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Introduction

- Uterotonics are essential medications to control obstetric hemorrhage.
- Commonly used uterotonics include Carboprost (USD 3728.28/10ml), and Methylergonovine (USD 175.48/10ml)
- These medications increase the uterine tone and control hemorrhage daily in OB anesthesia.
- However, they are heat-labile and cannot be kept outside the refrigerator for a long time. The stability of these medicines outside the refrigerator is 24 hours.
- If left out of the refrigerator beyond 24 hours, the potency of these drugs diminishes.

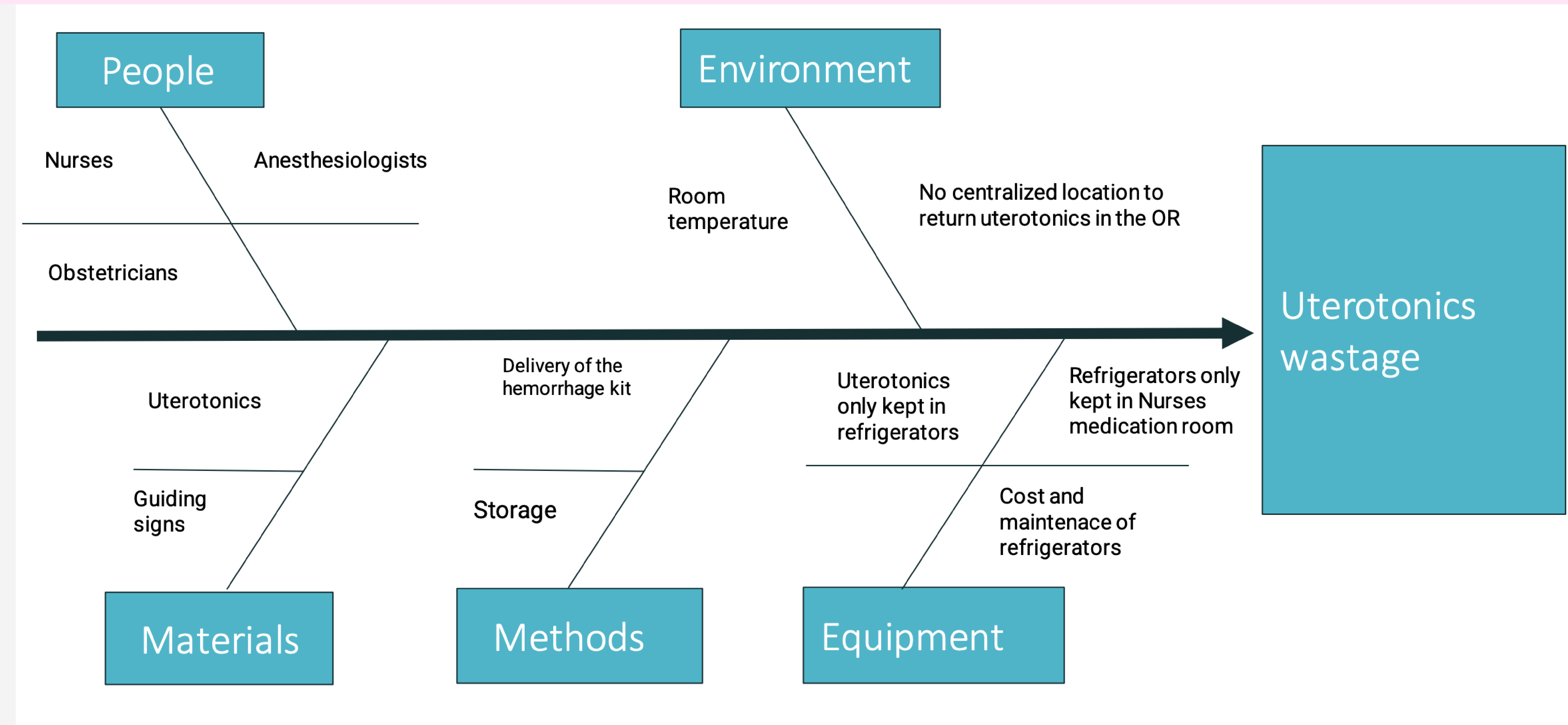


Medications found left in the L&D ORs

Problem

- Over the period of Jan 2020 to May 2020, our institution incurred a loss of roughly around **a quarter million USD** due to Methylergonovine and Carboprost wastage.
- These drugs were left behind at room temperature in the OR for anticipated hemorrhage and never returned to the refrigerator.
- In our institution, the hemorrhage kit contains both Methylergonovine and Carboprost, implying that if only one is used, the other goes to waste.

Fish Bone Diagram



Aim Statement

- To reduce uterotonic wastage to 50% from Jan 2021 to May 2021 compared to Jan 2020 to May 2020.

