Breast cancer

Annual UK sepsis deaths

Bowel cancer
HOSPITAL EPISODE STATISTICS (HES)

- ‘Head counts’
- Based on what is written in medical notes
- Likely to capture only c. 40% of episodes

(NCEPOD ‘Just say Sepsis’ 2015, Rhee et al AJRCCM 2017)
‘DEFINITE’ SEPSIS CODES

A41.0  Sepsis due to *Staphylococcus aureus*
A41.5  Sepsis- other gram-negative organisms
A41.9  Sepsis, unspecified organism
R65.2  Severe sepsis or septic shock
P36.9  Bacterial sepsis of newborn
O85    Puerperal sepsis
‘DEFINITE’ SEPSIS CODES

A41.0
A41.5
A41.9
R65.2
P36.9
O85

200,000 CASES

(HES data 2017)
## Sources of Infection

<table>
<thead>
<tr>
<th>Source</th>
<th>% of cases (approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pneumonia</td>
<td>50%</td>
</tr>
<tr>
<td>Urinary tract</td>
<td>20%</td>
</tr>
<tr>
<td>Abdomen</td>
<td>15%</td>
</tr>
<tr>
<td>Skin, soft tissue, bone and joint</td>
<td>10%</td>
</tr>
<tr>
<td>Endocarditis</td>
<td>1%</td>
</tr>
<tr>
<td>Device-related infection</td>
<td>1%</td>
</tr>
<tr>
<td>Meningitis</td>
<td>1%</td>
</tr>
<tr>
<td>Others</td>
<td>2%</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>--------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>J18.0</td>
<td>Bronchopneumonia, unspecified organism</td>
</tr>
<tr>
<td>J18.1</td>
<td>Lobar pneumonia, unspecified organism</td>
</tr>
<tr>
<td>J18.9</td>
<td>Pneumonia, unspecified organism</td>
</tr>
<tr>
<td>K65.0</td>
<td>Generalised peritonitis</td>
</tr>
<tr>
<td>L03.9</td>
<td>Cellulitis, unspecified</td>
</tr>
<tr>
<td>L03.1</td>
<td>Cellulitis of limb</td>
</tr>
<tr>
<td>N39.0</td>
<td>Urinary tract infection</td>
</tr>
</tbody>
</table>
‘MIGHT BE’ SEPSIS CODES

J18.0
J18.1
J18.9
K65.0
L03.9
L03.1
N39 0

1,700,000 CASES

(HES data 2017)
<table>
<thead>
<tr>
<th>Category</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>OUT OF HOURS (OOH)/ TELEPHONE TRIAGE</td>
<td>+</td>
</tr>
<tr>
<td>COMMUNITY SERVICES</td>
<td>+</td>
</tr>
<tr>
<td>GENERAL PRACTICE</td>
<td>+</td>
</tr>
<tr>
<td>PREHOSPITAL CARE/ AMBULANCE SERVICES</td>
<td>+</td>
</tr>
<tr>
<td>EMERGENCY MEDICINE AND ACUTE MEDICAL UNITS</td>
<td>+</td>
</tr>
<tr>
<td>ACUTE HOSPITAL INPATIENTS</td>
<td>+</td>
</tr>
<tr>
<td>LABORATORY SERVICES</td>
<td>+</td>
</tr>
<tr>
<td>DENTAL SERVICES</td>
<td>+</td>
</tr>
</tbody>
</table>
SEPSIS SCREENING TOOL ACUTE ASSESSMENT

PATIENT DETAILS:

DATE:
NAME:
DESIGNATION:
SIGNATURE:

TIME:

01 START THIS CHART IF THE PATIENT LOOKS UNWELL OR NEWS-2 HAS TRIGGERED

RISK FACTORS FOR SEPSIS INCLUDE:

- Age > 75
- Impaired immunity (e.g. diabetes, steroids, chemotherapy)
- Recent trauma / surgery / invasive procedure
- Indwelling lines / IVDU / broken skin

02 COULD THIS BE DUE TO AN INFECTION?

LIKELY SOURCE:

- Respiratory
- Brain
- Urine
- Surgical
- Skin / joint / wound
- Indwelling device
- Other

SEPSIS UNLIKELY, CONSIDER OTHER DIAGNOSIS
03 ANY RED FLAG PRESENT?

