

Pediatric/PICU Satellite Pharmacy:

A Business Plan Proposal for Patient Safety and Affordability

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KAISER PERMANENTE LAMC, PEDIATRIC INTENSIVE CARE UNIT

EXECUTIVE SUMMARY: BACKGROUND

- ❖ The Joint Commission sentinel events reported that failure in communication was the root cause of human errors (1995 - 2005)
- ❖ Geographical relocation of PICU
- ❖ Bed capacity double and acuity is higher
- ❖ Teamwork is an important factor in patient safety.
- ❖ Ineffective teamwork and teamwork behavior compromise patient safety.

EXECUTIVE SUMMARY: GOALS

- ❖ To provide a Pediatric Satellite Pharmacy (PSP) to the increasing pediatric and neonatal population.
- ❖ Establish patient safety through timely dispensing, delivery and administration of medication.
- ❖ Discuss the reasons for delayed medication administration
- ❖ Describe the importance of PSP to patient safety, customer service and the organization.
- ❖ Assess the strategy for success and Return of Investment (ROI).
- ❖ Assess financial feasibility of PSP

EXECUTIVE SUMMARY: PURPOSE

- ❖ Historically, PSP has been part of PEDS, PICU and NICU
- ❖ Sentinel event by The Joint Commission (TJC) Issue 30,2008. *Preventing Pediatric Medication Error*
- ❖ TJC 2013 NPSG.03.05.01 to reduce the likelihood of harm associated with anticoagulant therapy NPSG.03.06.01
- ❖ Streamline medication delivery and administration
- ❖ Current data shows there is a delay in medication delivery to PICU causing delay in medication administration to patients

EXECUTIVE SUMMARY: PROPOSAL

- ❖ To open a PSP to meet the clinical needs of acute and long term medication needs of the pediatric population
- ❖ The proposed PSP will be open ten hours per day, seven days per week.
- ❖ This PSP will be staffed by a Pediatric Pharmacist and a pharmacy technician



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CURRENT PROCESS

- ❖ Pediatric medications are processed in the main pharmacy through HealthConnect.
- ❖ Medications are delivered from the pharmacy.
- ❖ Delay in medication administration
- ❖ Pyxis machines unable to stock medication needed
- ❖ Hospital policy states that medication must be administered 30 minutes before and 30 minutes after the scheduled time of administration

ORGANIZATIONAL PROFILE

- ❖ Type of organization
- ❖ Hours of operation
- ❖ Department and Leadership involvement
- ❖ Scope of service line: Benefits and Clients served
- ❖ Location of business
- ❖ Description of business plan
- ❖ Profit status

