only 10 to 20 percent of errors are ever reported and, of those, 90 to 95 percent cause no harm to patients. Hospitals therefore need a more effective way to identify events that cause harm to patients, in order to select and test changes to reduce harm. In 2000, a group of IHI

faculty consisting of clinical experts and other professionals developed the first IHI Trigger Tool in an effort to detect the potential causes of harm. Over time the IHI Global Trigger Tool has been developed to combine various measures and factors one tool that can be used to measure harm at the hospital level.

Since its development in late 2003, use of the IHI Global Trigger Tool has spread from collaborative projects to large-scale improvement efforts, including IHI's 5 Million Lives Campaign. The IHI Global Trigger Tool has become a tool that hundreds of hospitals in multiple countries now use to monitor adverse event rates while working to improve patient safety. This extensive use of the IHI Global Trigger Tool has provided the opportunity to collect feedback from those using the tool and identify opportunities to clarify definitions and update material.

In the UK there are three main measures which are used to compare harm through mortality;

Standardised hospital mortality ratio (HSMR)
This indicator is produced by comparing the 'observed deaths' with the number of 'predicted deaths' after adjustments are made in relation to a number of variables such as the type of admission (elective/emergency), presenting condition and co-morbidities.
The Trust has subscribed to Dr Foster which is the organisation which calculates HMSR information nationally. The Trusts current HSMR is higher than expected and is identified as an outlier.

Risk Adjusted Mortality Indicator (RAMI)
Currently mortality data is recorded through existing Trust coding mechanisms and reported to CHKS. The CHKS HSMR is known as the RAMI (Risk Adjusted Mortality Indicator). This data has significant limitations and if we are to truly understand mortality data generated by the organisation we need to systematically monitor and review this data. The RAMI is within expected range.

Standardised Hospital Level Mortality Index (SHMI)
This is the most recent indicator which will be used as the national standard for reporting mortality across England. The SHMI includes deaths within 30 days of discharge and has no exclusion for palliative care Z51.5 (unlike RAMI which excludes any death coded Z51.5). The SHMI gives an indication of whether the mortality ratio is as expected, higher than expected or lower than expected when compared to the national baseline. The Trust is currently within the expected SHMI ratio.

3. Details of the Trust Plan

As part of the Trusts commitment to improving safety and quality the Medical Director's office has led a number of developments in relation to reviewing and reducing mortality. These developments include the following;

- A Mortality Framework was introduced in April 2012. The overarching purpose of this framework is to have a robust and proactive system to support continuous improvement in the safety and quality of care we provide. The framework supports the sharing of lessons learnt so that teams can understand the underlying causes of mortality and morbidity.

- Weekly mortality review meetings to ensure any patient safety issue or suboptimal care is identified promptly, assessment of deaths with the aid of a trigger tool and to ensure that coding of patients deaths and therefore data quality is accurate.
- Mortality and Morbidity meetings held monthly, at both hospital sites, within Divisions some being more developed than others. Cases for review are identified by the Medical Directors Office during the weekly mortality review meeting. Once the case is reviewed by the relevant clinical team a reporting template is completed which incorporates actions and lessons learned when appropriate and this information is then forwarded to the Medical Directors office.

The next steps of developing the plan involves two key aspects;

- A review of a hospital records for patient deaths in hospital in 2011/12 which will be undertaken by multidisciplinary groups of clinicians
- Taking the existing Mortality and Morbidity framework to the next level of development through a coordinated Trust wide approach from team and Divisional reviews to ensure learning is networked across all services in the Trust.

Reviews will be undertaken by multidisciplinary groups of clinicians supported by coders and the NCUH Information team in a coordinated programme. Clinicians are using "triggers" (or clues) to identify possible adverse events using the IHI Global Trigger Tool.

This is a longer term proactive approach to identifying key factors which lead to harm and through this develop pathways, treatments and systems which continuously improve the safety and quality of patient care. This will enable the Trust to reduce harm to the minimum levels possible and measure improvements over time which resulted from these changes.

4. Initial Findings

As part of the Mortality and Morbidity framework a number of Trust wide reviews have been undertaken including a review of a cohort of patients with a low 'predicted mortality' rating (taking into account age, long term conditions or other diseases or co-morbidities). Accurate information relating to whether the patient has a low predicted mortality or a high predicted mortality is essential if the Trust is to compare performance and potential harm against other hospitals in a meaningful way.

Whilst all of the cases reviewed had a low predicted mortality the clinical audit did not confirm this mainly due to the lack of patient level information including 'Do Not Resuscitate' notices or patients on the 'Liverpool Care Pathway' for end of life care and/or a previous referral to the Palliative Care team. The Trust therefore needs to undertake a wider review as described in the next section.

5. Next Steps

The Medical Director, Deputy Medical Director and Associate Medical Directors for Medicine and Clinical Support have discussed the outcomes of the reviews undertaken to date. There is an indication that there are data process and administration issues which need to be addressed. The Trust review therefore needs to consider wider factors in addition to using the trigger tool in line with the Dr Foster tool for understanding mortality data. This includes;

- Checking coding (accuracy and depth)
- Reviewing case mix including co-morbidity
- Reviewing structure of local services including the impact of local pathways and availability of local community services for end of life care
- Reviewing the processes by which the Trust identified potential quality issues such as use of alerts
- Identifying any individual/team in terms of patterns and risks
- Correcting any data errors from 1 April 2012

Of equal importance the outputs of any reviews will be incorporated in Trust wide systems to reduce the risk of harm to patients and continuously improve safety. This will be delivered through future changes to clinical practice and systems for delivering patient care including the following Trust wide systems;

- Development of a Trust wide framework/system for identifying and reducing harm
- Trust wide use of IHI Global Trigger tool and standardised approach to reviews
- Revisions to policies and guidelines to ensure they are 'safe' and reflect best practice
- Mandatory and individual training programmes
- Trust wide performance reporting tools including provision of ad hoc information
- Communication plans for staff and patients, public and media
- Revisions to information processes which improve the interface between clinicians and information management (including coding)

Specific implications and links to the Trust's Strategic Aims:	
Ensure we provide high quality, safe and effective care for all our patients including meeting essential standards of safety and quality as set out by the CQC	✓
Develop a viable integrated clinical strategy for secondary care services which is sustainable and affordable	✓
Develop a new healthcare facility in West Cumbria that is fit for the 21st century	
Achieve sustainable financial balance through the delivery of the Trust's internal Cost Improvement Programme, securing a viable contract income from our GP commissioners and contributing to the system wide cost reductions	
To develop and implement a successful merger or acquisition plan that enables the Trust to become part of an existing NHS Foundation Trust	✓

Recommendations:

The Board is requested to note this report.

Prepared by:	**Presented by:**
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