Whittington Health

Trust Board

7th September 2016

Title:	**Quarterly Safety and Quality Board Report**		
Agenda item:	**16/120**		**05**
Action requested:	For the Board to note, discuss and make any additional recommendations		
Executive Summary:	This is the regular quarterly paper for the Trust Board giving an overview of safety and quality in the organisation.		
Summary of recommendations:	It is recommended that the contents are noted and discussed		
Fit with WH strategy:	To deliver consistent high quality, safe services.		
Reference to related / other documents:	Quality Account 2015-16 Sign up to Safety Pledges Clinical Strategy 2015-20 CQC standards		
Date paper completed:	1st September 2016		

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Date paper seen by EC		**Equality Impact Assessment complete?**	**NA**	**Risk assessment undertaken?**	**NA**	**Legal advice received?**	**NA**

1) Executive Summary

This is the regular paper for the Trust Board to provide an overview of safety and quality in the organisation.

This report provides an update on mortality, and the Trust's HSMR and SHMI figures remain assuring.

2) Contents

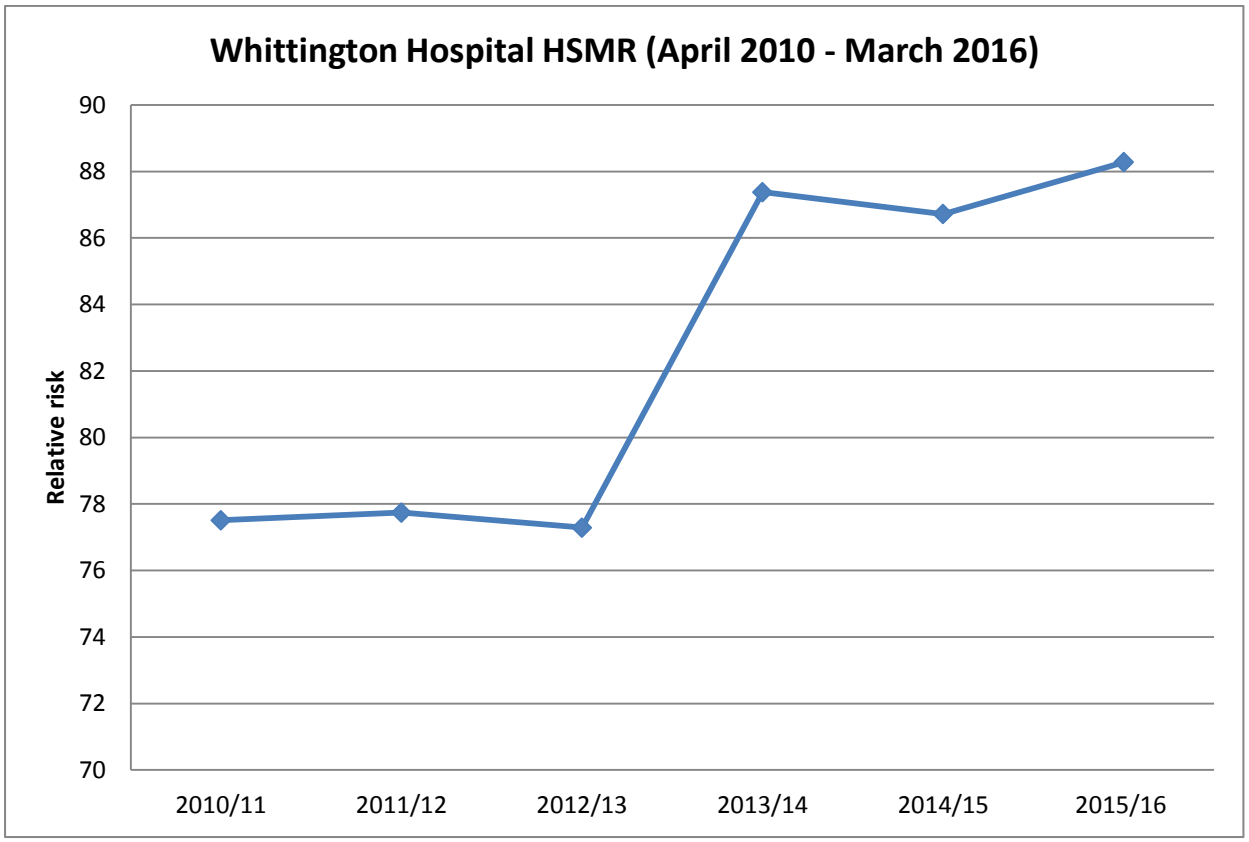
3. Mortality

This Trust's HSMR and SHMI have both been 'lower than expected' since 2005/06.

