University Hospitals
Birmingham
NHS
NHS Foundation Trust

Quality Account Update

for Quarter 2 2017/18
(July–September)

Contents

1. Introduction

The Trust published its eighth Quality Account Report in June 2017 as part of the Annual Report and Accounts. The report contained an overview of the quality initiatives undertaken in 2016/17, performance data for selected metrics and set out six priorities for improvement during 2017/18, including two new priorities:

Priority 1:   Reduce grade 2 hospital-acquired avoidable pressure ulcers
Priority 2:   Improve patient experience and satisfaction
Priority 3:   Timely and complete observations including pain assessment
Priority 4:   Reduce medication errors (missed doses)
Priority 5:   Reducing harm from falls (NEW)
Priority 6:   Timely treatment for sepsis in the emergency department (NEW)

This report provides an update on the progress made for the period July to September 2017 towards meeting these priorities and updated performance data for the selected metrics. This update report should be read alongside the Trust's Quality Account Report for 2016/17.

2. Quality Improvement Priorities

Priority 1: Reducing grade 2 hospital-acquired pressure ulcers

Background

This quality improvement priority was first proposed by the Council of Governors and approved by the Board of Directors for 2015/16.

Pressure ulcers are caused when an area of skin and the tissues below are damaged as a result of being placed under pressure sufficient to impair its blood supply (NICE, 2014). They are also known as "bedsores" or "pressure sores" and they tend to affect people with health conditions that make it difficult to move, especially those confined to lying in a bed or sitting for prolonged periods of time. Some pressure ulcers also develop due to pressure from a device, such as tubing required for oxygen delivery.

Pressure ulcers are painful, may lead to chronic wound development and can have a significant impact on a patient's recovery from ill health and their quality of life. They are graded from 1 to 4 depending on their severity, with grade 4 being the most severe:

Grade	Description
1	Skin is intact but appears discoloured. The area may be painful, firm, soft, warmer or cooler than adjacent tissue.
2	Partial loss of the dermis (deeper skin layer) resulting in a shallow ulcer with a pink wound bed, though it may also resemble a blister.
3	Skin loss occurs throughout the entire thickness of the skin, although the underlying muscle and bone are not exposed or damaged. The ulcer appears as a cavity-like wound; the depth can vary depending on where it is located on the body.
4	The skin is severely damaged, and the underlying muscles, tendon or bone may also be visible and damaged. People with grade 4 pressure ulcers have a high risk of developing a life-threatening infection.

(*National Pressure Ulcer Advisory Panel, 2014*)

At UHB, pressure ulcers are split into two groups: those caused by medical devices and those that are not.

Due to very low numbers of hospital-acquired grade 3 and grade 4 ulcers at UHB, the Trust focus is on further reducing grade 2 ulcers. This in turn should help towards aiming for zero avoidable hospital acquired grade 3 and grade 4 ulcers, as grade 2 ulcers will be less likely to progress.

Performance

The 2017/18 reduction target agreed with Birmingham CrossCity Clinical Commissioning Group (CCG) is to maintain current performance. In 2016/17 there were 71 patients with non device-related, hospital-acquired avoidable grade 2 pressure ulcers, against a target of 125. This compares to 79 reported in 2015/16, and 144 reported in 2014/15.

In Quarter 2, there were 12 patients with non device-related, hospital-acquired avoidable grade 2 pressure ulcers, meaning a total of 25 for the year to date.

Number of patients with grade 2 hospital-acquired, non device-related avoidable pressure ulcers, by Quarter
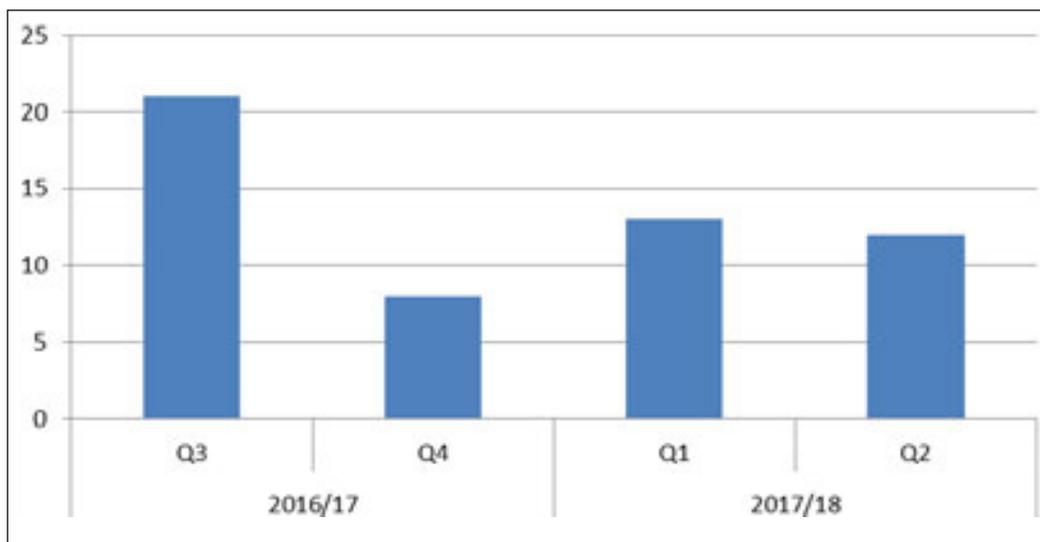
Initiatives to be implemented during 2017/18

To continue to build on the improvements seen in 2016/17, to further identify any common causes or reasons behind hospital-acquired pressure ulcers and to target training and resources accordingly. Initiatives to aid improvements:-

- To improve the classification and grading of pressure ulcers across the trust through a variety of education and training programmes.
- To improve repositioning documentation through educational campaigns and Tissue Viability Quality Audits, Back to the Floor visits by senior nursing staff and the introduction of electronic records.
- To empower tissue viability link nurses to be confident in verifying grade 2 pressure ulcers and to complete mini RCAs (route cause analysis), initially as a pilot on Critical Care.

