



Introduction

The National Pharmacy Strategy (NPS) is a 10-year plan to transform the delivery of pharmaceutical care and medication management in Singapore. Establishing the model of person-centric pharmaceutical care in the community care setting is an approved initiative that will support MOH's **Beyond Hospital to Community**.

A proof-of-concept study involving community pharmacists delivering Pharmaceutical Care Services (PCS) to seniors in different community-based care service facilities within the central region was conducted.

The National Pharmacy Strategy



Objectives

The key objectives of the study were to identify medication-related issues in the community and to establish PCS workflow in empowering seniors and caregivers to manage their medications independently and safely.

Method

1 to 1

Pharmacist consultation with seniors and/or caregivers



- ✓ Understand the challenges faced by seniors and caregivers with medications given by various prescribers when they are at home
- ✓ Engage seniors and caregivers to develop a **personalised plan to take their medications**
- ✓ Coordinate with **multi-disciplinary care team across care settings**
- ✓ **Follow-up** with seniors and caregivers until all medication-related problems were resolved. If no MRP, seniors were discharged from study.

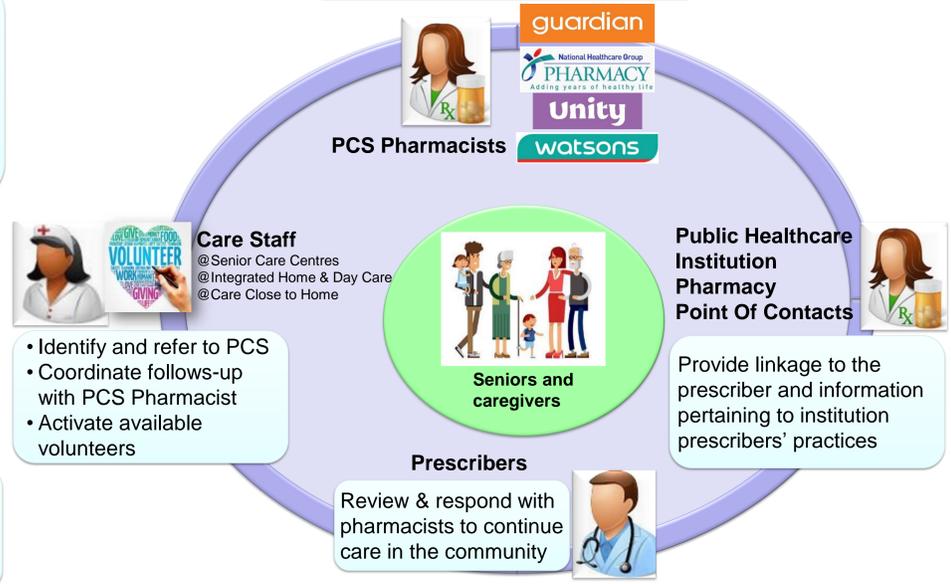
IT List	Medication Name	Instructions	Duration / Qty	IT Facility
28-Aug-2018 - Owned - Dr. Li Lee	FRUSIQUONE TABLET	800MG -ORAL - 2 TIMES A DAY	4 / 16 TABLET	NUH
	ATENCLOL DOPAMINE TABLET	300MG -ORAL - 2 TIMES A DAY	4 / 16 TABLET	NUH
	ESALIPRIL VALERATE LONG TABLET	300MG -ORAL - EVERY MORNING	4 / 16 TABLET	NUH
05-Sep-2014 - Owned - Dr. Li Wang	FRUSIQUONE TABLET	800MG -ORAL - 2 TIMES A DAY	4 / 16 TABLET	NUH
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Patient's Medication List	
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- ✓ Leverage **National Electronic Health Records (NEHR)** to **securely communicate** seniors' medication list and plan with healthcare professionals **across care continuum**
- ✓ Empower seniors and caregivers with information about their own medications (both hardcopy printout and electronic **HealthHub** medication list were shared)

Person-Centred PCS Model



Results

155 seniors in **8** locations have benefitted from the service

Average age 76 years

Gender: 55% Male, 45% Female

7 Chronic medical conditions

9 Daily medications

12 Daily doses of medications

100% seniors Provided with their own medication list and agreed pharmaceutical care plan

61% seniors Have medication-related problems requiring pharmacists' intervention

227 Medication-related problems (MRPs)

Type of MRPs:

- Omission of medications
- Not taking medications as prescribed
- Taking unnecessary medications

Resolved by:

- 43%** Education and counselling to empower seniors and/or caregivers to self-manage medications (by PCS Pharmacist)
- 17%** Referred to centre based services (Medication assistance, Medication packing, Medication administration) (by Center staff)
- 14%** Referred to prescriber (Simplify medication regimen to improve adherence) (by Prescriber)

Caused by:

- 26%** Need changes to medication/monitoring
- 74%** Lack of understanding on why, when and how to take and store

Clients' Stories

Uncle K, 81 yr old male

- Unable to perform hand stretching exercises post-stroke as it was too painful for him to wear hand splint
- He refused to take oral pain medication as he was on many other medications

Education & empowerment

- ✓ Based on Uncle K's preference, pharmacist advised Uncle K to administer pain relieving patches before his stretching exercises.
- ✓ Uncle K was able to wear his hand splint and resume rehab exercise as recommended by his physiotherapist

Mdm Y, 72 yr old female

- Mdm Y's daughter brought her to eye doctor's visit and did not hand-over newly prescribed eye drop for glaucoma to her son (main caregiver)
- Her son continued to apply eye drop that was discontinued

Bridging communication gaps

- ✓ Pharmacist identified the discrepancies and worked with the son to find the missing eye drop
- ✓ Pharmacist helped to liaise with centre nurse to arrange for application of afternoon dose of the new eye drops for Mdm Y when at the centre

Uncle A, 82 yr old male

- Centre nurse was concerned as Uncle A's routine blood pressure (BP) were high despite taking medications regularly
- He did not show any signs and symptoms of unwell.

Collaboration with Public Healthcare Institution (PHI) to provide care in community

- ✓ Pharmacist discussed Uncle A's BP trend and condition with prescribing doctor through **PHI pharmacy point of contact**
- ✓ Doctor advised to monitor Uncle A till scheduled appointment 3 weeks later. No need for an additional or earlier doctor's visit.

Feedback

Seniors & caregivers: "Felt engaged and empowered to be able to discuss about my medications"

Centre doctor: "Pharmacist has a role to play in counseling clients (in the day care centre) especially about new medications and what to look out for"

Centre staff: "Satisfying to have the opportunity to work hand-in-hand with centre staff to resolve client's issues"

PCS Pharmacist: "Pharmacists are helpful in liaising with healthcare institutions or other healthcare professionals"

Conclusion

The study showed that seniors and caregivers experienced challenges in handling medications which could impact medication safety. These challenges could be addressed by empowering them with tailored solutions to meet their medical-social needs and communicating with their prescribers. The study also established the PCS workflow to connect back to the seniors' prescribers through public healthcare institutions pharmacy point of contact, which would ensure continuity of care for the seniors.

Next step:

A 3-year island-wide study will commence from 2020 to establish sustainable solutions in empowering seniors and caregivers to manage their medications independently and safely within the community.

