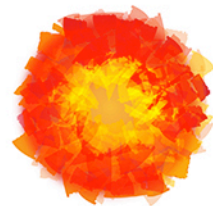


SEPSIS



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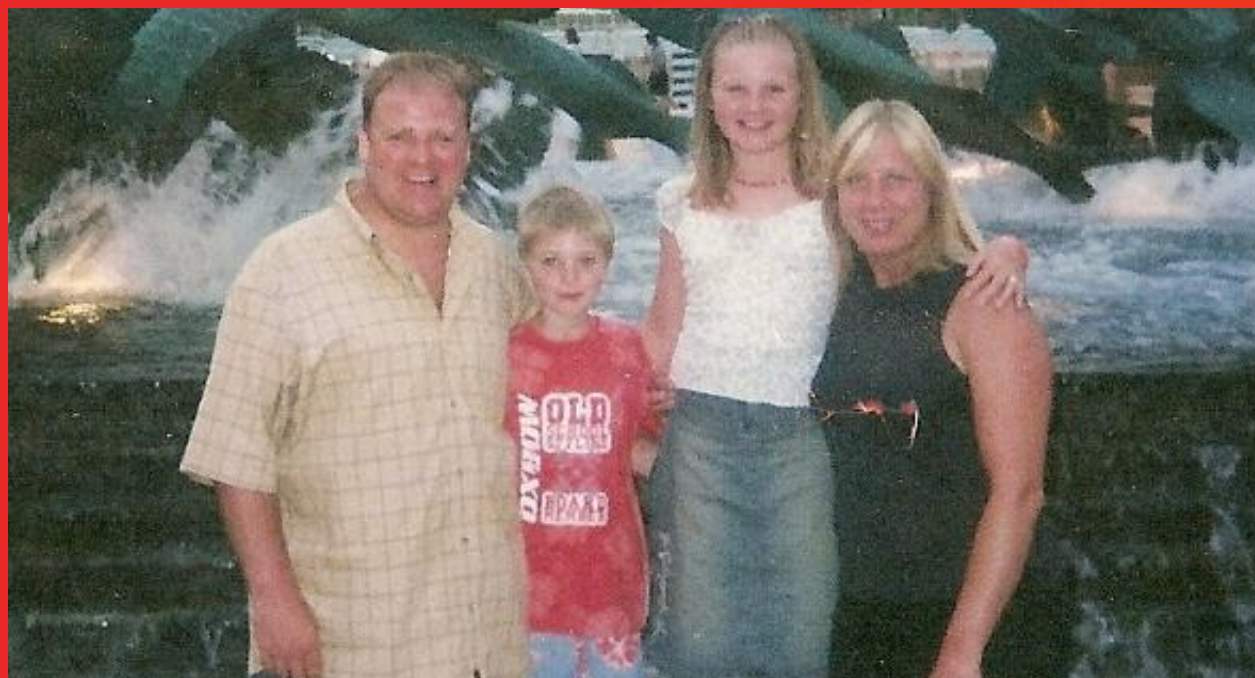
IT'S BIG.

JULY 17



@SepsisUK

Dr Ron Daniels B.E.M.
CEO, UK Sepsis Trust
CEO, Global Sepsis Alliance
Special Adviser to WHO



Breast cancer

Bowel cancer

Annual UK sepsis deaths



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[Publications & records](#)

Sepsis:Written question - 10526

Government office region	2010-11	2011-12	2012-13	2013-14	2014-15
Total	91,881	101,015	114,285	122,822	141,772

GLOBAL SEPSIS MORTALITY

Sepsis

6M

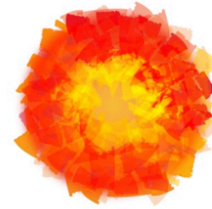


Ischaemic
Heart Disease
7.2M
(CDC 2015)

Cancer
8.2M
(WHO 2015)

Tobacco
6M
(WHO 2016)

- Malaria 0.44M (WHO 2015)



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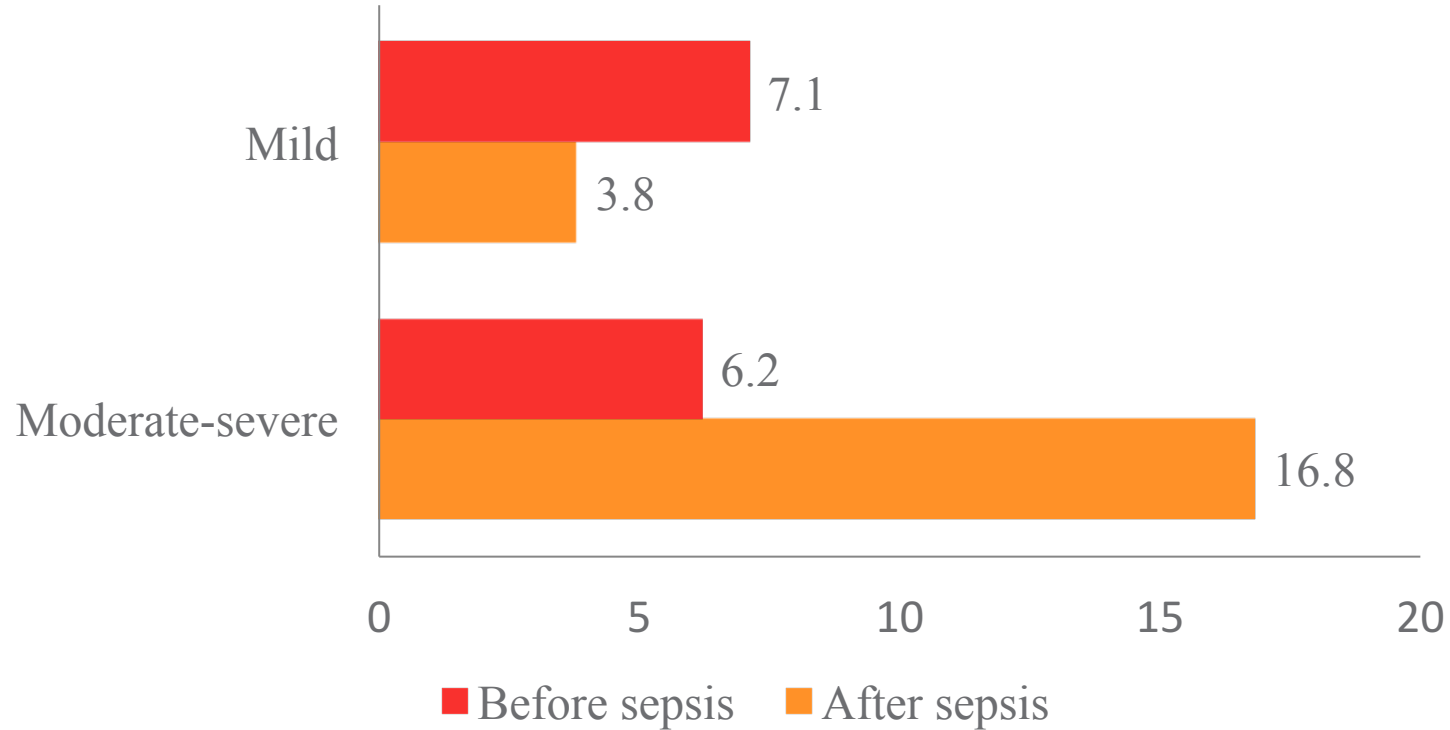
Embargoed until 00.01 on 20.02.17