3.1 Hospital Standardised Mortality Ratio (HSMR)

The Hospital Standardised Mortality Ratio (HSMR) compares the number of deaths in a hospital with the national average of 100. HSMR is an overall quality indicator that compares a hospital's mortality rate with the average national experience, accounting for the types of patients cared for. It has been used by many hospitals worldwide to assess and analyse mortality rates and to identify areas for improvement. HSMR is calculated as the ratio of the actual number of deaths to the expected number of deaths, multiplied by 100. A ratio less than 100 indicates that a hospital's mortality rate is lower than the average national rate of the baseline year.

Chart 1: Whittington Health Hospital Standardised Mortality Ratio (HSMR) by financial year (April 2010 – March 2016)



3.2 Summary Hospital-level Mortality Indicator (SHMI)

Summary Hospital Mortality Indicator (SHMI)

SHMI was developed in response to the public inquiry into the Mid Staffordshire NHS Foundation Trust. It is used along with other information to inform the decision making of Trusts, regulators and commissioning organisations.

National guidance emphasises that SHMI is not a measure of quality of care, but is meant as an indicator for further investigation.

SHMI is calculated in a way that is similar to the HSMR calculation, but unlike HSMR, the SHMI calculation takes into account deaths within 30 days of discharge of hospital as well as inpatient deaths.

Whittington Health continues to have the lowest SHMI score in England. We consider this data is as described because the data is obtained from Hospital Episodes Statistics data and sourced via the HSCIC Indicator portal.

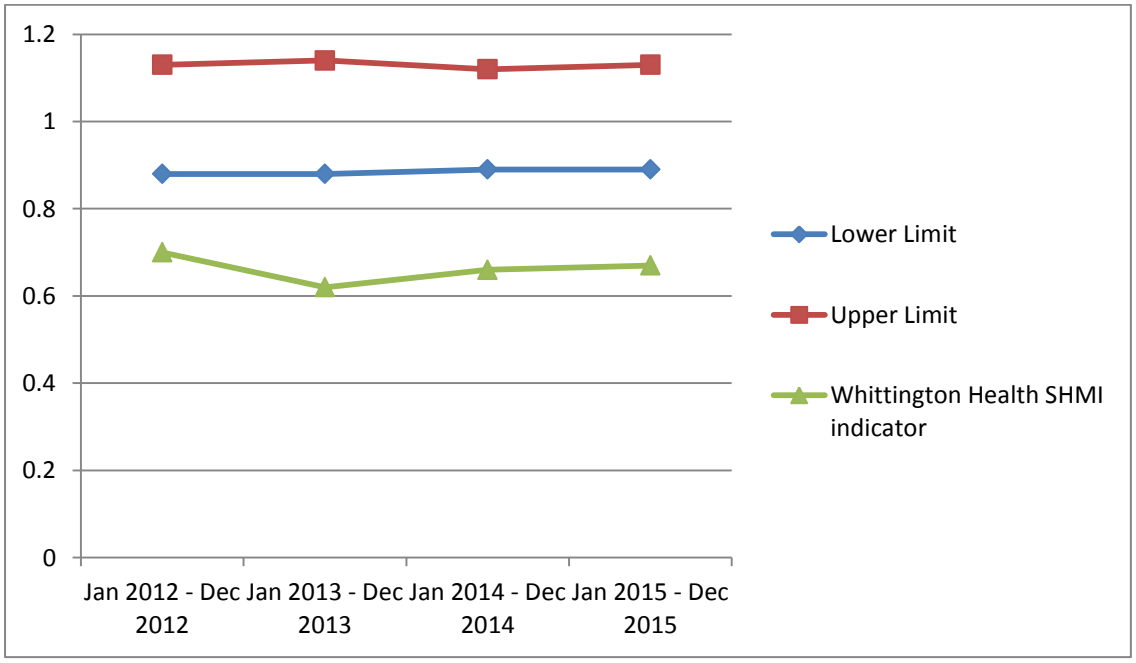
The most recent data available (released in June 2016) covers the period January 2015 to December 2015:

