

**Enhance Patient Safety on Emergency Resuscitation  
by setting up**

**Triangular Linkage Emergency  
Call Bell System**

among three wards  
and the

**Rapid Response Team**

**Department of Cardiothoracic Surgical  
(CTSD)**



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# Introduction

- ⇒ Resuscitation or untoward incidence (eg. patient fall, suicide) is an emergency situation
- ⇒ Happen in a short period of time
- ⇒ Cardiothoracic patients are complicated and special
- ⇒ Implement since Aug 2008 relocate to QMH

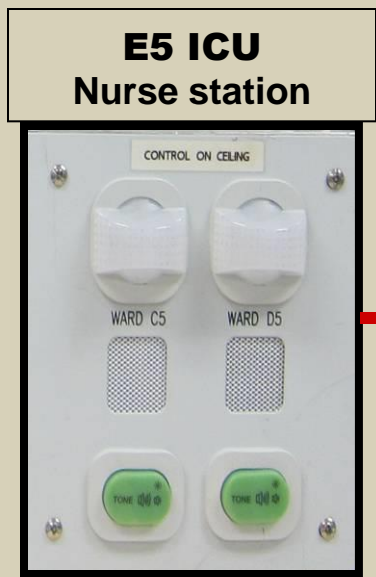
## Factors hindering:

- ▶ Limited manpower during meal time and night shift
- ▶ Increasing in young-aged work force
- ▶ Lack of emergency situation handling experience

- **Calling for help is one of the main ways to enhance life saving of patients**
- **Equip new staff with resuscitation knowledge and skill; and also risk management skill**



# Triangular Linkage of Emergency Call Bell System



## Rapid Response Team



**CTSD**

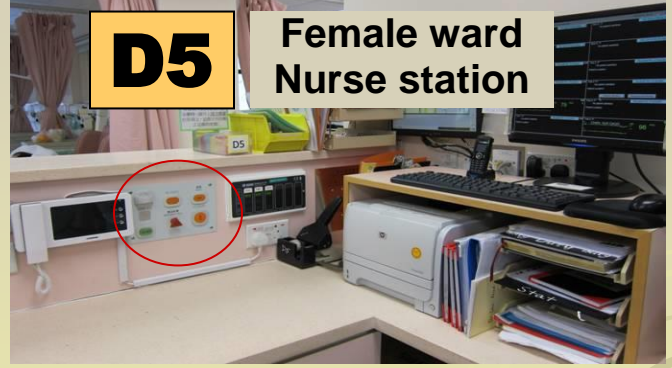
Patient toilet Nurse station Each bed



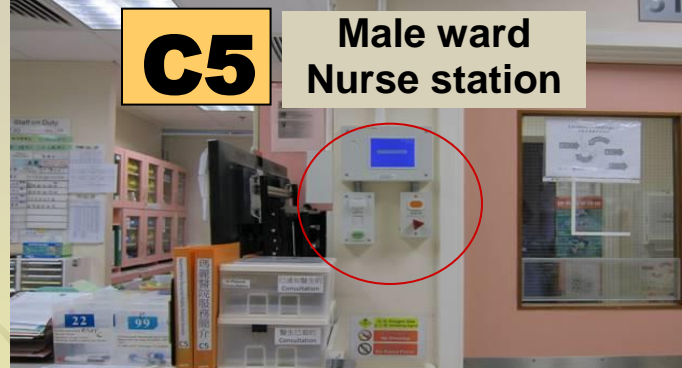
Patient toilet Nurse station Central cubicle



**D5** Female ward Nurse station



**C5** Male ward Nurse station



# Features

- Built at 3 wards's nurse stations, each bed & toilet
- Pull only
- Alarm can only be reset at where it was being activated, thus preventing accidentally 'MUTE'
- **Rapid Response Team (RRT)** in ICU was triggered

- Team members are senior and experienced staff with ACLS certificate and working in ICU
- RRT guidelines were set to reduce role confusion and miscommunication
- Regular CPR combine drill with general ward is carried out to upkeep the quality of resuscitation