NEW STUDY SHOWS SEPSIS COULD BE COSTING THE UK ECONOMY UP TO £15.6 BILLION EACH YEAR

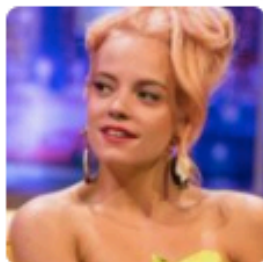
- **New data from an independent study shows the cost of sepsis to the UK economy is likely to be as much as £15.6 billion every year, rather than the £2.5 billion previously estimated**
- **The UK sees 260,000 cases of sepsis annually – over 100,000 more than initial projections suggested**
- **Potential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

SEQUELAE- COGNITION



Lily Allen



ilv Allen

TWEETS
11.7K

FOLLOWING
896

FOLLOWERS
5.06M



Following

lily ✓

@lilyallen

FOLLOWS YOU

YUNGMUMMEY

london · lilyallenmusic.com



Fern Britton talks fighting sepsis: 'I was resigned to dying'

The former This Morning presenter thanked a hospital receptionist for saving her life

Am J Respir Crit Care Med. 2013 Jul 1;188(1):77-82. doi: 10.1164/rccm.201212-2199OC.

Multicenter implementation of a severe sepsis and septic shock treatment bundle.

Miller RR 3rd¹, Dong L, Nelson NC, Brown SM, Kuttler KG, Probst DR, Allen TL, Clemmer TP; Intermountain Healthcare Intensive Medicine Clinical Program.

⊕ Author information

Abstract

RATIONALE: Severe sepsis and septic shock are leading causes of intensive care unit (ICU) admission, morbidity, and mortality. The effect of compliance with sepsis management guidelines on outcomes is unclear.

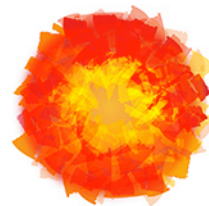
OBJECTIVES: To assess the effect on mortality of compliance with a severe sepsis and septic shock management bundle.

METHODS: Observational study of a severe sepsis and septic shock bundle as part of a quality improvement project in 18 ICUs in 11 hospitals in Utah and Idaho.

MEASUREMENTS AND MAIN RESULTS: Among 4,329 adult subjects with severe sepsis or septic shock admitted to study ICUs from the emergency department between January 2004 and December 2010, hospital mortality was 12.1%, declining from 21.2% in 2004 to 8.7% in 2010. All-or-none total bundle compliance increased from 4.9-73.4% simultaneously. Mortality declined from 21.7% in 2004 to 9.7% in 2010 among subjects noncompliant with one or more bundle element. Regression models adjusting for age, severity of illness, and comorbidities identified an association between mortality and compliance with each of inotropes and red cell transfusions, glucocorticoids, and lung-protective ventilation. Compliance with early resuscitation elements during the first 3 hours after emergency department admission caused ineligibility, through lower subsequent severity of illness, for these later bundle elements.

CONCLUSIONS: Total severe sepsis and septic shock bundle compliances increased substantially and were associated with a marked reduction in hospital mortality after adjustment for age, severity of illness, and comorbidities in a multicenter ICU cohort. Early resuscitation bundle element compliance predicted ineligibility for subsequent bundle elements.

