Maximising Day Surgery in Ireland

NATIONAL CLINICAL PROGRAMME IN SURGERY

12th April 2013
Surgery in Ireland
- Has developed in a piecemeal fashion
- Become ever more complex
- With a proliferation of procedures and specialties
- Demanding of greater resources and new technologies
- In an environment of greater patient expectation

This, on a background of:
- Greater demands on limited hospital/healthcare resource
- Inconsistent standards and pathways of surgical care
- Lack of confidence in the accuracy and interpretation of data
- The absence of adequate process mapping and capacity planning
- Lack of separation of the demands of acute versus elective care
- Poor lengths of stay and day case rates
- Poor incentivisation

Whilst anticipating greater demands of a changing healthcare environment:
- Greater oversight – hospital accreditation
- The development of Hospital Groups
- Money following the patient
- Universal Healthcare
- Improving Quality and Safety (Targets – v – Team Training + Rewards)
The two streams of surgical workload

- Acute Load: Less predictable
- Elective Load: Predictable

- Designated Theatres
- Recovery
- Discharge

Pathways:
- Pre-admission Assessment
- Discharge Planning
- Day Surgery
- Day of Surgery
- In-patient Waits
- GP Referral
- Out-patient Waits

Departments:
- ICU/Resuss
- Ward
- Surgical Assessment Unit
- Designated Beds

Common Path
The National Clinical Programme in Surgery

- Model of Care: Elective Surgery
- Model of Care: Acute Surgery
- Theatre Programme
- National Audits – Mortality, Joint replacement, Critical Care, Trauma
- Measuring Performance
- Implementing and Sustaining by: Site visiting, Coaching and Establishing Governance Structures
- Access, Quality & Cost
Model of Care Elective Surgery

TOPICS COVERED

Pre-admission Assessment
Day Surgery
Day of Surgery Admissions
Discharge Planning
Model of Care Acute Surgery

TOPICS COVERED

Core Principles
  Quality Assured Care & Standards
  Early access to a senior decision maker
Recognition of Acute & Elective Pathways
Efficient Patient Flow
Importance of Access and Facilities
  Beds – Acute Surgical Assessment Units
  Theatres
Manpower/workforce
Capacity Planning
Key Performance indicators
Patient Safety

Governance

Working environment

Team building and leadership

Learning from industry

Funding & Cost control

Access & Capacity Planning

Lean, 6 sigma, Constraints Management

Adverse incidents

Incentivising Performance Improvement

Other parts of the Programme.............

Complications
A surgeon’s notes on an imperfect science

Atul Gawande

Written as tautly as a thriller ... One of several chapters call to mind the gruesome genre pioneered by bestselling novelist Patricia Cornwell
Joan Smith, The Observer

D ata
### The National Clinical Programme in Surgery

Unique to Ireland; has a 5 year projection; is underpinned by:
- Selected International best practice
- National Standards
- Extensive consultation

Consistent with HSE strategy and Government policy with regard to
- Corporate and clinical governance
- Standards of practice
- Cost containment
- PTLs and HTAs
- The establishment of hospital groups moving to trusts
- The principal of money following the patient
- Universal Healthcare

**WE ARE EFFECTING CHANGE!**
Performance Monitoring

Figure 4.1: Number of Surgical In-patients Treated Nationally in 2011 (158,889)

- Acute - No Surgery: 55,312 - 35%
- Acute - Surgery: 43,212 - 27%
- Elective - No Surgery: 11,077 - 7%
- Elective - Surgery: 49,288 - 31%

2010 to 2011:
- Surgical Volume $\uparrow \times 2.5$
- Bed day usage $\downarrow \times 5$
- True bed day savings – 91,662 (net 60,007)
- 9% $\uparrow$ Day Cases

CompStat
HIPE Analysis
NQAIS
National monthly Day case volumes by Surgical Specialty for 2010 & 2011
Average growth rate of 0.5% per month or 6.17% per annum

Acute and elective surgical primary procedures in surgery hospitals excluding obstetrics, maternity, new born and paediatric hospitals
## Proportion of Day versus Stay Procedures Nationally