METHODOLOGY

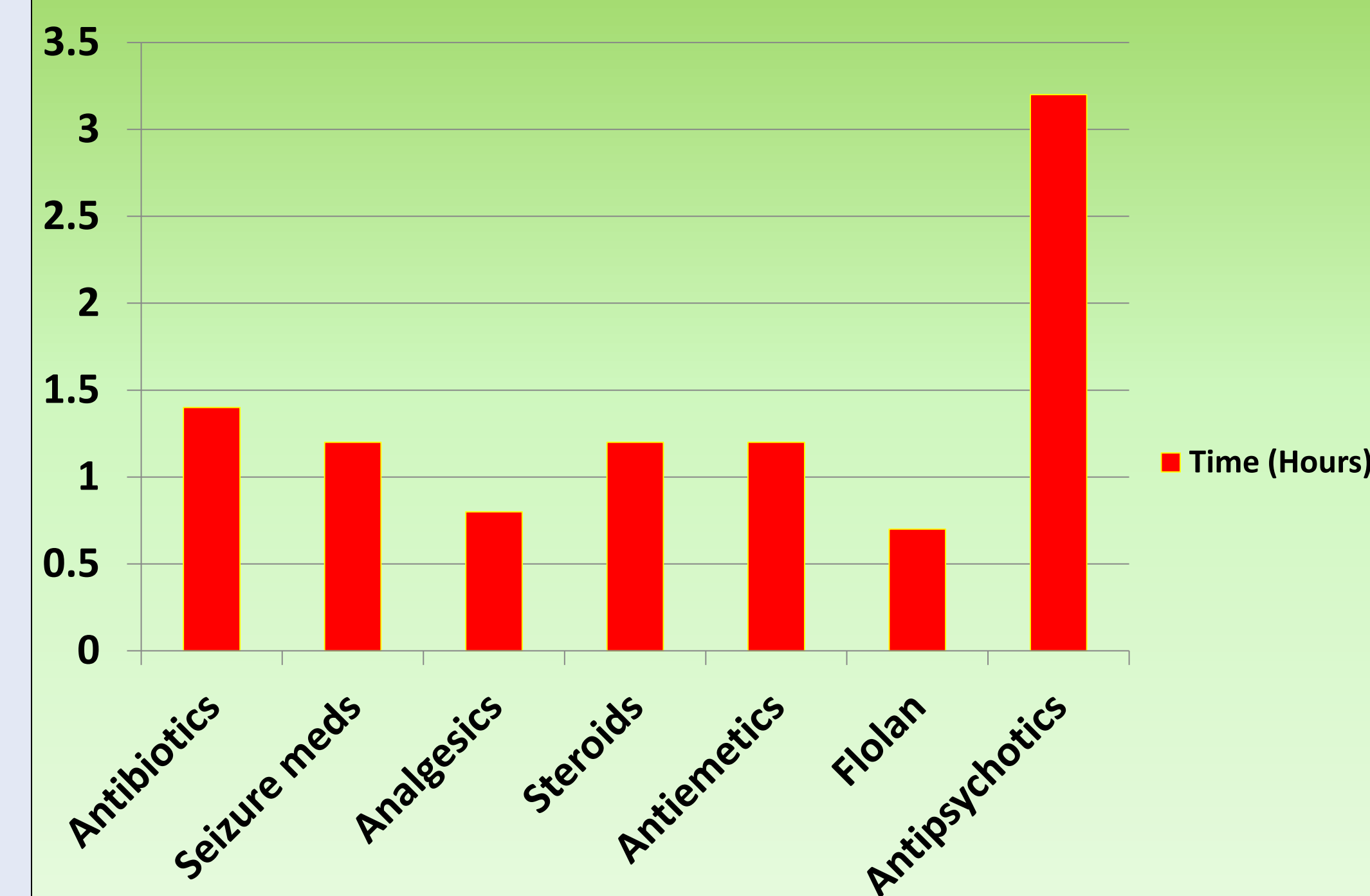
- ❖ The staff were informed of the purpose of the survey for one week during morning and evening huddle.
- ❖ The staff was informed that the survey will be conducted for three weeks.
- ❖ A binder was placed on each side of the unit for the nursing staff to document the date, medical record number, the missing scheduled medication, administration time, time pharmacy was notified, medication arrival time, actual time medication was given and comments.