- To reduce the number of Deep Tissue Injuries (DTIs) by utilising the 'prevent purple' campaign.
- Update Equipment Selection Flowchart to reflect equipment available in the Trust and to better guide staff on appropriate equipment choice through education and forums.
- Education for specific staff groups including medical staff.
- Monitoring competency figures and timely risk assessment.

How progress will be monitored, measured and reported:
- All grade 2, 3 and 4 pressure ulcers are reported via the Trust's incident reporting system Datix, and then reviewed by a Tissue Viability Specialist Nurse.
- Monthly reports are submitted to the Trust's Preventing Harms meeting, which reports to the Chief Nurse's Care Quality Group.
- Data on pressure ulcers also forms part of the Clinical Risk report to the Clinical Quality Monitoring Group.
- Staff can monitor the number and severity of pressure ulcers on their ward via the Clinical Dashboard.

Priority 2: Improve patient experience and satisfaction

The Trust measures patient experience via feedback received in a variety of ways, including local and national patient surveys, the NHS Friends and Family Test, complaints and compliments and online sources (e.g. NHS Choices). This vital feedback is used to make improvements to our services. This priority focuses on improving scores in our local surveys.

Patient experience data from local surveys - methodology

The local inpatient survey is undertaken, predominantly, utilising our bedside TV system, allowing patients to participate in surveys at their leisure. Areas that do not have the bedside TVs use either paper or tablets for local surveys. The Emergency Department survey is a paper-based survey, and the outpatient and discharge surveys are postal – both sent to a sample of 500 patients per month.

Improvement target for 2017/18

For 2017/18 we reviewed 2016/17 performance for the questions set for this priority. Where these achieved or maintained their target during the year, some have been replaced with new questions – but continue on our local surveys for monitoring. Others remain as a priority but with a more challenging target because they are extremely important to patients in reporting high quality care.

This improvement priority was agreed at the Trust's Care Quality Group meeting in March 2017, which is a Chief Nurse-led sub-committee of the board, attended by clinical staff and also patient Governors to provide the patients' perspective. Rationale for keeping, removing or adding questions was included in the report to this committee. This was based on data available at that time (February for electronic surveys, January for postal surveys).

- Questions carried forward – targets have been carried forward from 2016/17 or new challenging targets set.
- New questions with a 2016/17 baseline score from local surveys – existing local targets will apply or be set by adding a 5% challenge to the 2016/17 score.
- New questions without a 2016/17 baseline – target to be set at Care Quality Group following collection of baseline data.

Historically our targets for this priority were capped at a score of 9, however it was agreed at Care Quality Group in January 2017 to exceed a score of 9 where appropriate for continued challenge and advancement of patient experience.

The table below shows the results for 2017/18 for each question.

	2016/17 Score	2017/18				Target	YTD number of responses
		Q1 Score	Q2 Score	Q3 Score	Q4 Score		
Inpatient survey							
1. Sometimes in hospital a member of staff says one thing and another says something quite different. Has this happened to you?	8.8	8.4	8.5	TBC	TBC	**9.0**	5843
2. During your time in hospital did you feel well looked after by hospital staff?	9.5	9.6	9.6	TBC	TBC	**9.7**	5813
3. If you used the call bell, was it answered in a reasonable time?	9.1	8.9	9.1	TBC	TBC	**9.5**	2047
4. Did you get enough help to eat your meals?	NEW	8.7	9.0	TBC	TBC	**To be set**	703
Outpatient survey*							
5. How would you rate the courtesy of the reception staff during your time in the Outpatients Department?	8.9	8.9	8.8	TBC	TBC	**9.0**	907
6. Did the staff treating and examining you introduce themselves?	8.8	8.7	8.8	TBC	TBC	**8.9**	887
7. If you had important questions to ask the doctor, did you get answers that you could understand?	8.9	8.8	8.8	TBC	TBC	**9.0**	808
Emergency Department survey							
8. During your time in the Emergency Department did you feel well looked after by hospital staff?	8.6	9.0	8.8	TBC	TBC	**9**	385
9. How would you rate the courtesy of the Emergency Department reception staff?	8.5	8.9	8.7	TBC	TBC	**9**	370
10. Were you kept informed of what was happening at all stages during your visit?	7.9	8.4	8.0	TBC	TBC	**8.5**	387
Discharge survey*							
11. Did a member of staff tell you about medication side effects to watch for when you went home?	5.9	5.8	6.0	TBC	TBC	**6.1**	710
12. Did you feel you were involved in decisions about going home from hospital?	7.2	7.1	7.4	TBC	TBC	**7.4**	900

*Outpatient and discharge surveys not a full quarter for Quarter 2 due to time lag associated with postal surveys. This will be corrected on future reports.

How progress will be monitored, measured and reported

- This priority is measured using the local survey results as detailed in the methodology.
- The new 'help to eat meals' question will be added to the local inpatient survey and a baseline set once sufficient data has been collected.
- The target for the 'new' 'help to eat meals' question has been taken from the local catering survey, and will be added to the full inpatient local survey to maximise the number of responses.
- The new 'call bell' question is already on the local inpatient survey so has a reliable baseline measure.
- The operational Patient Experience Group (reporting to the Care Quality Group) monitors this priority.
- Monthly exception reports to Associate Directors of Nursing (ADNs) highlight individual wards not meeting the quality priority so that action can be taken. This report is presented to the Care Quality Group and includes a section from each ADN with actions for their division.
- This patient experience quality priority is also reported on the Clinical Dashboard so is always available for staff to view; updated monthly.
- Quarterly patient experience reports are provided to the Care Quality Group (summarised to the Board of Directors) and the local Clinical Commissioning Group – this includes a gap analysis on the patient experience quality priority.
- Feedback on patient experience is also provided by members of the Patient and Carer Councils as part of the Adopt a Ward / Department visits and via Governor drop-in sessions.

