Bridging the Gap: Win-win from Integrated Discharge Support for Elderly Patients

Community collaboration project in elderly services
HA Convention 2011
7 June 2011

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Medical history: Dementia/HT/Urge UI/Gout

Admitted for flare up of gout with elbow & wrist pain

Wife tearful and attended A&E for sprain shoulder

Patient wet bed and clothes and his wife failed to transfer patient
What causes repeated readmissions?

- Elderly → most vulnerable group to have discharge problems
- Lack of coordination on transitional care
- Lack of communication during care transfer
- Short length of stay → patient discharged with unresolved issues
Integrated Discharge Support Program for the Elderly Patients (IDSP)
IDSP piloted in three districts:

- **Kwun Tong** started in UCH on 1-Mar-08
- **Kwai Tsing** started in PMH on 1-Aug-08
- **Tuen Mun** started in TMH on 1-Jul-09
Program Objectives

To establish integrated care teams comprising of medical and welfare staff to plan for hospital discharge and provide community support for frail elderly patients.

To prevent hospital re-admission through community-based rehabilitation and / or support services.

To enhance support and training to caregivers to relieve their stress from post-discharge care of the elderly.
**Target Patients**

- Elders aged 60 or above

- HA-wide admission risk prediction score*  
  > 0.2 or by clinical referral

  - High readmission risk [e.g. those diagnosed with congestive heart failure (CHF), chronic obstructive pulmonary disease (COPD)]

  - High rehabilitation needs (e.g. those with stroke, proximal hip fracture or falls)

  - High personal care needs (e.g. those with dementia, parkinsonism)

* The score is the predicted probability of emergency admission to medical ward of any HA hospital within 28 days after an index episode, including medical emergency admission and A&E attendance for medical condition, in which the elderly patient was discharged alive.
Discharge

Residential Care Homes (CGAS/CNS)

Home

On need basis

Clinic visits

Rehab at GDH

Home visit Telephone consultation

Home care support by HST

Case conference: review/ discharge from scheme

Hospital

DPT

• Screen, assess and recruit high risk elders
• Conduct multi-dimensional assessments
• Develop pre and post discharge care plan
• Home assessment

Caregivers training & empowerment
(by DPT and/or by the HST)
Needs identification and progress review
Discharge and long term care planning
On discharge:
Discharge Planning Team to provide:
- Medical treatment
- Priority attendance for Geriatric Day Hospital rehabilitation
Home Support Team to provide:
- Home visit for personal and respite care
- Home based rehabilitation
- Caregivers training
✓ Functional improvement
✓ Stable condition
✓ No hospital re-admission within one year
✓ Living at home
✓ Quality of life improved → can join social events with relatives
✓ Wife is less stressed, able to take care of her husband
Outcome

- Functional outcome
- Stress level of caregivers
- Hospital services utilisation
### Time points for collection of outcome measures

<table>
<thead>
<tr>
<th>Time Point</th>
<th>A. Screening &amp; Recruitment</th>
<th>B. Discharge Home</th>
<th>C. Case Close</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Barthel Index 20</strong></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Modified Functional Ambulation Category</strong></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>SF12 (12-item Short Form)</strong></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Relative Stress Scale</strong></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

**Collection of measures on Functional Outcome, Quality of Life Measures and Carers’ Stress Level at different time points.**
Barthel Index (BI20)

Percentage of Moderate-to-mild / No limitation cases increased over time.

Among ALL cases (N = 3,200)

- Cat. VII increased over time.
- Percentage of Cat. VII increased over time.

<table>
<thead>
<tr>
<th>Cat. I</th>
<th>Cat. II</th>
<th>Cat. III</th>
<th>Cat. IV</th>
<th>Cat. V</th>
<th>Cat. VI</th>
<th>Cat. VII</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lyer</td>
<td>Sitter</td>
<td>Dependent Walker</td>
<td>Assisted Walker</td>
<td>Supervised Walker</td>
<td>Indoor Walker</td>
<td>Outdoor Walker</td>
</tr>
</tbody>
</table>
Increases in average PCS and MCS from (B) Discharge Home to (C) IDSP Case Close are both statistically significant.

* statistically significant at 5% level.
Among ALL cases (N = 1,322)

Precentage of Low Risk cases increased over time.

The score is the predicted probability of emergency admission to medical ward of any HA hospital within 28 days after an index episode, including medical emergency admission and A&E attendance for medical condition, in which the elderly patient was discharged alive.

<table>
<thead>
<tr>
<th>Post-discharge Hospital Services Utilisation</th>
<th>Change</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>HA-wide predicted risk score on elderly A&amp;E admission#</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>0 – 0.2</td>
<td>0.2 – 0.4</td>
</tr>
<tr>
<td>Emergency Admission to Medical Ward</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute patient days in Medical Ward</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attendance in Accident &amp; Emergency Department</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* statistically significant at 5% level.

# The score is the predicted probability of emergency admission to medical ward of any HA hospital within 28 days after an index episode, including medical emergency admission and A&E attendance for medical condition, in which the elderly patient was discharged alive.
Through collaboration between the welfare and healthcare sectors, the programme has been effective in helping elderly patients discharged from the hospital to recover at home. We plan to make it (IDSP) a regular service and extend its coverage from the current three districts to all districts in two years' time.
Thanks to our collaborating partners

Discharge Planning Teams:
United Christian Hospital
Princess Margaret Hospital
Tuen Mun Hospital

Home Support Teams:
Haven of Hope Christian Service
Po Leung Kuk
Evangelical Lutheran Church Social Service – Hong Kong
HARRPE score is the predicted probability of emergency admission to medical ward of any HA hospital within 28 days after an index episode, including medical emergency admission and A&E attendance for medical condition, in which the elderly patient was discharged alive. The higher the score, which ranges from 0 to 1, the higher is the likelihood.
Discharge Planning Team (DPT)

Timely assessment and discharge planning

Rehabilitation at GDH

Telephone nurse consultation service

Fast track clinic
Home Support Team (HST)

Home visit

Rehabilitation exercise

Caregivers training

Sharing Electronic Patient Record