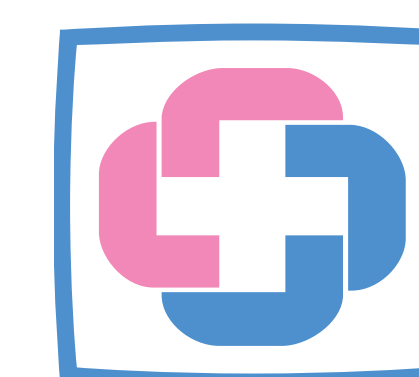




Singapore Healthcare
Management 2019

Identifying Medication Gaps in Intermediate Long Term Care for Children with Medical Complexity

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Introduction

Children with Medical Complexity (CMC) are characterized by chronic conditions, functional limitations, technology dependence, and high health care utilizations. Extra time, expertise, and resources are necessary to achieve optimal health outcomes for these children.¹ These children are medically fragile and have the most intensive healthcare needs. These children are often on multiple medications and taken care of in the Intermediate and Long Term Care (ILTC) setting. Nurses are the main caregiver for these patients and our team aims to explore the challenges faced by the nurses in caring for CMC, especially in terms of their medication management.

Methodology

A questionnaire was developed to explore the challenges faced by ILTC nurses in caring for CMC. This questionnaire is subsequently validated by homecare nurses in KK Women's and Children's Hospital (KKH) before being distributed to the ILTC nurses. 27 ILTC Nurses from different sectors (hospital, community hospital and hospice) are randomly selected. Responses were collected through an anonymous internal survey as well as hardcopy forms during site visits. Where possible, short interviews via e-mail and verbal conversations were also captured to gain deeper qualitative responses.

Results

All 27 nurses responded to the questionnaire within the 3 month period (September 2018 to December 2018).

3 key findings were identified.

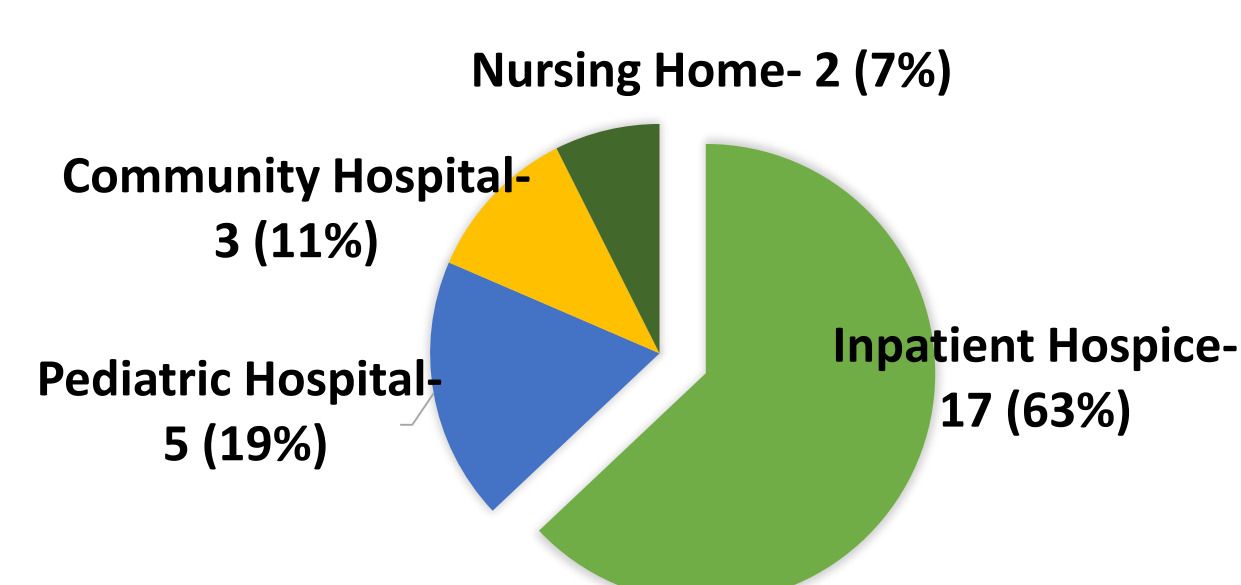


Figure 1. Workplace of ILTC Nurses who responded

#1 Most Nurses tend to consult Doctors for Medication Enquiries

HOW OFTEN DO THE NURSES CONSULT THESE HEALTHCARE PROFESSIONALS FOR MEDICATION ENQUIRIES? (N=27)