Initiatives to be implemented in 2017/18

- Implement more flexible visiting times, with an increase from 2.30pm – 7.30pm to 11am – 8pm
- Work with QEHB Charity to develop and implement a Pets in Hospital scheme
- Pilot a renewed volunteer dining companions programme
- Undertake a baseline assessment of existing and ideal numbers and roles of volunteers to identify the Trust's volunteering needs and build a vacancy list
- Work with Harborne Academy on a pilot permitting younger volunteers (aged 16-17) into the Trust (currently minimum age is 18 years old)
- Development of our patient experience collection, analysis and reporting system in conjunction with the Trust/University of Birmingham PROMs group
- Work with the Young Persons' Council to develop mechanisms to increase feedback from young patients aged 16-24
- Develop a campaign to increase the number of patients reporting that their call bell was answered in a time reasonable for their needs
- Evaluate the pilot of an accessible feedback card and put methods in place to ensure that the opportunity to provide feedback is easy and accessible to all.
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Priority 3: Timely and complete observations including pain assessment

Background

All inpatient wards have been recording patient observations (temperature, blood pressure, oxygen saturation score, respiratory rate, pulse rate and level of consciousness) electronically since 2011. The observations are recorded within the Prescribing Information and Communication System (PICS).

When nursing staff carry out patient observations, it is important that they complete the full set of observations. This is because the electronic tool automatically triggers an early warning score called the SEWS (Standardised Early Warning System) score if a patient's condition starts to deteriorate. This allows patients to receive appropriate clinical treatment as soon as possible.

In 2015/16 the Board of Directors chose to tighten the timeframe for completeness of observation sets to within 6 hours of admission or transfer to a ward and to include a pain assessment.

In addition, the Trust is monitoring the timeliness of analgesia (pain relief medication) following a high pain score. The pain scale now used at UHB runs from 0 (no pain at rest or movement) to 10 (worst pain possible). Whenever a patient scores 7 or above, they should be given analgesia within 30 minutes. The indicator also includes patients who are given analgesia within the 60 minutes prior to a high pain score to allow time for the medication to work.

Performance

For 2017/18, the Trust has chosen to increase the target for Indicator 1 to 95% by the end of the year as performance during 2016/17 met the 2016/17 target for several months during the year.

The target for Indicator 2 will remain at 85%, as the target was not achieved during 2016/17.

For Q2 2017/18, Indicator 1 continues to improve compared to previous months – it now stands at 93.6% compared to Q2 which was 92.7%.
Indicator 2 remains about the same – 75.2%

Table: Performance by quarter

		Indicator 1 Full set of observations plus pain assessment recorded within 6 hours of admission or transfer to a ward	Indicator 2 Analgesia administered within 30 minutes of a high pain score
Performance 2014/15		71%	64%
Performance 2015/16		79%	76%
Performance 2016/17		90%	75%
2017/18	**Target**	**95%**	**85%**
	Q1	92.7%	75.1%
	Q2	93.6%	75.2%
	Q3		
	Q4		
	Year	**93.2%**	**75.1%**

Indicator 1: Complete Observations and Pain Assessment within 6 hours

Indicator 2: Timely Administration of Analgesia

Initiatives to be implemented in 2017/18

- A message is to be sent out via Team Brief, reminding wards of the importance of timely observations and assessments, and response to a high pain score.
- To consider bespoke indicators for the four Critical Care wards.
- Wards performing below target for the two indicators will continue to be reviewed at the Executive Care Omissions Root Cause Analysis (RCA) meetings to identify where improvements can be made. Observations and pain assessment compliance will be monitored as part of the unannounced monthly Board of Directors' Governance Visits to wards.

How progress will be monitored, measured and reported

- Progress will be monitored at ward, specialty and Trust levels through the Clinical Dashboard and other reporting tools. The Clinical Dashboard allows staff to compare their ward performance to the Trust as a whole, as well as seeing detailed data about which of the six observations or pain assessment were missed.
- Performance will continue to be measured using PICS data from the electronic observation charts.
- Progress will be reported monthly to the Clinical Quality Monitoring Group and the Board of Directors in the performance report. Performance will continue to be publicly reported through the quarterly Quality Report updates on the Trust's website.

Priority 4: Reducing medication errors (missed doses)

Background

Since April 2009, the Trust has focused on reducing the percentage of drug doses prescribed but not recorded as administered (omitted, or missed) to patients on the Prescribing Information and Communication System (PICS).

The most significant improvements occurred when the Trust began reporting missed doses data on the Clinical Dashboard in August 2009 and when the Executive Care Omissions Root Cause Analysis (RCA) meetings started at the end of March 2010.

The Trust has chosen to focus on maintaining performance for missed antibiotics and reducing non-antibiotic missed doses in the absence of a national consensus on what constitutes an expected level of drug omissions.

It is important to remember that some drug doses are appropriately missed due to the patient's condition at the time, and when a patient refuses a drug this is also recorded as a missed dose. The Trust has decided to record patient refusals as missed doses, as it is important for the staff looking after the patient to encourage them to take the medication, and to consider the reasons for refusal and whether a different medication would be more appropriate.

