United Fall Prevention Program
- From Evidence to Practice

Dr. LEUNG Man Fuk
Chairman
Task Force on Hospital Fall Prevention
United Christian Hospital
(Members: William Poon, TK Yim, SK Tang, SK Chan, OK Fung, SY Lau, SY Lai, CY Kong, HL Tsang, Peggy Hui, Athina Poon, Eric Wong, PT Yeung)

Hospital Authority Convention
8 May 2014
Ageing population and fall prevalence
NQI: Patient Fall Rate 1Q10 – 4Q11 (HA Hospitals – Group 1)

Remarks - Group 1 benchmark as at 4Q11
Patient Fall situation in UCH

Patient Fall Incident 2Q 2011 - 1Q 2012

No. of Patient Bed Days Occupied
Patient Fall Incident Rate (per 1,000 patient bed days occupied)

- Patient Bed Days Occupied
- Patient Fall Incident Rate

- No. of Patient Bed Days Occupied *
- Patient Fall Incident Rate
Is Falls in Hospital different from the community

**Difference in fall rates**
Community – 5 per 1000 person days
Hospital – could up to 20 per 1000 patient-days

**Hospitalized patients**
Physically unwell acutely
In unfamiliar environment and routines
Loss of control in performance of personal activities
Physical dependency on staff
Hospital Falls Prevention
What are the current evidence?

A recent randomized trial of a falls multi-media patient education program combined with trained health professional follow-up using a theoretical driven education approach successfully reduced falls outcomes by approximately 50% amongst cognitive intact older hospital patients, but not for those with cognitive impairment

(Haines, Hill (2011) Patient education to prevent falls among older hospital inpatients: a randomized controlled trial. Archives of Internal Medicine, 171 (6), 516-24)
Translation of falls prevention knowledge into action in hospitals: What should be translated and how should it be done?

Haines and Waldron
Journal of Safety Research 42 (2011) 431-442
Identify falls as a problem and select knowledge

Forming a management and engagement committee
Optimizing management and engagement committee function
Examining current practice and optimizing interventions
Adapting knowledge to the local context

Understanding your local setting
Examining resources – current and potential
Linking assessment to intervention
Assessing barriers, implementing and monitoring

Develop an implementation strategy
Ensure adequate resourcing
Develop a more concrete implementation plan
Evaluating Outcomes

Evaluation plan should be realistic
Consider broader challenges with evaluation
Creating an evaluation timeframe
100% of acute admitted elderly patients over 65 years old to be screened
Simple and safe screening test – Morse (Sensitivity 78%, Specificity 83%) or STRATIFY (Sensitivity 93%, Specificity 88%)
Environmental component – reducing physical obstacles, supplemental lighting, grab bars in bathrooms, lowering bedrails and bed height
Medication Review and Modification
Improving physical mobility
Continence promotion and toileting programs
Some milestones in UCH Fall Prevention

One study on Hospital Fall in 1993-4
Another study on Morse Fall Scale in 2008
Setting up of FAST in 2009
Setting up of UCH Taskforce on Hospital Fall Prevention in August 2011
Fall Prevention Ward Co-ordinators 2012
UCH Fall Prevention Structure

UCH Quality & Safety Committee

UCH Task Force on Hospital Fall Prevention

Fall Prevention Ward Coordinators

UCH Fall Prevention and Intervention Program for Elderly
Fall Assessment & Intervention Program 2009

- Multi-disciplinary Fall Assessment Service Team (FAST) – Geriatrician, nurses (Geriatrics, CNS), physiotherapists, occupational therapists.
- Referral: age ≥ 60 with fall related admission / fall during hospitalization or recent fall within 2 weeks (referral is accepted for age < 60 if required).
- Review reported patient fall incidents (AIRS reported falls)
- Discharged patients will be referred to CNS for assessment.
- Bimonthly meeting to review the risk factors associated with fall in hospital for identification of prevention and intervention measures.
- For High Risk Patients will be followed up in Fall Clinic, Geriatric Day Hospital and Allied Health Fall Clinic
UCH Task Force on Hospital Fall Prevention (August 2011)

