Patient-centred Preoperative Assessment

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Perioperative Medicine Leads Day, RCoA, January 2020

Me

- Jobbing Consultant Anaesthetist
- Preoperative Assessment Lead
- Perioperative Medicine Lead
- Principal Investigator for PQIP in Colchester
- East of England network lead for QI
- Interests in perioperative medicine, vascular and obstetric anaesthesia

The Problem

Nationally 10 million people undergo surgery annually and 25% of the population have a long term condition.

Lin *et al. BMC Geriatrics* (2016) 16:157
DOI 10.1186/s12877-016-0329-8

BMC Geriatrics

RESEARCH ARTICLE Open Access

Frailty and post-operative outcomes in older surgical patients: a systematic review

Hui-Shan Lin*, J. N. Watts, N. M. Peel and R. E. Hubbard

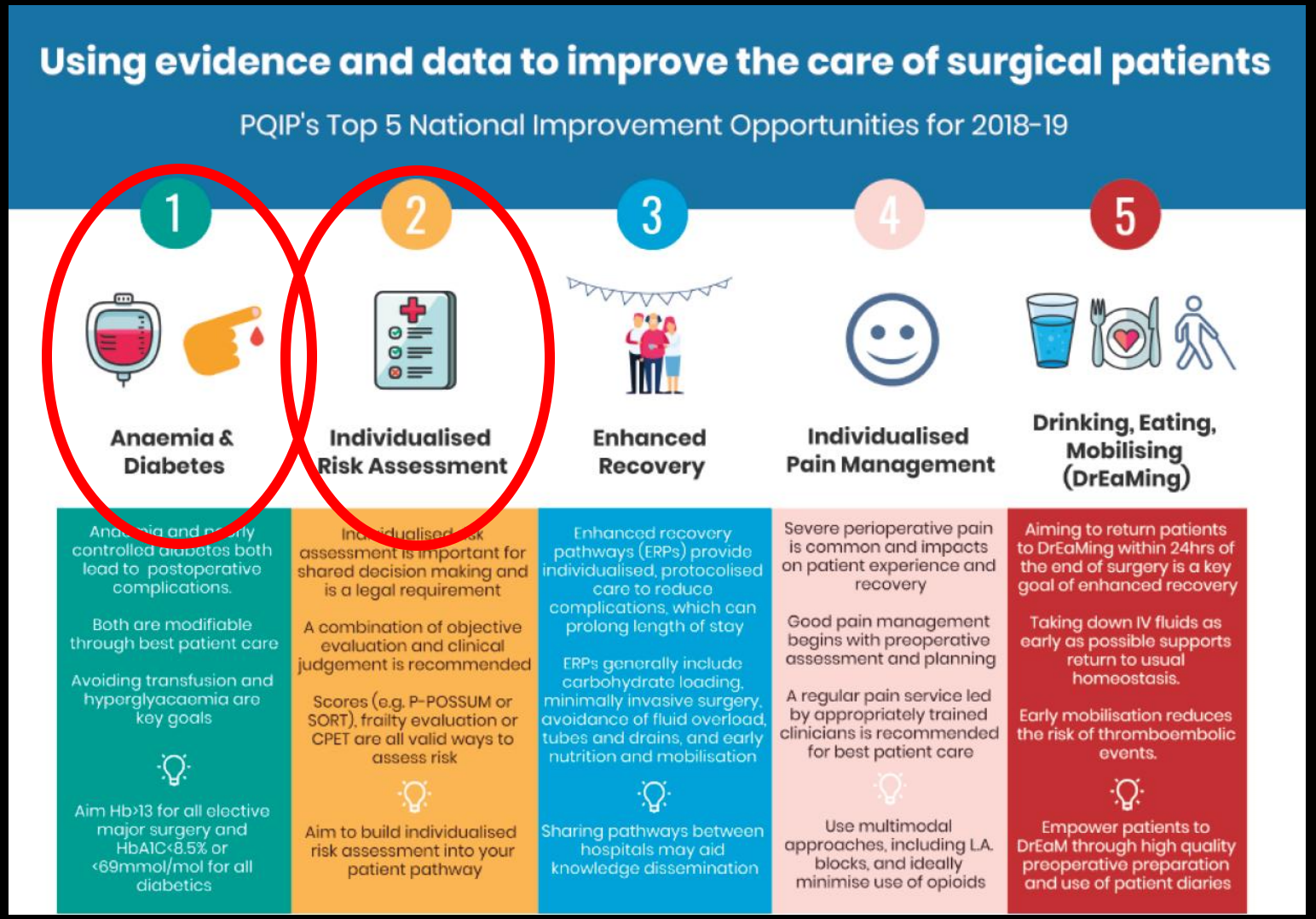
In England in 2014-15, 2.5 million patients over 75 years old underwent surgery compared to 1.5 million in 2006-7 (Lin et al. BMC Geriatrics 2016 16:157). The population is aging with increasing numbers of comorbidities, and associated frailty.