Performance

The Trust is aiming to reduce the number of missed doses for both antibiotics and non-antibiotics compared to the 2016/17 performance – see table for details:

		Antibiotics	Non-antibiotics
Performance 2014/15		4.0%	10.5%
Performance 2015/16		3.9%	10.5%
Performance 2016/17		4.1%	10.6%
2017/18	**Target**	**4% or lower**	**10% or lower**
	Q1	4.4%	11.0%
	Q2	4.2%	11.0%
	Q3		
	Q4		
	Year	**4.3%**	**11.0%**

Both indicators remain outside the target for Q2 2017/18: antibiotics have improved slightly achieved (4.2% compared to 4.4% for Q1) and non-antibiotics stayed the same at 11.0%. The Trust continues to review reasons for missed doses and takes action where possible (see below).
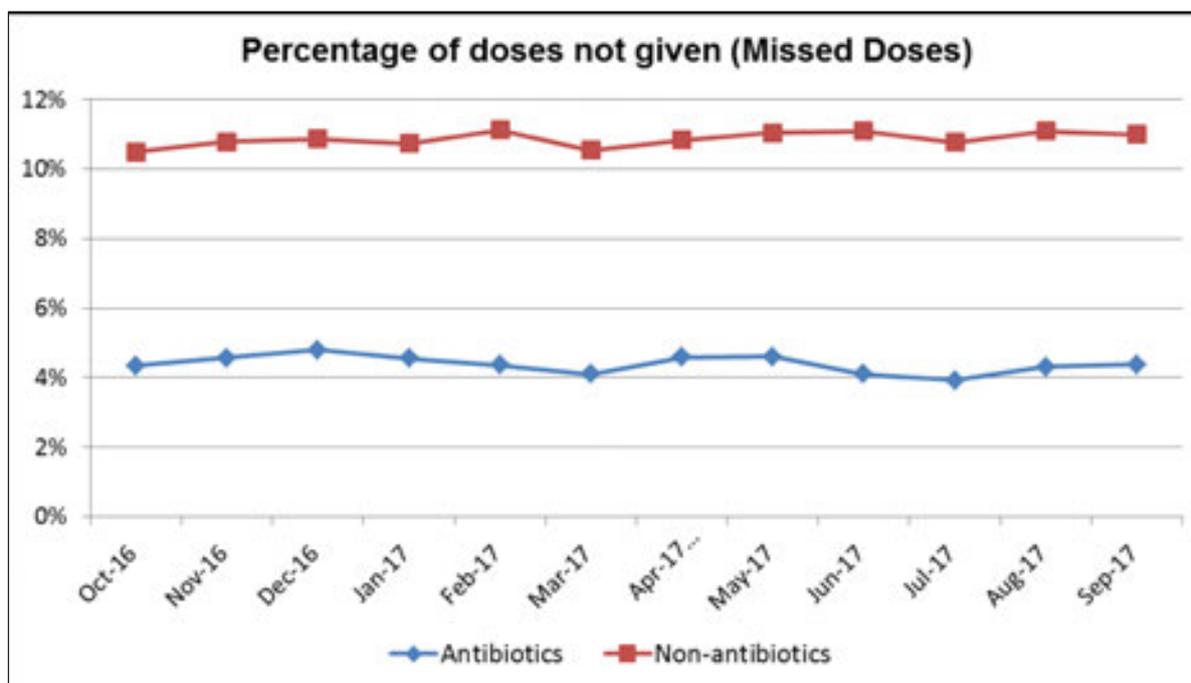
Initiatives to be implemented in 2017/18
- Publish a Practice Development Team "nil by mouth" mythbuster or practice update, to be circulated to all relevant staff
- Identify which medicines require exact timings for administration
- To consider new reports to identify types and patterns of missed doses across the Trust.
- Individual cases will continue to be selected for further review at the Executive Care Omissions RCA meetings.
- The Corporate Nursing team and Pharmacy will continue work together to identify where improvement actions should be directed to try to reduce missed doses.

How progress will be monitored, measured and reported
- Progress will continue to be measured at ward, specialty, divisional and Trust levels using information recorded in the Prescribing Information and Communication System (PICS).
- Data on missed drug doses is available to clinical staff via the Clinical Dashboard and includes a breakdown of the most commonly missed drugs and the most common reasons recorded for doses being missed. This is also monitored at divisional, specialty and ward levels.
- Performance will continue to be reported to the Chief Executive's Advisory Group, the Chief Operating Officer's Group and the Board of Directors each month to ensure appropriate actions are taken.

Priority 5: Reducing harm from falls

Performance

This quality improvement priority was proposed by the Council of Governors and approved by the Board of Directors, and was first included in the Quality Report for 2016/17.

Background

Inpatient falls are common and remain a great challenge for the NHS. Falls in hospital are the most common reported patient safety Incident, with more than 240,000 reported in acute hospitals and Mental Health trusts in England and Wales every year (Royal College of Physicians, National Audit of Inpatient Falls, 2015). About 30% of people 65 years of age or older have a fall each year, increasing to 50% in people 80 years of age or older (National Institute of Health and Clinical Excellence - NICE).

All falls can impact on quality of life, they can cause patients distress, pain, injury, prolonged hospitalisation and a greater risk of death due to underlying ill health. Falls can result in loss of confidence and Independence which can result in patients going into long term care. Falling also affects the family members and carers of people who fall.

When a fall occurs at UHB, the staff looking after the patient submit an incident form via Datix, the Trust's incident reporting system. All falls incidents are reviewed by the Trust's Falls Team, a team of clinical nurse specialists. The lead for the area where the fall happened, usually the Senior Sister / Charge Nurse, investigates the fall and reports on the outcome of the fall, and whether there is any learning or if any changes in practice / policy need to be made.

Most falls do not result in any harm to the patient. Any falls that result in moderate or severe harm undergo an RCA (root cause analysis) process to identify any issues or contributory factors. Falls resulting in specific harm, e.g. a fractured neck of femur (broken hip), are also reported to the local Clinical Commissioning Group.

All inpatients should undergo a Falls Assessment on admission/transfer to a ward or if their clinical condition changes. If a patient is found to be at risk at of falls, staff will identify the risk factors and the precautions that can be taken to reduce these risks. These may include a medication review by pharmacy staff, provision of good-fitting footwear, ensuring chairs are the correct height and width for the patient, or moving the patient to a height-adjustable bed.

