Sepsis

Infection Prevention Conference
19/10/2018

Jane Mastin
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Session outline

• Context
  - What is sepsis? Some evolved thinking from practice
  - Risk factors?
  - The problem with infections
  - Key drivers national & local

• What’s happening in Lancashire?
  - Sepsis strategy for Lancashire care homes
  - Sepsis training and development sessions for care homes
What is sepsis?
some evolved thinking from practice

Sepsis is the severe, life-threatening end of infection, and arises when the body’s response to infection injures its own tissues and organs.

caused by a dysregulated host response to infection
The body’s immune system overreacts causing widespread inflammation, swelling and blood clotting. These reactions cause a significant reduction in blood pressure, which can decrease the blood supply to vital organs and starve them of oxygen.

(NHS England, 2015)
Who is at risk of sepsis?

- Age >75 <1 or peri partum
- Immunocompromised (e.g. chemotherapy, drugs)
- Recent trauma or surgery
- Broken skin e.g. ulcers
- Long-term indwelling catheters or lines
- Current/recent antibiotics
- Chronic disease (e.g. diabetes, heart failure, chronic kidney disease)

Remember: Sepsis can affect healthy people at any age
Infection
Antimicrobial management
Sepsis
Respiratory infections
UTIs
Skin infections; pressure sores, cellulitis
Abdominal infections
Infections following surgery & invasive procedures
Common infections
SOS
The problem with infections
Infection is the most common reason for admission & death, and is growing
Sepsis

• In the UK, there are more than 250,000 sepsis cases each year

• Without early identification of suspected sepsis and treatment there is a significant risk of long-term disability or death

• Sepsis needs to be treated as seriously as a heart attack, stroke or major trauma = TIME CRITICAL CONDITION

• Early detection and referral to treatment does save unnecessary disability and death
Timeline of key publications

- **700BC** Hippocrates defines ‘Sepsi’
- **2006** Kumar, Rivers (EGDT)
- **2013** Ombudsman, *Time to Act*
- **2014** SIRS Toolkit
- **2015** CQUIN, NCEPOD-Just Say Sepsis, RFS NHSE, *Improving Outcomes for Patients with Sepsis*
- **2016** Consensus 3, qSOFA (Quick SOFA), NICE Clinical Guideline 20
- **2017** NHSE Sepsis guidance
- **2018** NEWS2 MANDATE, CQUIN revision, Patient Safety Alert
- **2019** Combined Sepsis/Deterioration Pathway
Key National Recommendations relevant for care homes

- Primary care providers - ensure robust safety netting for those suspected as at risk of sepsis
- Standard method of referral from primary to secondary care
- An early warning score e.g. (NEWS) - to be used in primary and secondary care
- Training in the recognition and management of sepsis in primary and secondary care
- Early identification and management of the source of sepsis where possible
- Patient and carer information

(NCEPOD, 2015)
Lancashire landscape – CCGs & care homes
Key Drivers - local

• Post infection reviews MRSA & CDI

• Care home staff & district nurses tell us sepsis is an issue which needs to be addressed

• Reported infections and suspected sepsis cases are the main causes of deterioration and hospitalisation from care homes

• Complaints following diagnosed sepsis cases (CQC & LCC)
Sepsis strategy for Lancashire Care Homes 2017-2020

Aim - To improve sepsis related experiences and outcomes for care home residents across Lancashire
Progress so far.....

February - April 2017
- Meeting with 6 CCG colleagues, NW ambulance service, UK Sepsis Trust
- Engagement with care home staff, various forums - conversations and listening

April - July 2017
- Sepsis strategy development, local & national consultation, launch

September 2017 onwards
- Training commenced - 2 pilot sessions: Sep-Oct 2017
- 5 sessions: Feb-March 2018
- 10 training sessions: April 2018-January 2019
Sepsis training & development sessions for care homes - objectives

Following the training sessions, care home staff will:

• Understand the importance of preventing infections

• Have increased knowledge of sepsis

• Be knowledgeable, confident and skilled to detect, manage and escalate residents with suspected sepsis for time critical healthcare (NEWS2 with escalation + signs of infection + soft signs of sepsis)

• Have improved awareness of the care needs of residents with post sepsis syndrome

• Be able to raise public and professional awareness of sepsis within our care homes
Sepsis training & development sessions for care homes

Session 1

- Prevention
- Early identification & referral to treatment
- Post sepsis syndrome