**\*\* And, surgeon will be called once the emergency call bell was activated for resuscitation immediately**

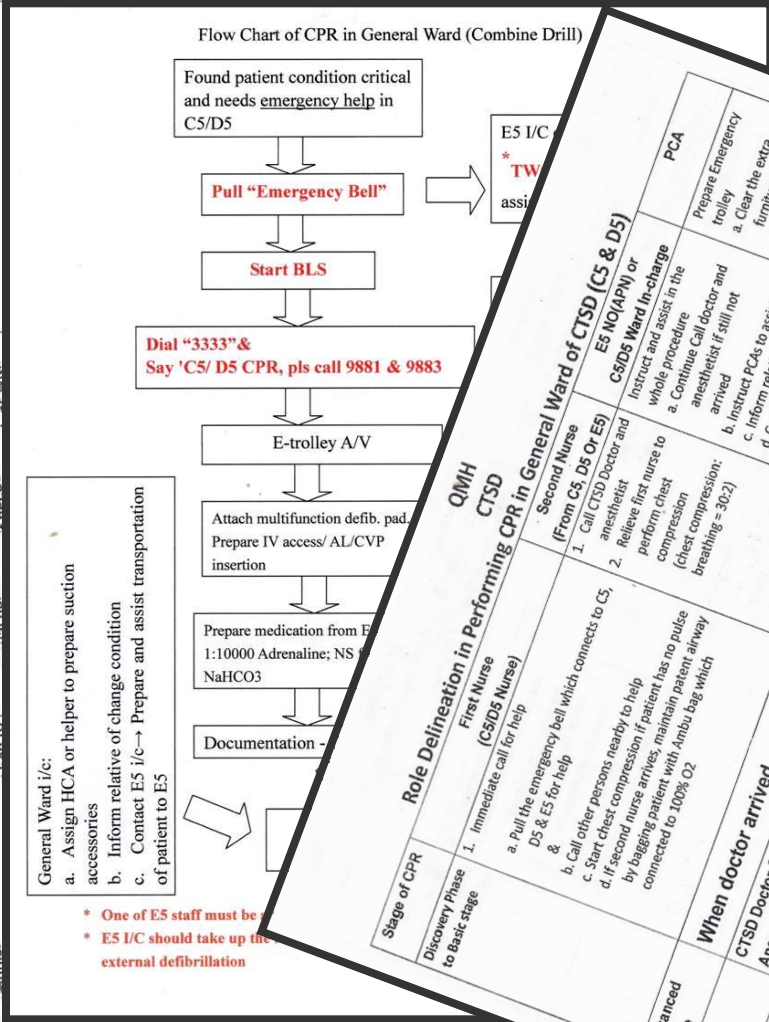
# Combined Drill Flow Chart

## Role of Rapid Response Team

## Role delineation

### Role of Rapid Response Team in Performing CPR in General Ward of CTSD

ICU WARD IN-CHARGE/TEAM LEADER	RAPID RESPONSE TEAM LEADER	RAPID RESPONSE TEAMMATE
1. Assign 2 staffs as Rapid Response Team members every shift	1. Briefly handover case to ICU team leader	1. Briefly handover case to ICU team leader
2. Send 2 assigned staffs to GW when Resuscitation notification call bell system activated	2. Quick assess patient's general condition	2. Management : • Checking of pulses • Chest compression • Assist in cardiac pacing and defibrillation if needed
3. Arrange other ICU staffs to cover Rapid Response team member's case	3. Assist to in-charge of CPR procedure	3. Rotate role with rapid Response Team Leader
4. Respond team member's case	4. Take over GW First Nurse's job	4. If enough manpower in GW, Rapid d Response Teammate should go back to ICU to takeover their own job
5. Communicate with GW ward in-charge	5. Relieve First Nurse's to document CPR record	
6. Communicate with GW ward in-charge	6. Responsible for Air-way Management : • Head tilt - chin lift maneuver • Open airway and suction • Suctioned	



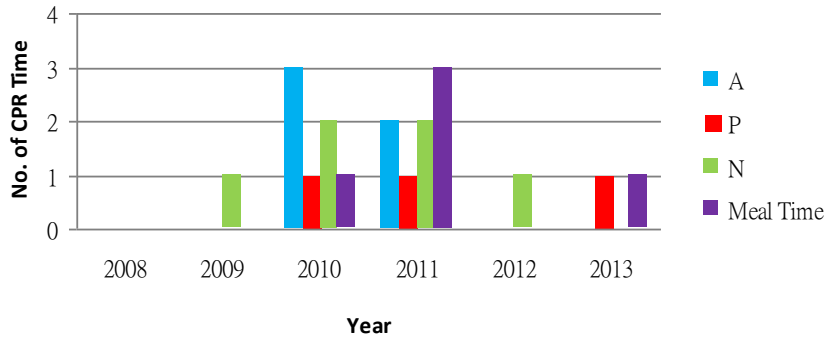
### QMH CTSD Role Delineation in Performing CPR in General Ward of CTSD (C5 & D5)