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DEFINITIONS & PRAGMATISM



@sepsisuk

Dr Ron Daniels B.E.M.
CEO, UK Sepsis Trust
CEO, Global Sepsis Alliance
Special Adviser (maternal sepsis) to WHO



```
graph LR; A[Infection] --> B[Sepsis]; B --> C[Severe Sepsis]; C --> D[Septic shock]
```

Infection

Sepsis

Severe
Sepsis

Septic
shock

<1%

Infection

10%

Sepsis

30%

Severe
Sepsis

50%

Septic
shock

Septic
shock

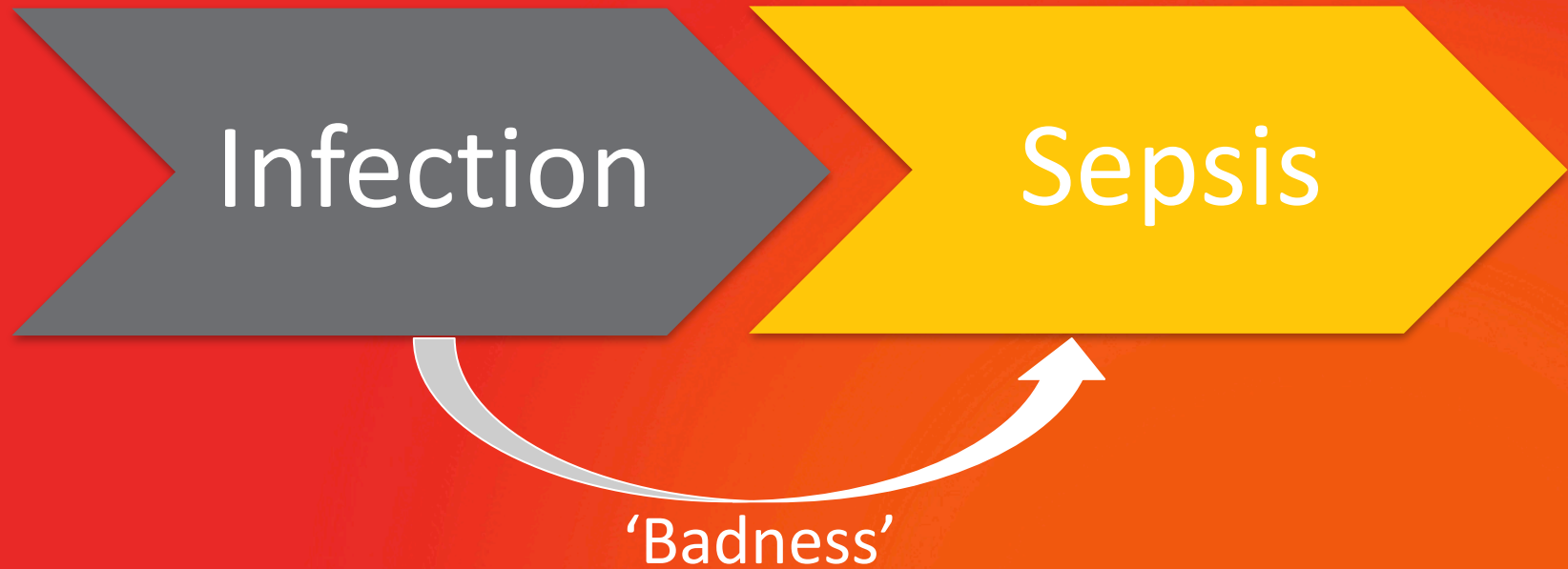
*‘For each hour’s delay in
administering antibiotics,
mortality increases by
7.6%’*



Infection

The diagram consists of two chevron-shaped arrows pointing to the right. The first arrow is grey and contains the word 'Infection'. The second arrow is yellow and contains the word 'Sepsis'. The arrows are positioned on a red background that features faint, concentric circular patterns on the right side.

Sepsis



3. Is any **RED FLAG** present?

Systolic B.P <90 mmHg

Lactate >2 mmol/l

Heart rate >130 per minute

Respiratory rate >25 per minute

Oxygen saturations <91%

Responds to voice/ pain/unresponsive

Purpuric rash

Y

Red Flag Sepsis

This is a time critical condition, immediate action is required.

Assume sepsis present.

Sepsis Six

- 1 Oxygen to maintain Sats > 94%
- 2 Blood cultures and consider source control
- 3 Intravenous antibiotics
- 4 Intravenous fluid resuscitation
- 5 Check serial lactates
- 6 Hourly urine output measurement

Record the time each of these actions is completed. All actions should be completed as soon as possible but always within 60 minutes.

Communication:

Inform senior clinician (e.g. registrar or above).

Additional:

Bloods to include: FBC, U/E's, LFT's, clotting profile.
Observations should be taken every 30 mins
Lactate should be repeated within 2 hours.
Perform a CXR and Urinalysis
Consider source control (e.g. surgical intervention)



WHAT DID HE CALL ME??

3 GREAT THINGS!

1. NARRATIVE- organ dysfunction
2. Delta-SOFA
3. Lose SIRS

qSOFA

Hypotension
Systolic BP
 < 100 mmHg

Altered
Mental
Status

Tachypnea
RR > 22 /Min

Score of ≥ 2 Criteria Suggests a Greater Risk of a Poor Outcome

qSOFA CRASHES & BURNS??

PulmCrit – Bad news for sepsis-3.0: qSOFA fails validation

October 1, 2016 by Josh Farkas — 9 Comments

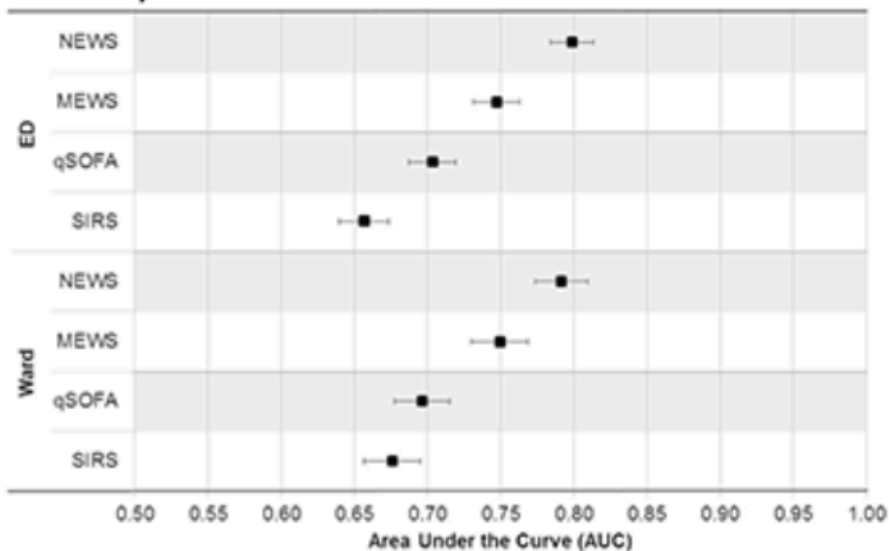


Sepsis 3.0 replaced the SIRS criteria with a new risk-stratification tool, qSOFA. qSOFA was initially developed *within* the Sepsis-3 publication itself. Until now, qSOFA has never been validated. The value of qSOFA vs. SIRS remains controversial.

