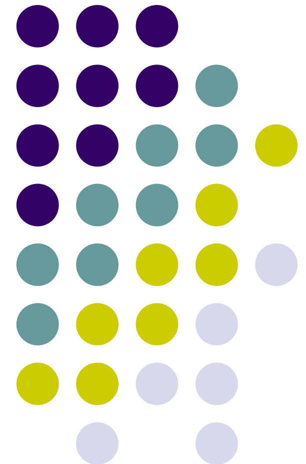
Community Drug Safety Program: Improves Medication Safety in Nursing Homes



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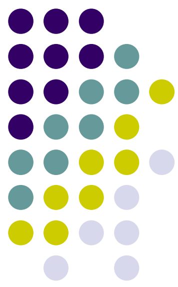
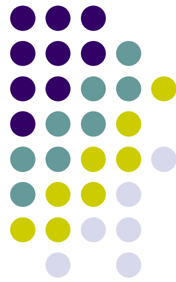


Background

- Ageing population
- In 2006 - 747 residential care homes for elderly (RCHE) caring for 59383 clients
- Over 500 of these homes are privately run
- Quality of care variable
- Staff qualification variable

2005 : news reports on iatrogenic hypoglycemic drug errors



藥劑師轟院舍配錯藥惡化

3種易誤服藥物

藥物名稱	用處	服藥人數	出錯問題
格列本脲 (Glibenclamide)	降血糖藥	一半長者	無糖尿病長者服用後，或服藥過量者，會出現血糖過低而昏迷，影響腦功能。
苯妥英 (Phenytoin)	癲癇藥	1成長者	服用水劑藥前沒有搖勻，變成只服用普通糖水，服用至樽底時又藥效過大；又或保健員依照舊劑量配藥予長者，造成服藥過量或過少問題，出現暈眩、抽筋、昏睡。
華法林 (Warfarin)	薄血丸	2成長者	不同藥份以不同顏色代表，稍一不慎誤服錯誤顏色的藥丸，會出現服藥過量或過少，令服用者內出血或血管栓塞。

資料來源：香港醫院藥劑師學會藥物教育資源中心

【本報訊】安老院派錯降血糖藥導致老人入院的個案愈揭愈多。3個代表全港1,500名藥劑師的藥劑學會昨透露，早在04年港島區至少有6宗因安老院配錯藥而令長者入住深切治療部的同類事件，學會認為情況有惡化趨勢，並透露該會曾巡查私營安老院，發現護理員寫錯藥名的情況常見，學會炮轟社會福利署對安老院監管不足。

派錯藥安老院 暫不起訴

醫管局前日揭露，過去9個月內有9宗牽涉安老院的誤服降血糖藥個案，當中一人昏迷，社署跟進後確定其中一家安老院派錯藥，但該署拒絕公開有關安老院資料及事故經過。

社署昨日仍堅持不透露出錯院舍名稱，署方解釋法例沒有賦予該署權力在院舍未定罪前公布其名。

根據近年紀錄，有關院舍為首次派錯藥，署方顧及院舍初犯及其他居住該院長者的利益，暫不考慮提出起訴，至於出錯原因，署方指是個別保健員派錯藥所致。

04年港島至少出現6宗

香港醫院藥劑師學會會長藥物教育資源中心總監崔俊明認為，今次事件只屬冰山一角，安老院的藥物管理已出現惡化情況。據他所知，04年港島區已有至少6宗安老院執錯藥而導致長者血糖過低要入院的個案，所有長者均陷昏迷而須入住深切治療部，最後全部無恙，但只有其中一間院舍承認出錯，社署知情後亦只向院舍派發指引。

04年本港因不明原因而血糖過低入院的個案達394宗，當中不乏居住安老院舍的長者。崔俊明解釋，安老院舍經常出事的原因，與學歷及英語水平低的保健員有關，包括他們未有跟足醫生指示，將新舊藥物同時派予長者；由於保健員只需中三學歷，大多是內地護士，他們英語有限，出現寫錯及睇錯藥名的情況。

▲代表全港1500名藥劑師的3大學會，昨聯合召開記者會炮轟社署監管安老院派藥不力。（鄧瑞璋攝）

抨社署欠監管 發牌過寬

該學會連同藥學會及執業藥劑師協會均批評，社署欠缺安老院藥物紀錄的監管，發放牌照政策亦過寬，即使保健員未合乎處理藥物的資格亦照樣聘請。學會故建議引入病人用藥電腦系統，社署更要在藥物管理方面訂出指引；政府亦需引入醫藥分家制度，減少配藥出錯機會。

