Fixing Unscheduled Care in the Republic of Ireland

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Lead, National Acute Medicine Programme
CCPs arose from HSE/RCPI/RCSI collaboration 2010
Hospitals on the edge? The time for action

A report by the Royal College of Physicians
September 2012
Figure 2.1.1. Cumulative percentage increase in population, all ages and aged 65+. Ireland and EU, 2003 to 2012

Source: DH Key Trends 2013
Opportunities

- New Minister
- New HSE Directorate Structure (5)
- New National Clinical Leads (5)
- RCPI and RCSI collaboration
- New Hospital Groups
- Money Follows The Patient/ABF
- NQAIS Medicine/Surgery
- Mathematical Flow Modelling
- New GP Contract
- Economic upswing
"All change is difficult, even from worse to better!"

Richard Hooker

Want to make enemies?
Try changing something!

Pres. Woodrow Wilson
Clinical Programmes

• National Acute Medicine Programme (50% of all bed days used, >€2b./y)
• Older persons, Surgery, Emergency Medicine, Critical Care programmes and Primary Care - all vital partners in integrated care delivery
• IHRP/SDU – assist with performance management & redesign of care processes
National Acute Medicine Programme

Described new model of care with 4 intervention areas:

1). Ambulatory Care (AMAU, <1/7)
2). Short Stay Units (<2/7)
3). Inpatient wards (3-14/7)
4). Complex discharges (>14/7)
Why AMAUs work

- Multidisciplinary Team working
- Clearly defined roles/responsibilities
- Mindsets of staff (can do attitude)
- Investigate to discharge, **NOT** admit to investigate
- Ability to change ‘tempo’ in response to unit demands
- Coordinated/organized
- Older patient focused
- Systems set up for Safety & Quality & Speed
- Reduce LOS
- Improve PET

<table>
<thead>
<tr>
<th>Time Period</th>
<th>AvLOS (days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 10</td>
<td>8.8</td>
</tr>
<tr>
<td>Jan 11</td>
<td>8.6</td>
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<td>Jan 12</td>
<td>8.4</td>
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<tr>
<td>Jan 13</td>
<td>8.2</td>
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</tbody>
</table>

Data Source: HIPE, ESRI
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Why is emergency care so challenging?

Because its complex!

Vincent Connolly
Capacity is decision makers & action takers
not
cubicles, beds, trolleys, chairs
Value Equation

Patient experience X Patient Outcomes

Cost
Managing Length of Stay

- Maximise ambulatory care
- Green bed days vs red bed days – flow management – making it happen!
- Complex support needs – but how much is hospital based decompensation?
Acute Floor

Figure 2. Diagram of the acute floor for model 4 hospitals

*Interventional Cardiology only included if available on site
MFTP/ABF/VBF

- Abolish perverse incentives
- Support virtuous incentives/VFM
- Fund Ambulatory Care, focused on older patients (Elderly Frail Units) and chronic disease care in the Community
- Must be transparent, accountable, make financial sense and work for the patient
- Facilitates rationale future service planning
- Gets CEOs’ attention!
‘every system is perfectly designed to get the results it gets’
% all Medical patients on AMAU Pathway

<table>
<thead>
<tr>
<th>Year</th>
<th>% AMAU Pathway</th>
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<tbody>
<tr>
<td>2012</td>
<td>21%</td>
</tr>
<tr>
<td>2013</td>
<td>29%</td>
</tr>
<tr>
<td>2014</td>
<td>32%</td>
</tr>
<tr>
<td>2015</td>
<td>37%</td>
</tr>
</tbody>
</table>

Current % across all hospitals ranges from 12% (lots of trolleys/terrible PETs) to 78% (few trolleys/great PETS)

2015 Target = 40%  
2016 Target = 50%  
\{ Needs 7/7 working \}
Model of Care (NAMP)

Acute Bed Pool
2 nights

- Respiratory Unit
- Stroke Unit
- Gastro-Intestinal Unit
- Acute Elderly Care Unit
- Metabolic Unit
- Critical Care
- Cardiac Unit

Decision to admit

ED

GP
Hospital C: % of Inpatient Discharges by Length of Stay Category for Acute Medicine
Combined Emergency and Elective Admissions

- 0 Days: 12%
- 1-2 Days: 24%
- 3-5 Days: 22%
- 6-9 Days: 17%
- 10-14 Days: 10%
- >14 Days: 15%

Hospital C: % of BDU by Length of Stay Category for Acute Medicine Combined Emergency and Elective Admissions

- 0 Days: 1%
- 1-2 Days: 4%
- 3-5 Days: 11%
- 6-9 Days: 16%
- 10-14 Days: 14%
- >14 Days: 54%
Seven Day Consultant Present Care Implementation Considerations

