MAKING SENSE OF IT ALL

JANUARY 18

@SepsisUK

Dr Ron Daniels B.E.M.  
CEO, UK Sepsis Trust  
CEO, Global Sepsis Alliance
Breast cancer

Bowel cancer

Annual UK sepsis deaths
SARA
THE SEPSIS AUDIT & RESEARCH ALLIANCE
<table>
<thead>
<tr>
<th>NEWS</th>
<th>Age</th>
<th>Mortality %</th>
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<td>68</td>
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<td>8+</td>
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NEWS & SEPSIS n=21,000
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ED/AMU Sepsis Screening & Action Tool

To be applied to all non-pregnant adults and young people over 12 years with fever (or recent fever) symptoms, or who are clearly unwell with any abnormal observations.

**Low risk of sepsis:** Use standard protocols, consider discharge (approved by senior decision maker) with safety netting!

Red Flag Sepsis. Start Sepsis 6 pathway NOW (see overleaf)

This is time critical, immediate action required!

<table>
<thead>
<tr>
<th>Important: Is an end of life pathway in place?</th>
<th>Yes</th>
<th>Is escalation clinically inappropriate?</th>
<th>Yes</th>
<th>Initials</th>
<th>Discontinue pathway!</th>
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**1. Could this be sepsis?**
- Patient looks sick!
- Patient, carer or relative very worried!
- NEWS (or similar) triggering!

**Risk factors present!**
- e.g. age over 75, recent surgery, trauma or invasive procedure!
- Immunosuppressed, including device or skin integrity breached!

**2. Could this be due to an infection?**
- Yes, source unclear
  - Urinary Tract Infection
  - Joint or skin infection
  - Meningitis
  - Other (specify)

**3. Is any ONE red flag present?**
- AVPU= V, P or U (if changed from normal)
- Acute confusion!
- Respiratory rate ≥ 25 per minute!
- Needs oxygen to keep SpO2 ≥ 92% (88% in COPD)
- Heart rate > 130 per minute!
- Systolic BP ≥ 90 mmHg (or drop ≥ 40 from normal)
- Not passed urine in last 18 H! UO < 0.5 ml/kg/hr!
- Non-blanching rash, mottled skin/cyanotic!
- Recent chemotherapy (last 6 weeks!)

**4. Any Amber Flag criteria?**
- Relatives concerned about mental status!
- Acute deterioration in functional ability!
- Immunosuppressed!
- Trauma/surgery/procedure in last 6 weeks!
- Respiratory rate 21-24!
- Systolic BP 91-100 mmHg!
- Heart rate 91-130!
- ReNew dysrhythmia!
- Not passed urine in last 12-18 hours!
- Temperature < 36°C!
- Clinical signs of wound, device or skin infection!

Send bloods if 2 criteria present, consider if 1!
- Include LACTATE, FBC, U&E, CRP, LFT, clotting!

Ensure urgent senior review!
- Must review with results within 1 hour!

To be applied to all non-pregnant adults and young people over 12 years with fever (or recent fever) symptoms, or who are clearly unwell with any abnormal observations!
1. Could this be sepsis?

Patient looks sick

Patient, carer or relative very worried

NEWS (or similar) triggering

Risk factors present

e.g. age over 75, recent surgery, trauma or invasive procedure, immunosuppressed, indwelling device or skin integrity breached

2. Could this be due to an infection?

Yes, source unclear

Pneumonia

Urinary Tract Infection

Abdo. pain/ distension

Joint or skin infection

Device-related infection

Meningitis

Other (specify)

3. Is any ONE red flag present?

AVPU= V, P or U (if changed from normal)

Acute confusion

Respiratory rate ≥ 25 per minute

Needs oxygen to keep S\textsubscript{O}\textsubscript{2} ≥ 92% (88% in COPD)

Heart rate > 130 per minute

Systolic B.P. ≤ 90 mmHg (or drop > 40 from normal)

Not passed urine in last 18h/ UO < 0.5 ml/kg/hr

Non-blanching rash, mottled/ ashen/ cyanotic

Recent chemotherapy (last 6 weeks)

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</tr>
<tr>
<td>5+ and Red Flag</td>
<td>81.7</td>
<td>23</td>
</tr>
<tr>
<td>5+ no Red Flag</td>
<td>18.3</td>
<td>13</td>
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THE SEPSIS SIX

1. Give 02 to keep SATS above 94%
2. Take blood cultures
3. Give IV antibiotics
4. Give a fluid challenge
5. Measure lactate
6. Measure urine output

JUST ASK

“COULD IT BE SEPSIS?”
IT'S A SIMPLE QUESTION, BUT IT COULD SAVE A LIFE.
## OUTCOMES

<table>
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<tr>
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<th>COHORT SIZE (%)</th>
<th>MORTALITY (%)</th>
<th>‘RRR’ (%)</th>
</tr>
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<tbody>
<tr>
<td>Total</td>
<td>567 (100)</td>
<td>34.7</td>
<td>-</td>
</tr>
<tr>
<td>No Sepsis Six</td>
<td>347 (61.2)</td>
<td>44.0</td>
<td></td>
</tr>
<tr>
<td>Sepsis Six</td>
<td>220 (38.8)</td>
<td>20.0</td>
<td>46.6 (4.16)</td>
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POLICY CHANGE
NEW STUDY SHOWS SEPSIS COULD BE COSTING THE UK ECONOMY UP TO £15.6 BILLION EACH YEAR