This national picture is reflected in Colchester's population; 1 in 4 people over the age of 65 are living with 2 or more long-term conditions (5 Year Forward View for North East Essex and East and West Suffolk 2016-2021).

Background

- Colchester hospital is a district general hospital, within ESNEFT serving 730,000 people
- Colchester runs a centralised preoperative assessment service seeing around 12,000 patients per year from all specialties (excluding gynaecology, paediatrics and obstetrics)
- Service restructure, September 2018
- Initial Preoperative Assessment (IPA) Clinic
- Subsequently the Colchester Older Persons Evaluation for Surgery (COPES) clinic
- Bespoke care, in a timely fashion, addressing the PQIP priorities

Priorities


Using evidence and data to improve the care of surgical patients
PQIP's Top 5 National Improvement Opportunities for 2018-19
1
Anaemia & Diabetes
Both are modifiable through best patient care
Avoiding transfusion and hyperglycaemia are key goals
Aim Hb>13 for all elective major surgery and HbA1C<8.5% or <69mmol/mol for all diabetics
2
Individualised Risk Assessment
assessment is important for shared decision making and is a legal requirement
A combination of objective evaluation and clinical judgement is recommended
Scores (e.g. P-POSSUM or SORT), frailty evaluation or CPET are all valid ways to assess risk
Aim to build individualised risk assessment into your patient pathway
3
Enhanced Recovery
Enhanced recovery pathways (ERPs) provide individualised, protocolised care to reduce complications, which can prolong length of stay
ERPs generally include carbohydrate loading, minimally invasive surgery, avoidance of fluid overload, tubes and drains, and early nutrition and mobilisation
Sharing pathways between hospitals may aid knowledge dissemination
4
Individualised Pain Management
Severe perioperative pain is common and impacts on patient experience and recovery
Good pain management begins with preoperative assessment and planning
A regular pain service led by appropriately trained clinicians is recommended for best patient care
Use multimodal approaches, including LA. blocks, and ideally minimise use of opioids
5
Drinking, Eating, Mobilising (DrEaMing)
Aiming to return patients to DrEaMing within 24hrs of the end of surgery is a key goal of enhanced recovery
Taking down IV fluids as early as possible supports return to usual homeostasis.
Early mobilisation reduces the risk of thromboembolic events.
Empower patients to DrEaM through high quality preoperative preparation and use of patient diaries

Initial Preoperative Assessment Clinic

- Walk-in clinic, attended directly from surgical outpatient appointment
- Run by newly appointed band 6 nurse
- 5 days a week, in main outpatients
- Triages patients
- Identifies PQIP priorities: anaemia and poorly controlled diabetes (and uncontrolled hypertension, thyroid function and high BMI)
- Low risk ‘green’ no need for further appointments