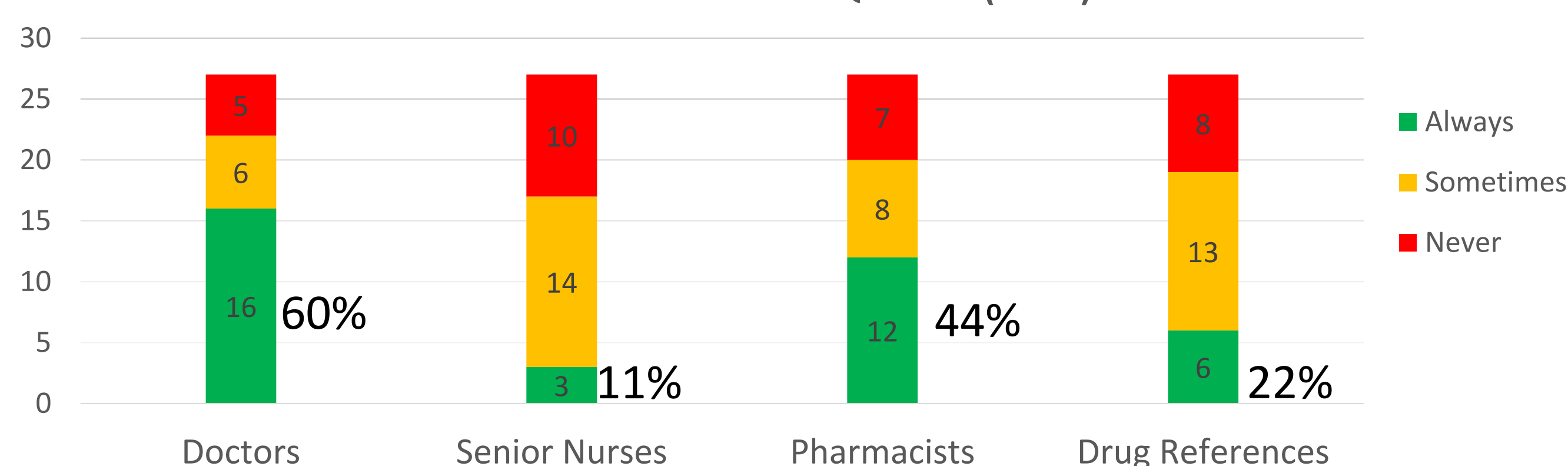


Figure 2. How often do the Nurses consult these Healthcare Professionals?

85% of the ILTC Nurses reported that they always receive satisfactory answers from Pharmacists. Despite this, 60% always consult Doctors for medication enquiries, whereas only 44% will always consult Pharmacist. Some possible reasons for this include:

- **Lack of pharmacy support in ILTC transition**
45% reported that pharmacists are not easily accessible within institution or via hotline
- **Faster clarification can be done through the Doctors**
- **Lack of awareness of Pharmacist's role in a multi-disciplinary healthcare team**

Results

#2 Most Common Medication Enquiries: Drug Interactions, Indication and Adverse Drug Reaction

TYPES OF MEDICATION ENQUIRIES (N=27)