社署回應，已在本月1日將保健員最低學歷由中三提高至中五，並於前日向所有安老院發出藥物安全指引。社福界立法會議員張超雄強調，今次事件牽涉公眾安全及公眾健康，社署應使整個調查具透明度，「有責任公開有關院舍的名字」，並監察私營安老院是否符合發牌條件。

護老院職員配錯藥

長者誤服精神科藥物

■陳先生獲社署證實鳳凰護老院（右圖）錯派精神科藥物投訴確立。

在黃大仙鳳德道與飛鳳街交界鳳凰護老院職員，被在院舍療養長者家人投訴錯配精神科藥物服食，長者雖投訴藥物種類數量有異，但職員未有理會和複查，以致誤服精神科藥物，全身乏力，神情呆滯，要送往醫院治療。

在鳳凰護老院療養的八十五歲李婆婆，其兒子陳先生稱，他於本年七月底，安排母親入住鳳凰護老院，至八月十一日，他與家人探望母親時，發現母親全身乏力，神情呆滯，昏昏欲睡。

他憶述，「佢當時表現得周身唔舒服，同多兩句，佢先講話前一晚同噚日朝早，食咗啲唔係平時食開嘅藥，同姑娘講，姑娘只係叫佢食藥。」他擔心母親吃錯其他院友的藥，遂要求院方代召救護車，將她送往醫院治理。

全身乏力神情呆滯

他說，醫生檢查後，證實其母親誤服精神科藥物，致有神情呆滯、全身乏力情況出現。「我媽咪雖然已經八十五歲，但一直都好精神，只係有少少行動不便同血壓高，好彩我哋早發現佢食錯藥，如果唔係，咁樣長期錯食精神科藥物，一定對她健康有好大影響。」近日與家人商量後，決定向本報投訴，揭露此事。

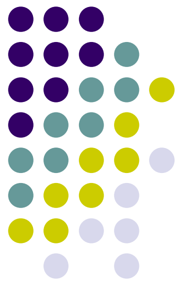
鳳凰護老院有限公司回覆本報查詢時承認，職員執配藥物時將藥箱調錯位置，導致錯派藥物予院友李婆婆服用，為此有關職員已離職。李婆婆雖曾向職員表示，所服藥物與平日有異，但因有關職員經驗尚淺，誤會院友「扭計唔想食藥」，致未有就此複查。

事後，院方亦採取措施，加強員工對藥物處理的認知，遵行社署訂定執藥及派藥的「三核五對」指引，防止同類事件發生。

社署派人突擊巡查

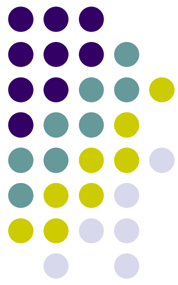
本報曾向**社會福利署**查詢上述投訴個案，但直至截稿仍未收到回覆。但社署安老院牌照事務處早前函覆陳先生時表示，牌照事務處的保健及衞生督察隊護士長曾於事後突擊巡查鳳凰護老院，透過查核有關紀錄與部份當值員工，和長者住客面談及電話聯絡社康護士，根據所得資料，證實投訴確立。該署已向有關安老院發出警告信件，要求改善，牌照處督察亦會按機制監察該院，確保該安老院服務質素能符合發牌要求。（一〇〇四〇六五）

Drug incidents



- 7/2005 to 3/2006
  - 23 cases oral hypoglycemic medications intake by "mistake"
  - 9 involved RCHE
  - Licensing Office of RCHE (LORCHE) launched investigation
    - 5 cases related to improper dispensation
    - 2 cases wrong patient
    - 1 case wrong timing
    - 1 case wrong dosage
- 5/2006 : LEGCO – Discussion on drug safety issue in RCHE

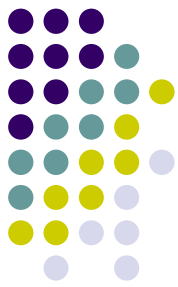
Social Welfare Department (SWD):
prevention of medication errors



- Warning letters/ written advice
- Close monitoring
- Ongoing Educational Seminars