Composition – Hospital Wide Representation
Geriatrician
Deputy of General Manager (Nursing)
Department Operations Managers of all clinical departments,
Geriatric nurse
Physiotherapist
Occupational therapist
Nurse Consultant in Continence Care
Facility Management

Terms of Reference:
➢ To review on patient fall incidents and identify the preventive measures in hospital
➢ To recommend the strategies for fall prevention in hospital
➢ To monitor the effectiveness of preventive measures
Fall Prevention Ward Co-ordinators June 2012

- Coordinate and evaluate the fall prevention and management program in the ward.
- Assist in monitoring the fall incident trend and identify improvement measures in the ward.
- Orientate new staff on fall prevention and management program.
- Coordinate patient / staff education and share good practices and improvement measures on fall prevention in the ward.
Plan of Action

- Set up an action plan for fall prevention strategy
- Toileting issues to be addressed especially for high risk patient
- Risk identification
- Staff education
- Patient education
- Provision of necessary aids and facilities
- Patient supervision for high risk groups
- Environmental modification and notices
  - Handrails, alarm bells, etc.
Risk Identification

- Nursing Assessment Form integrated the identified risk factors of high risk fallers from the previous AIRS study – impaired mental state, on sedatives, past history of falls, any cause of lower limb weakness on admission, immediately post-operation, postural hypotension and medications causing dizziness and hypotension
- Trigger off a proper care plan during hospitalization
Environmental Assessment

- Environmental assessment and need assessment for fall prevention was conducted on 14 December 2011:
  - tripping hazards
  - lack of handrails / grab bars
  - slippery surfaces
  - awkward reaches / storage
  - inadequate lighting
  - unstable furniture
Reduction of Environmental Risk

- Handrails and grasp bars in all toilets and bathrooms
- Redesign toilet call bells
- Safety measures in public areas of toilet especially around basin
<table>
<thead>
<tr>
<th>Improvement Measures &amp; Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvement on lighting condition in toilets and bathrooms.</td>
</tr>
<tr>
<td>Mock-up established.</td>
</tr>
<tr>
<td>Improvement Measures &amp; Progress</td>
</tr>
<tr>
<td>---------------------------------</td>
</tr>
<tr>
<td>Relocated &amp; modified safety alarm pull cord system (suitably positioned and reachable from floor level and at seated position)</td>
</tr>
</tbody>
</table>

![Image of Patient Toilet (water closet cubicle)](image-url)
<table>
<thead>
<tr>
<th>Improvement Measures &amp; Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Install</strong> <em>appropriate</em> height <em>handrail</em> for support around sink area</td>
</tr>
</tbody>
</table>
## Patient Shower Room

<table>
<thead>
<tr>
<th>Improvement Measures &amp; Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relocated &amp; Installed <strong>safety alarm</strong> (suitably positioned and reachable from floor level and at seated position)</td>
</tr>
</tbody>
</table>

![Image of safety alarm and shower stool]

![Image of call bell]
**Patient Shower Room**

### Improvement Measures & Progress

- **Stable and proper** shower chair

![Image of stable and proper shower chair]

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---
Patient Shower Room

<table>
<thead>
<tr>
<th>Improvement Measures &amp; Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Install <strong>hooks</strong> for hanging clothes</td>
</tr>
</tbody>
</table>

![Image of hooks installed for hanging clothes](image-url)
<table>
<thead>
<tr>
<th>Patient Shower Room</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Improvement Measures &amp; Progress</strong></td>
</tr>
<tr>
<td>- Install storage unit inside shower room</td>
</tr>
</tbody>
</table>

![Before](image1.jpg) ![After](image2.jpg)
**Staff Education**

- Staff training for fall prevention strategy
- Fall management programme in each ward
- Education on toileting needs and regular toileting assistance to high fall risk patients
# Staff Forum on Patient Fall Prevention