- New data from an independent study shows the cost of sepsis to the UK economy is likely to be as much as £15.6 billion every year, rather than the £2.5 billion previously estimated
- The UK sees 260,000 cases of sepsis annually – over 100,000 more than initial projections suggested
- Potential savings to the economy by improving sepsis care across the NHS could be as high as £2.8 billion

Monday 20th February – A study commissioned by the UK Sepsis Trust and carried out by the independent York Health Economics Consortium (YHEC) has found that
Depending on the increase in guideline compliance-by 10%, 20% or 30%-the annual direct NHS savings range between £83 million, £166 million and £249 million.
‘The same muscle and effort should be put into sepsis as for meningitis, MRSA and C Diff’
Sepsis

Sepsis: the recognition, diagnosis and management of sepsis

NICE guideline <number>

Methods, evidence and recommendations

January 2016
TIME TO ACT
Severe sepsis: rapid diagnosis and treatment saves lives

Improving outcomes for patients with sepsis
A cross-system action plan
Summary: To meet the AMR and Sepsis CQUINs

- Design systems to force better prescribing e.g. day 3 review for de-escalation AND IV to oral switch
- Review guidelines containing piperacillin-tazobactam and meropenem. Ensure they are followed through audit & feedback
- Quality improvement, not annual audit of AMS
- Merge sepsis and AMR CQUIN – start smart then focus
- Protected (restricted) antibiotic systems need to work
- Monitor & benchmark antibiotic usage
- Regular but varied communication on progress
- Local education & training at ward level
- Strong and effective multidisciplinary leadership (champions) at all levels
## Results of antibiotic consumption to Mar-17

<table>
<thead>
<tr>
<th>Drug (DDD/1000 adm inc daycase) Rx-Info</th>
<th>ED 2015-6</th>
<th>ED 2016-7</th>
<th>Acute Trust 2015-6</th>
<th>Acute Trusts 2016-7</th>
</tr>
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<tbody>
<tr>
<td>Total IV AB</td>
<td>110.7</td>
<td>134 (+21%)</td>
<td>907.6</td>
<td>925 (+1.7%)</td>
</tr>
<tr>
<td>Carbapenem</td>
<td>7.2</td>
<td>7.5 (+4.2%)</td>
<td>85.1</td>
<td>77.8 (-8.6%)</td>
</tr>
<tr>
<td>Piperacillin-tazobactam</td>
<td>13.4</td>
<td>14.4 (+7.5%)</td>
<td>112.8</td>
<td>102.6 (-9.0%)</td>
</tr>
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- Strong and effective multidisciplinary leadership (champions) at all levels
ANY CHILD WHO:
1. Is breathing very fast
2. Has a ‘fit’ or convulsion
3. Looks mottled, bluish, or pale
4. Has a rash that does not fade when you press it
5. Is very lethargic or difficult to wake
6. Feels abnormally cold to touch

MIGHT HAVE SEPSIS
Call 999 and just ask: could it be sepsis?

ANY CHILD UNDER 5 WHO:
1. Is not feeding
2. Is vomiting repeatedly
3. Hasn’t had a wee or wet nappy for 12 hours

MIGHT HAVE SEPSIS
If you’re worried they’re deteriorating call 111 or see your GP

JUST ASK
“COULD IT BE SEPSIS?”
IT’S A SIMPLE QUESTION, BUT IT COULD SAVE A LIFE.

The UK Sepsis Trust registered charity number (England & Wales) 1158843.
SEPSIS IS A SERIOUS CONDITION
THAT CAN INITIALLY LOOK LIKE FLU,
GASTROENTERITIS OR A CHEST INFECTION.

Seek medical help urgently if you develop any or one of the following:

- Slurred speech or confusion
- Extreme shivering or muscle pain
- Passing no urine (in a day)
- Severe breathlessness
- It feels like you’re going to die
- Skin mottled or discoloured

Email info@sepsistrust.org for more information.

The UK Sepsis Trust registered charity number (England & Wales) 1158843.
SEPSIS
IS A RARE BUT SERIOUS COMPLICATION
OF AN INFECTION

If your child has any of these symptoms you should take immediate action:
- Looks mottled, bluish or pale
- Is very lethargic or difficult to wake
- Feels abnormally cold to touch
- Is breathing very fast
- Has a rash that does not fade when you press it
- Has a fit or convulsion

Acting quickly could save your child’s life, so if your child has any of these symptoms don’t be afraid to go to A&E immediately or call 111.

Find out more information visit www.nhschoices.co.uk/xxxxx
or www.sepsistrust.org

Our values guide

The Friends and Family Test
How did we do?

The UK SEPSIS TRUST
ACTING QUICKLY CAN SAVE 14,000 LIVES FROM SEPSIS

To find out more about sepsis and the symptoms visit: www.sepsistrust.org

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"COULD IT BE SEPSIS?"
IT'S A SIMPLE QUESTION, BUT IT COULD SAVE A LIFE.
www.sepsistrust.org
IF YOU’RE GOING DOWNHILL FAST, JUSTASK
“COULD IT BE SEPSIS?”

Sepsis is called 'the silent killer'

For a symptom checklist, text SEPSIS to 67667

www.compassforlife.org.uk

THE UK SEPSIS TRUST
When sepsis strikes awareness is the best defence

If you or a relative feel so bad you need A&E, just ask “Could it be sepsis?”

www.sepsistrust.org
SEPSIS

TOGETHER WE CAN

SAVE 14,000 LIVES

THE UK SEPSIS TRUST