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## **NEW SURVEY REVEALS HOSPITAL STAFF SHORTAGES ARE PREVENTING APPROPRIATE TREATMENT OF SEPSIS, LEAVING PATIENTS AT RISK**

[London, U.K. and Marcy-l'Étoile, France – 26<sup>th</sup> September 2022] To mark **Sepsis Awareness Month**, the UK Sepsis Trust, an internationally renowned charity, and bioMérieux, a world leader in *in vitro* diagnostics with a long-standing commitment to the fight against sepsis, have released new survey data of health professionals to assess their knowledge and practice in the management of Sepsis. This survey was commissioned among 368 doctors across six European countries, including the UK. Key highlights include:

- **Cases of Sepsis are still being missed, despite UK clinicians being aware both of its seriousness and the Sepsis-3 definition\*.**
- **This is reportedly due to staff shortages, which was detailed as the main barrier to delivering appropriate Sepsis management,<sup>1</sup> leaving patients at significant risk.**
- **Over two thirds (68%) of clinicians admit they miss some cases of Sepsis in the hospitals in which they work.<sup>1</sup>**

Sepsis is a life-threatening condition in which the body's response to infection causes organ damage. Globally, Sepsis is now recognised to claim more lives than cancer.<sup>2,3</sup> Every year in the UK, a quarter of a million people are affected by sepsis, and five people die every hour because of it.<sup>4</sup>

Early recognition and rapid diagnosis are essential for early patient management. Any delay in starting appropriate treatment is associated with increased mortality. A set of evidence-based clinical practices, known as Sepsis Bundles, have been defined internationally and the routine implementation of these bundles by clinicians can greatly improve outcomes for patients with sepsis.<sup>5</sup>

**While most surveyed doctors recognise Sepsis is a serious condition, some cases are missed and delays in diagnosis remain in the hospital they work.**

In the UK, surveyed health professionals are confronted with Sepsis on a regular basis, reporting that **one in five (21%) patients they personally manage in hospital in a typical week have confirmed Sepsis.**

Despite the fact that nearly all (99%) of respondents believed that developing Sepsis is serious, **two thirds (67%) of the surveyed doctors agree that there is sometimes a delay in diagnosis**, and **over two thirds (68%) agree they do miss some cases** in the hospitals in which they work.

Dr Ron Daniels, world leading Sepsis expert and Chief Executive of the UK Sepsis Trust, comments: *"There is clear evidence within these data that action on Sepsis improvement work across the UK has been effective, with very high awareness of national and*



*international standards for the recognition and treatment of Sepsis among UK clinicians. Hearteningly, this appears to be accompanied by a responsible attitude to antimicrobial prescribing, with clinicians indicating that they would prescribe antibiotics in a case where there was a need for further diagnostic information.'*

*"However, there is much to be done. The current crisis in staffing within the NHS and a lack of access to timely diagnostics are causing harm for patients. With the increasing tendency to centralise laboratories within cities, organisations need to examine with a degree of urgency how they ensure the rapid processing and communication of time-sensitive tests to frontline clinicians."*

### **Staff shortages, high patient caseload, slow communication of test results and inability to rapidly reassess patients are identified as the main barriers to the adherence of the Sepsis Bundles.**

Almost all surveyed health professionals (97%) state the actions outlined in the Hour-1 Sepsis bundles are followed in their hospital to at least some extent. However, when prompted, **only half (52%) of the healthcare professionals carry out all steps included in the Hour-1 Sepsis Bundle\*\*** for diagnosis and treatment of suspected Sepsis\*\*\*, meaning that nearly half (48%) of patients are not receiving standard of care, increasing their risk of mortality.

The survey identified a number of reasons why there is a lack of adherence to the protocol. While the main barriers vary between countries, in the UK, the main ones identified are **staff shortages (76%), high patient caseload (74%), test results not being communicated quickly enough (38%) and inability to rapidly reassess patients (36%)**.

While nearly all (99%) respondents agree early detection of sepsis can lead to **significantly better outcomes, one in three (33%) said that a lack of rapid diagnostic tests is one of the main barriers** to adhering to the stages outlined in the Sepsis Bundles.

*"Diagnostic tests are vital for anyone suspected of sepsis, providing critical information on its presence and severity, the type and extent of infection at the source, how best to manage the patient and also to monitor their progress" said Mark Miller, Executive Vice President and Chief Medical Officer at bioMérieux. "Tests like blood cultures, other appropriate cultures, lactate and procalcitonin can give essential information for guiding optimal patient care in suspected and proven sepsis."*

### **More staff and training are identified as the top two areas to address existing knowledge gaps and improve patient outcomes.**

Over three quarters (76%) of surveyed doctors selected that more staff are needed to improve adherence of sepsis bundles in the hospital where they work. 56% of health professionals also selected that training on what Sepsis Bundles are, or how to implement these in the hospitals within which they work, would improve adherence to these bundles.