The Falls Team also receive information on patients who have fallen more than once during their hospital stay. These patients are reviewed, taking account of mobility, medication, continence and altered cognition. The Falls Team will make suitable recommendations to the ward staff around intervention and prevention of further falls.

The Falls Team provide training on falls assessment, prevention and management to ward staff, junior doctors and students.

Performance

The Trust has chosen to measure 'percentage of falls resulting in harm'.
While staff take precautions to prevent falls from occurring, it is not possible to prevent all falls – therefore it is also important in minimise the harm that occurs due to falls.

The Trust has decided to set a target of 16.5% by the end of 2017/18 – this is a 5% reduction on the 2016/17 result.

Data for 2017/18 and the last two years is presented below:

Year	Quarter	Percentage (%) of falls with harm
2015/16	Q1	20.2%
	Q2	19.6%
	Q3	19.5%
	Q4	13.6%
	Year	**18.1%**
2016/17	Q1	18.1%
	Q2	18.9%
	Q3	17.4%
	Q4	15.3%
	Year	**17.4%**
2017/18	**Target**	**16.5%**
	Q1	19.9%
	Q2	14.9%
	Q3	
	Q4	
	Year	**17.5%**

Percentage of all falls that result in harm
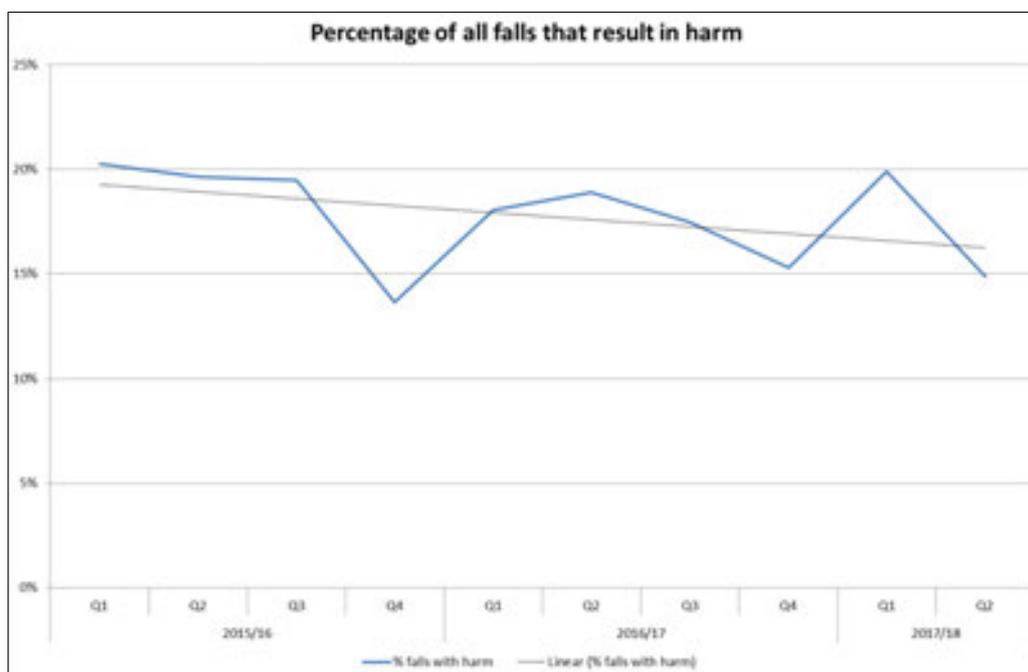
Overall, the trend has been that the percentage of falls with harm had been decreasing since Quarter 1 2015/16 – this is shown by the trendline in the graph above. Quarter 1 2017/18 saw an increase in the percentage, but it has come down again in Quarter 2 to 14.9%

Initiatives to be implemented during 2017/18

- Work with Divisions on their plans for 2017/18
- Continue providing Falls training to all Divisions on their mandatory training days and also FY1 (junior doctor) training induction days.
- Review and update all falls education and training materials
- Attend all Divisional Back To The Floor rounds and preventing harm meetings.
- Review and update falls related policies/procedures and guidelines, and liaise with counterparts at HEFT to ensure they all align going forward
- Develop action plans in response to the Royal College of Physicians' National Audit of Inpatient Falls audit report (due October). In the meantime develop and implement actions already highlighted

How progress will be monitored, measured and reported

- Number of falls and number of falls with harm are monitored on a monthly basis by Falls team and Risk and Compliance team.
- Number of falls is also monitored via the safety thermometer prevalence tool on a monthly basis.
- Data on falls is presented to the monthly Trust Preventing Harm group, which reports to the

Chief Nurse's Care Quality Group. Data on falls is also provided to the Medical Director's monthly Clinical Quality Monitoring Group.

- Ward-level and trust-level data on falls is available to clinical staff via the Clinical Dashboard.
- Falls with specific outcomes, e.g. a fractured neck of femur (broken hip), are reported to the local Clinical Commissioning Group.

Priority 6: Timely treatment for sepsis in the emergency department

This quality improvement priority was proposed by the Clinical Quality Monitoring Group, agreed by the Council of Governors and approved by the Board of Directors, and was first included in the Quality Report for 2016/17.

Background

Sepsis is a potentially life-threatening condition which is the result of a bacterial infection in the blood. It affects an estimated 260,000 people per year in the UK and is a significant cause of preventable mortality. Approximately 44,000 people die each year as a result of sepsis – a quarter of which are avoidable.

Although there are certain groups in whom sepsis is more common – the very young and very old, people with multiple co-morbidities, people with impaired immunity and pregnant women – it can occur in anybody, regardless of their age or health status.

Though sepsis is common, it is poorly addressed. It is important to understand that if sepsis is recognised early and appropriately managed it is treatable. However, if recognition is delayed and appropriate treatment not instituted (usually oxygen, intravenous fluids and antibiotics), significant harm or even death can occur.

