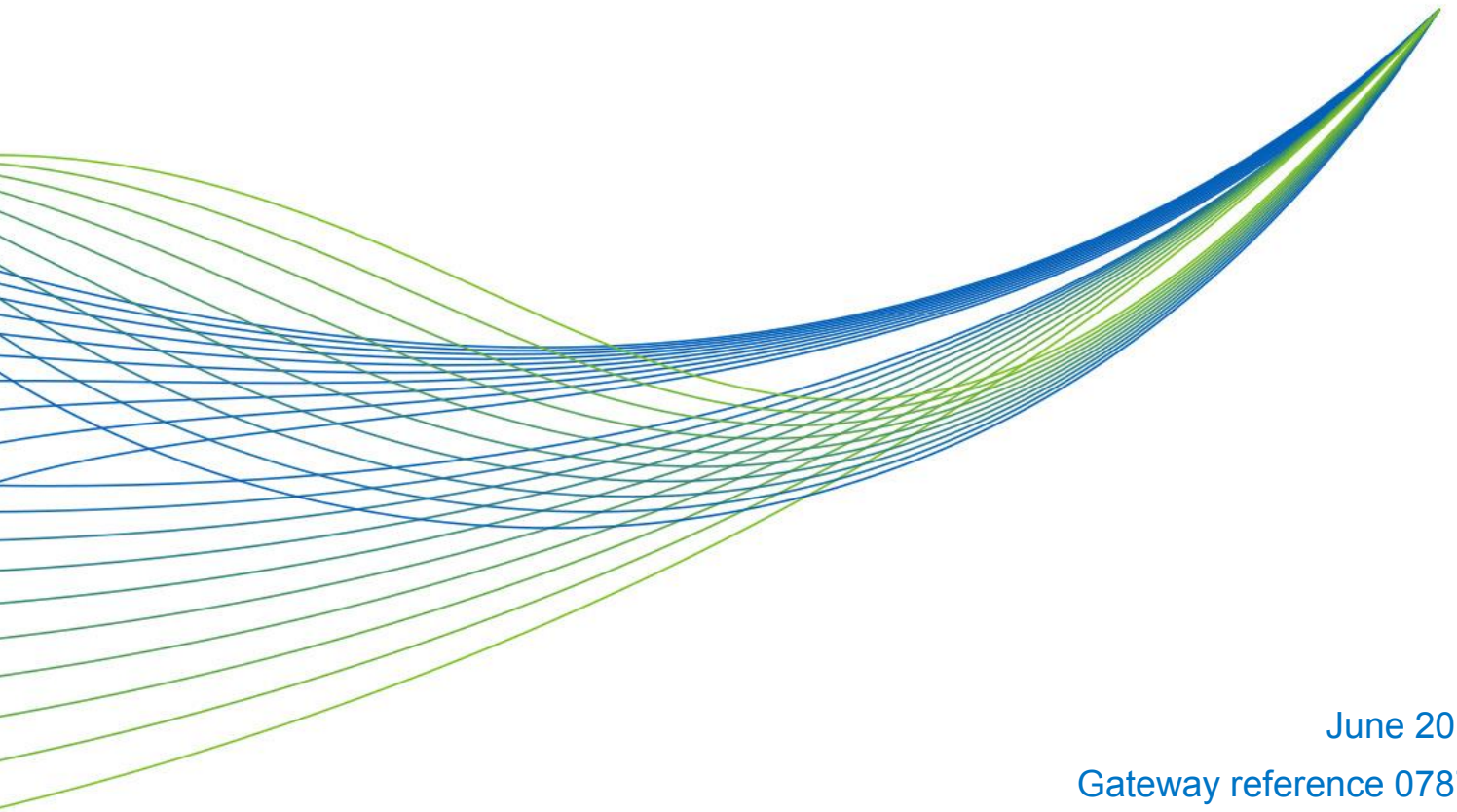
NHS RightCare

NHS RightCare scenario:
The variation between sub-optimal and optimal pathways

Rob's story:
Sepsis identification and care

Appendices



June 2018

Gateway reference 07876

These appendices are linked to the NHS RightCare scenario *Rob's story: Sepsis identification and care* and should be read in conjunction with the full document.

The scenario and supporting video can be found here:
https://www.england.nhs.uk/rightcare/products/ltc/sepsis-scenario/

Appendix 1: A patient's reflection

Julie Carman, a former NHS employee, tells her powerful story about her experience of being treated with sepsis and how inadvertent system errors can lead to serious harm to patients as well as significant added costs to the system.

