

Sepsis – More Education Required?

Sarah Cowan, Jonathon Holland and Andrew Kane

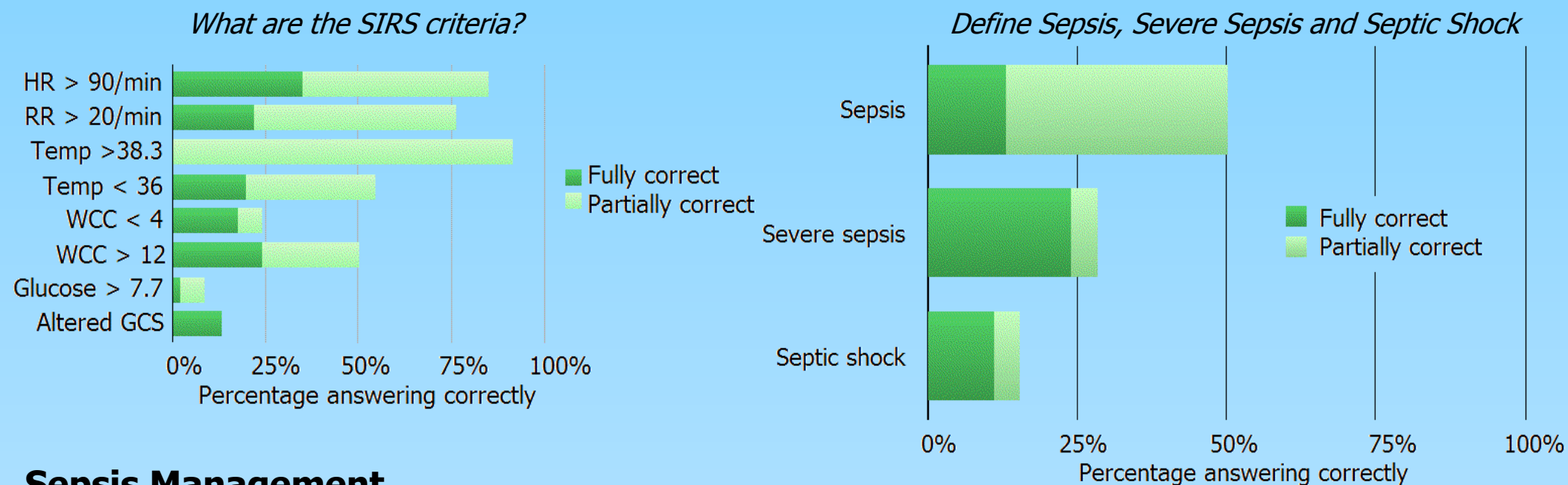
West Suffolk Hospital, Hardwick Lane, Bury St. Edmunds, Suffolk, IP33 2QZ

Introduction

An audit of ICU sepsis admissions at our district general hospital identified that as **few as 7%** of patients had received the “Sepsis Six” care bundle prior to arrival on ICU. We investigated further by ascertaining the level of knowledge about sepsis – which was **lower than expected** – and then delivered an educational intervention which has **improved understanding of sepsis care**.

