Altering human behaviour to implement the PreOPerative Iron Deficiency Identification and Management project (POPI)

A Clinical Healthcare Redesign

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Case for change

In 2012 the Australian National Blood Authority identified preoperative iron deficiency anaemia as a significant contributor to blood transfusion. If appropriately managed, clinicians could substantially decrease blood use intraoperatively and decrease the possibility of sustaining the below risks.

- **Mortality**
- **Morbidity**
- **Post surgical complications**
- **Length of Stay (average of 2.5 days)**

In Sydney Local Health District (SLHD) the preoperative pathway is complex and inconsistent, leading to many opportunities to identify and manage iron deficiency being missed. In turn exposing patients to an increased chance of needing a blood transfusion.

Goal

All patients undergoing elective colorectal or upper gastrointestinal (UGI) surgical procedures within SLHD are to be identified, evaluated, and managed for preoperative iron deficiency anaemia.

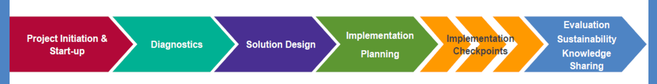
Objectives

Primary Objective (1): To achieve 100% compliance with preoperative iron deficiency screening for patients receiving high risk surgeries or surgeries where substantial blood loss is anticipated, by December 2018.

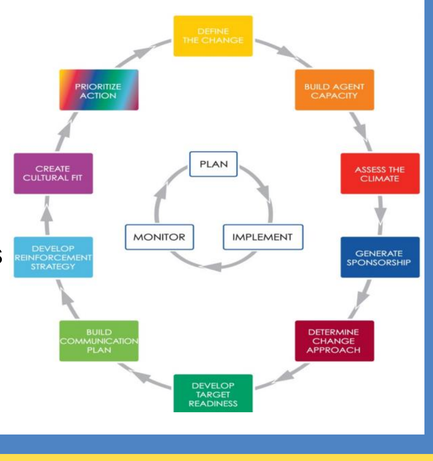
Secondary Objective (2): To reduce instances of Red Blood Cell (RBC) transfusions throughout the perioperative period by 20% (baseline 3,300 transfusions per year) by March 2019.

Method

This project was developed in line with the Clinical Healthcare Redesign (CHR) methodology supported by the NSW Agency for Clinical Innovation. The 6 step methodology (below) aims to support project teams through the redesign process with a strong emphasis on behavioural change management in order to ensure change sustainability.

