Excessive self imposed fasting regimes – a clinical audit

Stuart Roberts
Practitioner Health Lecturer
University of Nottingham
United Kingdom
A collaborative study

- University of Nottingham and Sherwood Forest Hospitals working together to improve patient care

- University of Nottingham ranked 9\textsuperscript{th} in the UK and in the top 1\% of Universities in the world.
Sherwood Forest Hospitals NHS Foundation Trust

- Caring for a population of nearly half a million
- State of the art facilities
- Flagship £320 million redevelopment scheme
Why a clinical audit?

- Dissertation study
- Clinical issues
- Complaints
- Supporting best practice (Royal College of Nursing, 2005)
The study outlined

- Literature review identifying current issues (Department of Health, 2002)
- Agreement from the RAE department without amendments to the proposal
- Developed a data collection tool
- Sample identified (Sheffield Teaching Hospitals, 2006)
- Data collection method initiated
- Results were collated
- Recommendations made
- Actions implemented
Literature search

- Nine pieces of research were analysed.
- Most prevalent theme was around preoperative fasting periods addressed in seven of the nine pieces.
- Other two main themes were nurses’ knowledge, and postoperative nausea and vomiting.
Sample population
Patient age distribution

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Patient count (n=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-20</td>
<td>5</td>
</tr>
<tr>
<td>21-30</td>
<td>15</td>
</tr>
<tr>
<td>31-40</td>
<td>20</td>
</tr>
<tr>
<td>41-50</td>
<td>20</td>
</tr>
<tr>
<td>51-60</td>
<td>20</td>
</tr>
<tr>
<td>60+</td>
<td>20</td>
</tr>
</tbody>
</table>
Age distribution

- Ranged from 18 to 79 although any age 16 and over is accepted

- Mid point (median) for the age was 48 years old

- However the data were skewed towards the left
% of patients by gender

Female, 61

Male, 39
Gender distribution

- Possibly due to the types of surgery that are performed, of which a large number of gynaecology procedures are performed
Results
Excessive fast (food) >6hrs

Time Band (hours)

Patient Count (n=93)

- AM
- PM
Excessive fasting from food

- Differences between morning and afternoon patients are clear

- Whilst all day lists were still being used, these were not seen as patient friendly

- One anomaly existed
Excessive fast (fluids) >2hrs

- **AM**
- **PM**

<table>
<thead>
<tr>
<th>Time band (hours)</th>
<th>AM</th>
<th>PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>up to 1hr</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>1hr-2hr</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>2hr-3hr</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>3hr-4hr</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>4hr-5hr</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>5hr-6hrs</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>6hr-7hr</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>7hr-8hr</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>8hr-9hrs</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>9hrs-1hr10hrs</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>1hr10hrs-11hrs</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>11hrs-12hrs</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>12hrs-13hrs</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>13hrs-14hrs</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Plus 14hrs</td>
<td>6</td>
<td>4</td>
</tr>
</tbody>
</table>

Patient count (n=93)
Excessive fasting from fluids

- Whilst excessive fasting was still evident, the results were much improved
Consequences of excessive fasting

- On returning to the Day Case Department, 38% required further analgesia.
- Whilst only 5% required further anti-emetics.
Recommendations
A change in current patient information

- Explained further what they should be doing rather than what to avoid
- Explaining that they would benefit from following these instructions as they would be without food or fluids for a prolonged period of time
A new approach to theatre management

• Introduction of further staggered times alongside 7am and 12pm

• One consultant was sought initially to trial this

• No more all day lists
Opposition to change

- Reluctance of consultant surgeons
- Mindful of wasted theatre time
- Better communication was encouraged to improve the patient experience
Further research

- A further audit on larger numbers, also looking into statistical correlations between excessive fasting and consequences

- Ljungqvist & Soreide (2003) discuss patient outcomes when digesting carbohydrate rich beverages
References