

## Cutting Edge Operational Efficiency

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## Aim

*To evaluate the effects of  
a changed organisational structure  
in a perioperative services unit.*

## Why perioperative services?

- **Hospital team identified need for evaluation**
- **Efficiency problems in specific unit**
- **Centrality of perioperative services to hospitals**

## Change

Many discipline-based



Two teams - emergency and scheduled

## Strengths of project

- **Whole process FULLY collaborative**
- **Good data bases in high volume hospital**

## Measures

- **Clinical outcomes**
- **Incident reports**
- **Efficiency**
- **Cost**
- **Patient satisfaction**
- **Staff satisfaction**

### Operations studied

- **Appendectomy**
- **Hip fracture repair**
  
- **Cystectomy**
- **Colon resection (only for cancer)**
- **Implantation of hip prostheses**

### Results

- **2000** - before
- **2001** - during
- **2002** - after

*On-going project...*

### Clinical outcomes

- **Mortality - few deaths so not "useful"**

### Incident reports

- **Little change**

### Cost

- **Difficult to assess costs as only five operations included**
  
- **Number of nursing hours per hour of surgery shows no significant change**

### Efficiency

- **Times on patients' journey through perioperative services**
  
- **Percentage of time operating rooms have a patient in them**

### Times on patients' journey through perioperative services

- Time in pre-operative services
- Time in operating room
- Time under anaesthetic
- Knife time
- Time in post-operative services
- Total time in perioperative services

### Times - Acute patients

- Each measure January, February and March
- Trend (ANOVA  $p=0.052$ ) for time in pre-op to decrease
  - 2000 17 minutes
  - 2002 11 minutes
- No statistically significant changes over period

### Times - scheduled patients

- Each measure January, February and March
- No statistically significant changes

### Percentage of time operating rooms have a patient in them

- No statistically significant change

### Staff satisfaction

- Retrospective study so no questionnaire data available for before or during
- Sick leave data collected

### Sick leave

- January 2000 8.2% before
- January 2001 10.9% during
- January 2002 6.7% after
- Statistically significant at  $p<0.05$

### What have we learnt?

- **Efficiency no significant changes**
- **Staff sick leave significantly improved suggesting**
  - change has resulted in happier staff
  - time of change is stressful for staff

### Where now?

- **Data collection will continue until 2004**
- **Another hospital is involved as a control**
- **Next stage is development of a user-friendly IT feedback system for staff**

### Model of quality