**Date:** 24 July 2012 (Tuesday)  
**Time:** 3:00 pm – 5:00 pm  
**Venue:** Lecture Theatre, Block P, UCH

## Programme Rundown

<table>
<thead>
<tr>
<th>Topic</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Welcoming Remarks</td>
<td>Dr. CHUI Tak Yi, KEC SD(Q&amp;S)</td>
</tr>
<tr>
<td>2. Introduction on Fall Prevention &amp; Intervention in Hospitals – International Development &amp; Protocols Recommended in Hong Kong</td>
<td>Dr. LEUNG Man Fuk, KEC CSC(Med) / UCH Consultant(M&amp;G)</td>
</tr>
<tr>
<td>3. Hospital Fall Prevention Program in UCH</td>
<td>Mr. William POON, SNO(S&amp;P)</td>
</tr>
<tr>
<td>4. Environmental Assessment &amp; Improvement on Hospital Facilities</td>
<td>Ms. Athina POON, OT1 / Mr. IP Man Ching, KEC M(TM)</td>
</tr>
<tr>
<td>5. Inter-disciplinary Fall Assessment Service – Review of Incidents of Patient Falls in Hospital</td>
<td>Dr. YIM Ting Kwan, AC(M&amp;G) / Ms. FUNG Oi Kuen, NO(M&amp;G)</td>
</tr>
<tr>
<td>6. Care of Toileting Need of High Fall Risk Patients</td>
<td>Ms. CHAN Sau Kuen, NO(Continence)</td>
</tr>
<tr>
<td>7. Application of Fall Alarm Pads in Prevention of Patient Falls</td>
<td>Mr. TANG Siu Keung, DOM(M&amp;G)</td>
</tr>
<tr>
<td>8. Selection of Walking Aids in Prevention of Patient Falls</td>
<td>Ms. Mary NG, PT1</td>
</tr>
<tr>
<td>9. Q &amp; A</td>
<td></td>
</tr>
</tbody>
</table>

**CNE:** 1.5 points

## UCH Task Force on Hospital Patient Fall Prevention

Presentation materials are uploaded to UCH Homepage – You See Channel:  
Patient Education

- Education to high risk patients on their risk of falls especially on toilet needs
- Education to relatives on fall prevention
- Posters in all toilets to encourage to seek help during toileting and importance of fall prevention
Hospital Poster & Video

FALL PREVENTION

To avoid fall, press the nurse call whenever you need assistance.

CALL BELL

Please pull the call bell if you need assistance.

Fall can cause pain, head injury, fracture or even death!
Hospital Poster – Shower Chair
你不應做的事：

- 只穿拖鞋走路
- 依扶床上桌、鹽水架、傢俱等步行
- 跨越床欄或獨自由床尾下床

各位親屬，為預防長者跌倒，您必須做的事：

- 向醫護人員提供長者跌倒歷史、體質情況、和飲酒史等
- 帶備長者慣用的助行器、防滑鞋、助聽器、眼鏡等
- 重覆提醒長者聽從醫療人員指導作活動和步行
- 若有需要可轉介職業治療師，為長者出院前預先改善家居環境，減低跌倒風險
  （可參閱醫院管理局或衛生署有關單張）

注意：

有跌倒風險的長者，如因病情影響，未能意識有跌倒風險，醫護人員在覆動無效的情況下，會對長者作適當的約束，以防跌倒意外發生。

資料由本院內科及老人科提供
設計及美術設計組製作
Ward Facilities

- Proper use and availability of bed pan, urinals and commodes in wards especially for patients with borderline mobility
- Pilot the application of Fall Alarm Pad
Toileting Assessment and Care Plan for high risk patients

High Risk Patients identified in Morse Fall Scale (score more than 45, gait impairment, unaware of self limitation)

Provide monitoring and supervision of toileting within the first 24 hours then assess the ability to adhere to toileting need of the patient
住院病人如厕防跌护理指引

