Implementation of the Clinical Worklist to Improve Detection of Suspected Sepsis

QIP Leads: Dr Andrew Brent, Dr Anum Butt **Participants:** Dr Hui Men Selina Chin, Dr Aaron Chong
Trauma Ward, Horton Hospital

Oxford University Hospitals NHS
NHS Foundation Trust

INTRODUCTION

Sepsis is an increasing cause of death in the UK, accounting for one death every five minutes in the UK each year [1]. It occurs when the body mounts a systemic inflammatory response towards an infection. This can lead to severe sepsis and septic shock, life threatening conditions causing end organ dysfunction and hypotension refractory to fluid resuscitation respectively. Early detection of sepsis is key to timely treatment via the Sepsis Six care bundle[2, 3].

PROBLEM

The EPR Clinical Worklist was developed to aid early detection of sepsis using an alert system based on an electronic algorithm that included patients' vital signs and blood results. However, clinical staff did not use the Clinical Worklist in their daily work and thus were not alerted when a patient was suspected to have sepsis.

AIM

To facilitate the transition from using the "Patient List" to "Clinical Worklist" on Trauma ward, which will help in identifying patients with suspected sepsis in a timely manner. The aim is for a 100% switch within 2 months.

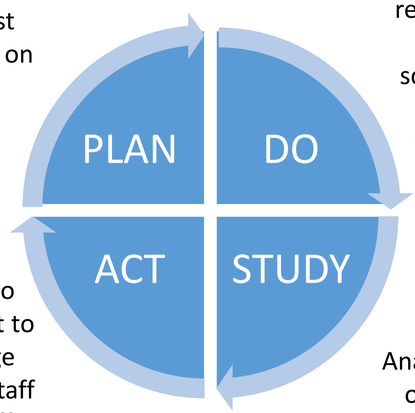
METHODS

- Surveyed awareness and usage of Clinical Worklist amongst clinical staff,
- Provided formal training to staff on how to use the Clinical Worklist, placed reminders on ward computers,
- Ensured easy accessibility of how to use Clinical Worklist,
- Repeated survey after 3 weeks, identified barriers to implementation, and devised methods to overcome these.

PDSA CYCLE

Audited use of Clinical Worklist over 2 months on Trauma ward.

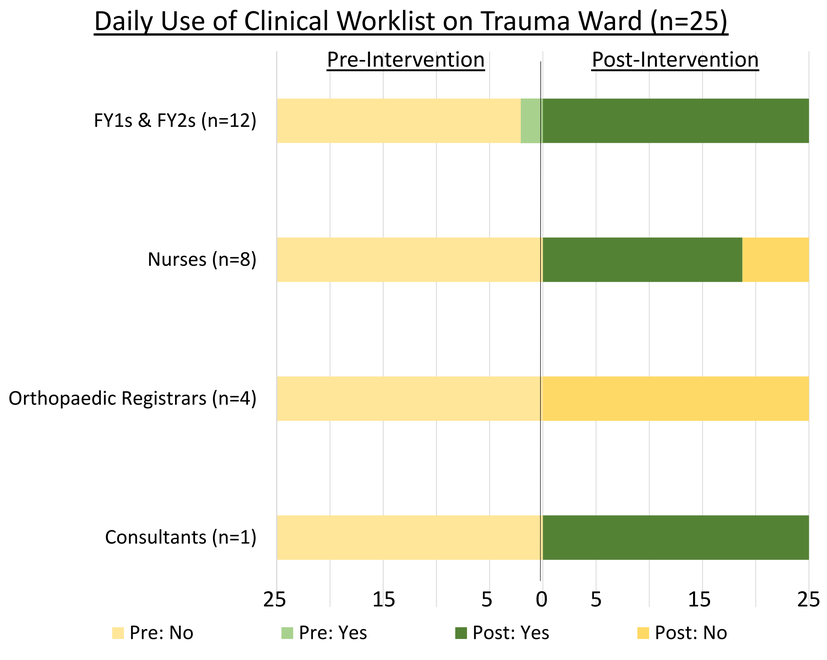
Trained clinical staff to use Clinical Worklist. Placed reminders on top of ward computer screens. Developed one page quick summary guide to place near each computer.



Incorporated doctor's list onto Clinical Worklist to encourage usage among senior staff and nursing staff. Continued to provide retraining opportunities to clinical staff.

Analysed results and obtained feedback about practicalities of using Clinical Worklist.

RESULTS



ANALYSIS OF RESULTS

Main reasons for not using the Clinical Worklist were: registrars having limited use of EPR to check patients' daily progress (prescribing medications and ordering imaging – mostly pre-op, or checking TTOs before discharge), and nurses forgetting how to use it.

Other suggested improvements from feedback included:
- Including patient MRN, latest blood results, TTO and discharge summary status,
- Increasing character limit for "Issues & Plan" column where doctors write daily plan, and
- Removing traffic light "Priority" column from Clinical Worklist.

CONCLUSION

One PDSA cycle was completed. Through this QIP, there was a marked increase in daily use of the Clinical Worklist on Trauma Ward (72% absolute increase, $p<0.0001$). This improved early detection of sepsis and consequently impacted patient clinical care positively. A list of suggested improvements has been submitted to Dr Brent for consideration, which will be an opportunity for a second PDSA cycle.

ACKNOWLEDGEMENTS

We would like to thank all staff on Trauma Ward at Horton Hospital for their cooperation in this QIP.

REFERENCES

[1] UK Sepsis Trust. Suspect Sepsis leaflet. 2016.
[2] NICE Guideline [NG51] July 2016 Sepsis: recognition, diagnosis and early management.
[3] Duration of hypotension before initiation of effective antimicrobial therapy is the critical determinant of survival in human septic shock. Crit Care Med. 2006; 34 (6):1589-96.