



Designing for Quality, Effectiveness and Patient Safety in Colonoscopy
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Drivers for modernisation:
• NCEPOD report (2004)
• Clostridia service
• Vision & determination
• Acceptance of change

Aim: improve colonoscopy service

Objective:
Regularly audit multiple aspects of colonoscopy service within Endoscopy Unit:
- to determine quality and effectiveness
- identify potential improvements
- achieve a consistently high standard

Methodology:
Review of service: (retrospective data from Electronic Record System / secondary analysis)
Completion rate (intention to treat): over 12 months for 3 years
Overall polyp detection & recovery rate: over 12 months for 3 years
Adenoma detection rate: 50 patients (had at least one polypectomy), 3 months (2007 and 2008)
Sedation practice: 2,350 patients (12 months in 2008) having received Pethidine or Midazolam

Sedation Practice for Colonoscopy:
Pethidine dosage range 3-200mg
Midazolam dosage range 1-50mg
Variation noted.
Action: Continue monitoring, especially dose variations.
Provide extra training / experience?

Polyp detection:
148 polyps detected in 2,079 colonoscopies (2008) 7.1%
185 polyps detected in 2,166 colonoscopies (2007) 8.5%
107 polyps detected in 2,360 colonoscopies (2008) 4.5%
Wide individual variation.
Action: Review colonoscopists' effectiveness. Consider need for further experience / training.

Polyp recovery rate:
Over 50% of polyps removed retrieved for histology.
Standard achieved.

Adenoma detection rate:
156 Polyps detected in 2007 4.6% Adenoma 3/6 Malignant
107 Polyps detected in 2008 4.5% Adenoma 0/6 Malignant

Caecal intubation rates:
1,892/2,079 colonoscopies in 2008 91%
1,992/2,166 colonoscopies in 2007 92%
1,252/2,360 colonoscopies in 2008 53%
High quality of completion has been maintained.
Standard achieved.
Action: Continue monitoring.

Included polyps which underwent snare, hot biopsy or conventional biopsy.
Standard achieved.
Action: continue monitoring.

Conclusions:
• Objective met - monitored multiple aspects. Know standards complied with, ensuring practice is of a consistently high quality.
• Low volumes - appropriateness. Determined approach based on sufficient volumes.
• Sedation being monitored in more detail. Recognised benefit of measuring clinical outcomes. Regular monitoring to continue.
• Learning organisation (Argyris, 1991) - commitment to change / quality improvement. Regular meetings to openly reflect.

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Drivers for modernisation:
• NCEPOD report (2004)
• Joint Adenoma Recovery on Gastrointestinal Endoscopy
Aim: improve colonoscopy service

Required:
• Vision & determination
• Acceptance of change
• JAG's helpful suggestions
• Endoscopy Users Group:
• Vehicle for decision-making & change

Standard achieved.
Action: continue monitoring.

Conclusions:
• Objective met:
• Monitored multiple aspects
• Confidence in service
• Recognised benefit of measuring clinical outcomes
• JAG accreditation
• Endoscopy Users Group:
• Critical mass led the way (reluctant staff)
• Regular monitoring to continue:
• Enables continued development of Endoscopy

Sedation Practice for Colonoscopy:
Pethidine dosage range 5-100mg
Midazolam dosage range 1-10mg
Variation noted.
Action:
1. Continue monitoring
2. Pay particular attention to dose
• High quality of completion has been maintained.
Standard achieved.
Action: Continue monitoring.

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