評估時間

入院時 / 手術後或生產後 (可下床如厕活動時)
作 Morse Fall Scale 評估

評估結果

根據評估如發現以下任何一項情況者：
1. 步態項目評分 ≥ 10 分 (軟弱及不穩定=10, 失調不平=20)
2. 精神狀態：高估自己能力 / 忘記自己限制 = 15 分
3. 跌倒風險評估 ≥ 45 分

訂立及執行首 24 小時如厕護理計劃

- 請問病者個人如厕習慣
- 教導病人需要使用叫人鈴呼喚以協助如厕
- 按病者個人如厕習慣定時協助大小二便，包括：
  A) 便桶   B) 尿壺   C) 床盆   D) 陪伴往返廁所

24 小時後再作評估

- 病人仍高估自己的能力
  或
- 病人不懂 / 不使用叫人鈴

- 病人懂得使用叫人鈴及要求協助如厕
  或
- 步態穩定

執行協助如厕護理計劃

- 根據病者個人習慣制定如廁計劃
- 床頭掛上協助高危跌倒指示牌
- 鼓勵家人陪伴

可停止
住院病人如厕護理指引
Rehabilitation and Training

- Early Referral to Fall Assessment Service Team (FAST) for patients with recent history of falls at home or admitted for fall related reasons for detail assessment, intervention and rehabilitation
# UCH Fall Prevention & Intervention Program for Elderly

## (UCH.FPI Program)

### Inter-Disciplinary Fall Assessment Form

#### Active Diagnosis:
- [ ] Please call FAST Team again
  - (When general condition improves)
- [ ] Name of Assessor:
- [ ] Assessment Date:
  - (Doctor, Nurse, PT, OT)

#### Source of Patient
- [ ] AED
- [ ] Fall in Hospital
- [ ] Medicine & Geriatrics
- [ ] Orthopaedics
- [ ] Surgical
- [ ] Others

#### Fall History
- [ ] Time & Location
  - Approximate at: [ ] am / [ ] pm
  - [ ] Toilet/Bathroom
  - [ ] Bedside
  - [ ] Living room
  - [ ] Kitchen
  - [ ] Outside Home
- [ ] Activity during fall
  - [ ] Micturition
  - [ ] Lying / Sitting to Standing
  - [ ] Prolonged Standing
  - [ ] Walking
  - [ ] Sudden Head Turning
  - [ ] Others:
- [ ] Fall Mechanism
  - [ ] Dizziness
  - [ ] Collapsed or LOC
  - [ ] Fall from height (bed, chair etc)
  - [ ] Tripped
  - [ ] Slipped
  - [ ] LL Weakness
  - [ ] Lost Balance
  - [ ] Inflicted by Others
- [ ] Injury Sustained
  - [ ] No
  - [ ] Minor Injury
  - [ ] Head Injury
  - [ ] Colles’ Fracture
  - [ ] Hip Fracture
  - [ ] Others:
- [ ] Past History of Fall
  - [ ] No
  - [ ] Yes (Number of falls in past 6 months = [ ])
  - [ ] Fall Pattern (If any):

### Risk Areas

#### Medical History
- [ ] Old CVA with residual neurological impairment
- [ ] Postural related dizziness or known postural hypotension
- [ ] Parkinsonism
- [ ] Dementia
- [ ] DM neuropathy
- [ ] Lower limb arthritis

#### Fall - Related Medications
- [ ] Psychotropic drugs
- [ ] Antiplatelet drugs
- [ ] (e.g. Benzodiazepine, Hypnotics)
- [ ] Alpha Blocker
- [ ] Diuretic
- [ ] Digoxin or Antiarrhythmics
- [ ] Number of regular drugs > 4

#### Mobility
- [ ] Lower limb weakness
- [ ] Balance deficit
- [ ] Gait deficit
- [ ] Poor sitting balance
- [ ] Improper use of walking aid
- [ ] Inappropriate shoes
- [ ] Timed Up & Go Test
  - [ ] ≥ 14 sec
  - [ ] Not Applicable

