

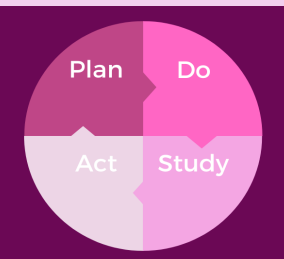
Does Your Patient Really Need Blood Cultures?

A Quality Improvement Project



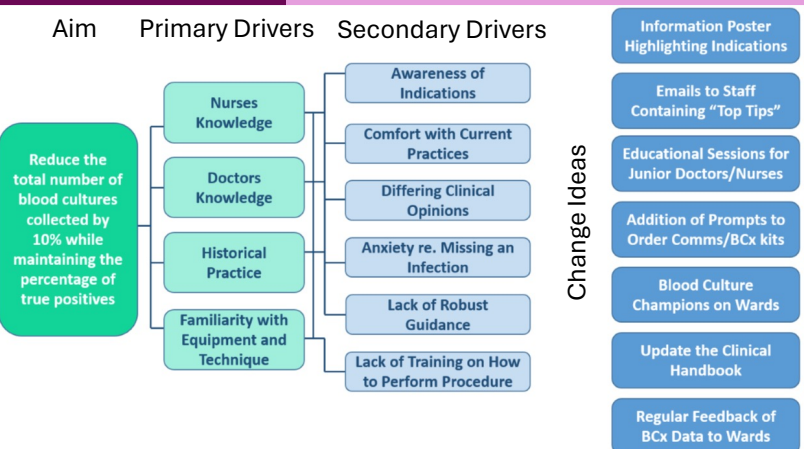
Background: Blood stream infections rank among the top seven causes of death in most European countries¹. Blood cultures are the gold standard method for detecting bacteraemia, however, only around 5-10% of cultures obtained grow organisms². This low yield is partly due to the collection of cultures in patients when the condition of interest is one with a low probability of being associated with bacteraemia³. Testing all patients with suspected infections is associated with negative consequences including excess use of antibiotics, longer length of hospital stay, additional healthcare costs and even increased mortality^{4,5}

Aim: Reduce the total number of blood cultures sent for processing by 10% while maintaining the percentage of true positives by April 2024



Change Ideas: Were developed using a Driver Diagram (below)
 3 PDSA cycles were implemented:

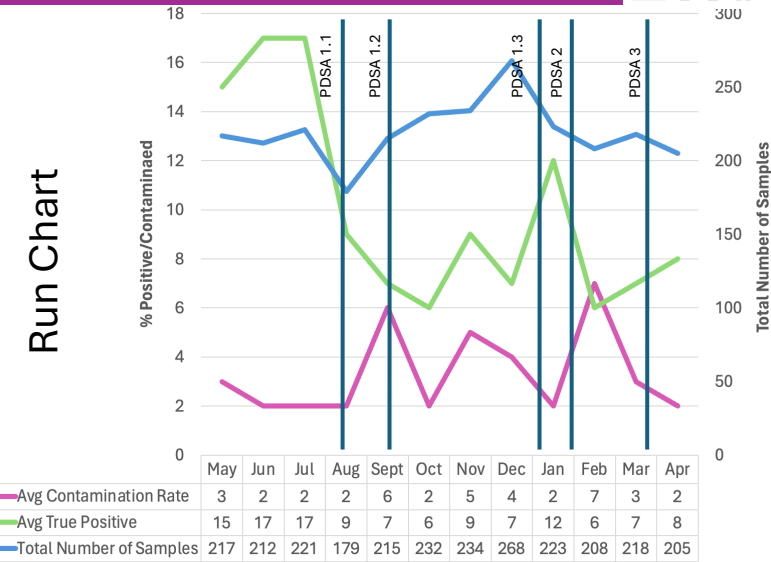
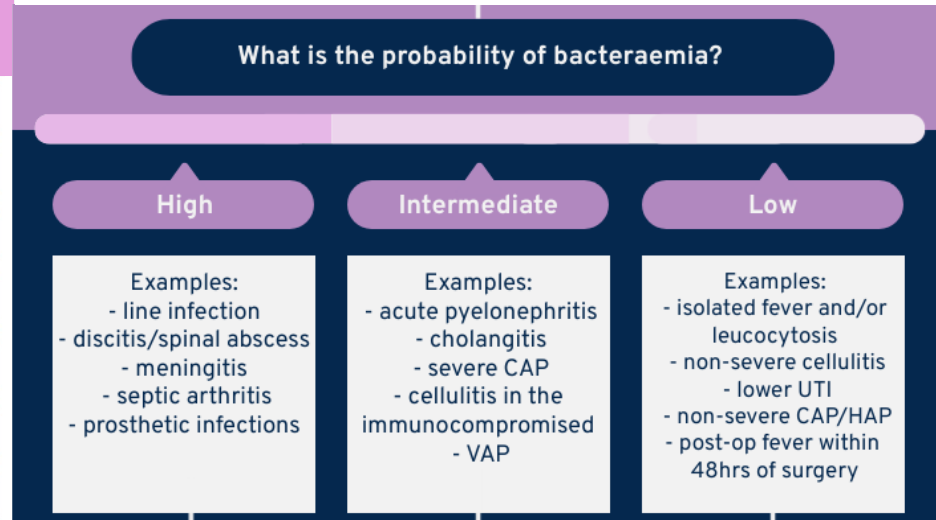
1. Informational posters
2. Educational session
3. Feedback to wards



The Absence Of A Gold Standard Guideline Detailing Indications For Blood Culture Sampling Is A Significant Barrier To Implementing Change



Indications: Excerpt from PDSA 1 poster below. We suggested that cultures are indicated if the probability of bacteraemia is high or if intermediate without the ability to easily culture the primary site⁶



50% of staff reported they were unsure of indications for BCx

58% of staff reported feeling BCx sampling was expected of them

Results and Reflections: Unfortunately, the aim of the project was not met. A leading challenge was the lack of a standardized guideline; this created anxiety both amongst the target audience and the QI team regarding missed diagnoses and the appropriateness of proposed interventions, therefore hindering the fervour with which PDSAs were implemented and accepted. Future work in this area should include a large degree of inter-departmental working to challenge the institutional norm of "culture if spikes!"