I have experienced sepsis first-hand, you can see my story here
http://www.patientstories.org.uk/recent-posts/julies-story-now-available/

Experience is part of the package of care and part of the duty of care that the NHS has to patients. So it is clear that the NHS has a responsibility, but so do patients and members of the wider community when it comes to sepsis.

Question: What will you do differently after hearing Rob's Story?

I believe that we can all do something to improve the sepsis problem.

It is clear to me from my experiences (both as a survivor and as an NHS employee) that NHS staff need more support and education; they are good people struggling in bad systems. It is also clear to me that NHS RightCare also sees this and is on the right path to make changes happen.

Therefore, the main point that I want to make is about awareness and care in the community. Although my personal experience was poor I see myself as very lucky because I had a huge amount of support from friends and family:

I had support to:

- Take me out regularly in a wheelchair
- Keep me engaged (visits/texts/telephone calls) on a regular basis
- Keep me well-nourished with smoothies (not chocolates....my jaw was wired!)
- Take me to follow up appointments including months of physiotherapy, daily dressing changes etc.

I was also lucky to have savings and so even when I was on half pay for a few months I was still able to afford:

- petrol to many hospital appointments (over 100!), plus parking etc.
- dental implants

- the cost of removing the haematomas from my legs had to be paid for (not considered ‘exceptional’ enough to qualify for NHS funding)
- NLP sessions at £600 (my GP’s suggestion) - well worth it as it `helped me ‘reframe’ my experience and use it for a positive purpose (see my story) and I now also work as a UK Sepsis Trust volunteer and Support Group lead etc.

When you consider all this and the fact that I also had a supportive GP, and employer who gave me time and space to recover, even though I was very close to death and had over nine months of real pain and discomfort – I was indeed very lucky!

Question: What about patients that don’t have this level of support?

From my work with the UK Sepsis Trust Support Groups I’m aware of folks struggling with:

- Fatigue, flashbacks etc. sepsis brain.....post sepsis syndrome.
- Unsympathetic employers who insist they return to work, no phased return, not able to do shorter hours etc.
- Some survivors do not have a GP who is aware of post sepsis syndrome and therefore not sympathetic to their possible need for on-going support for a while.
- Mortgage payments, credit card bills etc. due to reduced income.
- Even travelling to appointments and paying for parking is an issue for some.
- Partners, young children or teenagers who don’t understand, think they “should be better now” etc.
- Feelings of ‘shame’ (as I did initially) that they are not coping better and that they ‘allowed’ this to happen.
- This can be true of their loved ones who still feel guilty many years later that they didn’t speak up more in the GP or hospital setting to ensure initial treatment started early.

This is a question that needs to be considered carefully – community care is so important in the aftermath of sepsis.

The aftermath for me is that I have gained perspective in my life. Now more than ever, I truly live in the moment - don’t postpone joy.

I would really recommend the UK Sepsis Trust https://sepsistrust.org/ as a source of support, information and resources for survivors and also those who have been bereaved by sepsis; they really helped me and my family.

Julie Carman February 2018

Appendix 2: Case Study - The ‘Sepsis-Time is life’ project, Royal Liverpool Hospital

“Every system delivers what it is designed to deliver“ - Sepsis improvement involves changes in culture, systems and building teams to improve recognition and management of sepsis

Case study: Developing a hospital system for sepsis improvement at the Royal Liverpool and Broadgreen University Hospitals NHS Trust

Introduction

Sepsis is a significant cause of mortality and hospitals cannot improve mortality without improving recognition and management of sepsis. The ‘Sepsis-Time is life’ project is a hospital-wide sepsis improvement programme developed in 2014 which focuses on developing systems for sepsis improvement. The focus is on early recognition and rapid management of sepsis in the Emergency Department as well as inpatient wards. The vision is to transform sepsis care, reduce mortality, intensive care admissions and hospital length of stay.

Background

The Royal Liverpool Hospital is a large tertiary teaching hospital in the north west of England. It has 806 beds and on average there are 250 A&E attendances a day.

Audits in 2012 showed problems with sepsis management with about 17% of patients receiving the sepsis 6 within six hours, which was low but higher than national average. In addition there were incidents and complaints from patients and the families about delays in recognition and initial management of sepsis. Previous attempts to improve by educating staff and increasing awareness had had limited success. The ‘Sepsis-Time is life’ project was created to develop systems that would transform and sustain improvements in sepsis care in the hospital.

What we did

The project focused on changing culture, developing systems and building teams of well-trained individuals to improve care for sepsis.