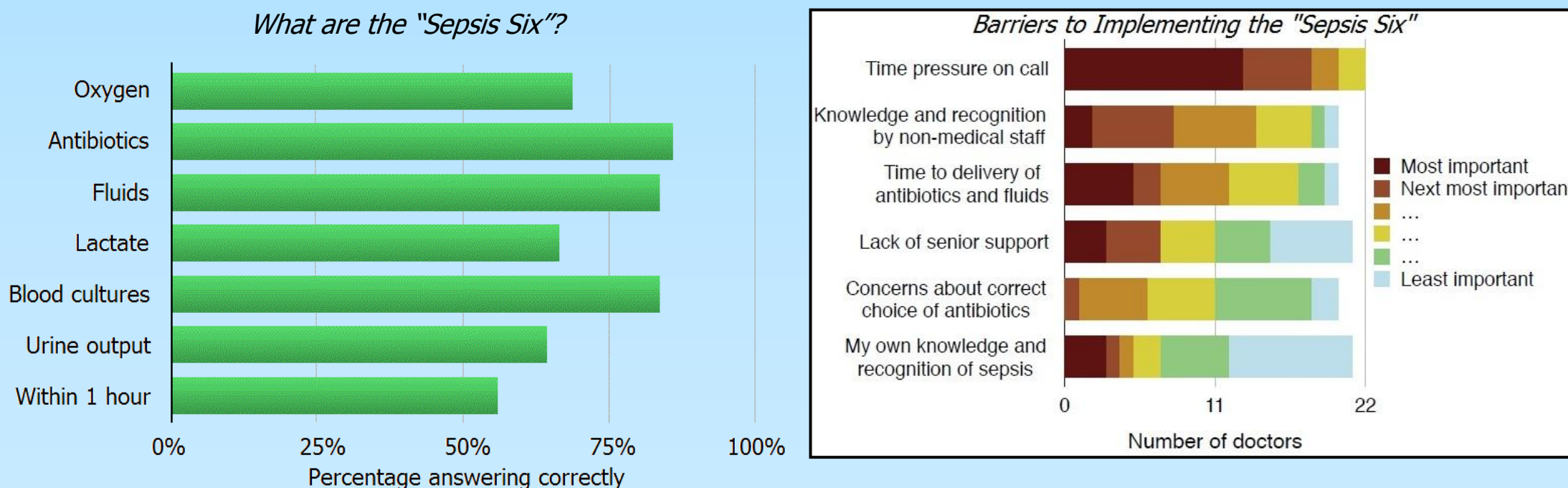
Sepsis Recognition

First we distributed a questionnaire to CT, FY1 and FY2 junior doctors (46 in total, including 24 new FY1s during their Preparing for Professional Practice week) asking them to state the **SIRS criteria** (below left) and **define sepsis**, severe sepsis and septic shock (below right).



Sepsis Management

We then asked about the components of the “**Sepsis Six**” (below left) and for those doctors other than the 24 new FY1s to rate what they felt to be **obstacles to implementation** of sepsis management (below right).

