Pilot of “off-site” screening and CGAT visit to Accident and Emergency Department discharges: AED-PURER project (Prevention of unplanned Reattendance to Emergency Room)

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Introduction

- Elderly patients represent an increasing proportion and absolute number of emergency department (ED) attendances.
- Elderly patients tend to have multiple and complicated medical and geriatric problems. The other elderly tends to have atypical presentation of illnesses. It makes care in the ED not straight forward.

- While there is tendency of low threshold for admitting frail elderly presenting with mild medical problems.
- Focus on the presenting acute problems may overlook the underlying geriatric syndromes
- Unscheduled ED reattendance can be resulted among elderly discharged from ED

What had been done in ED?

Geriatric Consultation Team

- Can reduce avoidable unplanned ED reattendance
- But timely availability of geriatricians may be an obstacle

Next day telephone follow up after discharge from ED

- Problems be identified over phone and services referred appropriately
- Low cost

Comprehensive geriatric assessment and multidisciplinary intervention after discharge from ED

Proved to reduce ED reattandance and hospital readmission by previous studies

What had been done by Community Geriatric Assessment Team (CGAT) of Haven of Hope Hospital?

“On-site” geriatric consultation at ED

- A pilot of “on-site” geriatric consultation was conducted in ED of Tseung Kwan O Hospital in December 2003 to April 2005
- OAH residents attending ED and did not absolutely need in-patient management could be referred by ED doctors to CGAT of Haven of Hope Hospital
- These ED attendants would be stayed in observation ward for once daily CGAT consultation on weekdays

- In the 17-month period, only 20 referrals were received
- Impression: under-referral

- On-site geriatric assessment at ED could not prove its efficacy because of under-referral
- The target clients were shifted to the elderly patients discharged back to the old age homes covered by our CGAT

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Objective

- 1. the primary objective is to prevent avoidable unplanned reattendance at AED
- 2. The secondary objective is to prevent avoidable admission via AED

Method

- No referral is needed
- The list of OAH residents (old age homes covered by CGAT) discharged from Emergency Department of Tseung Kwan O Hospital is faxed to CGAT office every morning of working days.
- ED discharge summaries were printed out by CGAT staff

“Off-site screening”

- All the ED discharge summaries were reviewed by geriatricians in the same morning and cases selected.
- Exclusion criteria
  - Minor injuries and illnesses
  - Those attended for one-off nursing procedures e.g. blocked foley catheters, dislodgement of nasogastric tubes.

“On-site” CGAT visit

- After cases were selected, outreach (PURER) visits will be provided on the coming weekly CGAT visit at the old age homes

Results

- Total 422 OAH residents were discharged from ED from May 2006 to December 2007
- 36 (8.5%) were selected for PURER visit at OAH after screening

Patient demographics

- Mean age 86.8 years
  (Ranged from 73-106)
- Male 14 (38.9%)
  Female 22 (61.1%)
- Private OAH: 16 (44.4%)
  Subvented OAH: 20 (55.5%)

Underlying disease patterns

Cardiovascular disease	26 (72.2%)
Dementia	14 (38.9%)
Cardiovascular accident	12 (33.3%)
Fracture of hip	6 (16.7%)
Diabetes mellitus	5 (13.9%)
Parkinson's disease	3 (8.3%)
COAD	2 (5.6%)