Whittington Health SHMI score	**0.688**
National standard	**1.00**
Lowest national score	**0.6688 (Whittington Health)**
Highest national score	**1.1731**

Table 1: Whittington Health Summary Hospital-level Mortality Indicator (SHMI) (April 2010 – December 2015)

Data Period	Lower Limit	Upper Limit	Whittington Health SHMI indicator
Jan 2012 - Dec 2012	0.88	1.13	0.7
Apr 2012 - Mar 2013	0.88	1.14	0.65
Jul 2012 - Jun 2013	0.88	1.13	0.63
Oct 2012 - Sep 2013	0.89	1.13	0.63
Jan 2013 - Dec 2013	0.88	1.14	0.62
Apr 2013 - Mar 2014	0.87	1.15	0.54
Jul 2013 - Jun 2014	0.88	1.14	0.54
Oct 2013 - Sep 2014	0.88	1.13	0.6
Jan 2014 - Dec 2014	0.89	1.12	0.66
Apr 2014 - Mar 2015	0.89	1.12	0.67
Jul 2014 - Jun 2015	0.89	1.12	0.66
Oct 2014 - Sep 2015	0.89	1.12	0.65
Jan 2015 - Dec 2015	0.89	1.13	0.67

Chart 2: Whittington Health Summary Hospital-level Mortality Indicator (SHMI) by calendar year (January 2012 – December 2015)



The lower value (green square) represents the lower 95% confidence limit from the national expected value. The upper value (red squares) represents the upper 95% confidence limit from the national expected value.

4. Infection control report

4.1 MRSA Bacteraemia

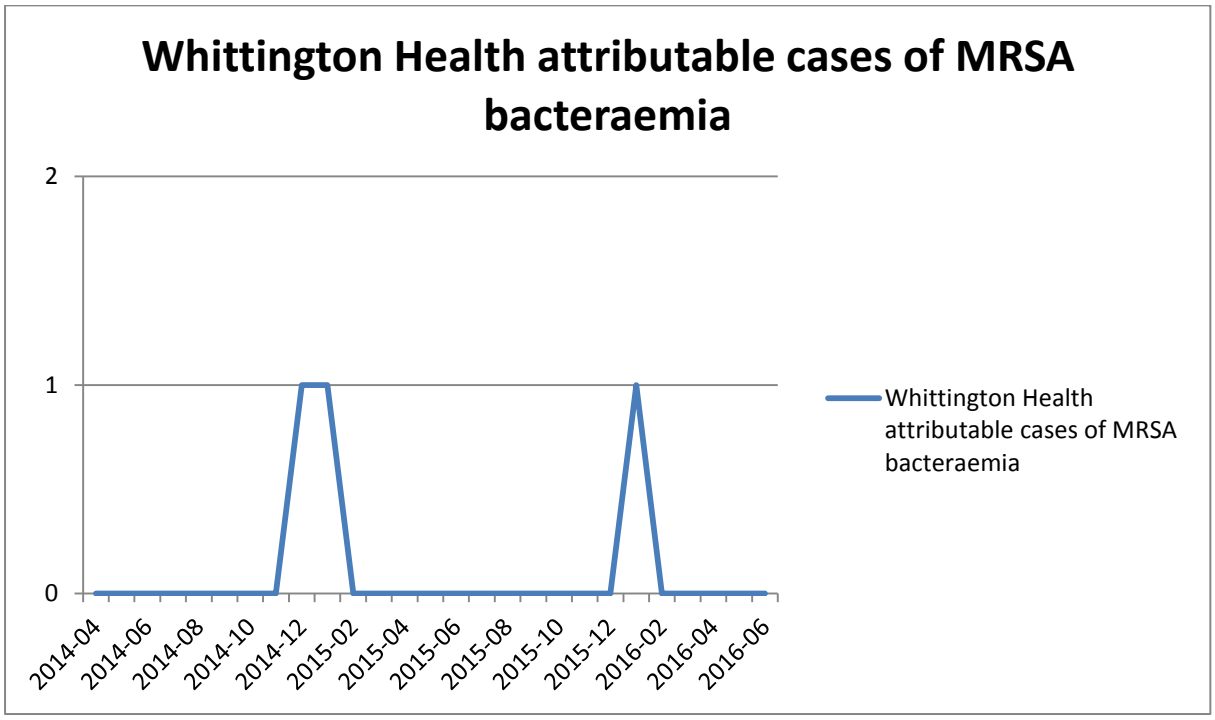
From the 1st April 2016 to the 26th August 2016 there were no incidences of Trust-attributable MRSA bacteraemia. There was one unavoidable MRSA bacteraemia, which was identified from a community sample and subsequently investigated by Islington CCG and the post infection review was shared with the Trust Infection Prevention and Control Team (IPCT).

