## A Geriatric Service for End-of-life Patients in Residential Care Homes during Winter Surge

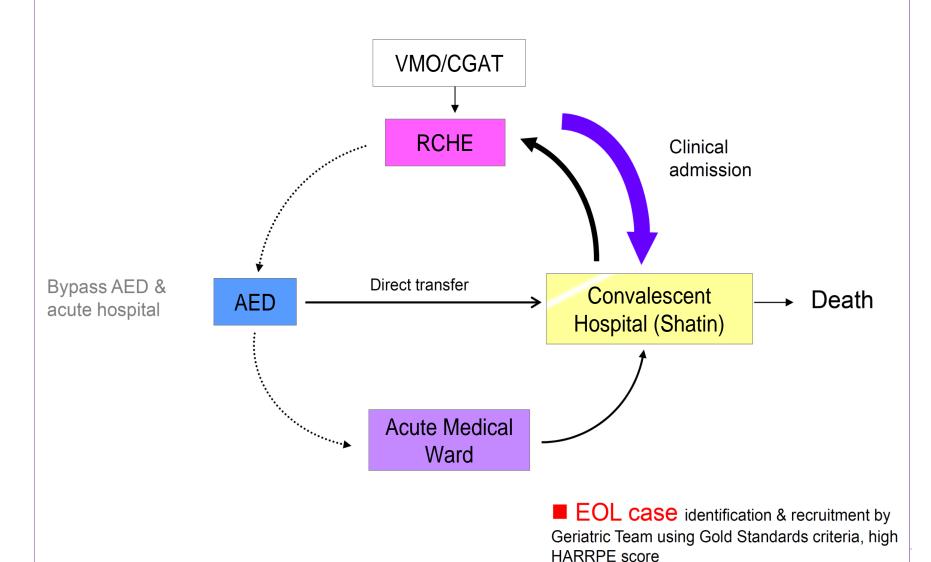
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### Introduction

- ▶ Revolving Door Syndrome = Recurrent Hospitalization
  - Unavoidable in the last year of life
  - Residential Care Homes for Elderly (RCHEs) ~ 20% medical admissions
  - Winter-surge pattern
  - End-organ failure: dementia, heart, respiratory and renal failure
- ▶ An audit of SH's End of Life (EOL) program (2008 2011: )
  - Minority (10%) directly admitted to Medical & Geriatric Unit, Shatin Hospital (SH)
  - Majority (90%) via AED → acute medical wards at Prince of Wales Hospital (PWH)
- New EOL pathway
  - Allows clinical admission of RCHE-EOL patients directly to convalescent wards at SH

## **New journey for EOL cases**



## Study overview

#### Objectives

- To provide appropriate care for EOL-RCHE residents through
  - Bypass of AED & acute wards
  - Advance Care Planning (ACP)

#### Methods

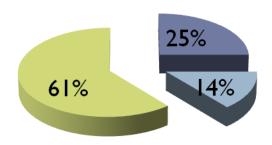
- Winter surge months Jan Mar 2013
- RCHE cases recruited to EOL programme by Geriatrician and ACP established
- RCHE staff contact CGAT nurse if EOL case requires hospitalization  $\rightarrow$ SH

#### Outcomes

- Ratio of clinical : emergency admissions
- ACP compliance
- Healthcare utilization
  - Acute and convalescent length of stay (LOS)
  - Healthcare costs
  - Impact on acute services
- Mortality

## RCHE-EOL Patient Journey

# Distribution of types of admissions for EOL patients



■ A SH

A & B = Success

B AED → SH

C = Failure

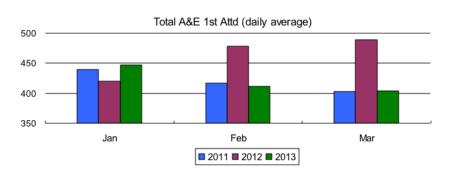
C AED→ PWH+SH

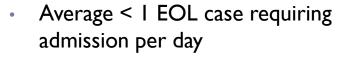
- Reasons for attending AED (Groups B & C)
  - Outside office hours 57.8%
  - ▶ Too ill 33.3%
    - $\rightarrow \downarrow$  GC / unstable vitals
    - Respiratory symptoms
    - Fever
    - Dehyration
  - Others 8.8%
    - Communication breakdown
    - ► RCHE guidelines
    - No bed available in SH

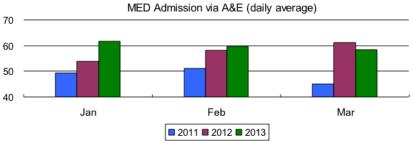
## Healthcare utilization, costs and mortality

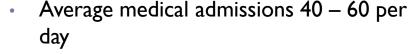
	Α	В	С
ACP Adherence (%)	100	100	98#
Average LOS (days)			
Acute	0	0	3.46
Convalescent	11.79	7.64	11.1
*Cost of hospitalization(\$)			
Cost per patient	19512	14267	30844
Cost of Success group (A and B)	1 <i>75</i> 89 30% cheaper		
Cost of Failure group ( C )			30844
Total savings over 3 months	\$891,154		
Per admission episode	5/19 (26)	2/11 (18)	13/46 (28)
Within 3 months of enrollment	50		
Within 6 months of enrollment	85		

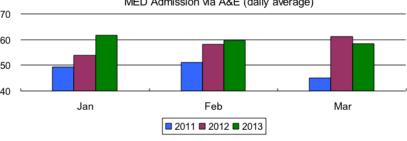
## Impact on AED & acute ward congestion



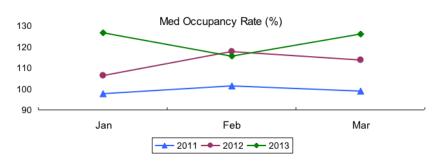








EOL cases only 1.7 - 2.5% of all acute patients



- Likely underestimation of cases 5 to 10% reported but different criteria
- No winter surge in 2013?!!
- 50 extra beds added for winter surge  $2013 \rightarrow$  occupancy rate 120 - 130%

## Summary

- In this program aimed at **diverting RCHE EOL** patients who required hospitalization **from AED & acute wards** to a convalescent medical unit during the winter surge period of 2013:
  - Overall success rate was 40%, limited by service hours and patients' unstable condition.
  - Adherence to Advance Care Plans was high
  - Programme reduced utilization of acute medical services, amounting to potential savings of \$0.89M over the 3-month study period
    - Bring home message:
- The majority of EOL patients from RCHEs can be managed entirely in a convalescent setting following an ACP, if direct clinical admission can be facilitated.