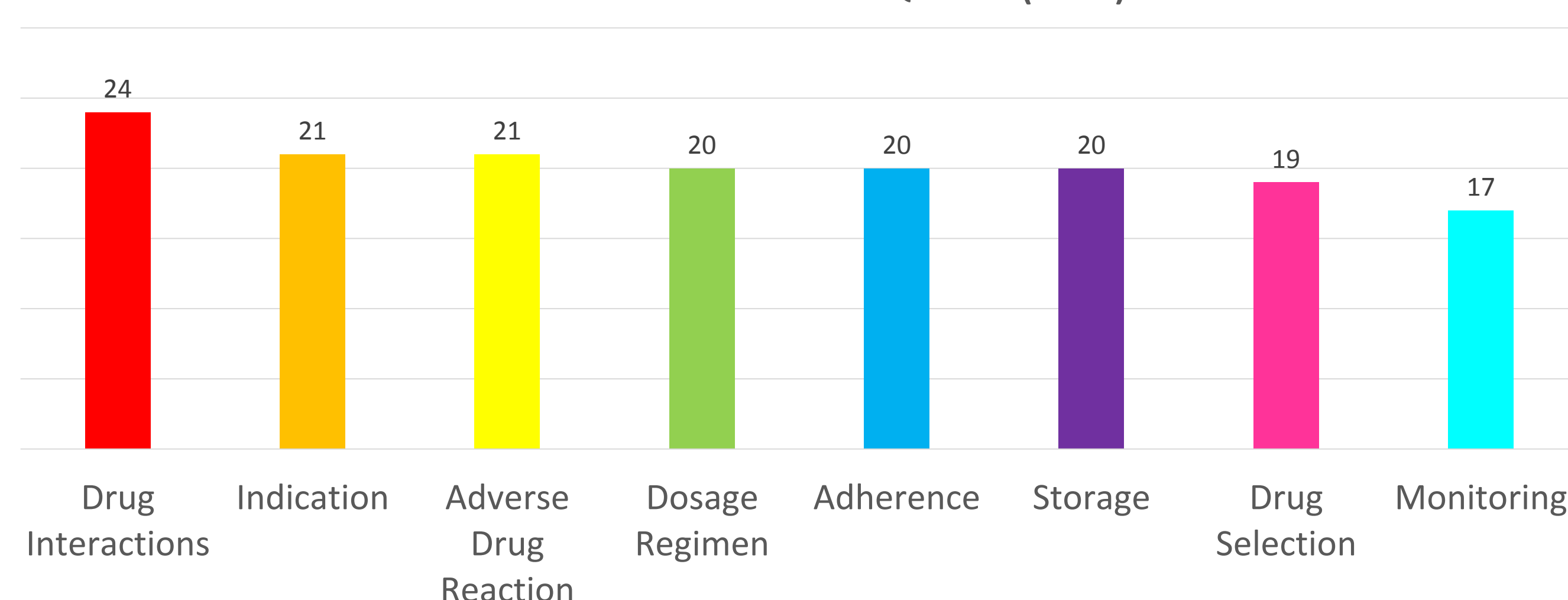


Figure 3. Types of Medication Enquiries

As a whole, there was a wide variety of medication enquiries that the nurses had. This shows a need for a coordinated care and support for medication-related issues for CMC.

Interventions can be prioritized to tackle the most common medication enquiries encountered and areas most relevant to pharmacist's expertise.

#3 Nurses appreciate Pharmacists' Help in Medication Reconciliation, Drug Procurement and Supply