- Working Guidelines for RCHE staff – Drug Safety Protocol (2006)

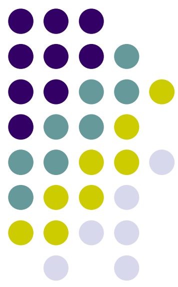
Local plan of action



- 5/2006 Sharing meeting on Geriatric Community Service in Kowloon Central and West Cluster
  - CGAT, CNS and doctors
    - Kowloon Hospital (KH)
    - Kwong Wah Hospital (KWH)
    - Our Lady of Maryknoll Hospital (OLMH)
    - Queen Elizabeth Hospital (QEH)
  - SWD

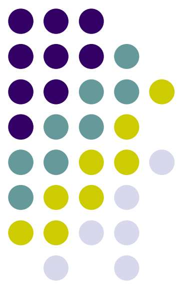
- Drug Safety Campaign

Objectives of this Campaign

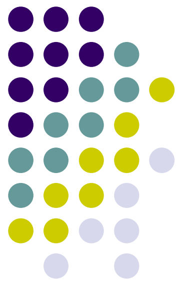


- To increase the awareness of drug safety in RCHE
- To determine the prevalence of high risk practices
- To bring about an improvement in the knowledge, attitude and practice relating to drug safety

Methodology

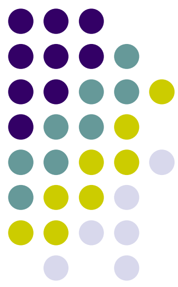


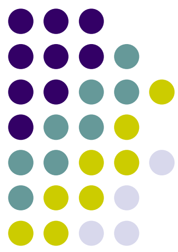
- Invitations to all RCHE within the catchment area of the two clusters (n=138)
- Participation = 120 homes (86.9%).
- Total = 10731 residents
- Target staff - responsible for drug administration (nurse, health workers)



Opening Ceremony
11/8/2006
Education talk and video

Drug safety campaign
我和你有個”葯”會





Continuing on-site training

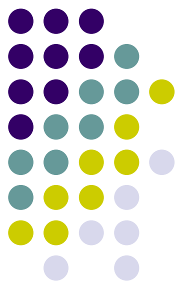
On-site training

- 3 months
- VCD for continued education

Focus on 3 major areas:

- Storage
- Documentation
- Administration

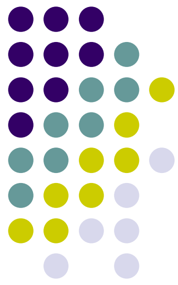
Drug Safety Survey



Structured Questionnaire

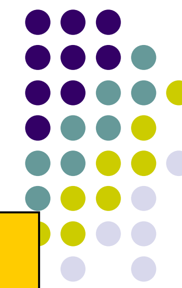
- First assessment – before training (4Q 2006)
- Second assessment - three month after the first assessment

- Independent observer (nurse other than the one responsible for the training)



Storage:正確的貯存藥物方法 (10 items)

Documentation:藥物標籤(21 items)



院友名稱

藥物名稱/成份

用藥指示

用藥注意事項

小心放置, 以免兒童誤服 ASP01 7 TAB

ASPIRIN ENTERIC COATED PELLETS CAPSULE 100MG

餐時或餐後口服每早一次, 每次一粒

必須整粒用開水吞服

CMC MED 1/11/2000 HN0000633300 100-01

陳大文

T000 KW4C

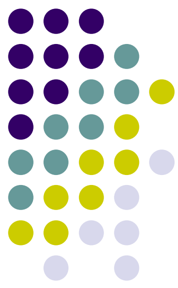
HOSPITAL AUTHORITY 醫院管理局

配藥日期

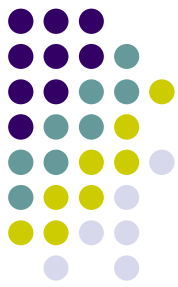
所配藥物總數

Administration: (13 items)

安老院派藥程序 (口服藥物)

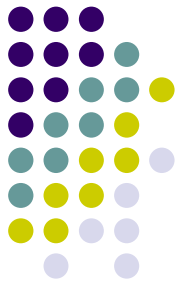


Results



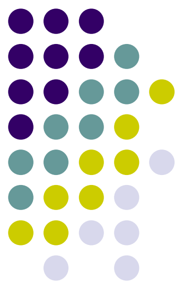
- Structured Questionnaires completed by 166 staff for the pre and post training assessments
  - 9 RN
  - 21 EN
  - 136 HW
- The medication safety standards were expected to comply to SWD drug management guidelines
- Taking into account some physical restrictions of RCHE settings.

