Acknowledgements

All-Party Parliamentary Group on Sepsis
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   Member of Parliament for Neath
   Chair of the All-Party Parliamentary Group for Sepsis

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I am proud to have been Chair of the All-Party Parliamentary Group (APPG) for Sepsis since 2017. The APPG is an organisation which has been campaigning and bringing the cause of sepsis sufferers to the attention of parliamentarians and a wider audience for several years now. Sepsis is a hugely under acknowledged condition of which I have personal experience.

Despite many people never having heard of the condition, which is often referred to as a silent killer, it is the most common reason for Intensive Care admissions in England, more prevalent than heart attacks and claims more lives than any cancer.

I personally welcome the progress that has been made in sepsis awareness and improvements in diagnosis and treatment. However the APPG will continue to look to outstanding recommendations and act where we can to continue to push for improvement and save lives from sepsis.

This year we are focusing on hospital Trust practice in England, and assessing how Trusts are screening and treating patients with suspected sepsis. We want to welcome best practice and improved outcomes, whilst focusing on what more we can do to save lives and improve the experience of care for patients.

Whilst we have found evidence of widespread take up of tools and practice developed by the UK Sepsis Trust (UKST), the APPG remains committed to driving further awareness of these tools in their role supporting the delivery of NHS Implementation Guidance, and for driving improvements across the NHS.

I am committed to working with my parliamentary colleagues and others to significantly reduce the numbers affected by this debilitating and potentially lethal condition.

Christina Rees MP
Member of Parliament for Neath
Chair of the All-Party Parliamentary Group for Sepsis
The UK Sepsis Trust has been working with parliamentarians for a number of years now to reduce the number of avoidable deaths from sepsis, improve the reliability of clinical response, and to raise awareness of this condition.

We passionately believe that more must be done to raise awareness of sepsis, and that there should be ongoing adoption of our clinical systems to save lives. There is a lot we don’t currently understand about sepsis and severe infection, whilst our NHS is optimally placed to deliver new learning and influence global knowledge.

We are calling for:

1. A national, truly interoperable dataset to track patients with sepsis, the quality of their care and its impact on outcomes. This will enable a better understanding of which patients require urgent intervention. This should be delivered as a multi-stakeholder collaboration underpinned by NHS Digital/NHSX and with additional skills from UKST and others to ensure findings translate into better care.

2. A wide-reaching public awareness campaign endorsed by the Secretary of State for Health and Social Care, funded centrally and led with the expertise of the UK Sepsis Trust to ensure that people are aware of this condition and present early, giving themselves a better chance of survival.

3. With today’s welcome announcement that the UKST clinical tools are endorsed by NICE, and with this report’s findings that these tools are in use in 80% of NHS acute Trusts, that our hospitals are urged to adopt these tools as part of their armamentarium to deliver on the NHS Implementation Guidance on sepsis.

Sepsis is a devastating condition and patients rightly expect the NHS to be able to recognise it rapidly, and reliably, thereby providing the highest quality patient care in a timely manner.

The UKST would like to thank everyone who has given their support to raising this issue at both a national and local level over the years and we urge you to continue your work so that fewer people lose their lives to this ‘silent killer’.

Dr Ron Daniels BEM
Introduction and Background

**Sepsis (also known as blood poisoning) is the immune system’s overreaction to an infection or injury. If not treated immediately, sepsis can result in organ failure and death. Yet with early diagnosis, it can be treated.**

The UK Sepsis Trust estimate:

- At least 250,000 cases in the UK every year.
- 52,000 deaths in the UK every year.
- 79,000 people surviving with life-changing after-effects. Around 40% of survivors have one or more of cognitive, psychological or physical sequelae.
- Better awareness could save 14,000 lives a year.

Research has shown that reliable and urgent adoption of a care-bundle approach, and the use of Screening and Action Tools such as those produced by UKST and endorsed by NICE, can make the difference between life and death.

The All-Party Parliamentary Group on Sepsis, with the UK Sepsis Trust, have assessed practice across the country in methods used to identify, screen and treat sepsis and are coming together to make recommendations around addressing variations and ensuring best practice in sepsis diagnosis and treatment.
Data analysis

Over the three years leading to April 2019, NHS England encouraged a focus on the early identification and management of sepsis through a commissioning incentive for acute Trusts known as a Commissioning for Quality and Innovation scheme (CQUIN). In recognising and managing sepsis, clinical judgement of an experienced clinician in an unstressed system will typically offer patients the best outcomes. However, not all clinicians are experienced, and the system is rarely unstressed. Decision support tools are increasingly the norm in healthcare to mitigate against harm arising from human factors. For sepsis, clinicians require prompts to screen for sepsis (‘screening prompts’, ‘in whom shall I look for sepsis?’), and they require prompts to initiate urgent therapy) ‘treatment prompts’, ‘whom shall I treat as having sepsis?’).

Once a decision to manage a patient as one with sepsis has been made, urgent intervention to control the source of infection and restore the physiological status quo must be initiated- evidence shows this is best delivered in a formalised pathway or ‘bundle’ approach.