<table>
<thead>
<tr>
<th>Surgical specialty short code</th>
<th>Surgical specialty description</th>
<th>Total num Cases</th>
<th>Day Cases</th>
<th>% Day Cases</th>
<th>Num InPatient</th>
<th>BedDays Used</th>
<th>AvLOS</th>
<th>Pre-op AvLOS</th>
<th>% DoSA</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 BREAST</td>
<td>Breast Surgery</td>
<td>8,040</td>
<td>5,732</td>
<td>71.3%</td>
<td>2,308</td>
<td>8,693</td>
<td>3.77</td>
<td>0.62</td>
<td>49.4%</td>
</tr>
<tr>
<td>4 CARDTO</td>
<td>Cardiothoracic</td>
<td>1,377</td>
<td>47</td>
<td>3.4%</td>
<td>1,330</td>
<td>18,067</td>
<td>13.58</td>
<td>2.01</td>
<td>8.9%</td>
</tr>
<tr>
<td>5 COLORC</td>
<td>Colorectal</td>
<td>3,131</td>
<td>765</td>
<td>24.4%</td>
<td>2,366</td>
<td>28,438</td>
<td>12.02</td>
<td>1.82</td>
<td>27.6%</td>
</tr>
<tr>
<td>6 GENERL</td>
<td>General Surgery</td>
<td>21,595</td>
<td>13,919</td>
<td>64.5%</td>
<td>7,676</td>
<td>26,775</td>
<td>3.49</td>
<td>0.71</td>
<td>61.9%</td>
</tr>
<tr>
<td>7 GYNEAC</td>
<td>Gynaecology</td>
<td>18,230</td>
<td>13,507</td>
<td>74.1%</td>
<td>4,723</td>
<td>20,197</td>
<td>4.28</td>
<td>0.73</td>
<td>43.5%</td>
</tr>
<tr>
<td>8 MXFDNT</td>
<td>Maxilliofacial &amp; Dental</td>
<td>3,214</td>
<td>2,909</td>
<td>90.5%</td>
<td>305</td>
<td>2,334</td>
<td>7.65</td>
<td>1.51</td>
<td>55.4%</td>
</tr>
<tr>
<td>9 NEUROS</td>
<td>Neurosurgery</td>
<td>1,591</td>
<td>625</td>
<td>39.3%</td>
<td>966</td>
<td>6,942</td>
<td>7.19</td>
<td>1.77</td>
<td>13.0%</td>
</tr>
<tr>
<td>10 Exclude OBSTET</td>
<td>Obstetric</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 OPHTHA</td>
<td>Ophthalmology</td>
<td>27,507</td>
<td>25,749</td>
<td>93.6%</td>
<td>1,758</td>
<td>4,433</td>
<td>2.52</td>
<td>0.59</td>
<td>49.7%</td>
</tr>
<tr>
<td>12 OTOLAR</td>
<td>Otolaryngology</td>
<td>18,653</td>
<td>12,585</td>
<td>67.5%</td>
<td>6,068</td>
<td>14,645</td>
<td>2.41</td>
<td>0.46</td>
<td>69.3%</td>
</tr>
<tr>
<td>13 PAEDIA</td>
<td>Paediatric Surgery</td>
<td>3,346</td>
<td>3,010</td>
<td>90.0%</td>
<td>336</td>
<td>532</td>
<td>1.58</td>
<td>0.25</td>
<td>78.6%</td>
</tr>
<tr>
<td>14 PLASTC</td>
<td>Plastic Surgery</td>
<td>23,286</td>
<td>22,335</td>
<td>95.9%</td>
<td>951</td>
<td>3,344</td>
<td>3.52</td>
<td>0.79</td>
<td>54.3%</td>
</tr>
<tr>
<td>15 TORTHO</td>
<td>Trauma &amp; Orthopaedic</td>
<td>21,280</td>
<td>10,291</td>
<td>48.4%</td>
<td>10,989</td>
<td>57,651</td>
<td>5.25</td>
<td>0.76</td>
<td>43.8%</td>
</tr>
<tr>
<td>16 UGIHPB</td>
<td>Upper Gastrointestinal &amp; Hepatobiliary</td>
<td>704</td>
<td>162</td>
<td>23.0%</td>
<td>542</td>
<td>9,100</td>
<td>16.79</td>
<td>2.30</td>
<td>36.2%</td>
</tr>
<tr>
<td>17 UROLOG</td>
<td>Urology</td>
<td>21,541</td>
<td>17,375</td>
<td>80.7%</td>
<td>4,166</td>
<td>21,184</td>
<td>5.08</td>
<td>1.11</td>
<td>38.3%</td>
</tr>
<tr>
<td>18 VASCUL</td>
<td>Vascular</td>
<td>3,732</td>
<td>2,128</td>
<td>57.0%</td>
<td>1,604</td>
<td>10,102</td>
<td>6.30</td>
<td>1.70</td>
<td>46.4%</td>
</tr>
<tr>
<td>19 Prorata WNOMAF annually</td>
<td>Unmapped procedures (&lt;=20 occurrences)</td>
<td>4,749</td>
<td>1,549</td>
<td>32.6%</td>
<td>3,200</td>
<td>21,775</td>
<td>6.81</td>
<td>1.28</td>
<td>40.5%</td>
</tr>
<tr>
<td>20 Sub-total - have surgery</td>
<td></td>
<td>181,976</td>
<td>132,688</td>
<td>72.9%</td>
<td>49,288</td>
<td>254,212</td>
<td>5.16</td>
<td>0.92</td>
<td></td>
</tr>
</tbody>
</table>
ESRI (2009) – 1st national review of Day Surgery rates:

• 1995 -2006, day patient discharge rate increased by over 248%
• Focusing on Basket of 24 procedures (adapted for Ireland)
  o Wide variations in Day Surgery rates
  o Few hospitals performed well for all of the procedures
  o Those that did perform well were generally not performing a wide range of procedures.