Results: pre-training



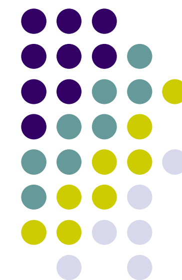
Category	No of items	Compliance to standard			
		<90%	90%-94.9%	95%-99.9%	100%
Storage	10	6	2	2	0
Documentation	21	9	3	3	4
Administration	13	4	1	5	3

Results: pre-post comparison



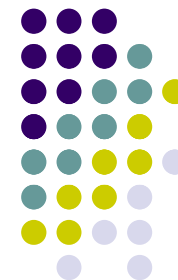
	Drug Storage Assessment items	**Pre**(unachievable)	**Post**(unachievable)	Improvement	P value
1	All medications should be put in clean, lightproof, dry, well labeled and locked location	9 (7.4%)	1 (0.8%)	88.9%	0.008
2	Individual containers	3 (2.5%)	0 (0%)	100%	0.500
3	Bulk packed or excess medication of each resident should be well labeled and put in a separate locked container	41 (33.6%)	6 (4.9%)	85.4%	0.0001
4	Drug package should be labeled with name, drug, route, dose, frequency and prescription date clearly	18 (14.8%)	3 (2.5%)	83.3%	0.001
5	Each type of medication should be put into individual packing	5 (4.1%)	3 (2.5%)	40.0%	0.727
6	Opened insulin vial should be dated and stored not exceeding 6 weeks	37 (30.3%)	10 (8.2%)	73.0%	0.000
7	Externally applied medications need to be labeled clearly and separated from oral medication	30 (24.6%)	6 (4.9%)	80.0%	0.0001
8	Medications are placed in fridge as instructed	8 (6.6%)	2 (1.6%)	75.0%	0.289
9	No drinks or food are placed in the medication fridge	52 (42.6%)	8 (6.6%)	84.6%	0.0001
10	Opened eye ointments/drops should be dated and stored not exceeding 30 days	25 (20.5%)	8 (6.6%)	68.0%	0.002

Results



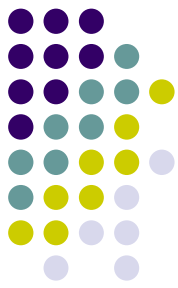
	Documentation Assessment items	**Pre** (unachievable)	**Post** (unachievable)	Improvement	P value
1	Individual chart	5 (4.1%)	1 (0.8%)	80.0%	0.219
2	Medication list of each resident should be checked after discharge and follow up	13 (10.7%)	2 (1.6%)	84.6%	0.007
3	Drug chart of each resident is updated	20 (16.4%)	4 (3.3%)	80.0%	0.001
4	Staff signature after medication is prepared	12 (9.8%)	3 (2.5%)	75.0%	0.035
5	Staff signature after medication is checked	25 (20.5%)	5 (4.1%)	80.0%	0.0001
6	Staff signature is documented after medication is given to resident	11 (9%)	4 (3.3%)	63.6%	0.092
7.1	Labeling: name of resident	2 (1.6%)	0 (0%)	100%	0.500
7.2	Labeling: name of medication	1 (0.8%)	0 (0%)	100%	1.000
7.3	Labeling: dosage	0 (0%)	0 (0%)	-	1.000
7.4	Labeling: route of administration	0 (0%)	0 (0%)	-	1.000
7.5	Labeling: frequency	0 (0%)	0 (0%)	-	1.000
7.6	Labeling: time of administration	0 (0%)	0 (0%)	-	1.000
7.7	Labeling: organization of issue	10 (8.2%)	7 (5.7%)	30.0%	0.581
7.8	Labeling: date of issue	1 (0.8%)	0 (0%)	100%	1.000
7.9	Labeling: amount of issue	13 (10.7%)	2 (1.7%)	84.6%	0.003
7.10	Labeling: specific instructions	5 (4.1%)	1 (0.8%)	80.0%	0.219
8	Allergy history documented on drug chart	45 (36.9%)	13 (10.7%)	48.9%	0.0001
9	PRN medication is documented in drug chart once given to resident	28 (23.0%)	2 (1.6%)	92.9%	0.0001
10.1	Others: reason for omitting dose	18 (14.8%)	4 (3.3%)	77.8%	0.004
10.2	Others: side effects of drug	17 (13.9%)	2 (1.6%)	88.2%	0.007
10.3	Others: management of drug side effects	14 (11.5%)	0 (0%)	100%	0.002