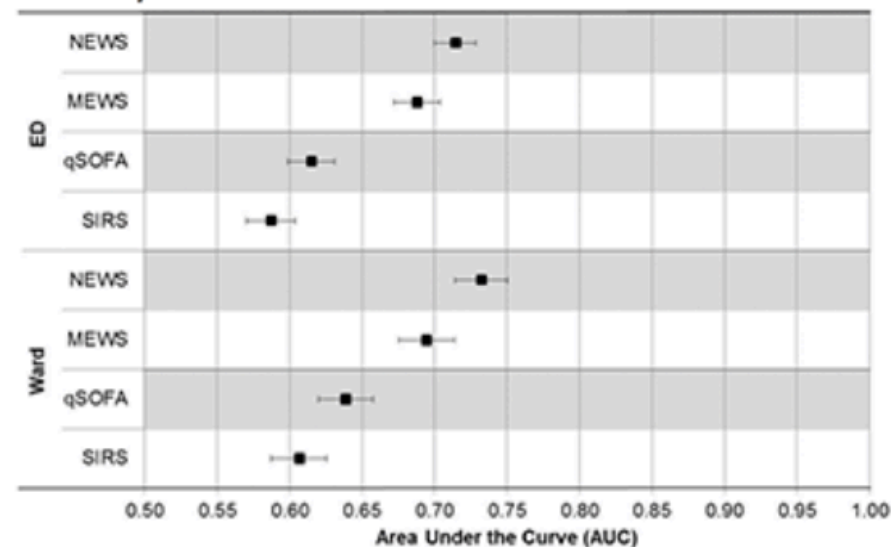
Churpek 2016: qSOFA, SIRS, and early warning scores for detecting clinical deterioration in infected patients outside the ICU.

Overall test performance

Mortality outcome



Mortality or ICU admission



NEWS & SEPSIS n=21.000

NEWS	Age	Mortality %
4+	68	20
6+	69	23
8+	71	29
4+ and lactate <2		15.9
4+ and lactate 2-4		21
4+ and lactate >4		32.5

National Clinical Guideline Centre

Consultation

Sepsis

Sepsis: the recognition, diagnosis and management of sepsis

NICE guideline <number>

Methods, evidence and recommendations

January 2016



3. Is any Red Flag present?

Systolic B.P <90 mmHg/ drop of 40 mmHg

Lactate >2 mmol/l

Heart rate >130 per minute

Respiratory rate >25 per minute

Needs oxygen to keep saturations <92%

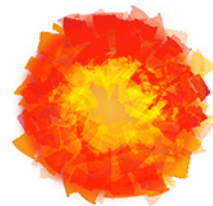
Responds to V/P/U or acute confusion

Purpuric rash/ mottled/ ashen/ pale

Not passed urine for 18 hours

SEPSIS

SOLUTIONS



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Dr Ron Daniels B.E.M.
CEO, UK Sepsis Trust
CEO, Global Sepsis Alliance
Special Adviser (maternal sepsis) to WHO

Your logo

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



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SEPSIS
TRUST

Patient details (affix label):

Staff member completing form:

Date: (DD/MM/YY):

Name (print):

Designation:

Signature:

Important: Is an end of life pathway in place? Yes ☐ Is escalation clinically inappropriate? Yes ☐ Initials *Discontinue pathway*

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

Tick ☐

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 $SpO_2 \geq 92\%$ (88% in COPD) ☐

Heart rate > 130 per minute ☐

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

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

Non-blanching rash, mottled/ ashen/ cyanotic ☐

Recent chemotherapy (last 6 weeks) ☐

N

↑

Y

N

Y

N

Y

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

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 B.P 91-100 mmHg ☐

Heart rate 91-130 OR new dysrhythmia ☐

Not passed urine in last 12-18 hours ☐

Temperature $< 36^\circ\text{C}$ ☐

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

Is AKI present OR is lactate > 2 ? (tick) YES ☐ NO ☐

Clinician to make antimicrobial prescribing decision within 3h

Time complete ☐ Initials ☐

Discharged? ☐ Initials ☐

If senior clinician happy, may discharge with appropriate safety netting


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

This is time critical, immediate action is required.

Sepsis Six and Red Flag Sepsis are copyright to and intellectual property of the UK Sepsis Trust, registered charity no. 1158843. sepsistrust.org

Your logo

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


**THE UK
SEPSIS
TRUST**

Patient details (affix label):

.....

.....

.....

.....

Important: Is an end of life pathway in place? Yes ☐ Is e

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 $SpO_2 \geq 92\%$ (88% in COPD)

Heart rate > 130 per minute

Systolic B.P ≤ 90 mm-Hg (or drop > 40 from normal)

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

Non-blanching rash, mottled/ ashen/ cyanotic

Recent chemotherapy (last 6 weeks)



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

This is time critical, immediate action is required.