Sepsis has been on the national agenda as a high priority area for the Commissioning for Quality and Innovation (CQUIN) system. In 2016/17 certain trusts had a key target to implement systematic screening for sepsis of appropriate patients and where sepsis is identified, to provide timely and appropriate treatment and review. This CQUIN has been extended in the 2017–19 plan, which UHB is participating in.

The trust intranet pages have a library of information on recognising the symptoms of sepsis, screening patients and treating sepsis – these pages are available for all staff to view and have been promoted by the trust Communications team.

The trust's aim for 2017/18 is to improve the early recognition and management of patients with sepsis.

Performance

For this Quality Priority, UHB has chosen to base measurement on one of the indicators in the CQUIN process – "Timely treatment for sepsis in emergency departments". This will be measured by calculating the time between diagnosis of sepsis and first dose of IV (intravenous) antibiotic. To do this, the Emergency Department (ED) will need the PICS (Prescribing Information and Communication System) in place, in order to capture the exact times of diagnosis and drug

administration.

There is a plan to implement PICS in the ED with initial testing to begin in autumn 2017. Once PICS is implemented in ED, data will be collected and then used to set a baseline and an improvement target. Updates will be provided in the Trust's quarterly Quality Account update reports, which are published on the Quality pages on the UHB website.

Initiatives to be implemented during 2017/18

A sepsis screening tool has been implemented in PICS for inpatients. A new paper-based screening tool is due to be rolled out in ED. Both of these are to help staff quickly identify patients who at risk, or who have developed sepsis, and also provide clear instruction on how to treat them and what further tests are required.

Sepsis sub-group meeting has been set up, chaired by the Head of Education, and nurses and doctors are undergoing "Peer 1 sepsis training".

The antimicrobial guidelines are under review, with a plan to roll them out across the trust by the end of the year.

'THINK SEPSIS' is an ongoing national campaign aiming to raise awareness of sepsis. In April 2017, UHB held a Sepsis Awareness week, to raise awareness of the THINK SEPSIS campaign and to provide information and advice of how to recognise the symptoms, how to screen and how to treat red flag sepsis. On the first day there was a stall with information and a presentation from Dr Ron Daniels BEM, Chief Executive of the UK Sepsis Trust and Global Sepsis Alliance, and also Clinical Advisor (Sepsis) to NHS England. On the following days a multi-disciplinary Sepsis Team visited wards across the hospital site.

How progress will be monitored, measured and reported

- Once PICS is implemented in the Emergency Department, data will be collected and used to set a baseline and improvement target.
- Progress will be publicly reported in the quarterly Quality Account updates published on the Trust's quality web pages.
- Performance will be reported to the Clinical Quality Monitoring Group as part of the quarterly Quality Account update reports

3. Mortality

The Trust continues to monitor mortality as close to real-time as possible with senior managers receiving daily emails detailing mortality information and on a longer term comparative basis via the Trust's Clinical Quality Monitoring Group. Any anomalies or unexpected deaths are promptly investigated with thorough clinical engagement.

The Trust has not included comparative information due to concerns about the validity of single measures used to compare trusts.

Summary Hospital-level Mortality Indicator (SHMI)

The Health and Social Care Information Centre (HSCIC) first published data for the Summary Hospital-level Mortality Indicator (SHMI) in October 2011. This is the national hospital mortality indicator which replaced previous measures such as the Hospital Standardised Mortality Ratio (HSMR). The SHMI is a ratio of observed deaths in a trust over a period time divided by the expected number based on the characteristics of the patients treated by the trust. A key difference between the SHMI and previous measures is that it includes deaths which occur within 30 days of discharge, including those which occur outside hospital.

The Summary Hospital-level Mortality Indicator should be interpreted with caution as no single measure can be used to identify whether hospitals are providing good or poor quality care[1]. An average hospital will have a SHMI around 100; a SHMI greater than 100 implies more deaths occurred than predicted by the model but may still be within the control limits. A SHMI above the control limits should be used as a trigger for further investigation.

The Trust's latest SHMI is 105 for the period April 2016 – February 2017, this implies the mortality numbers are higher than expected but remain within tolerance control limits. The latest SHMI value for the Trust, which is available on the NHS Digital (formerly HSCIC) website, is 103 for the period April – December 2016. This is within tolerance.

The Trust has concerns about the validity of the Hospital Standardised Mortality Ratio (HSMR) which was superseded by the SHMI but it is included here for completeness. UHB's HSMR value is 100.88 for the period April 2016 – March 2017 as calculated by the Trust's Health Informatics team. The validity and appropriateness of the HSMR methodology used to calculate the expected range has however been the subject of much national debate and is largely discredited[23]. The Trust is continuing to robustly monitor mortality in a variety of ways as detailed above.

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[1]Freemantle N, Richardson M, Wood J, Ray D, Khosla S, Sun P, Pagano, D. Can we update the Summary Hospital Mortality Index (SHMI) to make a useful measure of the quality of hospital care? An observational study. BMJ Open. 31 January 2013.

[2]Hogan H, Healey F, Neale G, Thomson R, Vincent C, Black, N. Preventable deaths due to problems in care in English acute hospitals: a retrospective case record review. BMJ Quality & Safety. Online First. 7 July 2012.

[3]Lilford R, Mohammed M, Spiegelhalter D, Thomson R. Use and misuse of process and outcome data in managing performance of acute and medical care: Avoiding institutional stigma. The Lancet. 3 April 2004.

Crude Mortality

Quarter 2 data was not available at the time of reporting. The report will be updated when it becomes available.

The first graph shows the Trust's crude mortality rates for emergency and non-emergency (planned) patients. The second graph below shows the Trust's overall crude mortality rate against activity (patient discharges) by quarter for the past two calendar years. The crude mortality rate is calculated by dividing the total number of deaths by the total number of patients discharged from hospital in any given time period. The crude mortality rate does not take into account complexity, case mix (types of patients) or seasonal variation.

