Selection Criteria for Day Case Surgery

Ian Smith,  MD,  FRCA
Senior Lecturer in Anaesthesia
University Hospital of North Staffordshire

President, British Association of Day Surgery
Perception of Day Surgery?

Young
Slim
Fit
ASA 1 & 2
Simple surgery
Early Guidelines

1992

Conservative approach

Criteria now outdated
  – arbitrary limits
Current Guidelines

AAGBI 2005

Update due shortly

– AAGBI/BADS
Current Guidelines

Allow for:

Aging population
Increasing obesity
Increasing surgical complexity
Increasing experience of day surgery

Are there still limits?
Surgical Criteria
Duration of Surgery

Better surgery & anaesthesia
Duration less important
- tissue trauma
- blood loss & fluid shifts
- postoperative pain
North Staffordshire surgeon performs kidney removal as day-case op
Social Criteria
Social Criteria

Responsible escort
  – home & overnight
  – GA & sedation

Adequate facilities
  – access to telephone
  – GP back-up
  – distance?
# Outcome in Elderly Patients

<table>
<thead>
<tr>
<th>Age</th>
<th>Postop complications</th>
</tr>
</thead>
<tbody>
<tr>
<td>31–40</td>
<td>12.7%</td>
</tr>
<tr>
<td>41–50</td>
<td>11.6%</td>
</tr>
<tr>
<td>51–60</td>
<td>8.6%</td>
</tr>
<tr>
<td>61–70</td>
<td>4.3%</td>
</tr>
<tr>
<td>71–80</td>
<td>2.7%</td>
</tr>
<tr>
<td>81–90</td>
<td>1.8%</td>
</tr>
</tbody>
</table>

Most complications pain & PONV

_Chung, et al._ —  
*Br J Anaesth* 83: 262, 1999
# Outcome in Elderly Patients

<table>
<thead>
<tr>
<th></th>
<th>Age &gt;70</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number (n)</td>
<td>1,647</td>
</tr>
<tr>
<td>Pain nil or mild</td>
<td>96.7%</td>
</tr>
<tr>
<td>Nausea nil or mild</td>
<td>99.6%</td>
</tr>
<tr>
<td>Dizziness nil or mild</td>
<td>99.8%</td>
</tr>
<tr>
<td>Unplanned admission</td>
<td>1.6%</td>
</tr>
</tbody>
</table>

*Aldwinckle & Montgomery — Anaesth 59: 57, 2004*
### Postop Cognitive Dysfunction

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Inpatients</th>
<th>Day Surgery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number (n)</td>
<td>199</td>
<td>173</td>
</tr>
<tr>
<td>Age &gt;60 yrs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 days</td>
<td>9.8%</td>
<td>3.5%*</td>
</tr>
<tr>
<td>3 months</td>
<td>8.8%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Age &gt;75 yrs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 days</td>
<td>18%</td>
<td>0*</td>
</tr>
</tbody>
</table>

* p <0.05, from inpatient care group

The Older Day Surgery Patient

No upper age limit
   – assess as individual

No ↑ complications

Tolerate surgery well

Less cognitive dysfunction
## ASA & Risk

<table>
<thead>
<tr>
<th></th>
<th>ASA 1</th>
<th>ASA 2</th>
<th>ASA 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number (n)</strong></td>
<td>9194</td>
<td>7301</td>
<td>1143</td>
</tr>
<tr>
<td><strong>Any theatre event</strong></td>
<td>1.6%</td>
<td>4.9%</td>
<td>8.1%</td>
</tr>
<tr>
<td><strong>Any recovery event</strong></td>
<td>9.9%</td>
<td>7.4%</td>
<td>5.5%</td>
</tr>
<tr>
<td><strong>Any DSU event</strong></td>
<td>6.8%</td>
<td>5.4%</td>
<td>2.9%</td>
</tr>
</tbody>
</table>

- More complex to manage
- Do well after

*Chung, et al. — Br J Anaesth 83: 262, 1999*
Further Evidence

<table>
<thead>
<tr>
<th></th>
<th>ASA 1&amp;2</th>
<th>ASA 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number (n)</td>
<td>28,025</td>
<td>896</td>
</tr>
<tr>
<td>Unplanned admission</td>
<td>1.9%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Unplanned contact with GP</td>
<td>&lt;1%</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

Similar postoperative complications

Ansell & Montgomery — *Br J Anaesth* 92: 71, 2004
Obesity and Day Surgery
Obesity May be a Problem

Complications common
  – perioperative
  – not prevented by admission

Early mobilisation beneficial

Outcomes good
  – specialist team
## Outcome in Obese Patients

### 2002–8

<table>
<thead>
<tr>
<th>BMI</th>
<th>Number</th>
<th>Hospital admission</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;35</td>
<td>24,533</td>
<td>648 (2.64%)</td>
</tr>
<tr>
<td>35–40</td>
<td>1,320</td>
<td>50 (3.79%)</td>
</tr>
<tr>
<td>40–45</td>
<td>379</td>
<td>9 (2.37%)</td>
</tr>
<tr>
<td>&gt;45</td>
<td>108</td>
<td>3 (2.78%)</td>
</tr>
</tbody>
</table>
Lap. Gastric Banding

243 consecutive cases
Mean BMI 44.5
  – range 32.7–62.7
All but 3 discharged on day of surgery
  – admissions not weight related

Lap Chole in the Morbidly Obese

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number (n)</td>
<td>39</td>
</tr>
<tr>
<td>Mean BMI</td>
<td>40</td>
</tr>
<tr>
<td>Same day discharge (n)</td>
<td>34 (87%)</td>
</tr>
<tr>
<td>Overnight stay (n)</td>
<td>4 (10%)</td>
</tr>
<tr>
<td>2 day stay (n)</td>
<td>1 (3%)</td>
</tr>
</tbody>
</table>

“Obesity is not an absolute contraindication... in expert hands... with appropriate resources”
Diabetes and Day Surgery
Diabetes is Easy!

Day surgery suits diabetics
  – minimal change to routine

Glycaemic control
  – starved
  – first on list
  – food and $R_X$ after op
Diabetes for Day Surgery

Must be stable
Exclude end-organ disease
Must be early on list
Likely to eat within 4 hours
  – LA is ideal
  – minimise sedation
  – minimise PONV
Selection Philosophy

Is the patient stable?

Are they optimally treated?

Do they need GA?

Would admission help?

– timing of complications
Default to Day Surgery

Difficult to predict late problems
  – avoids unnecessary exclusions

Consistent patient management
  – high quality care
  – prepared for rapid recovery

Safety mechanism
  – patient stays if problem
Summary

No arbitrary limits
  – rational selection criteria
  – functional limitation
  – coping mechanisms

Default to day surgery

Better care,

Safer care