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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, indwelling device or skin integrity breached

Tick

☐
☐
☐
☐


2. Could this be due to an infection?

3. Is any ONE red flag present?

AVPU= V, P or U (if changed from normal)	Tick <input type="checkbox"/>
Acute confusion	<input type="checkbox"/>
Respiratory rate ≥ 25 per minute	<input type="checkbox"/>
Needs oxygen to keep $SpO_2 \geq 92\%$ (88% in COPD)	<input type="checkbox"/>
Heart rate > 130 per minute	<input type="checkbox"/>
Systolic B.P ≤ 90 mmHg (or drop > 40 from normal)	<input type="checkbox"/>
Not passed urine in last 18 h/ UO < 0.5 ml/kg/hr	<input type="checkbox"/>
Non-blanching rash, mottled/ ashen/ cyanotic	<input type="checkbox"/>
Recent chemotherapy (last 6 weeks)	<input type="checkbox"/>



Y

Y

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

This is time critical, immediate action is required.

↑ N

4. Any Amber Flag criteria?

Relatives concerned about mental status

Tick

☐

Acute deterioration in functional ability

☐

Immunosuppressed

☐

Trauma/ surgery/ procedure in last 6 weeks

☐

Respiratory rate 21-24

☐

Systolic B.P 91-100 mmHg

☐

Heart rate 91-130 *OR* new dysrhythmia

☐

Not passed urine in last 12-18 hours

☐

Temperature < 36°C

☐

Clinical signs of wound, device or skin infection

☐

↓ Y



3. Is any ONE Amber Flag present?

Relatives worried about mental state/ behaviour
Acute deterioration in functional ability
Immunosuppressed (without recent chemotherapy)
Trauma, surgery or procedure in last 6 weeks
Respiratory rate 21-24 OR dyspnoeic
Systolic B.P 91-100 mmHg
Heart rate 91-130 OR new dysrhythmia
Not passed urine in last 12-18 hours
Tympanic temperature $\leq 36^{\circ}\text{C}$
Clinical signs of wound, device or skin infection

If under 17 & immunity impaired treat as Red Flag Sepsis

Sepsis likely

Use clinical judgment to determine whether patient can be managed in community setting. If treating in the community, consider:

- planned second assessment +/- blood results
- brief written handover to colleagues
- specific safety netting advice

4. Any cause for concern?

Some patients without Red Flags may still have factors which warrant assessment of need for formal intervention for sepsis, such as:

Relatives unusually concerned
Acute deterioration in functional ability
Significant risk e.g. immunosuppressed
Health professional remains worried

Tick

☐☐☐☐

Send bloods

To include FBC, U&Es, CRP, LFTs, clotting,

Time complete

Initials

Ensure urgent senior review

Must review with results within 1 hour

AKI

NO AKI



If for antimicrobials,
administer within 3h

Not for antimicrobials?

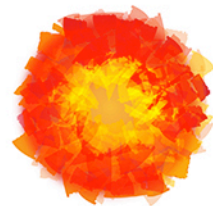
Senior clinician decision
to discharge with
safety netting?

Discharged?

Initials

SEPSIS

INTERVENTIONS



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Dr Ron Daniels B.E.M.
CEO, UK Sepsis Trust
CEO, Global Sepsis Alliance
Special Adviser (maternal sepsis) to WHO

Surviving Sepsis Campaign: International Guidelines for Management of Sepsis and Septic Shock: 2016

Andrew Rhodes, MB BS, MD(Res) (Co-chair)¹; Laura E. Evans, MD, MSc, FCCM (Co-chair)²;
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Jonathan E. Sevransky, MD, FCCM⁸; Charles L. Sprung, MD, JD, MCCM⁹; Mark E. Nunnally, MD, FCCM²;
Bram Rochwerf, MD, MSc (Epi)³; Gordon D. Rubenfeld, MD (conflict of interest chair)¹⁰;
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Khalid A. Shukri, MD⁴⁴; Steven Q. Simpson, MD⁴⁵; Mervyn Singer, MD⁴⁶; B. Taylor Thompson, MD⁴⁷;
Sean R. Townsend, MD⁴⁸; Thomas Van der Poll, MD⁴⁹; Jean-Louis Vincent, MD, PhD, FCCM⁵⁰;
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³McMaster University Hamilton, Ontario, Canada.

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⁶Vall d'Hebron Hospital Barcelona, Spain.

⁷University of Manitoba Winnipeg, Manitoba, Canada.

⁸Emory University Hospital Atlanta, GA.

⁹Hadassah Hebrew University Medical Center Jerusalem, Israel.

¹⁰Sunnybrook Health Sciences Centre Toronto, Ontario, Canada.

¹¹University of Pittsburgh Critical Care Medicine CRISMA Laboratory Pittsburgh, PA.

¹²Hospital Raymond Poincaré Garches, France.

¹³Saint Thomas Hospital London, England, United Kingdom.

¹⁴University College London Hospitals London, England, United Kingdom.

¹⁵Vanderbilt University Medical Center Nashville, TN.

¹⁶Service de Réanimation Médicale Paris, France.

SSC BUNDLE 2012

To be completed within 3 hours:

- 1) Measure lactate level
- 2) Obtain blood cultures prior to administration of antibiotics
- 3) Administer broad spectrum antibiotics
- 4) Administer 30 mL/kg crystalloid for hypotension or lactate 4mmol/L

To be completed within 6 hours:

- 5) Apply vasopressors for hypotension that does not respond to initial fluid resuscitation to maintain a mean arterial pressure [MAP] 65 mm Hg)
- 6) In the event of persistent arterial hypotension despite volume resuscitation (septic shock) or initial lactate 4 mmol/L (36 mg/dL):
 - **Measure central venous pressure (CVP)***
 - **Measure central venous oxygen saturation (ScvO₂)***
- 7) Remeasure lactate if initial lactate was elevated*

To be completed within 3 hours:

- 1) Measure lactate level
- 2) Obtain blood cultures prior to administration of antibiotics
- 3) Administer broad spectrum antibiotics
- 4) Administer 30 mL/kg crystalloid for hypotension or lactate 4mmol/L



PROMISE
TRIAL

THE SEPSIS SIX

1. Give O2 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.

Your logo

Sepsis Six Pathway



To be applied to all adults and young people over 12 years of age with suspected or confirmed Red Flag Sepsis

Make a treatment escalation plan and decide on CPR status
Inform Consultant (*use SBAR*) patient has **Red Flag Sepsis**

Time zero

Consultant informed? (tick)

☐

Initials



Action (complete ALL within 1 hour)

Time complete

Initials

Reason not done/variance

1. Administer oxygen

Aim to keep saturations > 94%
(88-92% if at risk of CO₂ retention e.g. COPD)

2. Take blood cultures

At least a peripheral set. Consider e.g. CSF, urine, sputum
Think source control! Call surgeon/ radiologist if needed
CXR and urinalysis for all adults

3. Give IV antibiotics

According to Trust protocol
Consider allergies prior to administration

4. Give IV fluids

If hypotensive/ lactate $>2\text{mmol/l}$, 500 ml stat. May be repeated if clinically indicated- do not exceed 30ml/kg

5. Check serial lactates

Corroborate high VBG lactate with arterial sample

If lactate $>4\text{mmol/l}$, call Critical Care and recheck after each 10ml/kg challenge

6. Measure urine output

May require urinary catheter

Ensure fluid balance chart commenced & completed hourly

Not applicable- initial lactate <2 ☐

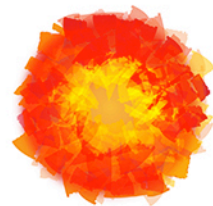
If after delivering the Sepsis Six, patient still has:

- systolic BP <90 mmHg
- reduced level of consciousness despite resuscitation
- respiratory rate over 25 breaths per minute
- lactate not reducing

or if patient is clearly critically ill at any time

Space available for local short antimicrobial guideline/ escalation policy

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IT'S NOT JUST HOSPITALS



@sepsisuk

Dr Ron Daniels B.E.M.
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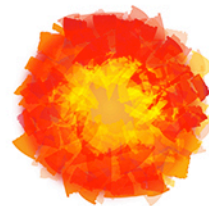
NCEPOD 2015- STATUS IN ED

Sepsis status	Number of patients	%
Infection only	98	26.4
Sepsis	120	32.3
Severe sepsis	61	16.4
Septic shock	19	5.1
Subtotal	298	
No evidence of infection prior to admission	73	

NCEPOD 2015

Reason for delay	Number of patients	%
Didn't ask for help	66	59.5
GP	13	11.7
Admitting hospital ED	8	7.2
Other hospital MIU/ED	3	2.7
Urgent Care Centre	3	2.7
111	2	1.8

SEPSIS



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FIXING THE SYSTEM.



@sepsisuk

Dr Ron Daniels B.E.M.
CEO, UK Sepsis Trust
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Special Adviser (maternal sepsis) to WHO

SYSTEMS APPROACH

	Rivers 2001 RCT	Sebat 2005 Before-After	Nguyen 2007 Complete or Not	Thiel 2009 Before-After	Levy 2011 Before-After
Goals	CVP >8 MAP > 65 ScVO ₂ >70% HCT >30	MAP > 70 SaO ₂ > 92 UOP > 30ml/h SvO ₂ > 60 CI > 2.5	ABX 4 h CVP >8, MAP 65, ScVO ₂ >70%, HCT >30 Check Lactate Steroids	Appropriate ABX 4 h, CVP > 8, MAP > 65, ScVO ₂ > 70%	Early ABX, Blood Cultures, App. ABX, CVP >8, MAP >65, SvO ₂ > 70%
Specific Interventions	Fluids, Blood, Pressors	ABX, Fluids Pressors	ABX, Fluids, Blood, Pressors	ABX, Fluids, Pressors, Steroids, Xigris, Other Supportive Care	ABX, Fluids, Pressors, Steroids, Xigris, Other Supportive Care
System Interventions	ED-based Sepsis Team	Screening, Education, Shock Team, Protocols	Education, In- services, Protocols	Education, In- services, Order Set, Protocols	Screening, Education, Order Sets
Absolute Change in Mortality	-16%	-12%	-19%	-16%	-7%

1950 INDIANAPOLIS 500



‘The same muscle and effort should be put into sepsis as for meningitis, MRSA and C Diff’