The Trust's overall crude mortality rate for Quarter 1 2017/18 is 3.02%, which is a small increase compared to 2016/17 (2.96%) and 2015/16 (3.04%).

Emergency and Non-emergency Mortality Graph
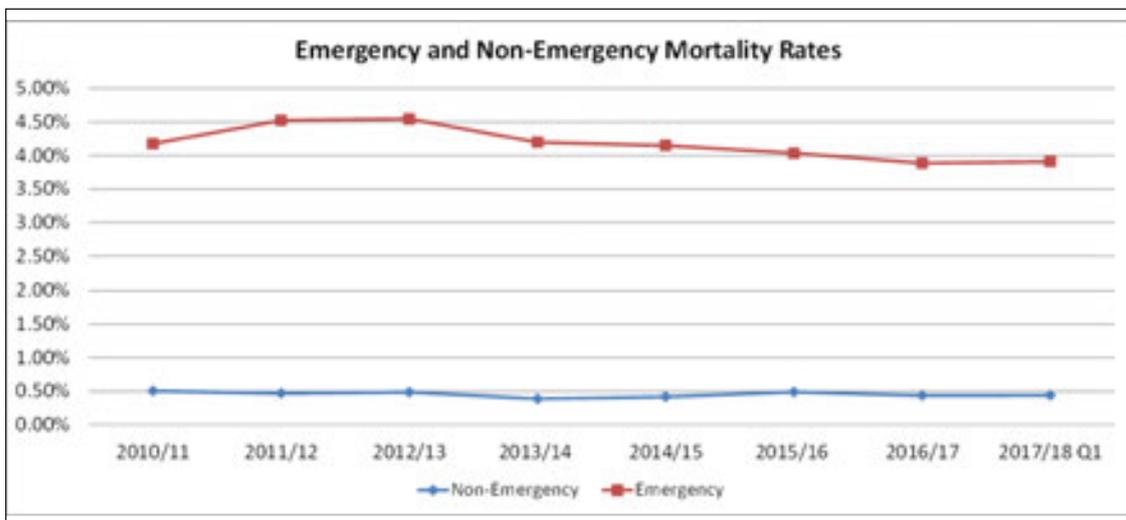
Overall Crude Mortality Graph
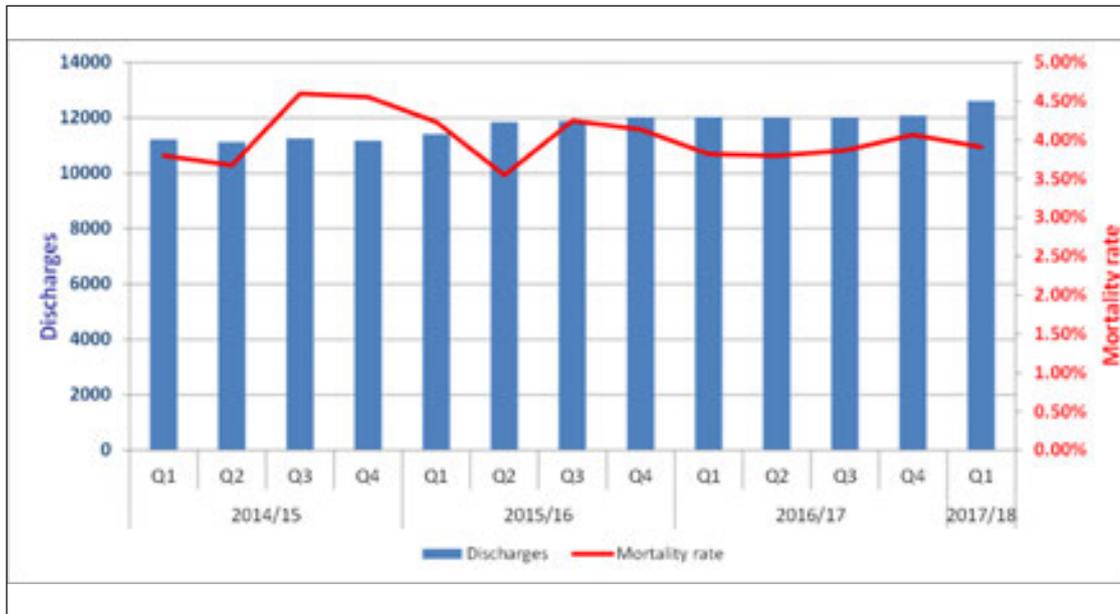
4. Selected Metrics

Patient safety indicators

Indicator	Data source	2015/16	2016/17	2017/18 Q1-Q2	Peer Group Average (where available)
1(a) Patients with MRSA infection / 100,000 bed days (includes all bed days from all specialties) *Lower rate indicates better performance*	Trust MRSA data reported to PHE, HES data (bed days)	2.06	1.01	*Not yet available*	0.58 April 2016 – March 2017 Acute trusts in West Midlands
1(b) Patients with MRSA infection / 100,000 bed days (aged >15, excluding Obstetrics, Gynaecology and elective Orthopaedics) *Lower rate indicates better performance*	Trust MRSA data reported to PHE, HES data (bed days)	2.07	1.01	*Not yet available*	0.64 April 2016 – March 2017 Acute trusts in West Midlands
2(a) Patients with C. difficile infection / 100,000 bed days (includes all bed days from all specialties) *Lower rate indicates better performance*	Trust CDI data reported to PHE, HES data (bed days)	16.76	21.73	*Not yet available*	13.77 April 2016 – March 2017 Acute trusts in West Midlands