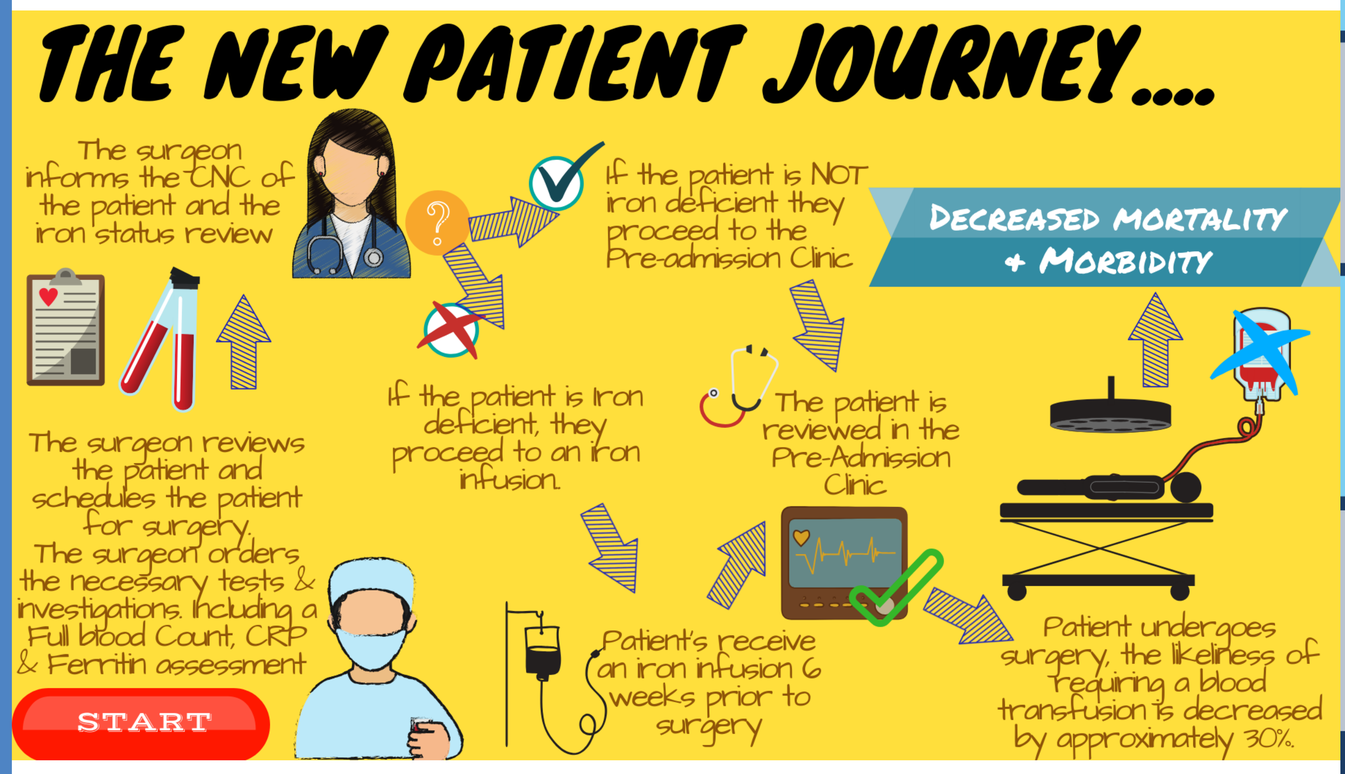


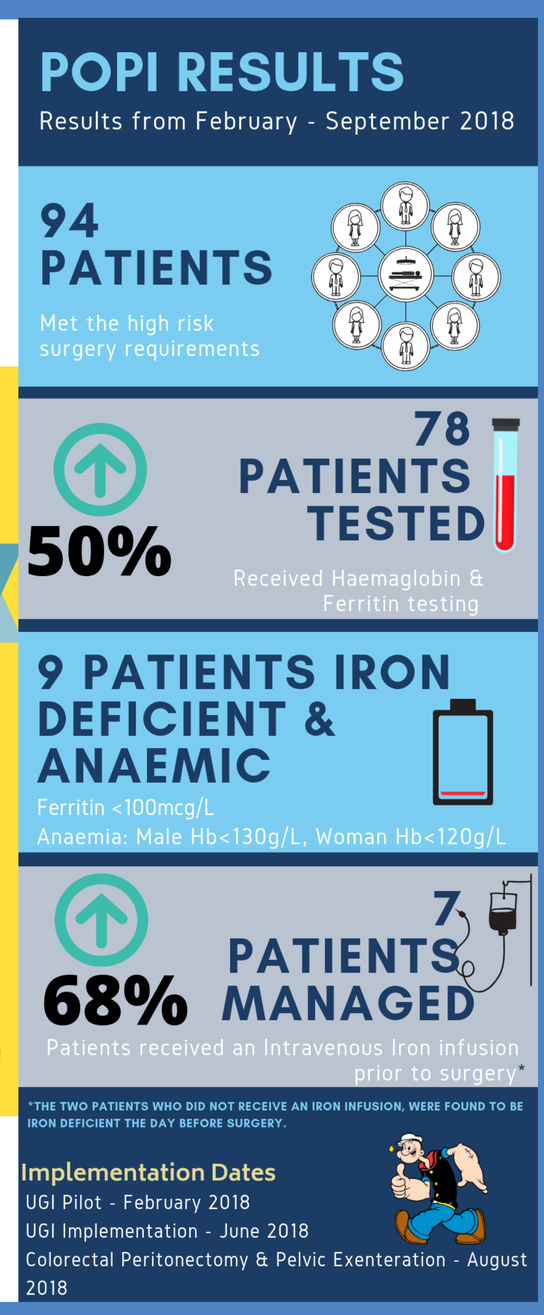
In addition, The Accelerated Implementation Methodology (AIM) developed by the Implementation Management Associates was used throughout the redesign process to manage the human elements critical to accelerating the project's implementation.



