Health Informatics and Geriatric Medicine

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"Health informatics is the intersection of clinical, IT and management practices to achieve better health."
(COACH 2008)

- It is the rational study of the way we think about patients, and the way that treatments are defined, selected and evolved.

- It is the study of how medical knowledge is created, shaped, shared and applied. (Enrico Coiera 1997)

- Health Informaticians can be the bridge between technology and clinical practice.
Health Informatics

Goals of Informaticians:
- right information is available
- right people within an organization
- at the right time and place
- and for the right price
- Health Informatics is currently gaining in awareness as it supports patient safety, evidence based medicine, patient education and knowledge translation and exchange.
Gero-informatics

GERO-INFORMATICS

- Not a widely known term but exists!!
- Important because of our ageing population.
- Gaps in knowledge, practice, outcome evaluation, will begin to weigh heavily on geriatric medicine.*

- Gero-informatics specifically targets
  - Physical functional status, IADLs and ADLs.
  - Cognitive status
  - Patients' preferences for care
  - Key information from and about caregivers
Gero-informatics and the GDH

- Older adults face many challenges in improving health and obtaining high-quality, comprehensive, coordinated healthcare.
- Geriatric Day Hospital and the Interdisciplinary team

  - Evidence regarding long-term outcomes such as quality of life and institutionalization related to Canadian day hospital programs has been largely inconclusive (Crilly et al., 2005, Myint, 2005)
    - due to lack of systematic data collection tools
    - methodological pitfalls in defining and measuring outcomes in this dynamic population.*
GDH Integrated Patient Information System

Select a patient from the drop down list then click the button to view, add or edit their information for each module:

- Patient Assessment
- Function
- Strength and ROM
- Balance and Gait
- Nursing
- Falls
- Social Work
- Goal Attainment Scaling

HC
### Function Module

**First Name:** HC  |  **Last Name:**  |  **Age:** 98  |  **Print Function Report**  |  **Exit**

#### Allergy Warning
**Eggs and Flu Shot, New Allergy**

#### Instrumental Activities of Daily Living
- **FINANCES**
  - **Collateral:**
  - **Never Did:**
  - **Current:**
  - **Description:**
  - **Notes:**

#### Basic Activities of Daily Living
- **DRIVING**
  - **Collateral:**
  - **Never Did:**
  - **Current:**
  - **Description:**
  - **Notes:**

- **SHOPPING**
  - **Collateral:**
  - **Never Did:**
  - **Current:**
  - **Description:**
  - **Notes:**

- **COOKING**
  - **Collateral:**
  - **Never Did:**
  - **Current:**
  - **Description:**
  - **Notes:**

- **MEDS**
  - **Collateral:**
  - **Never Did:**
  - **Current:**
  - **Description:**
  - **Notes:**

- **PHONE**
  - **Collateral:**
  - **Never Did:**
  - **Current:**
  - **Description:**
  - **Notes:**

- **LAUNDRY**
  - **Collateral:**
  - **Never Did:**
  - **Current:**
  - **Description:**
  - **Notes:**

- **CLEANING**
  - **Collateral:**
  - **Never Did:**
  - **Current:**
  - **Description:**
  - **Notes:**

#### Concerns
- Missing Bills
- Paying Twice
- Spending
- POA Needed
- MVA's
- Risky Behaviour
- Family Concerned
- Failed Previous Driving Test
- Poor Nutrition
- Inadequate Access
- Leaves Stove On
- Burning Pots
- Needs Pre-made Meals
- Missed Doses
- Double Doses
- Complex Schedule
- Needs Blister Pack
- Needs Dosette
- Needs VON/Supervision
- Problems using Lifeline
- Needs Lifeline
- Cannot Maintain House
- Interior/Exterior

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**Geriatric Medicine Research**  |  **September 3rd, 2008**
### IADL and ADL Report

**Case Manager:** Andrea  
**MSI:** 4544645645  
**HC**

**HC** is a 95 year old female screened on 8/18/2008 who was referred because of recurrent falls.

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### Instrumental Activities of Daily Living