REASONS FOR DELAY

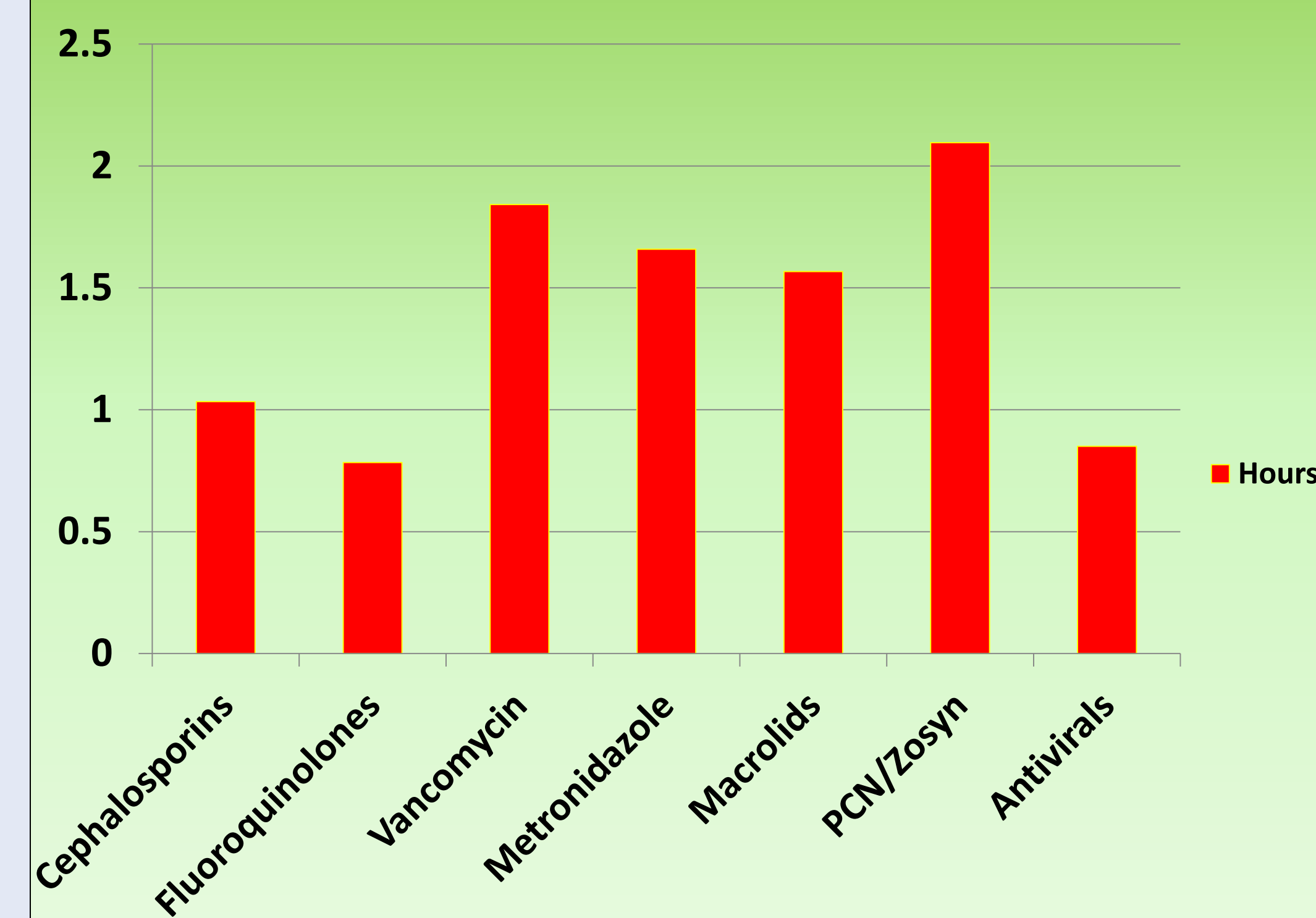
- ❖ "Not stocked in pyxis"
- ❖ "Checked all bins, message saying tube"
- ❖ "All bins checked, then sent message to pharmacy"
- ❖ "Delay in reading notification"
- ❖ "Medication was delivered to med room"
- ❖ "Takes over one hour to send critical med"
- ❖ "Message sent x 2"
- ❖ "Notified twice, had to get med from pharmacy"
- ❖ "Med delivered by tech"