Results

High risk surgeries or surgeries where substantial blood loss was anticipated (>300mls) were identified to comprise a patient selection criteria list. For these patients, a clinical pathway solution was developed and implemented in the Upper Gastrointestinal Service as a pilot in February 2018. The clinical pathway was subsequently implemented in August 2018 in the Colorectal services (specifically Peritonectomy and Pelvic Exenteration services). The pathway is described below:





Implementing Change

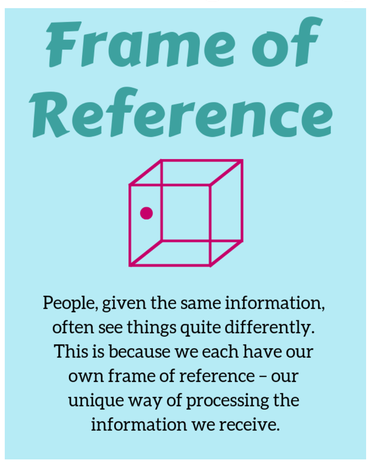
Change can be daunting and lead to increased anxiety and apprehension in those affected by the change. This can often lead to resistance by clinicians, making it more difficult to effectively implement and sustain change. As part of the CHR process, the project team was encouraged to address the human behaviour aspect of the change initiatives through using the Accelerated Implementation Methodology framework.

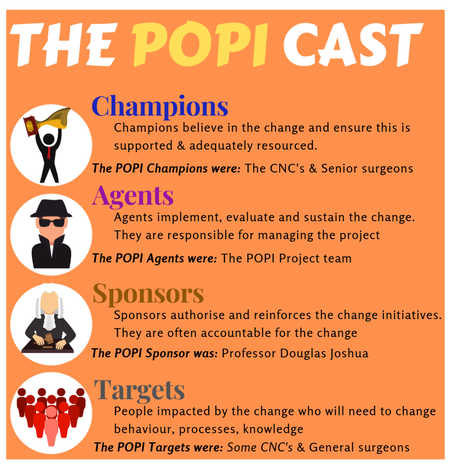
Initially it was important to understand the desired behaviour we expected our clinicians to adopt. We identified which role various clinicians fell within the "CAST" (Champions, Agents, Sponsors, Target). By identifying the project Champions (those who will lead the change) and Targets (those who are affected and likely to resist changing to the "norm") the project team were able to address each clinician's concerns and drive buy-in into the project case for change.

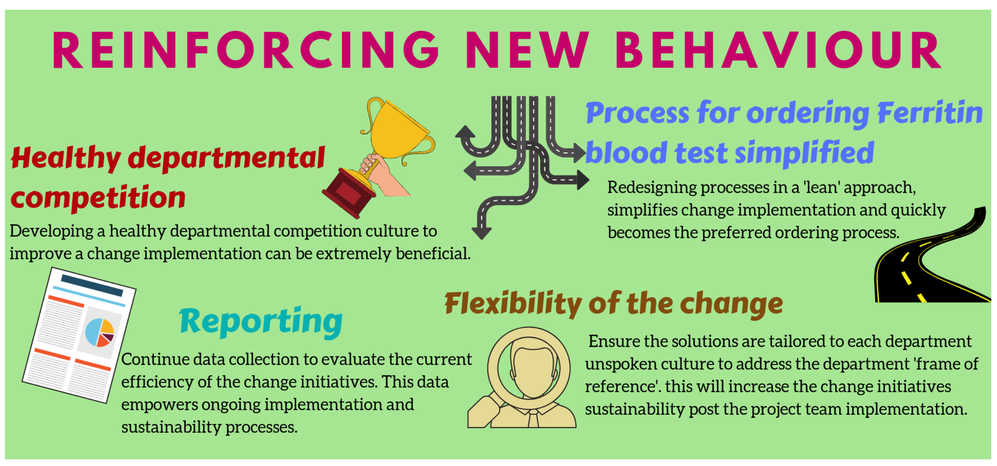
Importantly the ability to answer the question "What is in it for me?" was paramount. This simple yet powerful question allowed the project team to view the behavioural change from the clinicians' perspective or 'frame of reference'. By doing so we targeted the clinicians' hesitations or motivation to accelerate the change implementation and sustainability potential.

Finally, the project team's sponsor ensured the desired behaviour was cemented by reinforcing the change through positive rewards and negative consequences. The "new" behaviour (clinicians following the pathway) was made easy to follow, requiring less effort than attempting the "old behaviour". Recognition and appreciation was also used as positive rewards for those trying the "new" way. Disincentives such as harder workflow, increased paperwork and penalties were scarcely used as negative consequences.

Sustaining Change







Conclusion

- **When implementing a new quality improvement strategy or change initiative it is important to consider the human aspect of the behavioural change. Without addressing the human behaviour elements, people will revert to previous practices or alternatives.**
- **Strong project preparation can aid project teams to identify and mitigate change resistance which will ultimately empower the project initiatives to be rapidly implemented and most importantly sustained.**
- **It is important to remember project success is often measured by being on time, budget and technical objectives met. However, it is not actually until behaviour changes that business objectives can be realised and implementation is achieved.**

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