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

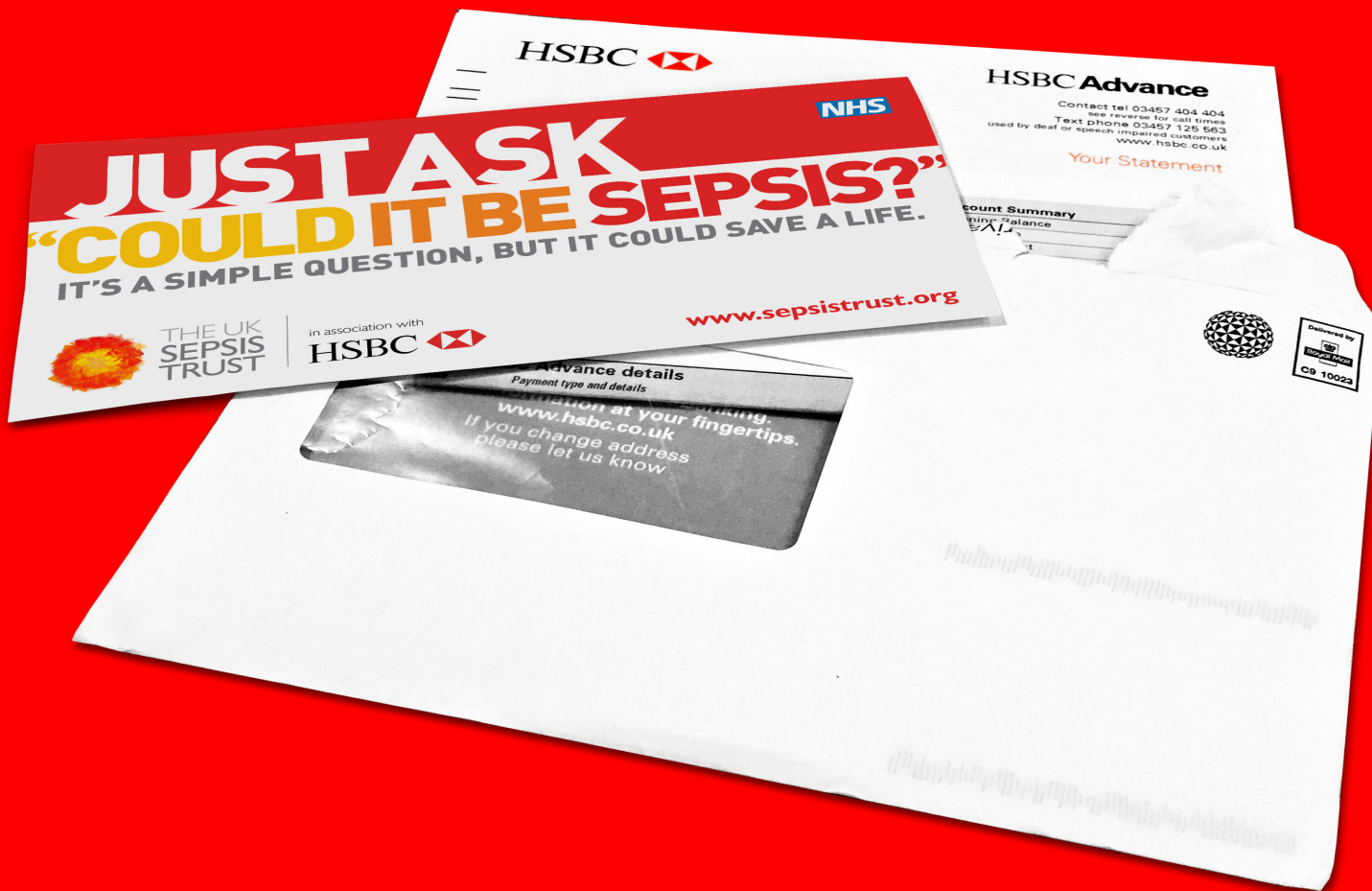
Summary: To meet the AMR and Sepsis COUINs

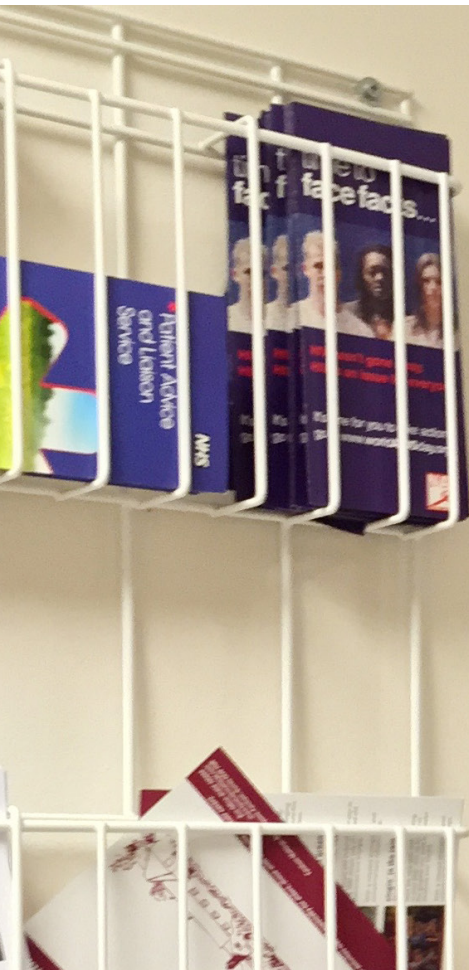


Results of antibiotic consumption to Mar-17

Drug (DDD/1000 adm inc daycase) Rx-Info	ED 2015-6	ED 2016-7	Acute Trust 2015-6	Acute Trusts 2016-7
Total IV AB	110.7	134 (+21%)	907.6	925 (+1.7%)
Carbapenem	7.2	7.5 (+4.2%)	85.1	77.8 (-8.6%)
Piperacillin- tazobactam	13.4	14.4 (+7.5%)	112.8	102.6 (-9.0%)


- Strong and effective multidisciplinary leadership (champions) at all levels











IF YOU'RE FEVERISH OR SHIVERING
AND FEELING REALLY UNWELL


NHS

JUST ASK "COULD IT BE SEPSIS?"

IT'S A SIMPLE QUESTION,
BUT IT COULD SAVE LIVES.

SEPSIS IS A LIFE-THREATENING INFECTION.
IT'S KILLING APPROXIMATELY 40,000 PEOPLE A YEAR IN THE UK.
ASKING FOR THE ANSWER TO YOUR QUESTION COULD SAVE YOUR LIFE.
ASK YOUR DOCTOR OR NURSE THE NEXT TIME YOU'RE UNWELL.

Please support our work by donating now at www.sepsistrust.org



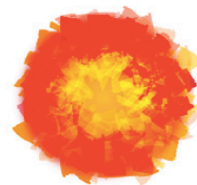
THE UK
SEPSIS
TRUST



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
Extrême shivering or muscle pain
Passing no urine (in a day)
Severe breathlessness
It feels like you're going to die
Skin mottled or discoloured



THE UK
SEPSIS
TRUST

www.sepsistrust.org

Email info@sepsistrust.org for more information.