Stage of CPR	First Nurse (C5/D5 Nurse)	Second Nurse (From C5, D5 Or E5)	PCA
Discovery phase to Byst stage	1. Immediate call for help a. Pull the emergency bell which connects to C5, D5 & E5 for help b. Call other persons nearby to help c. Start chest compression if patient has no pulse by bagging patient, maintain patent airway connected to 100% O2	1. Call CTSD Doctor and anesthetist 2. Relieve first nurse to perform chest compression (chest compression: breathing = 30:2)	Prepare Emergency trolley a. Clear the extra furniture away from the scene if needed b. Pull screen to provide privacy of patient c. Standby as runner
Advanced stage	1. Perform intubation 2. Insert IV cannula 3. Replace for chest compression 4. Order medication/ perform defibrillation if needed 5. planning to E5 for further treatment	1. Continue chest compression/ bagging 2. Assist in intubation cannula and inject life saving medications 3. Assist in defibrillation	1. Overall supervise and assist in CPR process 2. Assist in document CPR record 3. comfort patient significant others 4. Contact E5 I/C for patient transfer arrangement
When doctor arrived	1. Continue chest compression/ bagging 2. Assist in intubation cannula and inject life saving medications 3. Document CPR record	1. Overall supervise and assist in CPR process 2. Assist in document CPR record 3. comfort patient significant others 4. Contact E5 I/C for patient transfer arrangement	1. Overall supervise and assist in CPR process 2. Assist in document CPR record 3. comfort patient significant others 4. Contact E5 I/C for patient transfer arrangement



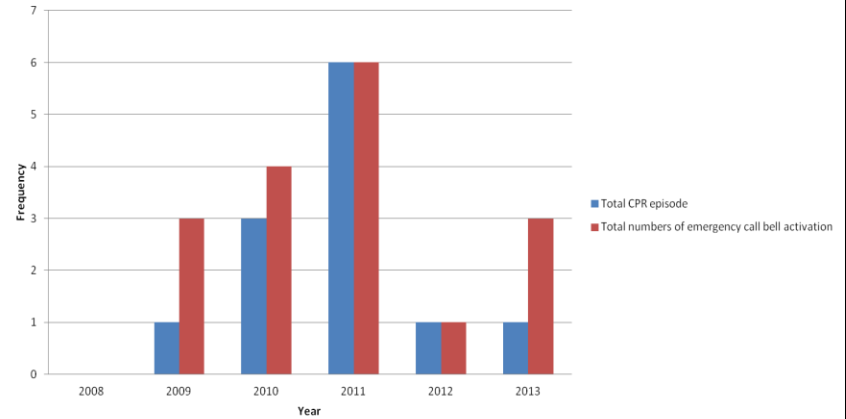
# Result & Outcome

### CPR occurrence time 2008 to 2013

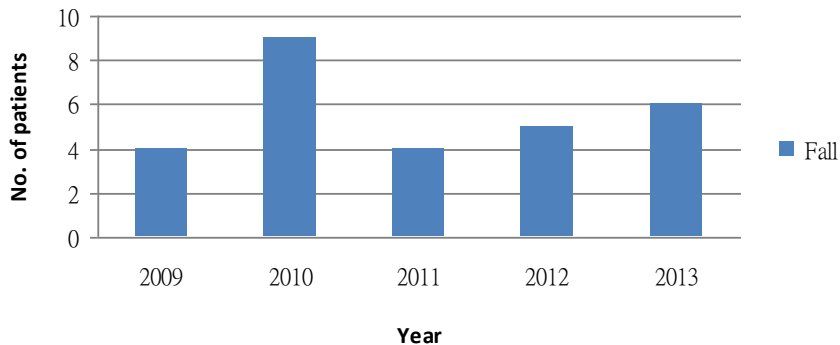


**Mainly occur at meal & night time**

### Frequency of emergency call bell being activated from 2008 to 2013

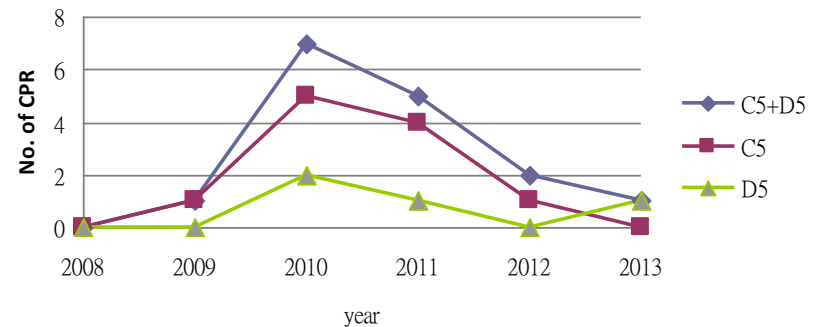


### Fall incident in CTSD from 2009 to 2013



**Only being activated for one time because of 'FALL' in 2010**

### CPR episode in GW from 2008 to 2013



The respond time is from **15 sec to 45 sec** with full team ready

# Result & Outcome

- ▶ **Increase** response time
- ▶ **Increase** patient safety
- ▶ **Increase** the outcome of emergency resuscitation
- ▶ **Decrease** stress of new staff during handling emergency situation



# Thank you