AREAS THAT NURSES APPERCIATE PHARMACISTS' HELP

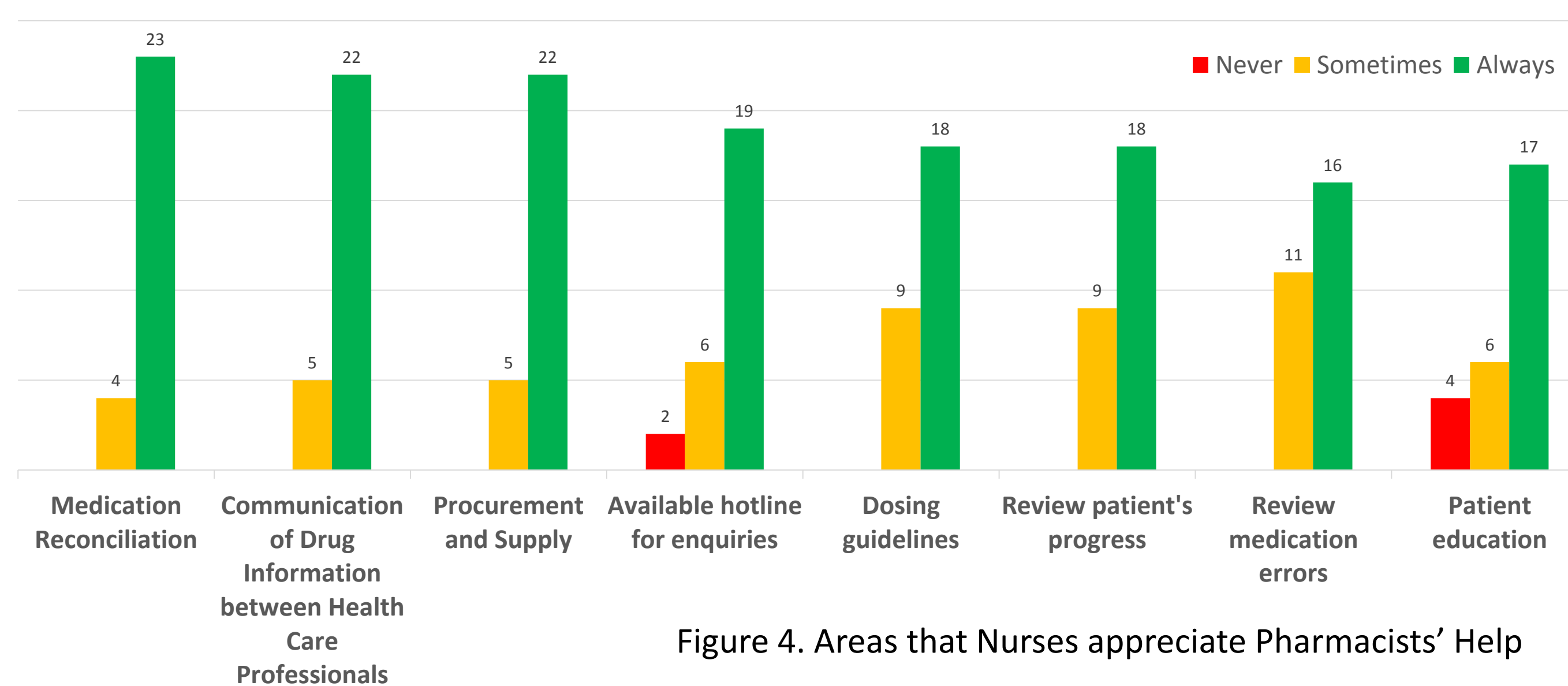


Figure 4. Areas that Nurses appreciate Pharmacists' Help

Nurses shared that difficulties in medication reconciliation performed by Non-Pharmacy staff include:

- Parents giving **medication and supplements not listed in the medication list**
- **Lack of documentation and awareness** on which Doctor or speciality started or stopped the medication

Conclusion

There can be more proactive involvement from the Pharmacists in ILTC areas for CMC. Possible high-impact interventions may include:

- Pre-clinic outpatient medication reconciliation (via Telepharmacy)
- Reinforcement of utilizing updated Patient's Medication List (PML)
- Streamlining medication dispensing (Pre-plan discharge, caregiver education during inpatient ward stay)

Extending questionnaire to caregivers may be considered to identify medication management gaps in patients who are being looked after at home.

¹Cohen E, Kuo DZ, Agrawal R, et al. Children with medical complexity: an emerging population for clinical and research initiatives. Pediatrics. 2011;127(3):529-538.