Changing culture

A hospital-wide campaign was run via screen savers and hospital communication systems with the help of senior nurses, doctors and executive staff. The key message was that improving sepsis is important to the hospital, sepsis is a medical emergency and antibiotics must be administered within one hour once the diagnosis of sepsis is made.

Sepsis training was provided for all medical and nursing staff. Sepsis was made a mandatory topic of induction for clinical and non-clinical staff. A bespoke simulation

course was also run every month to train nurses to manage sepsis and deal with human factors which prevent recognition and management of sepsis

Developing systems for sepsis improvement

A clinical lead for sepsis was appointed with dedicated time to lead sepsis improvement. There was also support from a nurse and project manager.

Human factors which were affecting recognition and management of sepsis were identified and addressed. For example, lactate sensors were put on all arterial blood gas machines to improve access to serum lactate measurement. Blood culture packs were designed and introduced to improve speed of blood cultures and standardise the equipment used for blood cultures. This not only improved the timeliness of antibiotic administration but also reduced blood culture contamination rates.

More recently the team has developed an electronic sepsis (e-sepsis) tool which uses electronic recording of observations and National Early Warning Scores (e-NEWS) in addition to blood results to automatically screen for sepsis and prompt staff to consider implementing the sepsis pathway.

Building teams of well-trained individuals to improve sepsis care

A system for sepsis improvement was developed with a hospital-wide sepsis steering group which includes clinicians and non-clinicians such as the information team, coding team and a patient representative.

Emergency Department and Acute Medicine Unit sepsis improvement teams were developed and clinical leads identified

The hospital has one of the largest sepsis nurse teams in the country who not only work with colleagues in the Emergency Department to manage patients with sepsis but also provide education and training and lead quality improvement projects. When the national CQUIN for sepsis was introduced, a team of four sepsis nurses was appointed to build on the initial success of the project and to ensure the hospital met the sepsis CQUIN.

The project has worked with out of hours GP services (UC 24) and the Clinical Commissioning Group to identify primary care/community sepsis leads, run education events and run specific quality improvement projects.

What we have achieved

Improvements in processes of care

Screening for sepsis is now constantly between 98% and 100% and meets the Sepsis CQUIN. In addition, there is no longer variation in screening for sepsis in the Emergency Department or wards as e-sepsis provides a system which automatically screens patients for sepsis.

There has been a steady increase in the percentage of patients who receive antibiotics within one hour, which is now at 70% from time of recording the first set of observations for the Emergency Department.

Over 1000 nurses and doctors have been trained.

Improvements in outcomes for sepsis

- 15% reduction in sepsis shock mortality.
- Median of two day reduction in length of stay for sepsis. This has resulted in an estimated 2500 bed days saved per year, which is equivalent to about £600,000 of savings.

Achieving regional and national performance targets

- Best performing hospital in the North West regional Advancing Quality Sepsis collaborative project.
- National CQUIN target for sepsis screening has been met and antibiotic administration target has improved significantly.

Improved reputation, good patient stories and reduction in complaints and incidents

- Numerous examples of patients who have been rescued as a result of the systems. These stories are used for education events in the hospital.
- Reduction in incidents and complaints related to sepsis.
- Local, regional and national awards and nominations for the sepsis project.
- Experience of sepsis improvement shared with other organisations regionally, nationally and internationally. Numerous visits from teams to learn about developing systems for sepsis improvement.

Further information

For more information about this case study please contact Dr Emmanuel Nsutebu, National Clinical Advisor for Sepsis (NHS England) and Deterioration (NHS Improvement) at Emmanuel.Nsutebu@nhs.net or the Sepsis Nursing Team at the Royal Liverpool Hospital at sepsisnurseteam@rlbuht.nhs.uk.

Appendix 3: More detailed patient observations – Optimal pathway

(NB: These observations were made in Rob's optimal pathway only)

Time/date	Location	RR	O_2 sats	Suppl. O_2	Pulse	BP	Temp	ACVPU	**NEWS**
Day 1 0900	GP	26	94%	No	114	114/60	38.6	C	**10**
Day 1 0933	Ambulance	24	91%	Yes	124	108/64	38.8	C	**13**
Day 1 1000	ED Resus	24	93%	Yes	128	94/40	36.0	C	**14**
Day 1 1100	ED Resus	23	92%	Yes	126	102/46	37.2	C	**12**
Day 1 1130	ED Resus	30	88%	Yes	114	92/40	36.6	C	**15**
Day 2 0900	HDU	22	96%	Yes	112	126/70	38.2	V	**10**
Day 3 0900	HDU	22	97%	No	94	130/66	37.4	A	**3**
Day 5 0900	Ward	16	96%	No	90	140/74	36.6	A	**1**