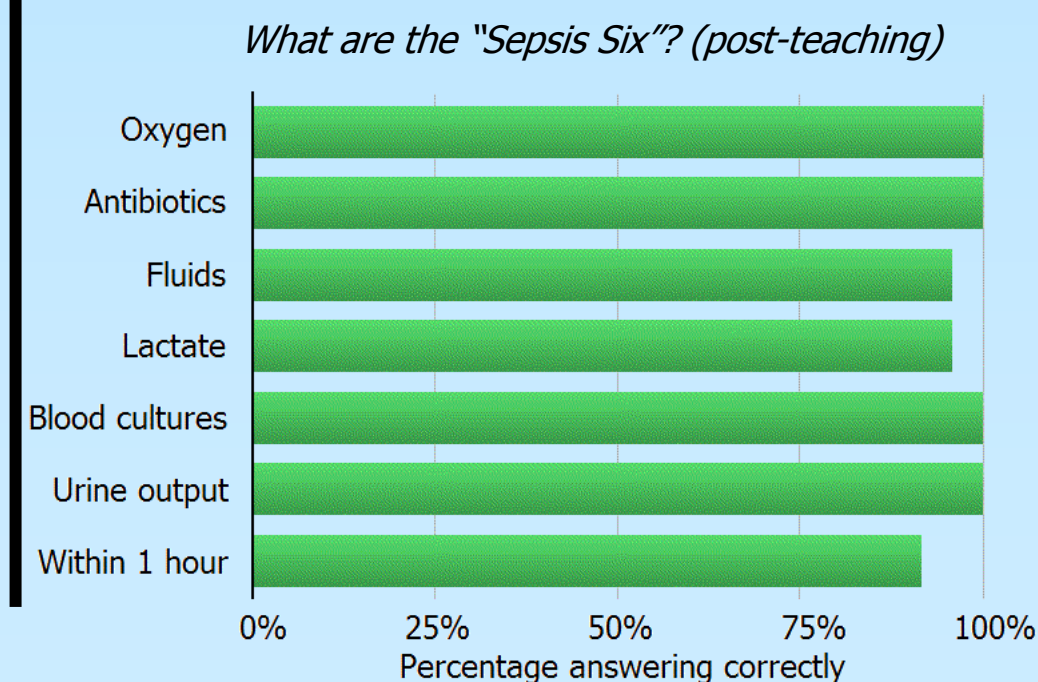
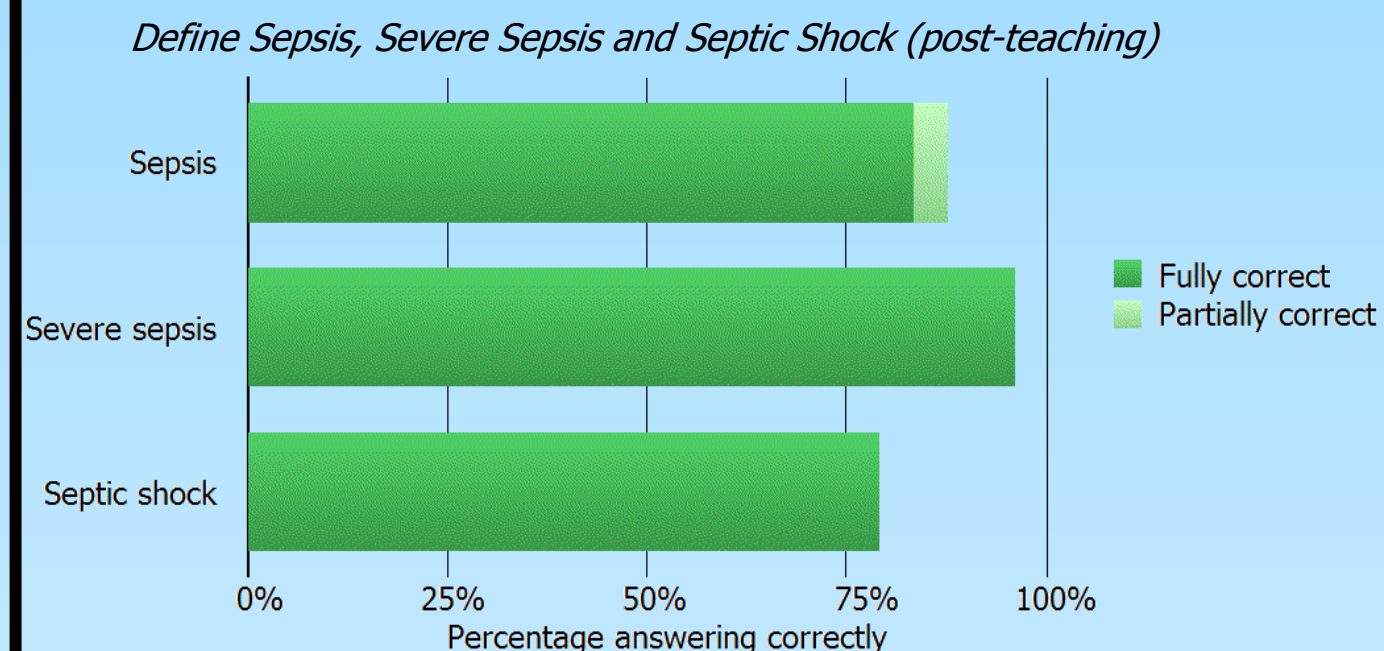
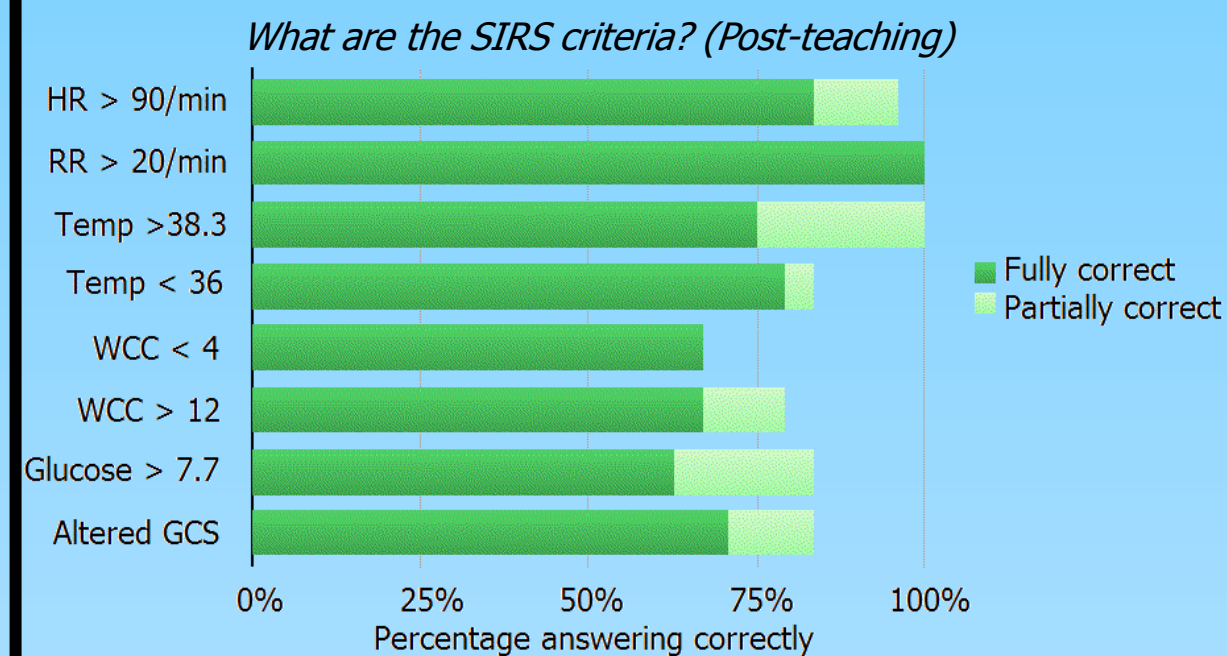