The UK Sepsis Trust registered charity number (England & Wales) 1158843.

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?

The UK Sepsis Trust registered charity number
(England & Wales) 1158843.

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.

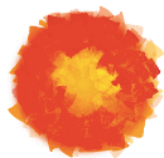
What every parent needs to know about sepsis to keep their child safe.

NHS

If your child is unwell with a bug or infection, deteriorating and you are worried that their illness seems different to any previous illness, it could be sepsis.

Sepsis is a rare but serious complication of an infection.

Use this leaflet to check your child's symptoms and find out what to do next.



THE UK
SEPSIS
TRUST



MANY CHILDREN WITH THE FOLLOWING SYMPTOMS COULD HAVE SEPSIS.

If your child has any of these symptoms **you should** take immediate action.

TEMPERATURE

- Temperature over 38°C in babies under three months
- Temperature over 39°C in babies aged three to six months
- Any high temperature in a child who cannot be encouraged to show interest in anything
- Low temperature (below 36°C, check three times in a 10 minute period)

BREATHING

- Finding it much harder to breathe than normal – looks like hard work
- Making 'grunting' noises with every breath (In newborns this may sound like a lamb bleating)
- Very fast breathing (more than one breath each second in babies)
- Can't say more than a few words at once (for older children who normally talk)
- Breathing that obviously 'pauses'

SKIN, LIPS & TONGUE

- Skin is blue, mottled (purplish, red) or very pale
- Lips or tongue are bluish
- Eyes look 'sunken'
- Hands and feet are unusually cold to touch
- Rash that does not fade when pressed firmly (use a clear glass)

EATING & DRINKING

- New baby under one month old with no interest in feeding
- Not drinking for more than eight hours (when awake)
- Extremely thirsty
- Unable to keep fluids down
- Persistently vomiting for more than 24 hours
- Bile-stained (green), bloody or black vomit/sick

TOILET/NAPPIES

- Not had a wee or wet nappy for 12 hours

ACTIVITY & BODY

- Soft spot on a baby's head is bulging
- Child cannot be encouraged to show interest in anything
- Baby is floppy
- Weak, 'whining' or continuous crying in a younger child
- Older child who's confused
- Not responding or very irritable
- Hard to wake up, won't stay awake or doesn't seem to recognise you
- Stiff neck, especially when trying to look up and down
- Fitting and convulsions

GO TO A&E IMMEDIATELY OR CALL 999.

Catching it early can improve chances of treatment, so acting quickly could save your child's life.

Find out more information about sepsis at UKST website www.nhschoices.co.uk/xxxxx

GSA meeting Geneva

10 Key Messages and Requests

of the WHO / WHA Resolution on Sepsis

1. Each year, sepsis causes approximately six million deaths worldwide, most of which are preventable.
2. Sepsis is a syndromic response to infection and the final common pathway to death from most infectious diseases.
3. Sepsis represents the most vital indication for the responsible use of effective antimicrobials for human health.
4. The UN Member States urgently need to implement and promote measures for prevention, such as clean childbirth practices, infection prevention practices in surgery, improvements in sanitation, nutrition and delivery of clean water.
5. Many vaccine-preventable diseases are a major contributor to sepsis in children and adults; national immunization programmes are needed urgently.
6. Sepsis is an emergency that requires time-critical actions and improved training of health care professionals and laypeople.
7. The UN Member States urgently need to implement and promote measures for prevention, such as clean childbirth practices, infection prevention practices in surgery, and improvements in sanitation, nutrition and delivery of clean water.
8. Public awareness needs to be raised and encouraged, for example by using the term 'sepsis' when communicating with patients, relatives, and other parties, or by supporting World Sepsis Day, every year on September 13.
9. Integrated approaches to the prevention and clinical management of sepsis are urgently needed, including access to appropriate health care for survivors.
10. The International Classification of Diseases (ICD) system needs to be applied and improved to establish the prevalence and profile of sepsis and the development of specific epidemiologic surveillance systems.



Global
Sepsis
Alliance

GSA meeting
Geneva



World Health
Organization

EXECUTIVE BOARD
140th session
Provisional agenda item 7.2

EB140/12
9 January 2017

Improving the prevention, diagnosis and clinical management of sepsis

Report by the Secretariat

1. Sepsis arises when the body's response to infection injures its own tissues and organs. It can lead to septic shock, multiple organ failure and death, if not recognized early and managed promptly. It is a major cause of maternal and neonatal morbidity and mortality in low- and middle-income countries and affects millions of hospitalized patients in high-income countries, where rates of sepsis are climbing rapidly. The present report summarizes the problem of sepsis as a key issue for global health, describes the Secretariat's actions to address it and briefly outlines priority actions for the future.
2. An international consensus has recently recommended that sepsis should be defined as "life-



Search for a charity, friend or project



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Ron ▾



Menu ▾

Lord Ashcroft

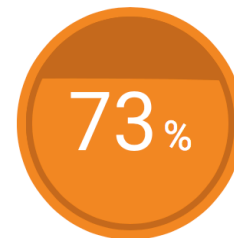
@LordAshcroft

I will match every £1 up to
£250,000

#Ashcroft4SepsisUnited



THE UK
SEPSIS
TRUST



£182,967

raised of **£250,000** target by 897 supporters

Donate



Share on Facebook

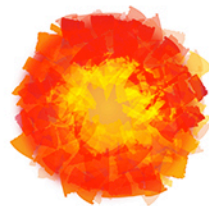
UK Sepsis Trust

An urgent appeal to raise awareness of sepsis.
Every £1 up to £250k will be matched by Lord
Ashcroft

Be a fundraiser

Create your own fundraising page and help support this
cause

SEPSIS



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TOGETHER WE CAN
SAVE 14,000 LIVES