The IPCT continue to monitor, investigate and feedback on MRSA colonisation transmission events on our care of older people (COOP) wards, Orthopaedic ward and Augmented Care Areas (Critical Care and Neonatal Unit). The following table documents MRSA colonisation acquisition events:

Table 2: Whittington Health MRSA acquisition April 2016- June 2016 (no Trust-attributable cases)

Number of patients with MRSA acquisition April 2016 to March 2017				
	April	May	June	**Total**
ITU	0	1	0	**1**
NICU	0	0	0	**0**
SCBU	0	0	0	**0**
Meyrick	0	0	1	**1**
Cloudesley	1	2	0	**3**
Cavell	0	0	0	**0**
Coyle #NOF	0	0	0	**0**

Chart 3: Whittington Health attributable cases of MRSA bacteraemia by month (April 2014 – June 2016)



4.2 *Clostridium difficile*–associated diarrhoea

From 1st April 2016 to the 26th August 2016 there were five **T**rust-attributable *Clostridium difficile*-associated diarrhoea cases. Consultant-led post infection reviews were held for all of these cases and the reports disseminated to relevant parties, both internally and externally. No lapses in care were identified, but these have identified delays in isolating patients to individual rooms. Our agreed objective for 2016/2017 is not to exceed a threshold of 17 cases of *Clostridium difficile*-associated diarrhoea.

Table 3: Whittington Health *Clostridium difficile*–associated diarrhoea cases by ward

Date	No. of Cases	Ward
April 2016	2	Montuschi and Victoria
May 2016	1	Coyle
June 2016	1	Cloudesley
July 2016	1	Victoria

Improvement work

Single use/easy to decontaminate monitoring equipment has now been introduced to side rooms on designated wards to reduce the risk of cross-contamination. Ten isolation trolleys have also been delivered and initial feedback from staff on Meyrick Ward has been positive. Three respirator hoods have also been delivered and fit testing of masks and the hoods was undertaken on the 21st April 2016.

Education sessions, specifically on *Clostridium difficile* continue on all wards. In conjunction with the Visible Leadership Team, objective structured clinical examination (OSCEs) will be reintroduced to all ward.

An enhanced *Clostridium difficile* test request form has been finalised on the Trust's Sunquest ICE system to reduce the chances of staff incorrectly requesting tests.

A more detailed review of *Clostridium difficile* cases is presented twice a year to the Infection Prevention & Control Committee.

4.3 Meticillin Sensitive Staphylococcus Aureus (MSSA)/ *E.coli* Bacteraemia Episodes

Between 1st April 2016 to 26th August 2016 there were two **T**rust-attributable MSSA bacteraemia episodes and three Trust-attributable *E.coli* bacteraemia episodes. There are no set Trust thresholds for these organisms.

Each episode is investigated to see if any interventions (such as urinary catheterisation or peripheral line cannulation) have occurred and, if so, whether all the correct procedures were followed.

4.4 Other Relevant Healthcare Associated Infection (HCAI) Issues - Carbapenamase producing Enterobacteriaceae (CPE)

Public Health England (PHE) issued guidance on the identification and control of CPE (highly resistant Gram negative bacteria). As a result of this the Trust devised an action plan, which is monitored by the Infection Prevention &Control Committee. All actions have been completed.