#### Cognitive / Sensory / Functional
- [ ] Premorbid Cognitive Status
  - [ ] Confusion
  - [ ] Disorientation
- [ ] Sensory Loss
  - [ ] Vision
  - [ ] Hearing
- [ ] Premorbid ADL Function
  - [ ] ADL dependence
  - [ ] Improper use of assistive devices
    - (such as bathing & toileting devices, handrails, commode)
- [ ] Over - Confident / Poor Insight

### Fall Risk Level
- [ ] Low
- [ ] Medium
- [ ] High

#### Identified Problems & Needs
- [ ] Manage new medical problem/s
- [ ] Education and Information
- [ ] Refer for Discharge Support
  - [ ] IDSP
  - [ ] Others:
- [ ] Mobility Training
- [ ] Functional / Cognitive / Sensory Loss Management
- [ ] No

#### Actions
- [ ] Discussed with Case MO
- [ ] Refer for Discharge Support
  - [ ] IDSP
  - [ ] Others:
- [ ] Referred to Physiotherapist
- [ ] Referred to Occupational Therapist
- [ ] NA

#### Suggestions for Follow Up
- [ ] In Patient Rehabilitation
  - (ID/KH/HHH)
- [ ] GDH Rehabilitation
- [ ] Geriatric Falls Prevention Clinic
  - (Doctor or Nurse FU)
- [ ] Allied Health Fall Prevention Clinic
- [ ] CNS
- [ ] NA

### Remarks:
- Please [ ] indicate ‘Yes’
- Team Leader (Geriatrician) fax number: 1-3513-5940
- IDSP = Integrated Discharge Support Program

**UCH.FPI Program 07/2010**
Review of Inpatient Falls
Data Set for Fall Risk Assessment of Confirmed Inpatient Fall Reported via AIRS

AIRS Case No: ______________ Date of fall: ______________
The MFS before index fall: ______________ Severity Index of Incident: ______________

1. What risk factors for falls and injury were present?
   - a) Past history of fall: □ Yes □ No
   - b) Lower limbs weakness: □ Yes □ No
   - c) Gait deficit: □ Yes □ No
   - d) Balance impairment: □ Yes □ No
   - e) Confusion: □ Yes □ No
   - f) Visual impairment: □ Yes □ No
   - g) Medications: □ Yes □ No

   Other risk factors, if any:

2. What was the activity at the time of the fall?
   (tick one only)
   - □ a) related to toileting and continence care (including walking to/from toilet, etc.)
   - □ b) grooming or bathing (including walking to/from toilet, etc.)
   - □ c) trying to reach bed side or distant objects
   - □ d) transfer by self or others without specified purpose
   - □ e) walking without specified purpose

3. What was the mechanism of the fall?
   (tick one only)
   - □ a) slip/trip and fell
   - □ b) transfer by others
   - □ c) lower limbs weakness / lost balance
   - □ d) loss of consciousness
   - □ e) uncertain

4. What interventions were in place at the time of the fall?
   (can choose more than one answer)
   - □ a) alarm pad
   - □ b) under direct personal supervision and care
   - □ c) had been advised for using call bell for assistance
   - □ d) mobility aids
   - □ e) pharmacological restraint
   - □ f) physical restraint
   - □ g) regular toileting support

Others:

5. Other important remarks:

Assessor: ______________ Date of assessment: ______________

□ The contributing factor is communicated with Duty IC / WM ______________ □ Unnecessary

Please Fax to 1-3513-5953 for Data Collection AND
Send this form to S-14B, Ms Fung Ot Kuen (UCHFPI Program Coordinator DECT 6532)
- Geriatric nurse and doctor will monitor progress for follow up arrangement, including reviewing electronic patient record and telephone follow up if necessary.
Data from Falls Review
# Falls as analyzed by Sex & Age groups 2012

<table>
<thead>
<tr>
<th>Age Group</th>
<th># of fall</th>
<th>% of total 2012 fall cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;60</td>
<td>23</td>
<td>10%</td>
</tr>
<tr>
<td>60-69</td>
<td>14</td>
<td>6%</td>
</tr>
<tr>
<td>70-79</td>
<td>31</td>
<td>13%</td>
</tr>
<tr>
<td>&gt;80</td>
<td>38</td>
<td>16%</td>
</tr>
</tbody>
</table>