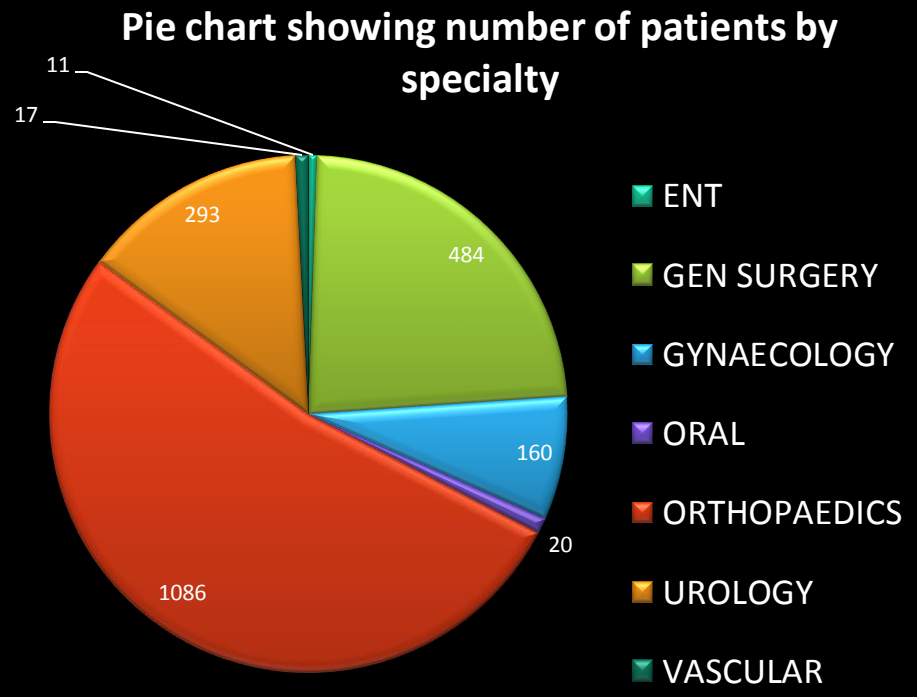
Initial Preoperative Assessment Clinic
Green: Proceed to surgery
Amber Nurse-led preassessment
Red Notes review +/- anaesthetic clinic appointment

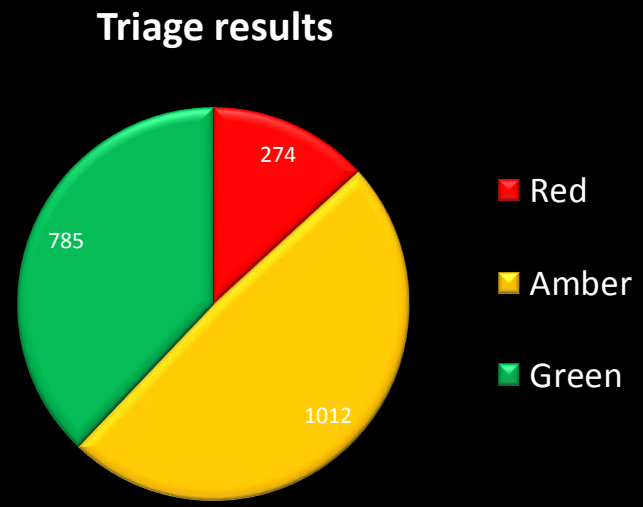
Our results

- 2071 patients (in 10.5 months)
- Mean wait 11 minutes
- Mean appointment 15 minutes
- 785 green patients ready to go

(146 hours of nurse time saved??)