RESULTS

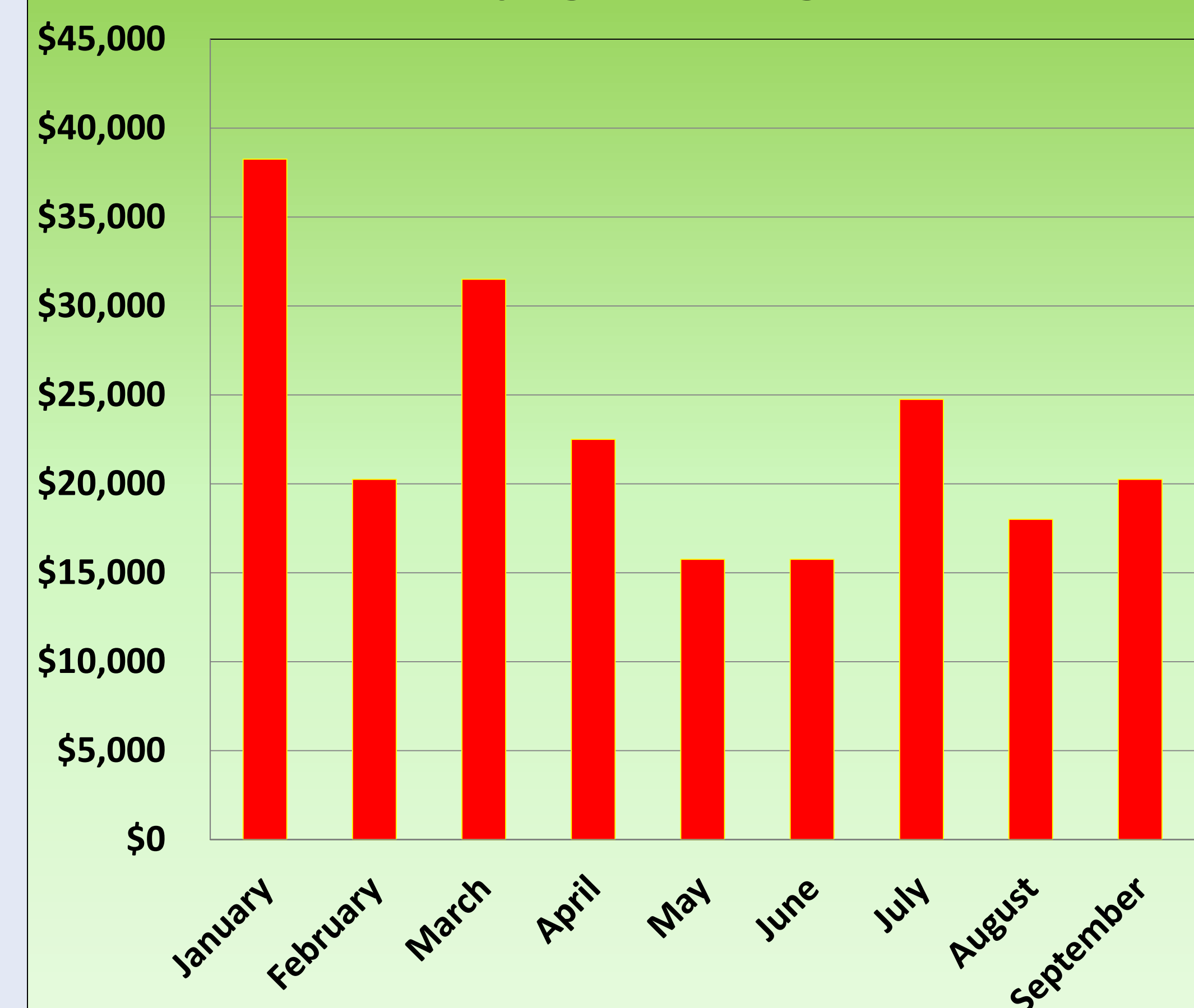
Time to Administer Scheduled Medications



Time to Administer Scheduled Antibiotics



Neupogen Savings



AFFORDABILITY

❖ NURSING TIME ESTIMATE:

- Average number of RN staffed in PICU = 10 RNs/shift x two shifts = 20 RNs/ 24 hours
- Low estimate of RN time = 10 minutes
- 10 minutes x 20 RNs x 7 days/week = 1400 minutes/ week = 23.3 hours/week
- Average RN salary = \$50.00/hour x 23.3 hrs/ week translates to \$1165.00/month
- **Annualized cost = \$ 55,920.00/ year**

❖ PHARMACY TIME ESTIMATE:

- Time pharmacy spends to respond, email, call and discuss with 20 RNs/ day in PICU alone Multiple doses are prepared.

❖ NEUPOGEN COST: Patients sent home on Neupogen vial instead of unit dose

- **Total saving with vial vs. unit dose: \$ 156,555.00**

OPERATIONAL PLAN

- ❖ Human Resources
- ❖ Staffing: Clinical Pharmacist fulltime vs. part time
- ❖ Compensation: salary rate, benefits, job description. (Current starting salary for Pediatric pharmacist \$ 133,000)
- ❖ Roles and responsibilities
- ❖ Pediatric pharmacist policies and procedures
- ❖ Licensure

FINANCIAL PLAN

- ❖ Balance sheets and income statements: assets and liabilities
- ❖ Cash flow
- ❖ Start-up cost
- ❖ Educational expenses
- ❖ Insurance and capital cost for pharmacy office

OPERATIONAL ACTION PLANS

- ❖ Proposal has been presented to Quality, Risk Management, Pharmacy and Executive Leadership
- ❖ Multidisciplinary approach to feasibility, ROI, and operational strategies of the business plan proposal is currently being analyzed.