Pre-Intervention Knowledge Assessment Results

- Only **4%** could correctly list all SIRS criteria
- 13%** gave a correct definition of sepsis (but **24%** defined **severe sepsis**).
- 46%** were able to state all six aspects of the sepsis care bundle.
- A majority of respondents identified **time pressure** as the greatest management obstacle.
- Most junior doctors felt their own sepsis knowledge was **not** an problem in management.

Sepsis Teaching

- Results suggested that patients with sepsis may be being **missed** by junior doctors.
- **Fewer than half** may then receive the **six core aspects** of initial treatment.
- Contrastingly, almost **half** the junior doctors surveyed believed that **their own knowledge** of sepsis was **not** a barrier to patient management.
- We therefore delivered a **45 minute interactive session** on sepsis for the new FY1s during their Preparing for Professional Practice induction and **repeated the survey**.



Post-Intervention Results

- **37.5%** listed all SIRS criteria.
- **83%** defined sepsis.
- **92%** stated the 6 interventions.

With regards to SIRS criteria there was **improved recognition of leucopenia, hyperglycaemia** in a non-diabetic and **altered conscious level** as SIRS characteristics – previously identified by fewer than a quarter of respondents.

Conclusions and Further Work

- Understanding of sepsis recognition and management appears generally **poor**.
- A **brief intervention** can address this and improve knowledge.
- **Time pressure** could possibly explain why many ICU sepsis admissions did not receive appropriate treatment prior to transfer.
- To ensure improved knowledge translates to **better patient care** we plan to repeat the ICU sepsis admission audit shortly.
- Creating a **trust-wide focus** on sepsis, we also conducted an innovative study to determine the local population incidence of sepsis in the Emergency Department which will in turn help **prioritise service delivery**.

Correspondence and Acknowledgement

Dr. Sarah Cowan, Addenbrooke's Hospital, Hills Road, Cambridge, CB2 0QQ, UK

Email: sarah.cowan@nhs.net.

With thanks to Dr. Ian Frost (ICU Consultant, West Suffolk Hospital). No conflicts of interest declared.