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Scottish Patient Safety Programme (SPSP) – statement regarding the new international consensus definition of sepsis.

Dear Colleagues,

The purpose of this letter is to communicate our recommended approach for identification and management of adults with sepsis in light of recent changes to definition and terminology.

Sepsis is a core work stream of SPSP with existing work across acute care, maternal health and paediatrics and developing work in primary care. The work undertaken by clinical and improvement teams in NHS Scotland has supported a measurable improvement in outcomes for patients with latest data demonstrating a 20% relative risk reduction in mortality from sepsis across Scotland's acute hospitals. This significant achievement is underpinned by widespread uptake of the National Early Warning Scoring (NEWS) as a means to identify deteriorating patients.

In February 2016, the Sepsis International Consensus Definitions Task Force published a revised set of definitions in the Journal of the American Medical Association (JAMA)[1]. The task force recommended:

- That sepsis is defined as a '*life-threatening organ dysfunction caused by a dysregulated host response to infection'.*

- Adoption of a change in Sequential [Sepsis-related] Organ Failure Assessment (SOFA) score as a better tool to formally identify sepsis-associated organ dysfunction for the purposes of research and comparison.

- Outside of the ICU, the adoption of a simplified set of criteria called 'quick-SOFA' or 'qSOFA'. Triggering of an aggregate of two out of three qSOFA parameters identifies patients with suspected infection who are likely to have an adverse outcome, namely death or a prolonged Intensive Care stay.

A number of concerns relating to these proposals have been raised within and external to Scotland, particularly relating to the operational difficulty of introducing another scoring system in the context of the National Early Warning Score which is well established in Scotland. Additionally, there is a risk that the gains achieved in the early recognition of sepsis would be lost by wide uptake of these new criteria.

In order to develop revised advice for the Scottish context, SPSP held a sepsis networking event on 20th May 2016 which was attended by over 45 healthcare professionals including medical, nursing and improvement colleagues. SPSP took this opportunity to work with these professionals to develop a set of recommendations that will support Scotland's ongoing efforts to improve outcomes for patients with sepsis.

1. Singer M, Deutschman CS, Seymour CW et al; **The Third International Consensus Definitions for Sepsis and Septic Shock (Sepsis-3)** *JAMA.* 2016;315(8):801-810. doi:10.1001/jama.2016.0287

NHS SCOTLAND

Recommendations

1. The National Early Warning Score will continue to be the recommended method of identifying deteriorating patients, including those with sepsis.
2. Early Warning Scoring System trigger points for sepsis screening and management will continue to be locally defined. Screening for sepsis should be undertaken with the question – '*could this deterioration be due to infection'*.
3. Systemic Inflammatory Response (SIRS) criteria will continue to aid in the general diagnosis of infection.
4. The qSOFA criteria may be used as an adjunct to identify patients at increased risk of death and support decisions about treatment escalation.
5. All monitoring and screening tools should be viewed as an adjunct to clinical judgement.
6. Further studies on qSOFA will inform decisions about their potential use as a screening tool for sepsis.

The above recommendations will be reviewed as evidence emerges on the use of qSOFA in clinical practice.

SPSP aims to support improved outcomes for people by providing guidance to health and care professionals on improvements to care processes. It is important to note that decisions on clinical interventions remain the responsibility of professionals delivering direct care to patients and the organisations they work in.

We are extremely grateful for the ongoing support of NHS boards with this work and, in particular, for the input of the clinicians who have informed these recommendations.

Yours sincerely

Professor Kevin Rooney,

National Clinical Lead for SPSP – Acute Adult