Session 2

- Implementation & support
An aggregate NEWS of 5 or more identifies adults who are likely to be severely ill with likely organ dysfunction and who require urgent assessment.
Benefits of NEWS2

• assists ambulances who to **prioritise** in transfers

• assists admissions units prioritise, **plan** and **place** referred patients

• Encourages **reliable** complete set of observations

• Starts the ‘Track and Trigger’ to identify those at greatest risk of bad outcomes **early**
Infection thought principles

**RISK**
- Age ≥ 75, <1, Peripartum
- Immunosuppression/Chemotherapy
- Current/Recent antibiotics
- Line / catheters in situ / Drug use
- Recent procedure/op, trauma/ broken skin

**SUSPECTED INFECTION**
- Chest, Urine, Skin, Abdominal
- Fever/Rigors, Delirium

**SEVERITY**
- NEWS2 ≥ 5
- Or
- Concern

**URGENT REVIEW**

**CLINICAL JUDGEMENT:** Do I suspect sepsis?
- **YES** Refer / treat
- **NO** Safety Net / Review
- **MAYBE** Review/2nd opinion

**IF SUSPECTED SEPSIS**
- Things can rapidly deteriorate. Young fit people compensate their physiology well.
- Clinical judgement is the most important component: Is another diagnosis more likely?
- Safety net, record observations reliably & communicate NEWS across the pathway

www.lancashire.gov.uk
Total numbers trained
September 2017 - October 2018

Total number of people trained Sept 2017 - Oct 2018

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<th>Area</th>
<th>Number of trainees</th>
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Total number of care homes trained Sept 2017 - Oct 2018

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Evaluation from Lancashire care homes trained

Overall evaluation of training session

- Excellent: 150
- Good: 22
- Fair: 0
- Poor: 0
A few comments from care home staff following training...

- Very informative course, makes me want to go away and learn more and cascade information
- Excellent presentation and information from supportive instructors
- I would recommend this training to all people involved in care
- This training should be available to all care homes across the country
- Improved my knowledge and understanding of sepsis greatly
Implementation feedback so far........

• Infections are being treated earlier in care homes, with less ambulance call outs and hospital admissions

• Residents feel reassured they have normal NEWS2 and if not, something will be done about it

• Families like to see care home staff carrying out NEWS2 if their loved ones feel unwell and deteriorate – they like the immediate response

• Residents with suspected sepsis are being identified earlier and are receiving appropriate care

• Improved quality handover to ambulance service

• Care staff feel empowered, more knowledgeable, confident and skilled to suspect sepsis and transfer residents for care
Resident’s stories......

• A 62 year old lady with schizophrenia (baseline NEWS2 = 3), had strong smelling urine and new/mild confusion, with a NEWS2 = 5. Care home called GP who attended. Lady nursed in bed with Nitrofurantoin and fluids, GP said if NEWS2 goes beyond 5 or more to call an ambulance. NEWS2 reduced to 4. Lady became well again and stayed at home.

• A care home resident’s NEWS2 score = 6, with respiratory symptoms, generally feeling unwell and off food and drink. Ambulance was called, recorded NEWS2 = 5. Care home staff concerns about this lady were taken on board and the lady was successfully treated for sepsis in hospital.
Sepsis Strategy for Lancashire Care Homes 2017-2020

Anticipated outcomes:

• Implementation of sustained and consistent evidence based/best practice approaches to the management of suspected sepsis

• Improved communication between health and social care professionals

• Improved responses across community health care providers

• Rapid referral of residents to local acute trusts for appropriate and time critical treatment for sepsis

• Increased awareness of care needs of residents following a sepsis diagnosis

• Improved public awareness of sepsis in Lancashire care homes
Next two care home sepsis training sessions.
For a booking form
E: PHadmin@lancashire.gov.uk

Session 1
15\textsuperscript{th} November 2018 2-4pm (10 places available), LCC
Session 2
8\textsuperscript{th} January 2019 2-4pm, LCC

Session 1
30\textsuperscript{th} January 2019 2-4pm (28 places available), LCC
Session 2
11\textsuperscript{th} April 2019 2-4pm, LCC

More dates will soon be available for 2019
What’s next 2018-2018?

• Continue to deliver FREE sepsis training and development sessions for Lancashire care homes

• Invite more Learning Disability providers to the sepsis training and development sessions (3 providers trained so far)

• Provide new sepsis resources

• Work with other healthcare professionals/organisations to raise awareness of the need to manage & treat sepsis collaboratively across the patient pathway

• Impact evaluation (application of approaches in practice in care homes).
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