Are Trusts using NEWS2 – 204 Trusts responded to this question:

Overall:
- 108 Trusts are currently using NEWS 2 – 52% of responders.
- 46 N/A – 23% of responders.
- 50 not using NEWS2 – 25% of responders.

Are Trusts planning on using NEWS2:

Overall:
- 52 Trusts are planning on using NEWS 2 – 25%
- 4 Trusts said they are not planning on using NEWS2
- 45 remaining said N/A without stating that they already use NEWS2

Breakdown of those Trusts who identified their classification:

DGHs
- 67 Trusts are using NEWS 2 – 69%
- 29 Trusts are planning on using NEWS 2 – 31%
Out of 96 DGHs

This means that all of the DGHs which responded are using or plan to use NEWS2 which is excellent.

Tertiary
- 16 using NEWS 2 – 50%
- 11 moving to NEWS 2 – 34%
Out of 32 tertiary

This highlights how the percentage of tertiary Trusts using NEWS2, or moving to NEWS2, is less than for DGHs.

Of 206 Trusts who responded:
- 23 Trusts did not submit data to the 2016-19 Sepsis CQUIN programme
- 137 Trusts did submit CQUIN data – this 85.6% of Trusts who submitted data highlights a slight potential bias in the APPG data, since according to NHS England data only 72% of Trusts nationally submitted CQUIN data
- 46 N/A – 16 of which were non-acute Trusts and therefore not included in CQUIN targets, 30 however were acute Trusts
Mental Health

- 2 using NEWS2 – 66.6%
- 1 moving to NEWS2 – 33.3%
Out of 3 mental health Trusts

This is excellent news if these Trusts are highlighting a trend of mental health Trusts using or moving towards using NEWS2.

Community

- 1 Community Trust – using NEWS2 already – 100%

This may be slightly weighted towards those Trusts following sepsis best practice as only one responder identified as a Community Trust answered this question.

Ambulance Trusts

- 1 Ambulance Trust responded – already using NEWS2 – 100%

This may be slightly weighted towards those Trusts following sepsis best practice as only one responder identified as an Ambulance Trust answered this question.

4 acute Trusts are currently not using NEWS2 and are not planning on switching to NEWS2:
- Alder Hey Children’s NHS Foundation Trust
- Birmingham Women’s and Children’s NHS Foundation Trust
- Great Ormond Street Hospital for Children NHS Foundation Trust
- Royal Brompton and Harefield NHS Foundation Trust

NEWS does not apply to Alder/GOSH or BWCH.

The UKST and APPG welcome the strong uptake of NEWS2, which has been endorsed by NHS England and NHS Improvement.

Screening prompts:

- Four Trusts, including three Tertiary Centres, are using NEWS2 alone
- Three Trusts, all DGHs, are using NEWS2 alone
- NEWS2 plus clinical/carer concern and assessment of other risk factors e.g. suspicion of infection – 106 Trusts using this method, 68% of Trusts are using this method
- NEWS plus clinical/carer concern and assessment of other risk factors e.g. suspicion of infection – 28 Trusts including 5 Tertiary centres, 16% of Trusts using this method
- 1 Trust uses SIRS – DGH hospital (SIRS no longer forms part of the definition of sepsis)
- 3 Trusts, all DGHs, use MEWS (MEWS, or Modified Early Warning Score, is an older, quite variable, tool which has been replaced by NEWS and now NEWS2)
- 1 Trust just uses MEWS or NEWS – acute hospital
- Suspicion of infection/clinical or carer concern plus MEWS – 5 Trusts, including 3 Tertiary centres
- One Trust uses clinical judgement plus PEWS
- Solely suspicion of infection and/or healthcare/carer concern – 4 DGHs

The majority of Trusts, 68%, are using NEWS2 plus a clinical/carer concern and assessment of other risk factors e.g. suspicion of infection. This proportion is expected to rise as the Trusts who have indicated intent to transition to NEWS2 do so.

Treatment prompts, of those Trusts who responded:

Of 162 responses to this question:
- 130 use clinical judgement plus Red Flag Sepsis/NICE (in line with NICE-endorsed UKST toolkits) – 80%
- 5 use either Sepsis-2 or Sepsis-3 in isolation (in line with international consensus definitions, though most organisations find these too cumbersome for operational use) – 3%
- 25 use clinical judgement alone – 15%
- 1 Ambulance Trust uses just NEWS
- 1 Trust answered that patients are escalated to the acute Trust for treatment
Breakdown of Trusts who self-defined:

DGHs
96 in total
- 89 use clinical judgement plus Red Flag Sepsis/NICE (in line with NICE-endorsed UKST toolkits) – 93%
- 4 use either Sepsis-2 or Sepsis-3 in isolation (in line with international consensus definitions, though most organisations find these too cumbersome for operational use) – 4%
- 3 use clinical judgement alone – 3%