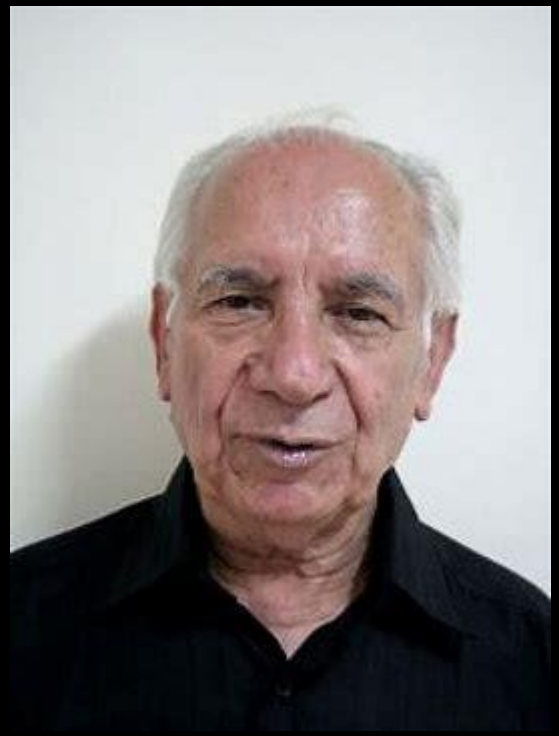
Problems addressed	
Anaemia	59
Uncontrolled hypertension	129
BMI above threshold (ortho)	25
Poorly controlled diabetes	19





Case Study

- Mr LB
- Seen in orthopaedic clinic 5th November 2019 and booked for a TKR
- Seen in IPA on the same day. Hb 108. Put on anaemia pathway.
- Iron deficient, GP referred to colorectal surgeons
- Asymptomatic from bowel perspective
- Caecal cancer identified
- COPES clinic 7th Jan for optimisation/ risk discussion
- Right hemicolectomy booked for 21st Jan 2020
- NB- waiting time for orthopaedic preassessment ~ 51 weeks



How-to guide…. *IPA*

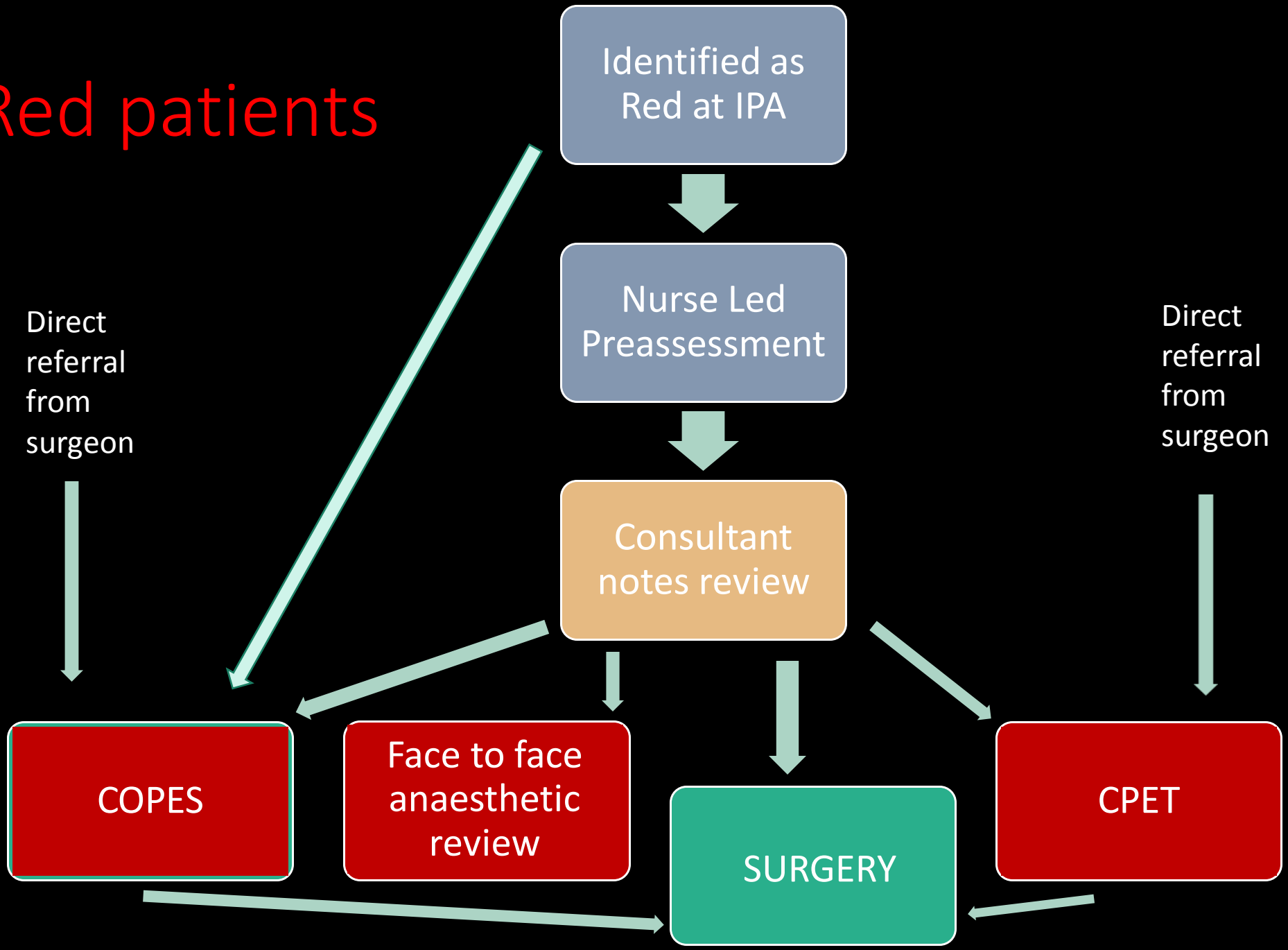
- *One size doesn't fit all*
- Team of (experienced) nurses with a lead (band 6) ideally with HCA support
- Regular clinic room convenient to main outpatients
- Communication (with IPA team, with surgeons, with nurses in OPD)
- Mechanism for triage to be communicated to bookings
- Ability to cope with the fluctuating demand of a walk-in service
- Standardised letters
- Ability to case manage

