

BYOB – Bring Your Own Bag: Reducing Surgical Waste, One Plastic Bag at a Time.



PRESENTER:
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Figure 1²

This project has led to an estimated 92% reduction in plastic patient belonging bag usage.

These bags are a source of perioperative waste that can easily be addressed, resulting in a reduction in plastic waste and carbon emissions.

Significance:

Globally, there are 1-5 million plastic bags consumed each year. Plastic bags take up to 1,000 years to degrade and leads to negative impacts on animals and the environment. Many places in Canada have banned plastic bag usage, but in hospitals, plastic patient belongings bags are provided routinely.

Having an operation can be an essential part of patient care. However, operating rooms account for up to one third of total hospital waste¹. Some of the main sources of waste are disposable materials and single use devices¹. In 2022, we used approximately 5700 bags (Figure 1).

Our original project aim was to reduce our plastic bag usage by 50%.

Methods:

- We used the PDSA (Plan-Do-Study-Act) model for improvement.
- With engagement from key interested parties (leadership, aides, nurses, etc.), we enacted changes in our current practice (Figure 2).
- Bag usage was tracked for a total of 5 weeks.

Figure 2: High level overview for process of day surgery patient, with changes shown in purple.

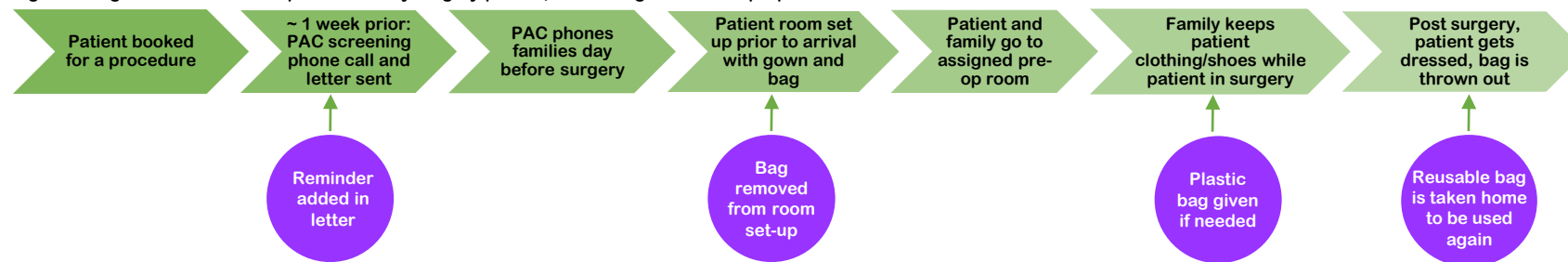
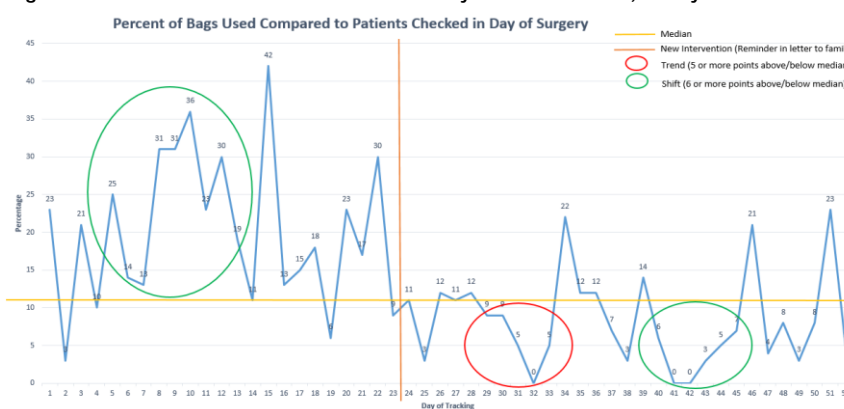


Figure 3: Run chart of our tracked results. PDSA cycle one on the left, and cycle two on the right.



Results:

Pre-Implementation:

- 100% of patients received a plastic patient belonging bag.

Post-Implementation:

- PDSA Cycle 1: 19% of patients on average requested a plastic patient belonging bag (Figure 3).
- PDSA Cycle 2: 8% of patients on average requested a plastic patient belonging bag (Figure 3).

Next Steps:

- We have received some initial survey responses from staff/families. We will continue receiving feedback to further guide this project.
- Add BYOB reminder to PAC screening phone call.
- Remove all bags and give pillow cases to use as back up.