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### Case for change

Wollongong Hospital (WH) transfused major elective surgery patients 4.5 times more than their exemplar peers (HRT 2017).

Once a patient receives a blood transfusion:

- Risk of Hospital Acquired Infection (HAI) x 5
- Average Length of Stay (ALOS) + 9.88 days
- Average encounter costs + \$14 234 higher
- Risk readmission within 28 days x 4.5

WH implemented a program to optimise preoperative iron stores of patients undergoing major elective surgery and minimise the delivery of avoidable blood transfusions along their perioperative journey.

### Goal

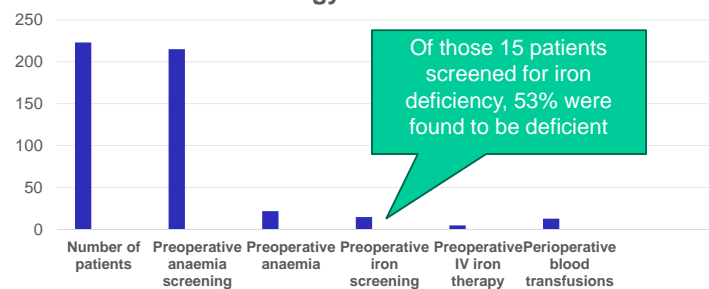
The OPP Project aims to ensure anaemia and iron deficiency (ID) are identified and managed preoperatively to promote safe patient outcomes for those undergoing major elective surgery at WH.

### Objectives

- ↓ % of patients anaemic at time of major elective GIT or Orthopaedic surgery from **9.9% to 6.0% by July 2018**
- ↑ % of major elective GIT (colorectal / upper gastrointestinal tract) or Orthopaedic surgery patients that are pre-operatively screened for ID from **6.7% to 75% by July 2018**

### Diagnostics

We are not screening for iron deficiency: Pathology Audit Results



Patient Experience Survey (n= 10)

- 80% of patients did not find the pre-operative blood transfusion information provided to them easy to understand
- 60% of patients reported that no health professional discussed the possibility of a blood transfusion with them pre-operatively

### Results

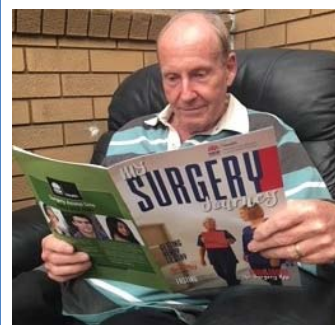
**Objective 1:** Anaemia rate remains **high** – 15.58% in July 2018

**Objective 2:** ID screening rate has **increased** – 28.47% in July 2018

- Transfusion rate remains **stable**: GIT 6.6% and Orthopaedic 3.8% in July 2018, however none were transfused outside of national Patient Blood Management (PBM) guidelines.
- ALOS ↓ from 12.7 days to 7.06 days by July 2018
- Readmissions to ED within 28 days ↓ from 27% to 3.52% by July 2018
- Patients satisfied with their involvement in their PBM decisions ↑ from 25% to 45% by July 2018
- Patients felt that consumer information provided to them was easy to understand ↑ from 20% to 82% by July 2018
- Patients felt happy to receive a transfusion with the information they had received ↑ from 50% to 91% by July 2018

Process implemented July 2018. Expect to reach 75% pre-op ID screening by the end of 2018, when it becomes business as usual – it should lower perioperative anaemia and transfusion rates.

### The New Major Elective Surgery Patients' Perioperative Journey:



*"The magazine and app made me feel like I was somewhat in control of my health, and that I could play an active role in getting better."*