Our Intervention

- We used colored laminated signs to remind the residents, nurses & other staff in the OR to return the uterotonic to the refrigerator after surgery.
- Placed visual reminders /signs on L&D ORs and near pyxis machines in February 2021.
- we instructed the nurses to bring uterotonics into the OR only when necessary.
- Furthermore, Emails to OB anesthesiologists, residents, and nurses to improve communication and got feedback.

**BEFORE YOU LEAVE THE ROOM:
DID YOU REMEMBER TO RETURN
UNUSED UTEROTONICS?**



**PLEASE BE MINDFUL OF RETURNING
UTEROTONICS TO THE FRIDGE!**

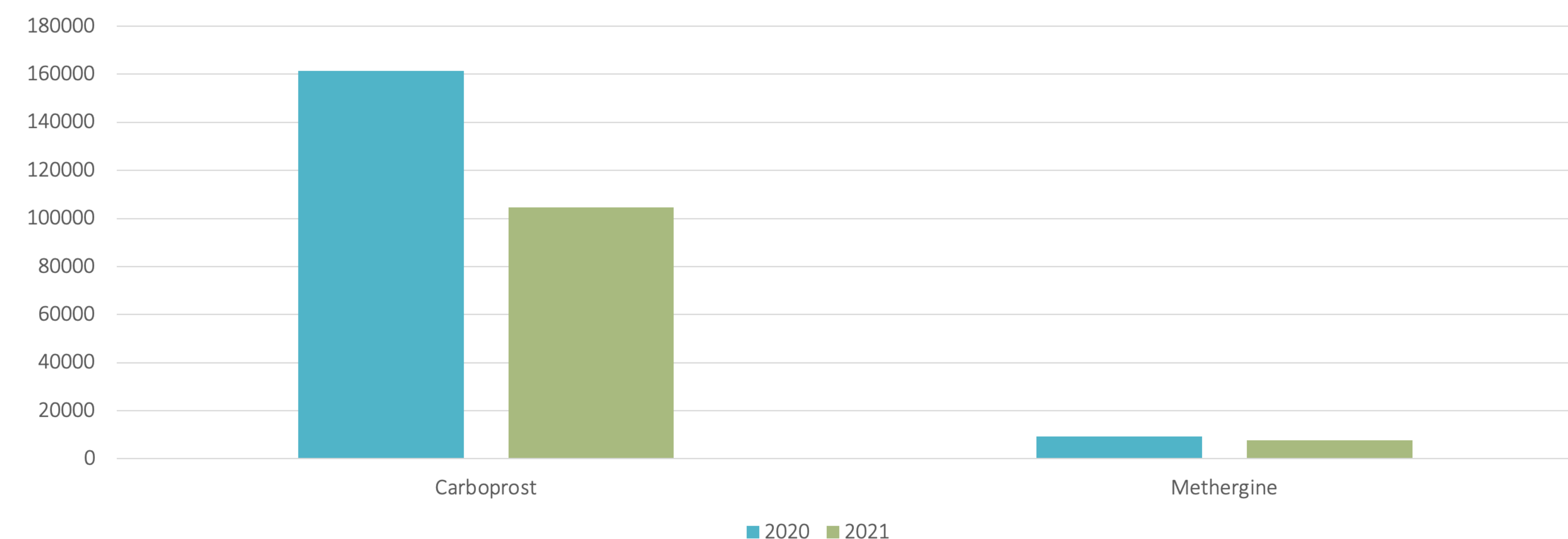
Results

- If we compare the cost of uterotonics wastage by the same months, Jan-May 2020 to Jan-May 2021: there is a significant decrease in the Carboprost wastage by 35% and methergine wastage by 18%, with a total decrease of 35%.
- However, if we compare the wastage in the six months prior to our intervention and during the intervention, there was an increase in Carboprost wastage by 100% and methergine wastage by 18%, with a total increase of wastage by 81%.

Uterotonics wastage Jan-May 2020 Vs 2021 by percentage change

	Jan-May 2020 \$	Jan-May 2021 \$	% Change
Carboprost	161397	104639	-35 %
Methergine	9365	7647	-18 %
Total	170762	112286	-34%

Uterotoincs Cost \$-Jan-May 2020 Vs 2021



Literature Citation

Best Pract Res Clin Obstet Gynaecol, 2019 Nov;61:3-14., Anesthesiol Clin, 2017 Jun;35(2):207-219

Conclusion

Our intervention successfully lowered Methylergonovine and Carboprost wastage in the same months if we compare 2020 to 2021. However, we were not able to decrease the wastage compared to the previous six months (June to November 2020). This may be due to,

- Indication for Uterotonics usage by an obstetrician is subjective.
- Patients' numbers and bleeding rates vary from month to month, which we cannot control.

In the future, we could implement other interventions like,

Placing the refrigerator near the to the OR. Bring uterotonics in the icebox and keep it in the OR until needed. A hemorrhage kit could have only one uterotonic, so we do not waste the other if we use one.