The Trust has processes in place to deal with a single case of CPE and a completed policy, which is available on the Trust's intranet.

Infection prevention and control talks have been updated to include information on CPE.

Since the 1st April 2016 there have been two new confirmed CPE cases found in the Whittington Health laboratory, one in May and one in June. Both of these cases were identified from community samples.

Between April and June 2016 the Infection Prevention and Control Team performed an audit of CPE screening by reviewing all patients admitted with a fractured neck of femur between October and December 2015 to ensure there is a record that they have been reviewed using the CPE questions and, if found to be a suspected case, screened appropriately. 32 patients were admitted and underwent repair of a fractured neck of femur. Of these, 87% (28) were asked the CPE questions. Only one required screening but unfortunately was not screened.

This audit is going to be repeated and results will be available by the end of September 2016. This audit will be presented to the Infection Prevention & Control Committee.

5. Sign up to Safety

'Sign up to Safety' is a national patient safety initiative led by Sir David Dalton, partly in response to the Francis and Berwick Reports. Its aim is to reduce avoidable harm across the country by half in three years**.** Our own local Trust Sign Up to Safety priorities have been chosen to provide a strong foundation for the Trust to continually promote quality across the organisation.

Every quarter, the quarterly trust board paper on safety and quality will discuss one of these areas in detail. This paper explores sepsis in detail.

The measurable improvement targets that we have set ourselves in our Sign up to Safety priorities are as follows;

Table 4: Whittington Health 'Sign up to safety' priorities and quality improvement priorities

Sign up to safety priority	Quality improvement priorities (as agreed in the Trust's Quality Account for 2015/16)
Priority one: Learning Disabilities (LD) • Target one: In Q4, 90 percent of inpatients with learning disabilities will be clearly identified on the electronic patient record, meet the Learning Disabilities Specialist Nurse during their admission and have a personalised care plan ('my purple folder') • Target two: In the Emergency Department (ED) 75% of all staff will have had specific training in the care of people with learning disabilities	**Learning disabilities: Quality Improvement priorities for 2016/17** • We will develop and implement 'Always Events' for patients with Learning Disabilities in a relevant clinical setting. We will aim for 75 percent of inpatients with learning disabilities to meet the Learning Disability specialist nurse during their admission. • We will aim for 75 percent of relevant staff who work in our Emergency Department to have specific training in the care of patients with Learning Disabilities.
Priority two: Falls • Target: We will reduce the number of inpatient falls that result in moderate or severe harm by 50 percent	**Falls: Quality Improvement priorities for 2016/17** • We will reduce the number of inpatient falls that result in severe/moderate harm by 25 percent.
Priority three: Sepsis and Acute Kidney Injury (AKI) • Target one: We will achieve the national CQUIN around giving antibiotics within the first hour to patients with severe sepsis (90 percent). • Target two: We will effectively record our performance in delivering the sepsis six care bundles for all patients with sepsis. We will improve our performance by 50 percent in the course of the year. • Target three: In more than 90% of patients with Acute kidney injury (stage 3) we will ensure correct documentation and assessment has occurred in line with the national AKI CQUIN.	**Sepsis and Acute Kidney Injury (AKI): Quality Improvement priorities for 2016/17** • We will achieve the targets of the new and expanded national sepsis CQUIN in 2016/17
Priority four: Pressure ulcers • Target one: We will have no avoidable grade four pressure ulcers • Target two: We will reduce the number of	**Pressure ulcers: Quality Improvement priorities for 2016/17** • We will implement our 'React to Red' pressure ulcer prevention campaign

avoidable grade three pressure ulcers in the acute setting by 50 percent and we will reduce the number of avoidable grade three pressure ulcers in the community by 30 percent	• We will have no avoidable grade four pressure ulcers. • We will reduce the number of avoidable grade three pressure ulcers in the acute setting by 25 percent. • We will reduce the number of avoidable grade three pressure ulcers in the community by 25 percent.

Quarterly Sign up to Safety focussed report; sepsis

Introduction

Sepsis is diagnosed in approximately 100,000 patients in NHS England each year and is responsible for an estimated 37,000 deaths annually, including 1,000 paediatric deaths. Recognising sepsis early and commencing "sepsis 6" interventions rapidly, as well as escalating treatment plans for those with severe sepsis, is paramount in attempting to reduce these mortality figures.

