

Impact of Pharmacist Services Targeting Medication Safety and Patient Education in a Perioperative Setting

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Background

The implementation of a clinical pharmacist position in the perioperative setting is supported within the American Society of Health System Pharmacists (ASHP) guidelines due to mounting evidence advocating for pharmacist involvement in the care of surgical patients.¹ Pharmacists are finding roles in this setting by promoting safe medication use, encouraging medication cost-savings strategies, providing postoperative medication education, and assisting with protocol development.^{1,2,3}

In the postoperative setting, a pharmacist can improve pain management strategies by utilizing multi-modal pain therapies, thereby reducing length of stay for patients, and increasing cost savings. One study found postoperative opioid use was associated with a 55% increase in length of stay, a 36% increase in risk of readmission, and a 47% increase in cost of care.³ Proper patient education and medication distribution at discharge is another valuable service that pharmacists can provide postoperatively. The Meds-2-Beds (M2B) program at St. Peter's Health has been successfully implemented for a single surgeon and delivers education and medications to patients at the bedside post-surgery. The implementation of this program has made a positive impact on both patient and provider satisfaction. Expanding the M2B service to more surgeons is expected to continue to increase overall satisfaction and improve patient understanding and adherence with medications after surgery.

Objectives

Primary Objective: To evaluate the impact of pharmacist services targeting medication safety and patient education in a perioperative setting

Secondary Objectives:

1. Assess for appropriate perioperative antibiotic therapy
2. Assess impact of expanding Meds-2-Beds service to a majority of surgeons
3. Evaluate postoperative complication prevention
4. Track pharmacist time spent and impact of medication safety interventions
5. Identify areas of improvement for postoperative recovery

Identified Areas of Impact

Perioperative antimicrobial stewardship

Advancing protocol, polices, and guidelines

Expansion of bedside medication delivery service

Medication safety management

Standardization of perioperative medication management recommendations

Assessment of high-cost medication utilization

Medication related clinical interventions

Optimizing postoperative recovery

Patient medication education

Methods

Phase I:
Project Development
August – October

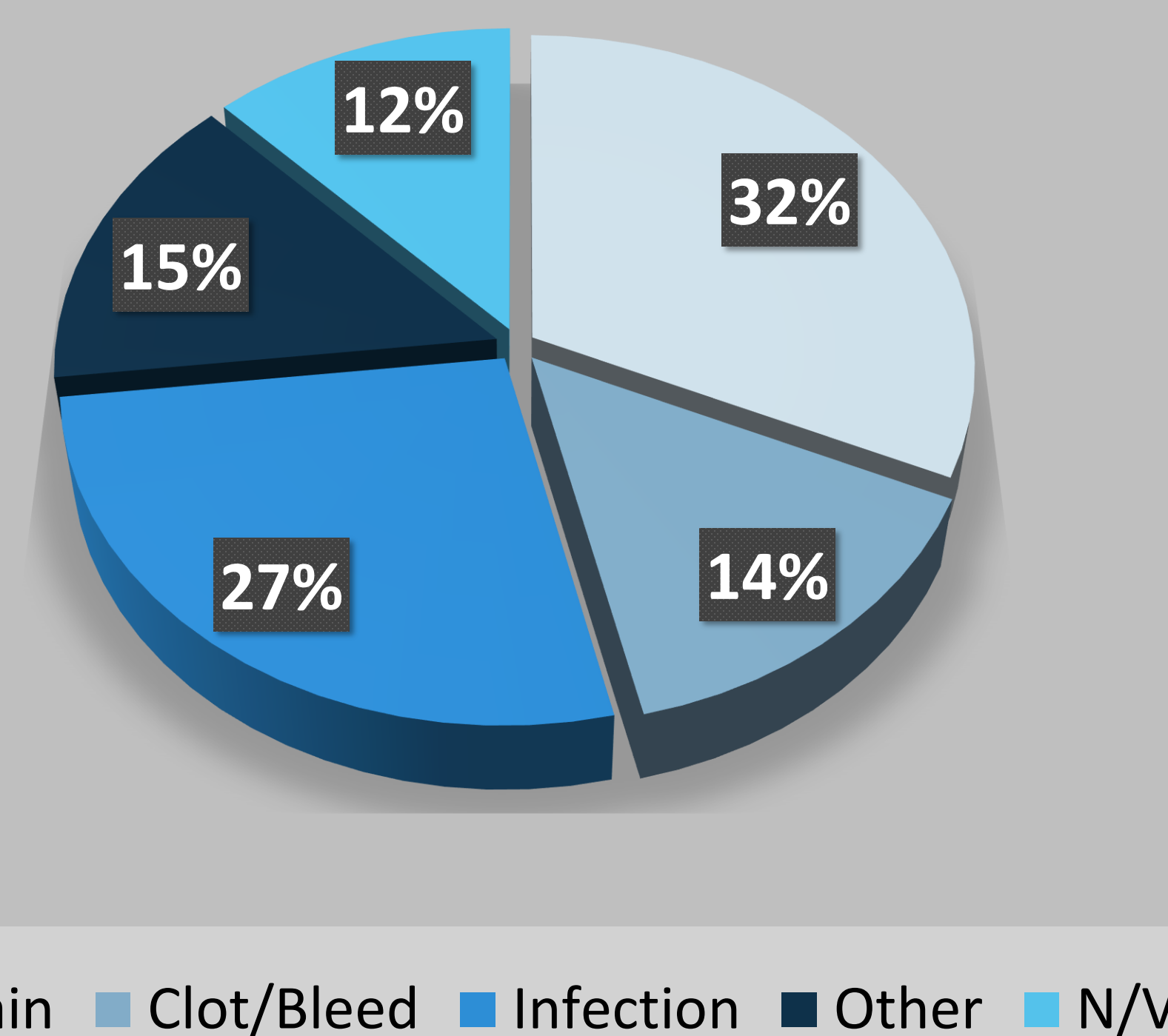
Phase II:
Project Implementation
November - March