November 2013
Distribution of patients in ED & AMAU by clinical group

Data Phase

Modelling Phase

Sensitivity Analysis

Patients in ED

Patients in AMAU

- Assault
- ENT
- Ophthalmological
- RTA
- Trauma

- Dental
- Medical
- Orthopaedics
- Social
- Unknown

- Dermatological
- Not Recorded
- Other
- Sports Injury
- Urology

- Did Not Wait for Triage
- Obs/Gynae
- Psychiatric
- Surgery
- Vascular

96%

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Distribution of triage groups for medical patients

Data Phase

Modelling Phase

Sensitivity Analysis
Process Times of medical patients in ED & AMAU

- Time to leave dept: 3 hours more for medical pts in ED than pts in AMAU
- Bed Requested
- To be seen by a speciality doctor
- From entrance to be seen by ED/AMAU Clinician
- From ED to AMAU: 2.5 hours more for medical pts to be transferred to AMAU from ED
- From Triage to Dept.
- From Reg. To Triage: 1.5 hours more for medical pts in ED than pts in AMAU

Data Phase
Modelling Phase
Sensitivity Analysis

Medical Patients in AMAU
Medical Patients in ED

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**PET Breakdown in ED**

**PET breakdown for patients in ED**

- **Medical Patients** ≈ 10 hrs
- **All Patients** ≈ 8 hrs

**PET breakdown for medical patients in AMAU**

≈ 5hrs
Number of patients in ED/age group

Age Distribution of patients in ED

Age Distribution of medical patients in AMAU

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Patient Flow Analysis

Data Phase

Modelling Phase

Sensitivity Analysis

Patients Arrival (Ambulance)

Patients Arrival (Walk-In)

- 23%
- 77%

ED

23% 77%

CDU AMAU

14-16 patients

Die

AMAU Review Clinic

50%

SSU

30% of discharged patients go to review clinic

2%

Wards

32%

17%

Home

Home

Average of 121 patients served daily in ED

- Other Hospital
- Convalescence
- Nursing Home
- Home

Dayward

4 patients

3 patients

7 patients

OPD

Waiting List

37%

54%
Sensitivity Analysis

Patients who should be routed to the AMAU have the following characteristics:

1) Presented to the ED from 9:00-18:00
2) Medical Patients
3) Triaged as category 2 or 3
4) They walked in to the ED

63% of the above patients are properly “allocated” to AMAU pathway
37% of those patients gets “misallocated” and go to the ED path instead
Scenarios

Using the following variables:

1. With “misallocation”/without “misallocation”
2. Number of Consultants (+1, +2)
3. Opening Hours (12 hrs, 18 hrs, and 24 hrs)
4. SSU Capacity (12 beds, 18 beds, and 24 beds)
5. Combined Scenario
   - 18 beds in AMAU
   - 24 beds in SSU
   - Opening 18 hrs/weekday
   - Add 2 consultants
## Better Combinations Scenario

<table>
<thead>
<tr>
<th>Factors</th>
<th>Mis-Allocation</th>
<th>Base Scenario</th>
<th>with</th>
<th>without</th>
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<tbody>
<tr>
<td>AMAU Capacity</td>
<td>11</td>
<td>18</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>SSU Capacity</td>
<td>12</td>
<td>24</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Opening hrs</td>
<td>9-9</td>
<td>9-12</td>
<td>9-12</td>
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<tr>
<td>Consultants</td>
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<td>+2</td>
<td>+2</td>
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<table>
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<th>KPIs</th>
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<th>% change</th>
<th>% change</th>
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<tbody>
<tr>
<td>PET</td>
<td>PET (All-Non)</td>
<td>7.53</td>
<td>6.88</td>
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<tr>
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<td>PET (All-MED)</td>
<td>9.78</td>
<td>8.49</td>
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<tr>
<td></td>
<td>PET (All-AMAU)</td>
<td>4.75</td>
<td>3.09</td>
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<tr>
<td>Productivity</td>
<td>% Med in AMAU</td>
<td>17%</td>
<td>24%</td>
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Recommendations

• Use system in hospital redesign

• Extend model development to optimisation stage

• Extend model to include inpatient wards

• Analyse data in other hospitals and customise model for other hospitals

• Joint hospital group project?
Conclusion - we need to:

- Re-engineer healthcare systems based on cooperation, interdisciplinary working and mathematical flow modelling

- Achieve highest quality of safe, efficient care with lower mortality and length of stay with improved patient outcomes and increased staff satisfaction

- Develop Acute Physicians who can manage complex, co-morbid illnesses, leading multidisciplinary teams and who embrace performance improvement skills as core competencies
Absolute need for:

• New thinking, effective communication and collaboration
• Clinical/Financial Management Systems (ICT) to administer ABF fairly and transparently
• National Quality Improvement Programmes (e.g. NQAIS Medicine/Surgery)
• Realistic health budget
• Clinical, Managerial, Political Leadership
• Media engagement
I'm sure glad the hole isn't in our end...