Early recognition and rapid management of sepsis is a key patient safety objective for Whittington Health and monitored through our local Trust 'Sign up to Safety' priorities and the Trust's quality priorities for 2016/17. In addition, it is also a national CQUIN.

Sepsis Group (Team Sepsis)

Whittington Health has had an active multi-disciplinary sepsis group for the past 2 years, co-led by Dr Julie Andrews (Consultant Microbiologist) and Dr Sarah Gillis (Consultant in Critical Care Medicine). The objective of the group is to monitor and amend practice using Plan-Do-Study-Act (PDSA) methodology with the aim of improving outcomes for patients with sepsis. The focus of the group is on continued audit and feedback, delivering relevant short educational sessions and ensuring equipment and resources are reviewed and available for all relevant staff. A key priority of this group has been to improve recognition of sepsis by our community staff, GP's and London Ambulance Service staff.

The Trust supported the employment of a 0.5 WTE lead sepsis nurse in February 2016 and this role has been fundamental to sustaining the improvements demonstrated below. In August 2015 six junior doctor "sepsis leads" joined the Team Sepsis in a novel quality improvement project; their support has also been invaluable.

Sepsis CQUIN and the 'Sign up to Safety' performance data

Around 50 patients a month at the Trust are diagnosed with sepsis /severe sepsis, with 80% being diagnosed on admission and another 20% being diagnosed during their admission. The majority are adults with one to two paediatric sepsis cases diagnosed per month. Patients are all entered onto a bespoke local Whittington sepsis database, which has been created by reviewing sepsis pathway audit data, sepsis coding, critical care outreach referrals, and blood culture data. The gold standard is that each patient with observations compatible with a diagnosis of sepsis has a "sepsis pathway" completed and entered into

their notes. This sepsis pathway outlines the correct management steps required each and every time for all patients with sepsis, the so called “sepsis 6” care bundle consisting of fluids, antibiotics, lactate, urine output measurement, oxygen and blood cultures, all to be done within the first hour of presentation.

With severe sepsis a delay of an hour in giving antimicrobials is estimated to increase mortality by 7%, so this intervention is specifically measured by the national CQUIN. This CQUIN was further extended in 2016/17 to include the diagnosis and management of sepsis amongst inpatients and a 72 hour review of antimicrobials for all patients. The summary of this data is shown in the tables and graphs below.

Table 5: Whittington Health performance against the sepsis national CQUIN

	Percentage of patients finally diagnosed with sepsis with completed sepsis pathways in notes	**Percentage of patients with sepsis 6 care bundle completed within the hour from diagnosis**	**Percentage of patients with severe sepsis receiving antimicrobials within 60 minutes of arrival to hospital (and have a 72 hour antimicrobials review from 2016/17)**	**Percentage of patients with severe sepsis diagnosed within hospital receiving antimicrobials within 90 minutes of diagnosis**
CQUIN objective	>90%	n/a	>90%	>90%
Sign up for safety objective	n/a	n/a	>90%	>90%
Quality account objective	>90%	n/a	>90%	>90%
Internal objective	>90%	>90%	>90%	>90%
Q2 2013/14	n/a	37%	28%	n/a
Q2 2014/15	n/a	42%	41%	n/a
Q1 2015/16	46.0%	66%	55%	n/a
Q2 2015/16	46.9%	68%	59.4%	n/a
Q3 2015/16	45.6%	72%	67.4%	n/a
Q4 2015/16	63%	80%	78.2%	n/a
Q1 2016/17	66%	82%	82.2%	83%

As table 5 shows, there has been a steady and sustained improvement since the Sepsis Group was formed. However, there are still significant improvements required to ensure the correct use of the sepsis pathway. This will be achieved by continued weekly feedback to clinical staff, particularly in the emergency department, and by on-going internal education.