Tertiary
32 in total
- 32 use clinical judgement plus Red Flag Sepsis/NICE (in line with NICE-endorsed UKST toolkits) – 100%
- 0 use either Sepsis-2 or Sepsis-3 in isolation (in line with international consensus definitions, though most organisations find these too cumbersome for operational use)
- 0 use clinical judgement alone

Mental Health
3 in total
- 3 use clinical judgement plus Red Flag Sepsis/NICE (in line with NICE-endorsed UKST toolkits) – 100%
- 0 use either Sepsis-2 or Sepsis-3 in isolation (in line with international consensus definitions, though most organisations find these too cumbersome for operational use)
- 0 use clinical judgement alone

Community
1 in total
- 1 use clinical judgement plus Red Flag Sepsis/NICE (in line with NICE-endorsed UKST toolkits) – 100%
- 0 use either Sepsis-2 or Sepsis-3 in isolation (in line with international consensus definitions, though most organisations find these too cumbersome for operational use)
- 0 use clinical judgement alone

This may imply that larger Trusts are less likely to exercise clinical judgement, or that they recognise that clinical judgement needs to be supported with other tools.

Ambulance Trusts
1 in total
- 1 use clinical judgement plus Red Flag Sepsis/NICE (in line with NICE-endorsed UKST toolkits) – 100%
- 0 use either Sepsis-2 or Sepsis-3 in isolation (in line with international consensus definitions, though most organisations find these too cumbersome for operational use)
- 0 use clinical judgement alone

This may again show bias in self-selecting organisations who are sepsis engaged responding to this Freedom of Information request.

These data show that overwhelmingly Trusts are using the UKST-recommended way of treatment prompts, including clinical judgement and Red Flag Sepsis/NICE methods. This is compatible with NHS Implementation Guidance, but reinforces that most Trusts seek to use empowering tools rather than relying solely on clinical judgement.

Treatment pathway, 158 Trusts responded to this question:

151 Trusts use Sepsis 6 by itself or in conjunction with other guidelines—this is an extremely large weighting and is very significant.
- 1 Trust uses clinical judgement
- 1 Trust uses only SSC guidelines
- 2 have a sepsis care bundle based on current NICE guidance and in line with NICE guidance
- 3 escalate to the nearest acute Trust which is almost identical to the Sepsis 6

Almost 100% of responders are using Sepsis 6 as the treatment pathway of choice. This is excellent news, and the APPG welcomes the high uptake of these tools.
In March 2019 the Secretary of State for Health and Social Care, Matt Hancock, announced that sepsis would be part of the new A&E standards. The UKST and APPG have welcomed this, but understand that sepsis in test centres may form part of a broader deterioration standard, and are keen to ensure that sepsis remains a key focus for the NHS.

As this data collection highlights, the vast majority of NHS Trusts are using UKST tools which is excellent news.

Over the past three years, outcomes have improved. Improvements have likely been contributed to by a combination of heightened awareness, the CQuIN measures, and the uptake of UKST tools. The UKST are delighted to announce that NICE are formally endorsing all these tools and the Sepsis APPG and UKST will continue to encourage Trusts to use these tools.

The APPG supports the UKST in helping to improve outcomes by encouraging Trusts to use these tools to help improve patient outcomes.

It is vital now that we make better use of existing data collected during the journey of a patient with sepsis to help us to gain a more detailed understanding of this problem, and support the development of tomorrow’s solutions in the treatment of sepsis.

The APPG calls for:

1. A national, truly interoperable dataset to track patients with sepsis, the quality of their care and its impact on outcomes. This will enable a better understanding into which patients require urgent intervention. This should be delivered as a multi-stakeholder collaboration underpinned by NHS Digital/NHSX and with additional skills from UKST and others to ensure findings translate into better care.

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Appendix

Freedom of Information Request Questions

1) What best describes your organisation? Please place an X next to the appropriate answer.
   - Acute District General Hospital
   - Acute Tertiary centre
   - Specialist tertiary centre
   - Private hospital

2) Do you submit Sepsis CQUIN data?
   - Yes/No

3) a) Are you using NEWS2 in your organisation?
   - Yes/No

   b) If not, are you in the process of transitioning to NEWS2?
   - Yes/No

4) What sepsis screening prompt is used? Please place an X next to all that apply.
   - Suspicion of Infection +
   - NEWS2
   - NEWS
   - MEWS or equivalent
   - SIRS
   - Health care professional concern
   - Clinical or carer concern

5) What treatment prompt is used? Please place an X next to all that apply.
   - NEWS of 5 + Clinical Judgement (Senior review)
   - Red Flag Sepsis
   - Full NICE sepsis criteria
   - Sepsis 3 (quick SOFA)
   - Sepsis 2 (SIRS criteria + organ dysfunction)

6) What treatment pathway is used?
   - Sepsis 6
   - SSC guidelines

206 Trusts responded to the FOI – certain Trusts did not answer all questions where appropriate e.g. Ambulance Trusts.
ALL-PARTY PARLIAMENTARY GROUP ON SEPSIS