Phase III:
Final Data Analysis
April -May

Phase I: Project Development

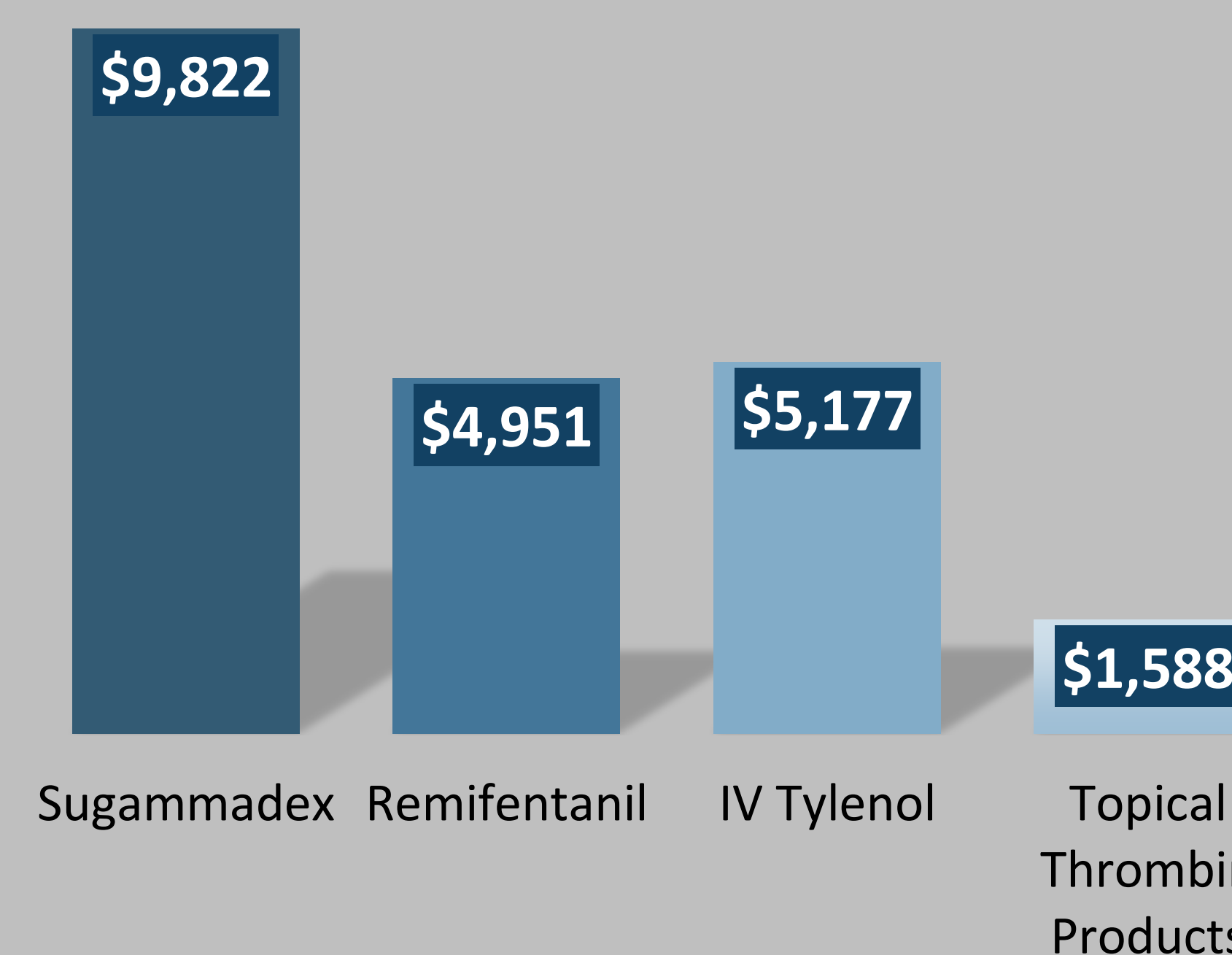
Baseline data was collected regarding readmission to St. Peter's Hospital after any kind of surgery. Data was collected from September 2022 to October 2022 and included a total of 37 patients. Cases were assessed for readmission reason and potential impact an OR pharmacist could have on outcomes.