Write some guidance

- Triaging guidance
- Green patients – obs, swabs, info
- Amber and red – anaemia, BP, diabetes

	Green Proceed to surgery	Amber Nurse-led preassessment	Red Notes review +/- anaesthetic clinic appointment
Investigations		Abnormal HbA1c/ Hb/ TFTs referred back to GP if surgery elective	Abnormal Investigations (ECG, Bloods)
CVS	Well-controlled hypertension Hyper-cholesterolaemia	Rate controlled AF Stable ischaemic heart disease	MI/NSTEMI/CABG/coronary stents Frequent or concerning angina Heart Failure Peripheral arterial disease Valvular heart disease Complete heart block
Respiratory	Well controlled asthma	Problems with SOB Mild COPD Moderate asthma	Sleep apnoea diagnosed Suspected sleep apnoea Moderate-severe COPD Severe Asthma (frequent attacks, home nebs)
Renal			Abnormal creatinine / eGFR Dialysis
Neurological		TIA/ CVA Mild dementia History of postoperative delirium Recurrent falls Epilepsy Controlled Parkinsons	TIA/ CVA in past 1 year Dementia Post operative delirium Myaesthenia gravis Muscular dystrophy Poorly controlled epilepsy
Haematological		PE Anaemia On anticoagulants	Coagulopathy Jehovah's witness having major surgery
Endocrine	Well-controlled thyroid disease Diet-controlled diabetes		Adrenal insufficiency Poorly controlled diabetes for urgent surgery/ with complications
Musculoskeletal		Rheumatoid arthritis	Severe rheumatoid arthritis with complication
Oncological			Complications of chemotherapy or metastatic disease
Surgical Factors		Major surgery	
Anaesthetic Factors			Airway issues Severe cervical spine disease OA/ RhA/ surgery Anaesthetic complications Previous ICU admission Significant chronic pain
Patient Factors		Previous perioperative issues Patient request Learning difficulties	Patient request BMI>40 On immunosuppresants inc steroids
Any other concerns from notes review			Concerns around 'Frailty' – Rockwood score >/=4
		If 2 ambers consider red referral	