<table>
<thead>
<tr>
<th>COL. NA CURRENT DESCRIPTION</th>
<th>CONCERNS</th>
<th>GOAL SET</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FINANCES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>☑ Abnormal</td>
<td>□ Missing Bills</td>
<td>Monitor</td>
</tr>
<tr>
<td>Instructs her son regarding financial transactions.</td>
<td>□ Paying Twice</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ Spending</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ POA Needed</td>
<td></td>
</tr>
</tbody>
</table>

| **DRIVING**                                  |                                               |          |
| ☑ Abnormal                                   |     □ MVA's                                   | Goal     |
| Always needs assistance                      |     □ Risky Behaviour                         |          |
|                                              |     □ Family Concerned                        |          |
|                                              |     □ Failed Previous Driving Test           |          |

| **SHOPPING**                                 |                                               |          |
| ☑ Abnormal                                   |     □ Poor Nutrition                          |          |
| Independent for small purchases             |     □ Inadequate Access                       |          |
## Balance and Gait

### Date: 19-Aug-08

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Berg</th>
<th>FOMA</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sitting Balance Unsupported</td>
<td>Able to sit 30 sec or more</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Sitting to Standing</td>
<td>Able to stand using hands after several tries</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Immediate Standing Balance</td>
<td>Steady but uses walker or other support</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Standing Balance Unsupported</td>
<td>Able to stand 2 min with supervision (standby)</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Standing to Sitting</td>
<td>Needs assistance to sit</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Transfers (Bed to Chair)</td>
<td>Sits independently but has uncontrolled descent</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Sternal Nudge</td>
<td>Uses back legs against chair to control descent</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Standing Eyes Closed</td>
<td>Controle transfer from stand to sit by using hands on arms of chair</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Standing Feet Together</td>
<td>Safety with minimal use of hands</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Functional Reach Dist-&gt; 0 m</td>
<td></td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Retrieving Object from Floor</td>
<td></td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Turning neck to look behind</td>
<td></td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Turn 360 degrees</td>
<td></td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Place Alternate Foot on Stool</td>
<td></td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Tandem Stance</td>
<td></td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>
### Goal Setting Module

**First Name**: HC  
**Last Name**:  
**Age**: 98

#### Goal Setting
- Monitoring

#### Goal Areas Identified
- Cooking
- Shopping
- Toileting
- Mobility
- Bathing
- Blood Pressure

#### Cooking

**Baseline**: To be able to remember that she is cooking something, to make sure she does not leave pots on and gets adequate nutrition because it will keep her more independent and safe.

1. Be able to cook and use oven and burners without burning and leaving things on
2. Be able to microwave safely
3. Be able to safely store food and know when to eat
4. Have a VON come three times a week
5. Need full supervision

<table>
<thead>
<tr>
<th>Date</th>
<th>Current Status</th>
<th>Plan</th>
<th>Team Member</th>
<th>Score</th>
<th>Complete?</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/1/2008</td>
<td>Right now she is only able to store food properly, because she has forgotten how to use it.</td>
<td>Buy microwaveable meals, teach how to use the microwave properly</td>
<td>Nursing, Social Work</td>
<td>🟢</td>
<td>☑️</td>
</tr>
<tr>
<td>9/3/2008</td>
<td>Same status but had a cooking lesson</td>
<td></td>
<td>OT</td>
<td>❌</td>
<td>☑️</td>
</tr>
<tr>
<td>9/2/2008</td>
<td></td>
<td></td>
<td>PT, Physician</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes**: Tracey can safely cook her own meals now after being re-taught.
Computerized a prototype for the CGA assessment form and HABAM assessment scale

Can calculate the frailty score instantly

Data can be extracted and used for research

Links the CGA to HABAM – all HABAM scores entered each day.
Moving Forward

- We have the data which when organized becomes meaningful information.
- Information is then interpreted and processed by our minds to become knowledge.
- Knowledge can then be shared to make care better.
  - Patient focused approach
  - Be used to inform policy makers
  - Drive research
  - Help with accountability
  - Produce reports for management
  - Be used to measure patient OUTCOMES
If we take care of our little corner, together we can better patient care and be leaders in innovation to help those that follow in our footsteps.
Questions…Comments…Thoughts?

Thank you!