**Female Total: 106 (46%)**

<table>
<thead>
<tr>
<th>Age Group</th>
<th># of fall</th>
<th>% of total 2012 fall cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;60</td>
<td>22</td>
<td>9%</td>
</tr>
<tr>
<td>60-69</td>
<td>25</td>
<td>11%</td>
</tr>
<tr>
<td>70-79</td>
<td>36</td>
<td>16%</td>
</tr>
<tr>
<td>&gt;80</td>
<td>43</td>
<td>19%</td>
</tr>
</tbody>
</table>

**Male Total: 126 (54%)**

**Sex Ratio** (Female : Male) 53 : 63

Data of 2012 (updated on 08/11/2013)
## Fall Rate by Sex & Age group

### Fall Rate (Falls per 1000 occupied bed days)

<table>
<thead>
<tr>
<th>Age group</th>
<th>#of fall</th>
<th>Bed days</th>
<th>Fall rate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Female</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;60</td>
<td>23</td>
<td>61273</td>
<td>0.375369</td>
</tr>
<tr>
<td>60-69</td>
<td>14</td>
<td>18322</td>
<td>0.764109</td>
</tr>
<tr>
<td>70-79</td>
<td>31</td>
<td>31229</td>
<td>0.992667</td>
</tr>
<tr>
<td>&gt;80</td>
<td>38</td>
<td>52834</td>
<td>0.719234</td>
</tr>
<tr>
<td>Total: 106 (46%)</td>
<td>163658</td>
<td></td>
<td>0.647692</td>
</tr>
<tr>
<td><strong>Male</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;60</td>
<td>22</td>
<td>37766</td>
<td>0.582535</td>
</tr>
<tr>
<td>60-69</td>
<td>25</td>
<td>24405</td>
<td>1.02438</td>
</tr>
<tr>
<td>70-79</td>
<td>36</td>
<td>41586</td>
<td>0.865676</td>
</tr>
<tr>
<td>&gt;80</td>
<td>43</td>
<td>41877</td>
<td>1.026817</td>
</tr>
<tr>
<td>Total: 126 (54%)</td>
<td>145634</td>
<td></td>
<td>0.865183</td>
</tr>
<tr>
<td><strong>All</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;60</td>
<td>45</td>
<td>99039</td>
<td>0.454366</td>
</tr>
<tr>
<td>60-69</td>
<td>39</td>
<td>42727</td>
<td>0.912772</td>
</tr>
<tr>
<td>70-79</td>
<td>67</td>
<td>72815</td>
<td>0.92014</td>
</tr>
<tr>
<td>&gt;80</td>
<td>81</td>
<td>94711</td>
<td>0.855233</td>
</tr>
<tr>
<td>Total: 232 (100%)</td>
<td>309292</td>
<td></td>
<td>0.7501</td>
</tr>
</tbody>
</table>

Data of 2012 (updated on 08/11/2013)
Severity Index of Incident

from HA-AIRS: Patient Fall Incident Report

<table>
<thead>
<tr>
<th>Severity level</th>
<th># of fall</th>
<th>% of total 2012 fall cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>86</td>
<td>37%</td>
</tr>
<tr>
<td>Level 2</td>
<td>128</td>
<td>55%</td>
</tr>
<tr>
<td>Level 3</td>
<td>12</td>
<td>5%</td>
</tr>
<tr>
<td>Level 4</td>
<td>6</td>
<td>3%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>232</td>
<td>100%</td>
</tr>
</tbody>
</table>

Data of 2012 (updated on 08/11/2013)
# Severity Index of Incident by Age Group

Data of 2012 (updated on 08/11/2013)