Results



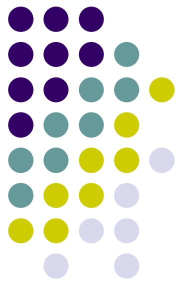
	Drug Administration **Asse ssment items**	**Pre** (unachievable)	**Post** (unachievable)	Improv ement	P value
1	Only HCW or nurse authorized to administer drugs	0 (0%)	0 (0%)	-	1.000
2	Proper hand washing and drying up	42 (34.4%)	7 (5.7%)	83.3%	0.0001
3.1	First check: when taking out of locked container	9 (7.4%)	5 (4.1%)	44.4%	0.289
3.2	Second check: when taking drug out of package	19 (15.6%)	2 (1.6%)	89.5%	0.0001
3.3	Third check: when putting drug back into locked container	19 (15.6%)	8 (6.6%)	57.9%	0.027
4	Abnormalities found or expired drugs should not be given to resident – enquire PRN	3 (2.5%)	4 (3.3%)	-33.3%	0.688
5.1	First right: right medication	5 (4.1%)	0 (0%)	100%	0.063
5.2	Second right: right dosage	5 (4.1%)	0 (0%)	100%	0.063
5.3	Third right: right resident	0 (0%)	0 (0%)	-	1.000
5.4	Fourth right: right time	3 (2.5%)	0 (0%)	100%	0.250
5.5	Fifth right: right route	0 (0%)	0 (0%)	-	1.000
6	Ensure each resident takes the medication completely	5 (4.1%)	0 (0%)	100%	0.063
7	Cleansing of mortar	34 (27.9%)	15 (12.3%)	54.3%	0.002

Summary: Drug Storage

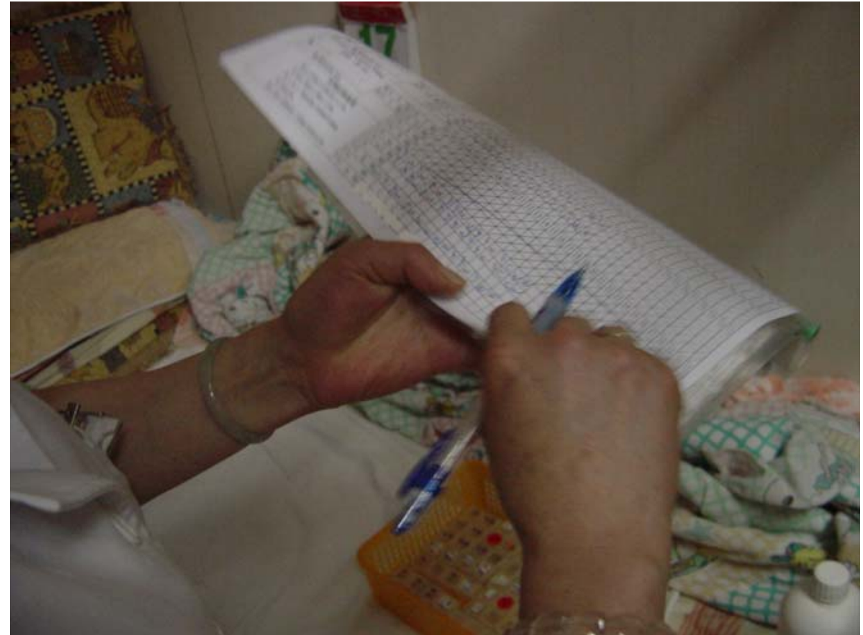


- Storing of excess medication (85% improvement)
- Storing in designated fridge (85%)
- Using open insulin vials (85%)

