



**Patients undergoing elective
laparoscopic
cholecystectomy do not
need a Group & Save sample**

Royal Devon & Exeter NHS Foundation Trust



Introduction

- Laparoscopic cholecystectomy
 - Treatment of choice for patients with symptomatic cholelithiasis (National Institutes of Health)
 - Safe and effective procedure
 - Multiple advantages compared to open cholecystectomy
 - Daycase operation

Introduction

- 1st laparoscopic cholecystectomy
 - 1985 in Germany
 - Erich Mühe
 - Galloscope – optics, instrument channels, light source, valves for the pneumoperitoneum
 - Later performed gasless laparoscopic cholecystectomy!
- Described as:
 - Mickey Mouse surgery
 - Small brain – small incision



Introduction

- RD&E Hospital Agreed Blood Order Schedule
 - Group & Save (G&S) sample for elective laparoscopic cholecystectomy
- Audited the need for & timing of peri-operative transfusion
- Aim to establish if routine G&S sample was actually needed



Methods

- Retrospective analysis of all elective laparoscopic cholecystectomy patients
- 6 month period
- Patients of 4 Consultants identified
- Data were collected from:
 - Theatre Database, clinic letters, discharge summaries, laboratory records & case notes



Results

- 273 patients identified
- 210 = female
- Median age = 68.5 years (range 19-91)
- 8 patients on warfarin
- 1 patient on long term LMWH (Dalteparin)

Indications for surgery (n=273)

	Number (%)
Biliary colic	156 (57)
Cholecystitis	82 (30)
Pancreatitis	23 (8)
Obstructive jaundice	9 (3)
Polyps	2 (0.7)
Porcelain gallbladder	1 (0.4)

Complications

	Number (%)
Conversion to open	9 (3)
Readmission <24 hours (pain control)	1 (0.4)
Raised ALT post op	1 (0.4)
Bile leak	1 (0.4)
Anaphylaxis to anaesthetic agent	1 (0.4)
Post-operative bleeding (readmission)	1 (0.4)

Haemoglobin (Hb) results

	Number patients where Hb checked	Mean Hb (g/dL)
Pre-op	237	13.7
Post-op	45	12.4



Blood transfusion

- Only 2 patients (0.7%) post-operatively
- No patients required an intra-operative transfusion

Patients needing post-operative transfusion (n=2)

Age	Indication	Anti-coagulation	G&S pre-op	Pre-op Hb (g/dL)	Pre-Tx Hb (g/dL)
58	Cholecystitis (operation converted)	Dalteparin (PEs, cervical Ca, chemo & RTx)	No!	10.4	6.1
44	Cholecystitis	None	No!	12.9	8.3



Conclusion

- G&S sample costs £20
- 487 laparoscopic cholecystectomies performed/year
- Only 2 patients required blood transfusion post-op
- Routine G&S not required for elective laparoscopic cholecystectomy
- Does not compromise patient safety
- Identify patients at risk of bleeding & send sample if needed
- Reduces hospital costs & laboratory time
- Could have saved up to £10,000/year

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Acknowledgements

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