Post-op Readmissions Reasons



High cost medications used in the operating room at St. Peter's Hospital were evaluated. Data was collected from March 2022 to October 2022.

High Cost Medications in the OR



Phase II: Project Implementation



Protocol Development

- Develop and implement a variety of protocols related to the perioperative setting



Cost Savings

- Assess areas where cost savings can occur



Pharmacist Involvement

- Identify areas for pharmacy to assist the perioperative healthcare team



Meds-2-Beds Program

- Expand program to more surgeons

Implementation of services will take place during an 8-week pilot

Phase III: Final Data Analysis

After initial 8-week project implementation pilot phase

- Define the impact that a pharmacist had in the perioperative setting
- Provide cost savings analysis
- Compile medication safety intervention data
- Present data compilation to hospital leadership

Proposed Perioperative Pharmacist Responsibilities

Roles and Responsibilities:

- Develop policies and protocols
- Discharge medication counseling
- Perioperative antimicrobial stewardship
- Side effect management postoperatively
- Continuous quality improvement
- Cost savings analysis
- Clinical interventions

Discussion

Utilizing a clinical pharmacist to staff and assist with perioperative management will impact patient care, support perioperative staff, and improve the overall integrated care process. The purpose of developing and implementing this position will be to offer better care, support services, and to improve patient outcomes.

References

1. ASHP guidelines on Perioperative Pharmacy Services. (n.d.). Retrieved August 26, 2022, from <https://library.smh.com/sites/default/files/ASHP%20guidelines%20on%20perioperative%20pharmacy%20services.pdf>
2. Keicher PA, McAllister JC 3rd. Comprehensive pharmaceutical services in the surgical suite and recovery room. Am J Hosp Pharm. 1985 Nov;42(11):2454-62. PMID: 4073062.
3. Brittany Johnson, P. D. (n.d.). Pharmacists' role in the management of Perioperative Analgesia. Pharmacy Times. Retrieved August 25, 2022, from <https://www.pharmacytimes.com/view/pharmacists-role-in-the-management-of-perioperative-analgesia>

Author Disclosures

Authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation: Alara Vogel: Nothing to Disclose, Ceder Dorrington-Thacker: Nothing to Disclose Channa Richardson: Nothing to Disclose, Erin Carpenter: Nothing to Disclose, Shayla Barraclough: Nothing to Disclose.