Red patients

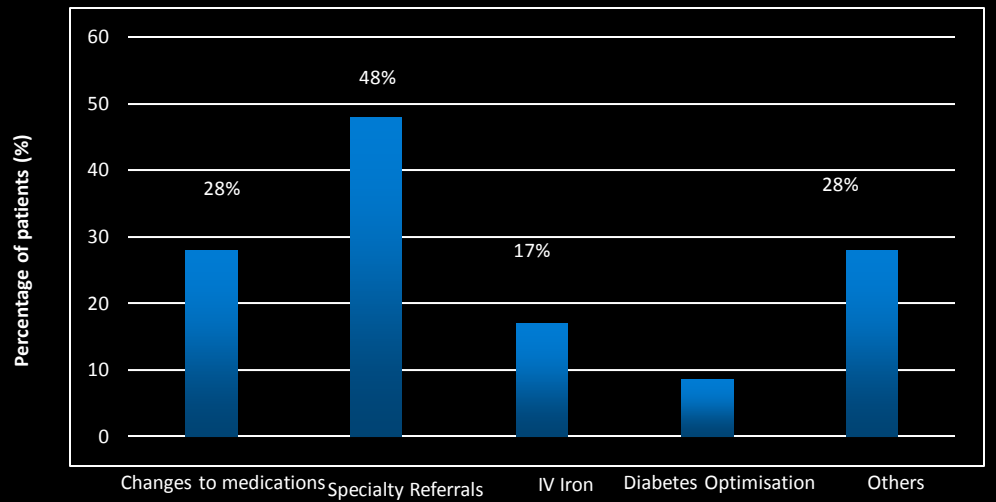


COPES

- Joint (Consultant Anaesthetist and Geriatrician) preassessment for frail, elderly with multiple comorbidities

The objectives of the clinic are to

- medically optimise patients comorbidities
- facilitate shared decision making
- Make necessary preparations for surgery



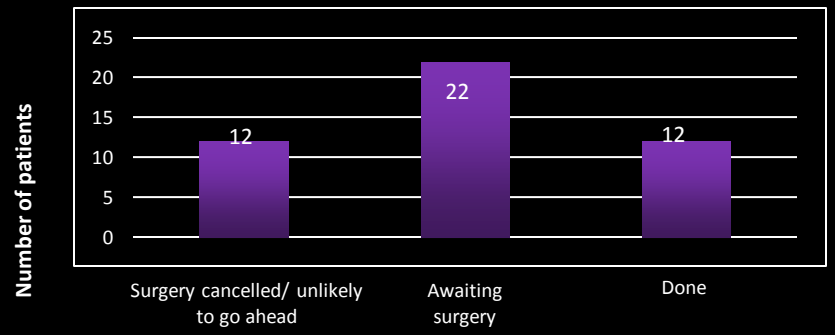


Figure 2: Number of patients with surgery cancelled, still awaiting surgery and completed surgery.

Case study

- Mr LB
- 95 years old for TKR
- Multiple comorbidities including vascular dementia
- Surgery already deferred 3x
- Rockwood 6-7
- Shared decision making discussion allowed him and his family to re-appraise the options

Format of our letters

- Surgery
- Comorbidities
- Medication
- Functional capacity and home circumstance
- Frailty assessment
- Cognitive screening
- Examination
- Investigations

- Review of comorbidities and optimisation
- Discussion of perioperative risk
- Discussion of anaesthetic options

Challenges and enablers

- Space
- Clinics in other locations
- Engagement from CoE physicians

- Committed, experienced nurses working in a team
- New band 6 nurse to lead service
- Tracy collecting our data
- Enthusiastic CoE physician

Conclusion

- Restructuring to streamline our preassessment service
- Ensures patients get a preassessment tailored to their needs
- Facilitated targeting PQIP priorities

For the future

- Digital system
- Incorporate more specialties at distant sites