- Objective evidence of new altered mental state
- Systolic BP ≤ 90 (or drop of >40 from normal)
- Heart rate ≥ 130 per minute
- Respiratory rate ≥ 25 per minute
- Needs O₂ to keep SpO₂ ≥ 92%
- Non-blanching rash / mottled / ashen / cyanotic
- Lactate ≥ 2 mmol/l
- Recent chemotherapy
- Not passed urine in 18 hours (<0.5ml/kg/hr if catheterised)

YES

RED FLAG SEPSIS

START SEPSIS SIX
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.
JEREMY HUNT ADMITS NHS IS ‘TOTALLY INADEQUATE’ AT SPOTTING SEPSIS
Summary: To meet the AMR and Sepsis CQUINs

- Design systems to force better prescribing eg 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>
</thead>
<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>
</tbody>
</table>

- Strong and effective multidisciplinary leadership (champions) at all levels
OVERLAID WITH ESTD MORTALITY*

* NB: measurement sources vary
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 convolution

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/xxxx_or www.sepsistrust.org

Our values guide

The Friends and Family Test
How did we do?

The UK SEPSIS TRUST
Sepsis kills over 52,000 every year - each death a preventable tragedy. So we’re introducing new guidance to use #data to identify & treat sepsis faster - and save more lives.

NHS hospitals could face fines for breaches of new sepsis rules

NHS England staff told to look out for signs of sepsis in patients attending A&E

theguardian.com
Derivation, Validation, and Potential Treatment Implications of Novel Clinical Phenotypes for Sepsis

CONCLUSIONS AND RELEVANCE  In this retrospective analysis of data sets from patients with sepsis, 4 clinical phenotypes were identified that correlated with host-response patterns and clinical outcomes, and simulations suggested these phenotypes may help in understanding heterogeneity of treatment effects. Further research is needed to determine the utility of these phenotypes in clinical care and for informing trial design and interpretation.
INITIATING A NATIONAL REGISTRY
Just ask: "Could it be sepsis?"

It's a simple question, but it could save a life.

Please support our work by donating now at www.sepsistrust.org
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
JUST ASK
“COULD IT BE SEPSIS?”

www.sepsistrust.org
IF YOU'RE GOING DOWNHILL FAST, JUSTASK
"COULD IT BE SEPSIS?"

Follow instructions from staff or emergency services. Do not take any risks.
Kevin Webster's son to have life-threatening battle with sepsis after grazing knee in Coronation Street health scare

Kevin Webster's son Jack becomes ill while in the care of his half-sister Sophie, who takes him to a doctor but is told it's a virus

By Nicola Methven

2014 SHARES 2 COMMENTS

21:44, 4 JUN 2018 UPDATED 10:14, 5 JUN 2018
WHAT ARE THE SYMPTOMS?

**SYMPTOMS IN CHILDREN**
- A child may have sepsis if he or she:
  - Is breathing very fast
  - Has a ‘fit’ or convulsion
  - Looks mottled, bluish, or pale
  - Has a rash that does not fade when you press it
  - Is very lethargic or difficult to wake
  - Feels abnormally cold to touch

**SYMPTOMS IN ADULTS**
- An adult may have sepsis if they show any of these signs:
  - 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

Call 111 or contact your GP if you’re worried about an infection. Call 999 or visit A&E if someone has one of the sepsis symptoms.

The Iceland Foods Charitable Foundation registered charity number 281403. Second Avenue, Desseal Industrial Park, Deeside, Flintshire, CH6 2WV
The UK Sepsis Trust registered charity number (England & Wales) 1158845. Company registration number 9644909. Sepsis Enterprises Ltd. Company number 9582335. VAT reg. number Z15570222

**SCHOOLS AGAINST SEPSIS**

**JUST ASK**
“COULD IT BE SEPSIS?”

**JUST ASK**
“COULD IT BE SEPSIS?”
SEPSIS

TOGETHER WE CAN
SAVE 14,000 LIVES