Sepsis Benchmarking

Table 5: Benchmark data for the percentage of patients with severe sepsis receiving antimicrobials within 60 minutes (January – March 2016)

Benchmark area	Percentage of patients with severe sepsis receiving antimicrobials within 60 minutes (Quarter 4 2015/16)
NHS England	68%
London	74%
Whittington Health	78.2%

Whittington Health had the lowest sepsis mortality SHMI value (0.339) in England for period January 2015-31st December 2015. Other trusts in the top 5 included UCLH, Guy's and St Thomas', East Cheshire and Basildon NHS Trust.

Local sepsis improvements

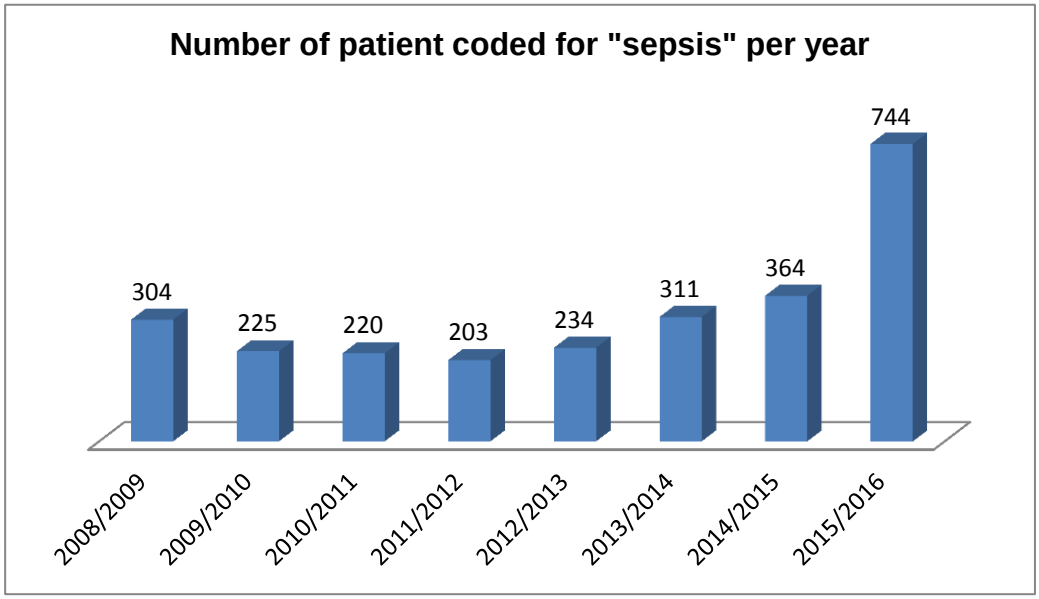
The Trust's average length of stay has reduced for patients with severe sepsis from **11.3** days average length of stay in Quarter 2 of 2015/16 to **9.4** days in Quarter 1 of 2016/17.

The number of patients being diagnosed with sepsis before arrival at hospital (by our community teams, GP's, London Ambulance Service or our triage teams) has increased from 8% in Quarter 1 of 2015/16 to 50% in Quarter 1 of 2016/17.

There were three Serious Incidents (SIs) relating to the delayed recognition/escalation of sepsis in 2015/16. There has been no reported SIs relating to the delayed recognition/escalation of sepsis between April and August 2016.

There have also been improvements the number of patients with sepsis who are now being coded for sepsis, as chart 7 shows.

Chart 4: Number of Whittington Health patients coded for sepsis (April 2008 – March 2016)



Sharing of improvements

Team Sepsis is part of the UCLP sepsis quality improvement project and has benefitted from the support provided by this network.

The team has been asked to present at the NHS England Sepsis Improvement Meeting, an acute medicine conference in September 2016 and a national sepsis conference in October 2016.

The team has given three Trust Grand Round presentations this year, numerous additional medical and nursing teaching sessions and developed one of our patient SI investigations into an interactive “moodle” education package and a community learning event.

Other governance issues regarding sepsis

There has been a recent National Confidential Enquiry into Patient Outcome and Death (NCEPOD) report, a National Institute for Health and Care Excellence (NICE) publication and a central patient safety alert on sepsis recognition and management. Our current management of sepsis is compliant with all the aspects outlined in these apart from two aspects. One aspect is patient information and we will have an approved sepsis patient information leaflet by end of October 2016. The Trust is currently not recording all specialty team attendances and are therefore not able to evidence that we meet the requirement for attendance by a consultant (either from Acute Medicine, ITU or the Emergency Department) within an hour for any patient with a diagnosis of sepsis who fails to improve within an hour of therapy commencing.