Dr Daniels adds, *"As healthcare systems continue to grapple with issues such as staff shortages and evolving patient needs, urgent action must be taken to ensure that there is consistent access to timely diagnostics to improve patient care and outcomes."*

In 2021 bioMérieux and the UK Sepsis Trust published the [results of a separate survey showing the need to accelerate awareness and education of the general population](#) about sepsis. The current second survey is an evolution of the campaign to enhance awareness



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among health workers and institutions, to improve patient care with crucial and timely diagnostics, and to promote better adherence to international sepsis care guidelines.

- ENDS -

## Notes

\* *Sepsis-3 definition: Sepsis should be defined as life-threatening organ dysfunction caused by dysregulated host response to infection.*<sup>6</sup>

\*\* *Hour-1 Sepsis Bundle includes a set of interventions which are recommended to begin immediately in all patients with suspected sepsis or septic shock.*

\*\*\* *Correctly selected actions include: measure lactate level and re-measure if the initial level is elevated; obtain blood cultures before administering antibiotics; administer broad-spectrum antibiotics; administer iv fluid: rapid administration of 30ml/kg crystalloid for hypotension or lactate  $\geq$  4mmol/l; apply vasopressors if hypotensive during or after fluid resuscitation to maintain a mean arterial pressure  $\geq$  65 mmhg*

## ABOUT THE SURVEY – TECHNICAL NOTE

On behalf of BioMérieux and The UK Sepsis Trust, Ipsos conducted an online survey among 368 healthcare professionals across 6 countries (UK n=100, France n=100, Spain n=100, Sweden n=50, Denmark n=16, Norway n=2) between 20th June and 18th July 2022. For analysis purposes, Nordic countries were grouped as one market (n=68).

Healthcare professionals were Emergency Department Physicians, General Surgeons, Internal Medicine Physicians, Critical Care Physicians or Pulmonologists and chose to take part in the survey. All physicians had been qualified for 3-30 years, worked in a hospital, spent at least 50% of their professional time in direct patient care.

The overall total results are weighted based on country average approach with an equal weighting across the UK, France, Spain and the Nordic countries included.

## ABOUT UK SEPSIS TRUST

The UK Sepsis Trust was founded in 2012 by world-leading Sepsis expert, NHS consultant Dr Ron Daniels BEM. The charity's goal is to end preventable deaths from Sepsis and improve outcomes for Sepsis survivors. We believe that earlier diagnosis and treatment across the UK and beyond could save thousands of lives. Our critical expertise is based on UKST's grassroots origins: our doctors and nurses have front line experience of Sepsis and their passion is born of a uniquely comprehensive understanding of what needs to be done. The urgent need to improve Sepsis care in the UK drives us forward as we continue to work in hospitals, while advancing the Sepsis agenda.

## ABOUT BIOMÉRIEUX

### *Pioneering Diagnostics*

A world leader in the field of *in vitro* diagnostics since 1963, bioMérieux is present in 45 countries and serves more than 160 countries with the support of a large network of distributors. In 2021, revenues reached €3.4 billion, with over 90% of sales outside of France.

bioMérieux provides diagnostic solutions (systems, reagents, software and services) which determine the source of disease and contamination to improve patient health and ensure consumer safety. Its products are mainly used for diagnosing infectious diseases. They are also used for detecting microorganisms in agri-food, pharmaceutical and cosmetic products.

[www.biomerieux.com](http://www.biomerieux.com).



bioMérieux is listed on the Euronext Paris stock market.

Symbol: BIM – ISIN Code: FR0013280286

Reuters: BIOX.PA/Bloomberg: BIM.FP

## References

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<sup>1</sup> UK Sepsis Trust and bioMérieux, Adherence to Sepsis Bundle in Europe. July 2022.

<sup>2</sup> Rudd, K. et al. Global, regional, and national sepsis incidence and mortality, 1990-2017: analysis for the Global Burden of Disease Study. *The Lancet*. 2020; 295: 200-11.

<sup>3</sup> World Health Organisation. Cancer. Available at: [https://www.who.int/health-topics/cancer#tab=tab\\_1](https://www.who.int/health-topics/cancer#tab=tab_1). Last accessed: September 2022.

<sup>4</sup> The UK Sepsis Trust. Representing the UK Sepsis Trust. Available at: <https://sepsistrust.org/wp-content/uploads/2019/01/UKST-volunteer-speaker-notes-2019.pdf>. Last accessed: September 2022.

<sup>5</sup> Milano PK, et al. Sepsis Bundle Adherence Is Associated with Improved Survival in Severe Sepsis or Septic Shock. *West J Emerg Med*. 2018 Sep;19(5):774-781.

<sup>6</sup> Singer M, Deutschman CS, Seymour CW, Shankar-Hari M, Annane D, Bauer M, et al. The third international consensus definitions for sepsis and septic shock (Sepsis-3) *JAMA*. 2016;315:801–10.