Reasons of ED consultations

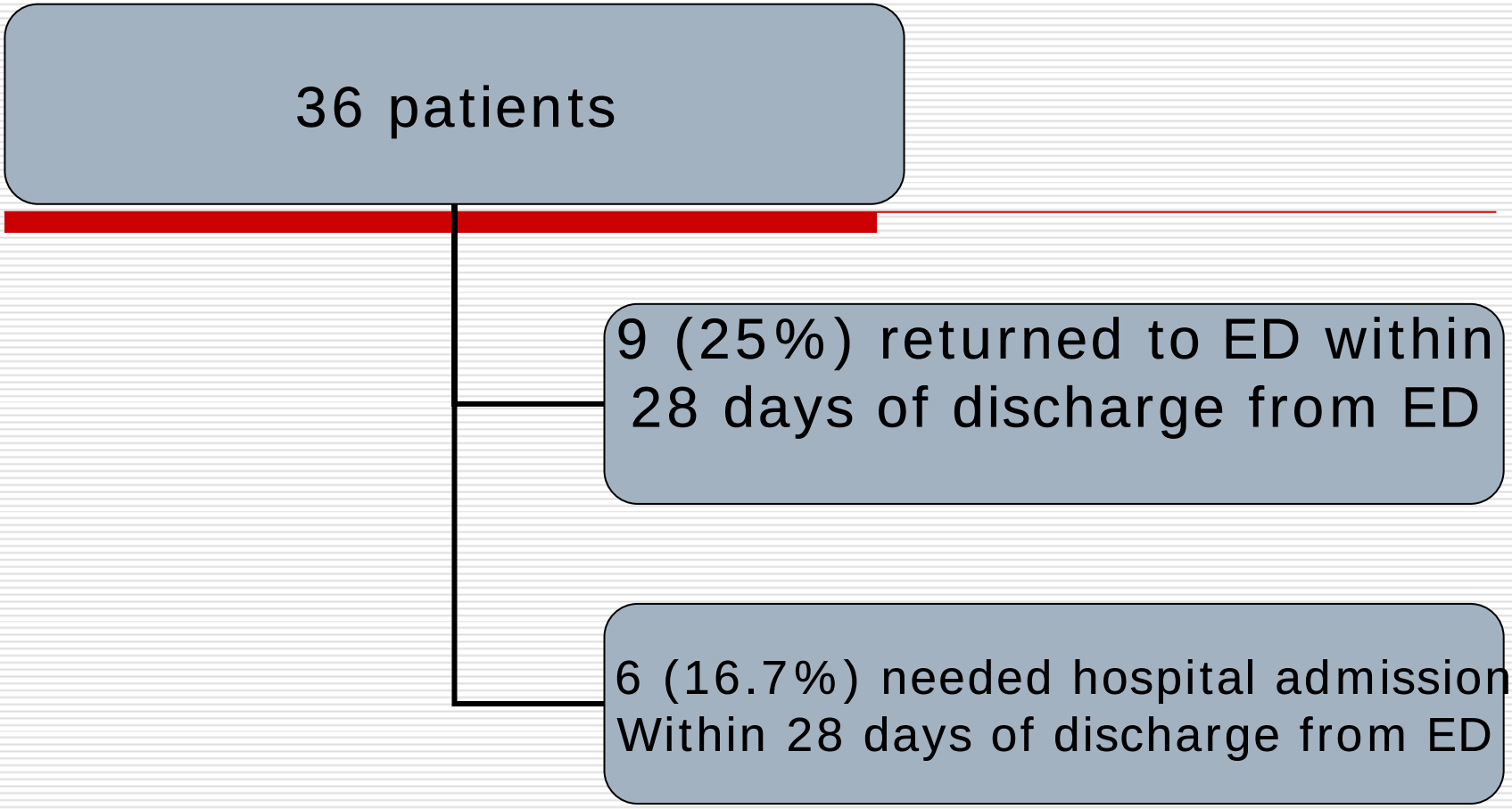
falls	10 (27.8%)
Dizziness	4 (11.1%)
Musculoskeletal pain	4 (11.1%)
Decrease in general condition	4 (11.1%)
Others	e.g. diarrhoea, faecal impaction, vomiting, poor DM control, bullae, skin rash, PR bleeding, hyperkalaemia

PURER visits

- Conducted 2-10 days after discharged from ED (mean of 5.4 days)
- Conducted at OAH by geriatricians of CGAT

CGAT recommendation

Medication readjustment	15 (41.7%)
Specific recommendation on fall prevention	6 (16.7%)
Revision of diagnosis	8 (22.2%)
Continuation of present management	12 (33.3%)
Recommended for hospitalization	2 (5.6%) One with suspected pemphigoid One with suspected missed fracture of hip


36 patients
9 (25%) returned to ED within 28 days of discharge from ED
6 (16.7%) needed hospital admission Within 28 days of discharge from ED

Reasons of hospital readmission

- Patient 1: suspected pemphigoid with biopsy done → burn wound
- Patient 2: confirmed fracture of hip
- Patient 3: confusion with aggressive behavior
- Patient 4: vaginal bleeding
- Patient 5: pneumonia
- Patient 6: pneumonia with shock. Died on same day

Conclusions

- In this highly selected group of elderly patients who had attended ED, on-site geriatric consultation at OAH is justified for geriatric assessment, revision of diagnosis, medication adjustment and recommendation on hospitalization

Conclusions

- Selection criteria will be further refined
- Further studies on
  - Compare with ED reattendance and readmission rate of the unselected group
  - Conduct randomized controlled study on the selected group

THE END

THANK YOU