# PHARMACY SERVICE DEVELOPMENT IN THE COMMUNITY: THE IMPLEMENTATION OF PHARMACY AUTOMATION IN THE REHABILITATION SETTING

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TUNG WAH GROUP OF HOSPITALS



#### CONTENTS

- Current situation of medication management in the rehabilitation setting and old-aged homes
- The Centralised and Computerised Medication Management System (CCMMS) at the Jockey Club Rehabilitation Complex (JCRC)
- Role of pharmacist in the rehabilitation sector
- Future service developments





Tung Wah Group of Hospitals

- Insufficient pharmacist participation in old aged homes and rehabilitation setting
  - Pharmacists are available as visiting basis only; lack of in-house pharmacist
  - Lack of pharmacist involvement in special populations e.g. mentally challenged service users













Date Start 開始時間	Drug 現服療物	Dosage 開景	Preq. 次數	Route 途径	Source 鑑方來源	Date	1	2	3	
	Out-inide	100				08:00 12:00				
	Sulpiride	100mg				-	Н		Ш	
	50mg	(2 cap)	NOCTE		WPC	17:30	Ш		Ш	
16.4.2018			(REDTIME)	P.O.	VPS2	21:00				
						08:00				
	Diazepam	5mg				12:00				
	5mg	(1 tab)	NOCTE		WPC	17:30				
16.4.2018			(REDTIME)	P.O.	VPS2	21:00				





健康 視窗

#### 囤積千粒記性差 長者隨時食錯藥

【本報訊】「年紀大,機器壞」,身患多種慢性病的長者,每日要服多種藥物,家中可能囤積逾千粒藥,隨時「食錯藥」引致不必要副作用,甚至致命!多個藥劑師團體近年推出針對安老院舍長者的「藥劑師到節服務」,由藥劑師協助長者整合藥物及調整劑量,自二〇一〇年起,已服務逾百間院舍,逾一萬名長者受惠。

香港醫院藥劑師學會會長崔俊明表示,不少長者到公立醫院門診覆診時, 會一次獲發半年藥物,動輒逾千粒,不 論長者或安老院舍職員都難以掌握藥物 類別及服用劑量,「好多長者會歸勾普 通科,專科同私家醫生,好多藥都重

論長者或安老院含職員都難以掌握維物 類別及服用劑量、「好多長者會睇勾書 複,尤其止痛藥,食太多會傷胃。」他 指曾有患思覺失調的安老院長者,因服 藥過量引起肌肉及行動受阻問題。

#### 藥劑師到訪「執靚」藥單

香港醫院藥劑師學會、香港執業藥劑師協會及香港藥學會等多個組織,二 〇一〇年起推出藥劑師到訪服務,由藥劑師直接到安老院詳細了解及整理長者所服的藥物。曾受訪的一萬名長者中,八成需要整合藥物,即找出重複藥物、分辨不同藥物、「執觀」每日服藥藥單等,另有六成人須詢整藥物劑量。

有社區藥劑師指,不少長者不按問 服藥及自行減藥,除影響病情,亦愈傷

有社區業劑師指,不少長者不

愈多藥。藥劑業界促請當局增加社區藥 劑師培訓及宣傳,讓藥劑師走進基層, 日後長者有藥物疑難,到就近藥房已可

# 安老院舍分錯藥 15%劑量不符

安老院舍長者服藥過量不自知,尤其常見於止痛藥。香港醫院藥劑師學會聯同藥業組織指出,透過成立藥劑師到訪服務,發現院舍中15%藥物劑量不符, 需致電醫生確認,提醒用藥過量可導致副作用。

記者: 黃琳

香港醫院藥劑師學會會長崔俊明説・曾有一名患上思費







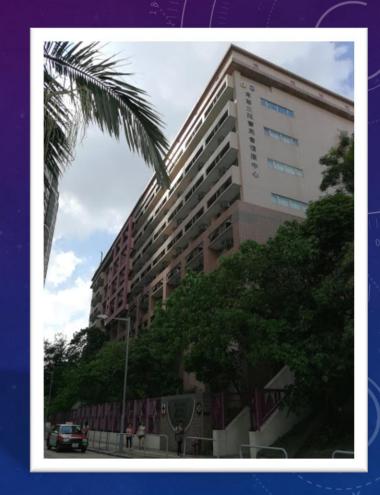




# THE SITUATION AT JOCKEY CLUB REHABILITATION COMPLEX (JCRC)



- Service scope of Jockey Club Rehabilitation Complex (JCRC):
  - Over 1000 service users
  - Distributed among 18 service units according to demographic characteristics
  - Mentally challenged cases
  - Visually impaired senior citizens





- Previously, nursing team are responsible for ...
  - Updating medication profile upon follow-ups or consultations
  - Preparing medications for individual service users according to their medication profiles and corresponding administration times
  - Administering medications and recording on paper drug charts



- The previous medication management process is:
  - Labour-intensive
  - Time-consuming
    - 9 10 nursing manpower equivalent / day spent just on medication management
- Less time could be allocated for bettering care to service users