Local Oak Flats man Peter Schulze

\* Magazine & APP revisions funded by Illawarra Cancer Carers



Visual prompt sticker

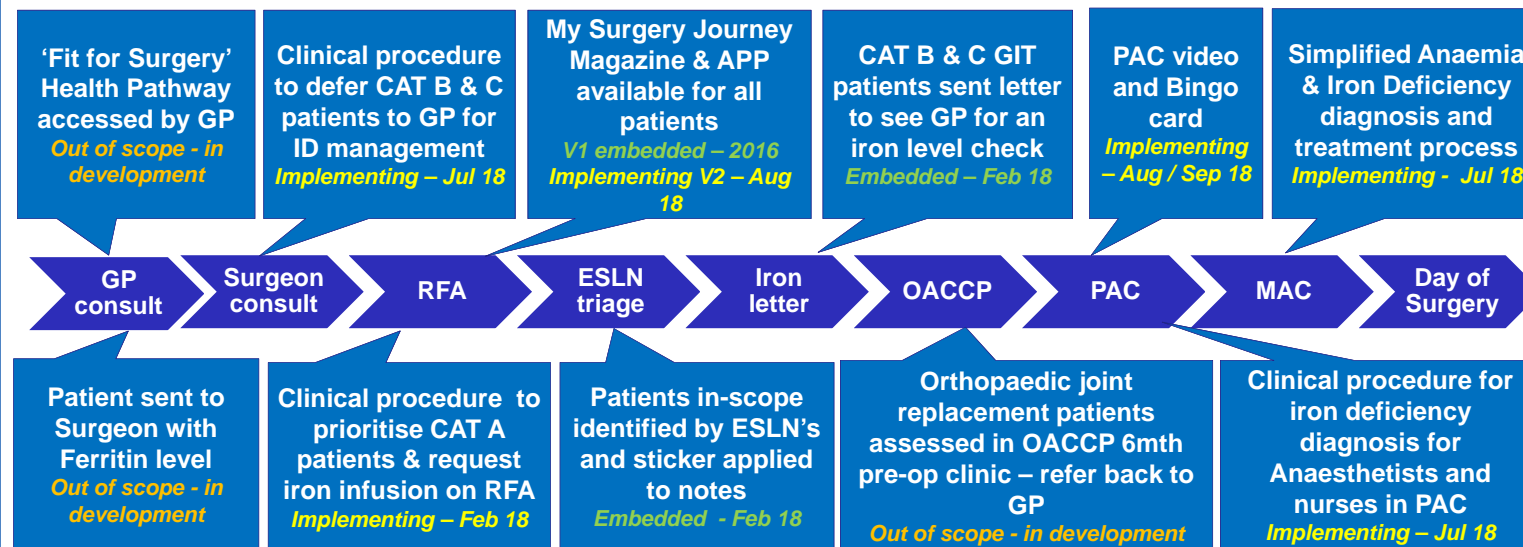


My Surgery APP

QUICK WIN Sticker follows patient along their perioperative journey and is a visual prompt for multiple solutions



Patient letter advising them to return to GP



### Acknowledgements

**Sponsors** Kate Fish & Nicola Ryan. **Steering Committee:** Dr. Tanya Selak; Dr. Orysia Sandry; Barbara Crawford; Tamara Burns. **Project Team members:** James Brinton; Kari Fedder; Joanne Campbell; Dr. Sylvia Ai; Dr. Nick Maytom; Ryan Lambert. **Clinical Lead** Dr Buddhika Habaragamuwa. **Collaborators:** NSW Health Pathology Donna Brown & Scott Jansson; Illawarra Coordinare; Health Pathways Steve Gibbeson, Soli Duveaux, & Louise Delaney; Illawarra Cancer Carers, OACCP lead Emily Mayze

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### Method

Utilising the Centre for Healthcare Redesign Methodology:

<b>Initiation</b>	Steering Committee and Project Team members established, goal and objectives set
<b>Diagnostics</b>	Pathology audit (n= 223), patient survey (n= 10), patient stories (n= 10), patient tag-alongs (n= 4), staff interviews (n= 6), process mapping sessions
<b>Solutions</b>	Solution workshops (n= 4), consumer group testing (n=4), selection of x4 clinical and x4 patient-focused solutions (n= 8).
<b>Implementation</b>	Cancer Carers funded magazine and app edits; engaged local GP's, anaesthetists, surgeons, nurses, and pathology staff
<b>Evaluation &amp; Sustainability</b>	Patient experience survey (n=12), HRT data (Oct 2018) & pathology data audit (210). To submit abstract for Blood 2019 Conference.

### Sustaining change

- Project Members are solution owners who will continue to undertake PDSA cycles to refine solutions as necessary
- Quarterly patient experience surveys to be collected by Day Surgery nursing staff to monitor patient experience
- Monthly pathology audit data to be sent to local surgeons to improve PBM practice
- Collaboration with HealthPathways and OACCP to adopt solutions into their 'business as usual' processes
- ISLHD blood committee to regularly evaluate/sustain OPP Project solutions
- Celebrate change at quality awards, forums, and conferences
- Other districts and hospitals are interested in adopting latest version of My Surgery Journey magazine and APP

### Conclusion

- 3 solutions have been successfully embedded into 'business as usual'; and 5 are currently being implemented at WH.
- ISLHD HealthPathways 'Fit For Surgery' pathway are currently developing a district GP resource that will be address the primary healthcare gaps that were out-of-scope of this project.
- NSW Health Pathology ISLHD are sending PAC iron studies results to GPs for follow-up.
- WH OACCP program plans to incorporate pre-anaesthetic consult into their program in August 2018.