Indicator	Data source	2015/16	2016/17	2017/18 Q1-Q2	Peer Group Average (where available)
2(b) Patients with C. difficile infection / 100,000 bed days (aged >15, excluding Obstetrics, Gynaecology and elective Orthopaedics) *Lower rate indicates better performance*	Trust CDI data reported to PHE, HES data (bed days)	**16.84**	**21.85**	*Not yet available*	**15.27** April 2016 – March 2017 Acute trusts in West Midlands
3(a) Patient safety incidents (reporting rate per 1000 bed days) *Higher rate indicates better reporting*	Datix (incident data), Trust admissions data	**63.3**	**63.6**	**61.5**	**59.1** October 2016 – March 2017 Acute (non specialist) hospitals NRLS website (Organisational Patient Safety Incidents Workbook)
3(b) Never Events The number of Never Events that occurred during the time period *Lower number indicates better performance*	Datix (incident data)	**5**	**1**	**3**	*Not available*

Indicator	Data source	2015/16	2016/17	2017/18 Q1-Q2	Peer Group Average (where available)
4(a) Percentage of patient safety incidents which are no harm incidents *Higher % indicates better performance*	Datix (incident data)	82.0%	83.1%	85.0%	**89.4%** October 2016 – March 2017 Acute (non specialist) hospitals NRLS website (Organisational Patient Safety Incidents Workbook)
4(b) Percentage of patient safety incidents reported to the National Reporting and Learning System (NRLS) resulting in severe harm or death *Lower % indicates better performance*	Datix (patient safety incidents reported to the NRLS)	0.14%	0.12%	0.24%	**0.38%** October 2016 – March 2017 Acute (non specialist) hospitals NRLS website (Organisational Patient Safety Incidents Workbook)
4(c) Number of patient safety incidents reported to the National Reporting and Learning System (NRLS)	Datix (patient safety incidents reported to the NRLS)	20,516	22,532	11,429	**10,963** (6 months) October 2016 – March 2017 Acute (non specialist) hospitals NRLS website (Organisational Patient Safety Incidents Workbook)

Clinical effectiveness indicators

Indicator	Data source	2015/16	2016/17	2017/18 Q1-Q2	Peer Group Average (where available)
5(a) Emergency readmissions within 28 days (%) (Medical and surgical specialties - elective and emergency admissions aged >15) % *Lower % indicates better performance*	HES data	13.41% England: 14.15%	13.33% April – December 2016	*Not available*	**13.55%** April – December 2016 University hospitals England: 14.10%
5(b) Emergency readmissions within 28 days (%) (all specialties) *Lower % indicates better performance*	HES data	13.39% England: 13.52%	13.45% April – December 2016	*Not available*	**13.08%** April – December 2016 University hospitals England: 13.47%
5(c) Emergency readmissions within 28 days of discharge (%) *Lower % indicates better performance*	Lorenzo	10.68%	10.79%	10.37% April – May 2017	*Not available*

Indicator	Data source	2015/16	2016/17	2017/18 Q1-Q2	Peer Group Average (where available)
6 Falls (incidents reported as % of patient episodes) *Lower % indicates better performance*	Datix (incident data), Trust admissions data	2.1%	2.2%	2.2%	*Not available*
7 Stroke in-hospital mortality *Lower % indicates better performance*	SSNAP data	5.0%	1.8%	2.7%	*Not available*
8 Percentage of beta blockers given on the morning of the procedure for patients undergoing first time coronary artery bypass graft (CABG) *Higher % indicates better performance*	Trust PICS data	97.5%	97.4%	96.3%	*Not available*

Notes on patient safety & clinical effectiveness indicators

The data shown is subject to standard national definitions where appropriate. The Trust has also chosen to include infection and readmissions data which has been corrected to reflect specialty activity, taking into account that the Trust does not undertake paediatric, obstetric, gynaecology or elective orthopaedic activity. These specialties are known to be very low risk in terms of hospital acquired infection, for example, and therefore excluding them from the denominator (bed day) data enables a more accurate comparison to be made with peers.

1a, 1b, 2a, 2b, 5a, 5b: Receipt of HES data from the national team always happens two to three months later, these indicators will be updated in the next quarterly report.

3a: The NHS England definition of a bed day ("KH03") differs from UHB's usual definition. For further information, please see this link:
http://www.england.nhs.uk/statistics/statistical-work-areas/bed-availability-and-occupancy/
NHS England have also reduced the number of peer group clusters (trust classifications), meaning UHB is now classed as an 'acute (non specialist)' trust and is in a larger group. Prior to this, UHB was classed as an 'acute teaching' trust which was a smaller group.
There has been a delay in receiving the HES bed day data; this will be updated before publication if it becomes available.

3(b): UHB had one Never Event during Q2 2017/18 - a nasogastric tube was inserted and appeared to be in correct position, therefore it was used for feeding over three days until further radiology revealed it as being in the incorrect position. The patient required surgical intervention as a result.

4c: The number of incidents shown only includes those classed as patient safety incidents and reported to the National Reporting and Learning System.

5a, 5b: The methodology has been updated to reflect the latest guidance from the Health and Social Care Information Centre. The key change is that day cases and regular day case patients, all cancer patients or patients coded with cancer in the previous 365 days are now excluded from the denominator. This indicator includes patients readmitted as emergencies to the Trust or any other provider within 28 days of discharge. Further details can be found on the Health and Social Care Information Centre website. Any changes in data since the previous Quality Report and due to updates made to the national HES data.

5c: This indicator only includes patients readmitted as emergencies to the Trust within 28 days of discharge and excludes UHB cancer patients. The data source is the Trust's patient administration system (Lorenzo). The data for previous years has been updated to include readmissions from 0 to 27 days and exclude readmissions on day 28 in line with the national methodology. Any changes in previously reported data are due to long-stay patients being discharged after the previous years' data was analysed.

8: Beta blockers are given to reduce the likelihood of peri-operative myocardial infarction and early mortality. This indicator relates to patients already on beta blockers and whether they are given beta blockers on the day of their operation. All incidences of beta blockers not being given on the day of operation are investigated to understand the reasons why and to reduce the likelihood of future omissions.