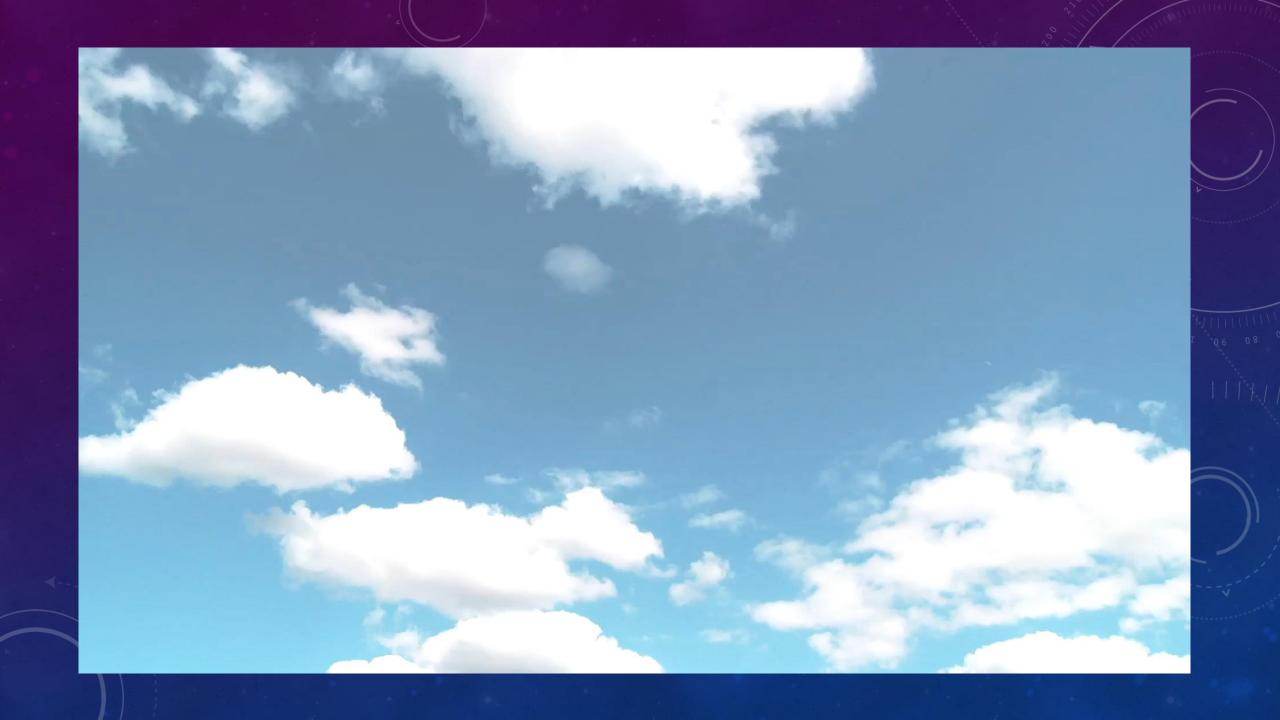


- Motivations to improve the current situation via automation and participation of in-house pharmacist
  - Pharmacist can provide consultation and reconciliation to medication profiles of service users
  - Pharmacist can ensure medication management is up to standard
  - Nursing staff can better focus on providing direct care to service users



- Motivations to improve the current situation via automation and participation of pharmacist
  - Large case load facilitates implementation of Centralised and Computerised Medication Management System (CCMMS)
  - Improve standard of practice with technological advances
  - Recent models on automation inspires improvisation









- Extend pharmacy service from traditional sectors to rehabilitation settings
- Get in touch with special populations with great need of pharmacy service
- Serve as a role model of mega-sized long-term care facility with inhouse pharmacy services



- Utilise current automation technologies on medication management
  - Automatic dispensing machine to pack medications into multi-drug pouches according to drug-taking habits of service users
  - Pouch checking machine to alleviate manual checking stress
- Minimise manual workload and human errors during manipulations



- Actively participate in the development of a close-loop medication administration and pharmacy system
  - Input and update medication profiles
  - Verify drug order entries by pharmacist
  - Generate refill orders to packaging machines for mealtime pouch packaging



#### OTHER ROLES OF PHARMACIST





### ROLE OF PHARMACIST IN THE REHABILITATION SETTING

- Oversee the use of automated re-packaging systems according to guideline requirements
  - Enable robust traceability on medications to be packed to each pouch
  - Pack pouches according to drug rounds instead of unit packs / doses
  - Handle high risk medications e.g. dangerous drugs manually instead of packing through canisters
  - Screen pouches by checking machines and pharmacist verify flagged pouches





## ROLE OF PHARMACIST IN THE REHABILITATION SETTING

- Devise and implement medication supply workflow
  - Repackaging of medications into mealtime pouches according to administration times of individual service users
  - In-house medication distribution via regular refills
  - PRN medications supply on request via pharmacy system





# ROLE OF PHARMACIST IN THE REHABILITATION SETTING

- Reconcile pharmacotherapy in special populations
- Provide training to nursing staff on enhancing drug knowledge
- Provide health promotion to residents / care-givers







- For JCRC:
  - Extend CCMMS to all 18 service units
  - Promote JCRC as a landmark of rehabilitation pharmacy service



For the Southern District community:

 Expand CCMMS to other nearby old aged homes / rehabilitation centres under TWGHs

 Serve community-dwelling geriatric citizens by providing mealtime medication pouches via elderly outreach and home care service teams



- For the pharmacy profession:
  - Perform practice-based research on prescribing patterns and medication-use habits in special populations
  - Nurture future pharmacists-to-be
  - Promote practice changes in medication management in the local community





#### TOGETHER WE CAN MAKE A DIFFERENCE





Tung Wah Group of Hospitals

#### ACKNOWLEDGEMENTS

- Mr. Joseph YUEN
- Ms. Fanny ONG
- Ms. Pancy NG
- Prof. Ian WONG
- Dr. May LAM
- Nursing team at JCRC



# Thank you!