Cowman et al (2010) identified 7 barriers to implementation of Day Surgery:

1. Custom, practice and culture and lack of clinical governance.
2. Lack of, or need for equipment including Day Surgery theatres and capital investment.
3. Organizational including the need for pre-assessment clinics.
4. Patient factors including patient knowledge and education about Day Surgery.
5. For many patients, the distance from Day Surgery was too far.
6. Inadequate capacity for emergency admissions.
7. Lack of community back up and support.
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Suitable procedures for day surgery
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  • Post-discharge support
Arrangements for children
Accommodation required for day surgery
Additional facilities for day surgery
Management of a Day Surgery Unit
Policies & protocols
Staffing
Impact on Surgeons
Impact on Anaesthetists
Impact on Nursing and AHPs
Impact on Primary and Community Care
**DEFINITION OF DAY CASES**

**Day Case Definition**
HSE (on HealthStat) is one “who is admitted to hospital on an elective basis for care and/or treatment which does not require the use of a hospital bed overnight and who is discharged as scheduled”.

**Day Cases** (that come under surgical care)
Can include a) Day Surgery Procedure, b) Endoscopy, c) Day Procedure(not Day Surgery)

**Day Surgery Procedure**
By convention true day surgery procedures require:

- Full operating theatre facility
- General or regional anaesthesia

Does **not** include:
- Minor operations performed under LA
- Endoscopies

Extended day or 23-hour Surgery
Allows transfer of some patients from inpatient to day care, & extend use of day theatres & recovery times. (10% of patients overnight ?reasonable)
**BUT**, if used badly, just because the option is available, is wasteful. Prevented by separating Day and 23-hour beds
DEFINITION OF DAY CASES

Day Case Definition
HSE (on HealthStat) is one “who is admitted to hospital on an elective basis for care and/or treatment which does not require the use of a hospital bed overnight and who is discharged as scheduled”.

Day Cases (that come under surgical care)
Can include Day Surgery, GI Endoscopy, Day Procedure (not Day Surgery)

Valid Day Procedure
- IV admin of pharmac agent
- Antineoplastic
- Manipulation/mobilisation of joint NEC
- Proc on eardrum or middle ear
- Replacement of intrauterine device [IUD]
- Insertion of vascular access device
- Removal of external fixation device
- Capsulotomy of lens by laser
- ESWL of urinary tract

Minor Ops
- Removal of toenail
- Biopsy of skin & subcutaneous tissue
- Excision of lesion(s) SSCT, foot
- Biopsy of tongue
- Biopsy of oral cavity
- Removal of other wart

Out Patients
- Aspiration of breast
- Fine needle biopsy of breast
- Rigid sigmoidoscopy
- Sclerotherapy for haemorrhoids
- Ear toilet, unilateral
- Papanicolaou smear study
- Micro injections of venular flares
2011 Surgical Day Case Activity
N= 208996

Day Surgery
85,140
39%

GI Endoscope
51,456
23%

Day Procedure (not Day Surgery)
68,400
38%
Accommodation required for day surgery

Four types:

1. Self-contained unit: admission suite, ward, theatre and recovery area
2. Day-case ward: patients to main theatre: lists may be entirely of day cases
3. Day-case ward: patients to main theatre: mixed lists
4. Day surgery using inpatient wards and main theatres

<table>
<thead>
<tr>
<th>Efficiency decreases</th>
<th>Unsuccessful Discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>14%</td>
</tr>
</tbody>
</table>
Case Review 2

Model 4 Hospital

- Surgical specialties: 11
- Surgical beds: 241
- Surgical Day beds: 25 (-50% ED) (+ access to 16 off site)
- Pre-assessment: evolving
- Non dedicated Theatres: 13 (1 closed)

delivering Acute, Elective and Day

Day bed turnaround per day?
Case Review 1

Model 3 Hospital

- Surgical specialties: 5
- Surgical beds: 116
- Surgical Day beds: 6 (+6 endo)
- Pre-assessment: evolving
- Non dedicated Theatres: 3 (1 closed)

Delivering:

<table>
<thead>
<tr>
<th>Specialties → Admission Groups ↓</th>
<th>Gen + Colorectal</th>
<th>T/ortho</th>
<th>Gynae (Obstet)</th>
<th>Paediatrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Elective</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Acute</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

□ = predictable; ○ = unpredictable

Day bed turnaround = once per day
Case Review 3

Model 2 Hospital

Surgical specialties 10
Surgical inpatient beds: 0
Surgical Day beds: 14
Pre-assessment: established
Dedicated Theatres: 2
  Delivering Day Surgery only

Day bed turnaround = up to 6 per day (4 in am, 2 in pm)
CONCLUSIONS

• There has been, and continues to be, a dramatic and substantial increase in day surgery activity throughout the country, supported by pre-admission assessment, but there is still a substantial variation in practice, and a long way to go

• There should be clearer standardisation, definition and coding of ambulant surgical activity such that the right procedure is performed in the right department and reimbursed appropriately (money following the patient)

• Stand alone Day Units are by far the most efficient and should be aspired to

• Day Surgery that competes with Elective and Acute Surgery for theatre space and with ED for beds will never be fully effective – Day Beds must be protected

• The safe, effective and efficient delivery of Day Surgery in all its aspects remains an extremely important part of the Surgery Programme