<table>
<thead>
<tr>
<th>Age Groups</th>
<th>Level 1 + 2</th>
<th>Level 3 + 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;60</td>
<td>43</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>19%</td>
<td>1%</td>
</tr>
<tr>
<td>60-69</td>
<td>39</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>17%</td>
<td>0%</td>
</tr>
<tr>
<td>70-79</td>
<td>63</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>27%</td>
<td>2%</td>
</tr>
<tr>
<td>&gt;80</td>
<td>69</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>30%</td>
<td>5%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>214</strong></td>
<td><strong>18</strong></td>
</tr>
<tr>
<td></td>
<td><strong>92%</strong></td>
<td><strong>8%</strong></td>
</tr>
</tbody>
</table>
Risk Factors for falls and injury

- a) Past history of fall: 28% Yes, 67% No
- b) Lower limbs weakness: 58% Yes, 38% No
- c) Gait deficit: 25% Yes, 70% No
- d) Balance impairment: 23% Yes, 72% No
- e) Confusion: 22% Yes, 75% No
- f) Visual impairment: 5% Yes, 90% No
- g) Medications: 34% Yes, 61% No

Data of 2012 (updated on 08/11/2013)
Activity during fall incident

- a) Related to toileting and continence care: 50%
- b) Grooming or bathing: 7%
- c) Try to reach bed side or distant objects: 8%
- d) Transfer by self or others without specified purpose: 14%
- e) Walking without specified purpose: 8%
- Others: 13%

Data of 2012 (updated on 08/11/2013)
Mechanism of fall incident

- a) Slip/ trip and fell: 17%
- b) Transfer by others: 1%
- c) Lower limb weakness/ lost balance: 49%
- d) Loss of consciousness: 4%
- e) Uncertain: 18%
- Others: 10%

Data of 2012 (updated on 08/11/2013)
## Fall Rate (2011 – 2013)

### Per 1000 bed days

<table>
<thead>
<tr>
<th>Year</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>0.96</td>
<td>0.49</td>
<td>0.54</td>
<td>0.68</td>
</tr>
<tr>
<td>2012</td>
<td>0.81</td>
<td>0.68</td>
<td>0.64</td>
<td>0.83</td>
</tr>
<tr>
<td>2013</td>
<td>0.61</td>
<td>0.72</td>
<td>0.62</td>
<td>0.66</td>
</tr>
</tbody>
</table>

### Fall Rate (2011 – 2013)

<table>
<thead>
<tr>
<th>Year</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Rate</td>
<td>0.67</td>
<td>0.74</td>
<td>0.65</td>
</tr>
<tr>
<td>Age Group</td>
<td>Fall Rate</td>
<td>2012</td>
<td>2013</td>
</tr>
<tr>
<td>------------</td>
<td>-----------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>Aged &lt;60</td>
<td></td>
<td>0.45</td>
<td>0.43</td>
</tr>
<tr>
<td>60-69</td>
<td></td>
<td>0.91</td>
<td>0.69</td>
</tr>
<tr>
<td>70-79</td>
<td></td>
<td>0.92</td>
<td>0.82</td>
</tr>
<tr>
<td>&gt;80</td>
<td></td>
<td>0.86</td>
<td>0.72</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>0.74</td>
<td>0.65</td>
</tr>
</tbody>
</table>

(Fall Rate per 1000 occupied bed days)
Summary

- Hospital-Wide Fall Prevention Management Structure was set up
- Established Risk Assessment for patients to supplement Morse Fall Scale
- Environmental Assessment performed and improvement undertaken
- Provide fall prevention devices and equipment through Annual Plan
- Regular Staff, Patient and Relative Education
- Systematic Collection of Fall Data for monitoring of fall risks and development of intervention
- Implementation of Toilet Plan for High Risk Patients
- Encouraging result in Downward Trend of In-patient Falls
Falls prevention and management is excellent at UCH. This program is multidisciplinary and very well considered and evaluated. It is clear that a lot of effort has gone into all aspects of this criterion. The focused post fall evaluation is excellent and guides further practice both for individual patients and for general practice change. The Consultants found that everyone in the clinical areas knows about their role in preventing and managing falls. Several publications were also noted.
Fall Prevention Ward Co-ordinators
Thank You!

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