Requirements for continued and sustained improvements

- On-going weekly feedback to our Emergency Department and other key areas to improve use of sepsis pathways and interventions with continued short education sessions including simulation.
- On-going Trust financial support for the lead sepsis nurse position; this was approved as a one year fixed-term trial post in February 2016 and will need to be reviewed before February 2017.
- Additional Trust support for 0.2 WTE administrator for Team Sepsis. This support is required to ensure access medical notes and to add relevant data to the sepsis database.
- On-going project support from the CQUIN team. This has been limited in 2015/16 but we are having meetings to secure 0.1WTE/week project support.
- On-going commitment from new junior doctor leads in sepsis; six new junior doctor lead starters have signed up for 2016/17. Nursing and AHP sepsis champions have also been secured for 2016/17**.** Support from learning/education teams and the Director of Postgraduate Medical Education (Dr Maria Barnard) have been established.
- Formal recognition through job planning of the work of the two sepsis co-leads, estimated 1 programmed activity (PA) of work (4 hours) per week.
- Continued involvement in national and local networking groups to provide team with support and advice.

6. Dissemination of learning from Serious Incidents, near misses, inquests, complaints and claims

Moodle

Whittington Moodle is our new Clinical Learning website. This is currently being used in the Emergency Department for a variety of learning purposes. There are several areas on the site with different courses to which trainee doctors can upload their own anonymised case s such as interesting x-rays or ECG's either to serve as a log book of their own or to show their colleagues so everyone can benefit. We also have added quizzes about clinical cases that are interesting or were mismanaged in the first instance in order to share knowledge and learn from mistakes. The ITU team have created a fantastic teaching presentation for us, using the Trust's new Camtasia software, around sepsis based on a recent case involving a serious incident. Moodle will be used to generate an enhance online platform for learning points, for example Dr Giles Armstrong, Consultant paediatrician, has created a teaching presentation based on missed paediatric fractures. Moodle has mainly been used by ED so far but it is available to the whole Trust both in the hospital and in the community. It is an incredibly flexible and easy to use learning tool.

Grand Rounds

Grand Rounds being refreshed under the leadership of Professor Yudkin and Dr Michael Kelsey and the changes are designed to greatly enhance the reach of Grand Rounds to all clinical disciplines and all ICSUs (rather than focussing on physicians as they have done hitherto), with a clear structure to support dissemination of learning from patient safety and related issues. Formal links will be established between the Serious Incident Executive Advisory Group (SIEAG) and the Grand Round, so that every 6 weeks the safety learning points from SIEAG will be presented and discussed by this wider audience under the supervision of Professor Ian Bates and Jana Kristienova.

Nurse revalidation

All nurses and midwife must now participate in a tri-annual revalidation process that requires each of them to provide evidence they have met the required standard set by the Nursing & Midwifery Council.

As part of the revalidation process all nurses and midwives must now undertake a reflective discussion with another NMC registrant, usually their line manager. The discussion will cover five written reflective accounts.

These accounts may surround learning from their professional development and/or practice-related feedback and/or an event or experience in their practice and how this relates to the Code of Professional practice.

This provides for the first time, an opportunity for each nurse and midwife to reflect on a clinical or professional aspect of learning with another registrant which will improve their professional practice. Many nurses and midwives have commented on how this is the most rewarding part of their revalidation process.

Medicine Matters

Since January 2012 a regular publication 'Medicine Matters' has been published and circulated. This publications contains information about medicines from Pharmacy and the Medicines Safety Group

7. References

1. NHS Digital Indicator Portal (NHS Digital) available from https://indicators.hscic.gov.uk/webview/
2. National Confidential Enquiry into Patient Outcome and Death, *Just Say Sepsis*! (2015) available from http://www.ncepod.org.uk/2015sepsis.html
3. National Institute for Health and Care Excellence (NICE), *Sepsis: recognition, diagnosis and early management guidelines (NG51)* (July 2016) available from https://www.nice.org.uk/guidance/ng51