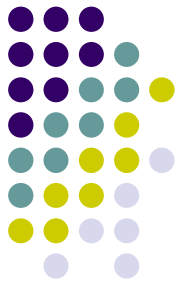
Summary: Documentation

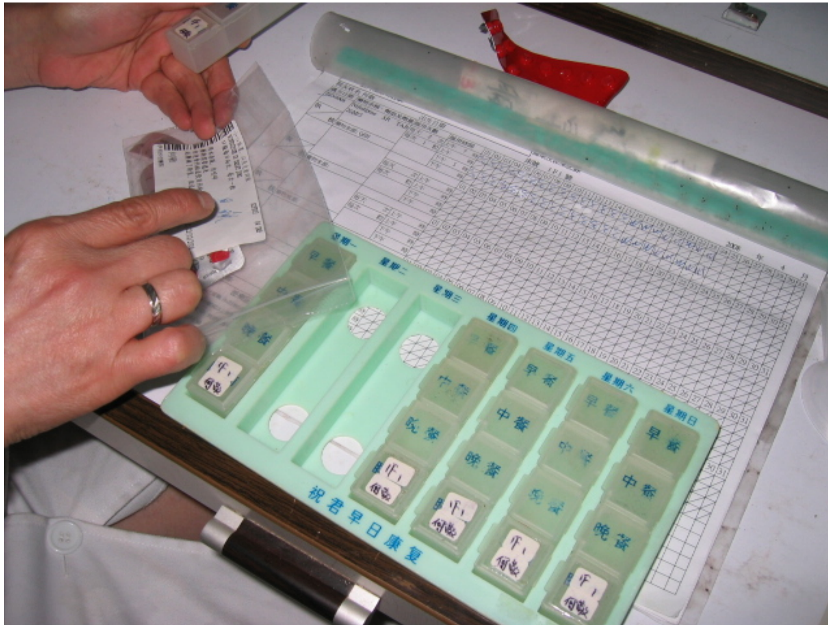


- Drug allergy history (71% improvement)
- Immediate recording of PRN medication (93%)
- Signature after checking (80%)
- Keeping updated drug charts for each resident (80%)

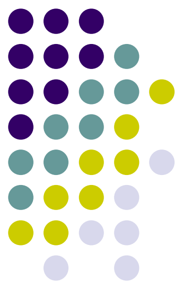


Summary: Administration





- Proper hand washing
  (83% improvement)
- Immediate cleansing of mortar after use
  (56%)
- Performing 2nd and 3rd checks when preparing medications
  (90%)



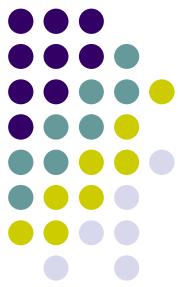
Overcoming difficulties

- Environmental restrictions
- Lack of resources
- Lack of awareness
- Fault-finding

VS

- Creative solutions
- Local resources
- Education and training
- Partnership

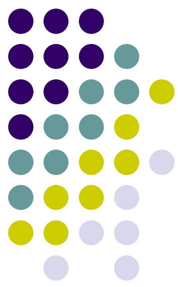
Conclusion



The standard of medication safety in RCHE

- Variable standard on initial assessment
- Required constant reminders and education
- Significant improvement in many important aspects after on-site training
- Room for further improvement
- Successful collaboration

Acknowledgement



KCC , KWC, KEC

- **Dr. Daisy Dai**
- **Dr. CT Hung (CCE/KCC)**
- **Dr. Derrick Au (HCE/KH)**
- **Dr. Helen Tinsley (CCE/KWC)**
- **Dr. CH Tang (HCE/KWH)**
- **Dr. CC Luk (CCE/KEC)**
- **Miss Alice Tso (CGMN/KCC)**
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- **Miss SM Ip**

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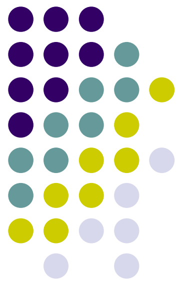
- **Miss Anita Chau (KH/DOM)**
- **Miss CC Cheng (KWH/DOM)**
- **Mr. Peter Fung**



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Members

- Miss Nelly Ho (KH)
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- Miss Natalie Lui (KH)
- Miss Wandi Lai (QEH)
- Miss C Y Lau (QEH)
- Miss L S Leung (QEH)
- Miss Miss WM Ling (KWH)
- Miss Salome Yip (KWH)
- Miss So Man Ching (OLMH)
- CNS and CGAT nurses

RCHE

- Staff and operators