1. Introduction

This document presents the existing policies and practices in place for the multidisciplinary, perioperative management of older surgical patients with significant comorbidities at University Hospitals of Leicester, and the contribution and perspective of ITAPS to this management.

The care of these patients has been integrated into existing elective and emergency clinical pathways and protocols. Existing trust policies are attached in the document appendix.

2. Guideline Standards and Procedures

2.1 Emergency surgical pathways (unplanned, non-elective surgical admissions) and anaesthesia care at LRI

2.1.1 Operating theatre provision and seniority of perioperative anaesthesia provision

The substantial proportion of older surgical patients who present with orthopaedic trauma are managed in dedicated orthopaedic trauma theatres. These theatres work 7 days a week, until 2030 on weekdays and 1830 on weekends, and anaesthetic care is delivered by Consultants and Associate Specialists. Other surgical specialities are served by dedicated emergency operating theatres which provide a 24/7 service. Night-time orthopaedic emergencies can be managed in the general emergency theatre if necessary. Anaesthetic care in the general emergency theatres is delivered directly by a resident Consultant anaesthetist until 2030 on weekdays, and 1830 on weekends. Outside these hours resident cover is provided by speciality trainees, with a Consultant anaesthetist on-call from home.

The department of anaesthesia operates a number of Consultant-delivered support rotas, so that delivery of anaesthesia in the operating theatre can be uncoupled from the preoperative assessment and management of complex emergency patients. Both the orthopaedic trauma theatres and the general emergency theatres are able to utilise this service for emergency surgical patients. In addition, anaesthetists and intensivists have formal channels of communication to discuss patients who may benefit from perioperative level 2 or 3 care.

2.1.2 Identification of complex older patients

As a result of the aging population, the proportion of frail patients undergoing emergency surgery at UHL is rising. During the peri-operative period, patients are at risk of exacerbation of pre-existing chronic conditions, as well as delirium, malnutrition and muscle wasting.

Frailty should be identified in the Emergency Department using the Clinical Frailty Scale, and the frailty score should be recorded in the patient notes and electronic ‘Nerve Centre’ record. UHL uses the ‘RESPECT’ form to summarise patients’ priorities for emergency care and their wishes in relation to resuscitation in the event of cardiac arrest, and this form should be completed for all adult emergency admissions.

Adult patients with femoral fractures are automatically reviewed by a Consultant Anaesthetist (see hip fracture management below). Other complex orthopaedic trauma patients and spine surgery patients can be referred by the orthopaedic service to a Consultant Anaesthetist Monday – Friday 0800 – 1800.

In other surgical specialities, patients are referred to the anaesthesia service by their parent surgical speciality. When booked onto the emergency surgery list, complex patients and those requiring post-operative care beyond ward-level should be identified to the most senior resident anaesthetist. At night-time, the on-call Consultant Anaesthetist should be contacted by the resident senior registrar to discuss these cases. Cases likely to require Level 2 or 3 care postoperatively should be discussed with the Consultant for Intensive Care responsible for referrals.

2.2 Leicester Royal Infirmary hip fracture management (see appendix 1)

Appendix 1.pdf

LRI contributes data to the National Hip Fracture Database (NHFD), and performance is benchmarked against NHFD key performance indicators.

2.2.1 Admission

Orthopaedic trauma patients are admitted using a standardised clinical template. During assessment and admission, patients are screened for delirium (4AT test) and cognition (Abbreviated Mental Test Score), and undergo appropriate imaging. Analgesia is started in the Emergency Department and there are protocols in place for ED-delivered fascia iliaca compartment block for the management of hip fracture pain. ED protocols also help to identify those patients who require input from medical specialities before transfer to the orthopaedic service.

2.2.2 Orthogeriatric Service

Patients aged over 60 presenting with femoral fractures are automatically reviewed by an orthogeriatrician within 72 hours of admission (NHFD KPI 1), usually on the first morning of admission. Other elderly patients with orthopaedic trauma should be referred to the orthogeriatric service if complex comorbidities are identifiedThe orthogeriatric service provides consultant-delivered care from Mondays to Fridays, and the floating trauma Anaesthetist (see below) provides an important link between orthogeriatricians and the operating theatre team. Comprehensive geriatric assessment is frequently undertaken prior to surgery which aids in preparing patients for surgery and expedites rehabilitation and discharge planning. This assessment includes, but is not limited to:

- Delirium assessment
- Nutritional risk assessment (see appendix 3)

Appendix 3.pdf

- Optimisation of chronic health in the perioperative period

2.2.3 Floating Consultant Trauma Anaesthetist

The LRI department of anaesthesia allocates 2.5 PA per day, Monday – Friday, for a Consultant Anaesthetist to support the perioperative management of orthopaedic trauma patients and spine surgery patients at the Leicester Royal Infirmary.

The role of the floating trauma consultant includes but is not limited to:

• Attending the 0800 Trauma Meeting and facilitating the start of the trauma lists

• Working alongside the ortho-geriatric team to pre-assess and optimise femoral fracture patients for theatre

• Working as part of the MDT to provide when asked, anaesthetic assessments of urgent trauma patients to ensure they are adequately optimised, risk assessed and consented

• Supporting the acute pain team, including insertion and management of femoral nerve catheters for patients with hip fracture

• Reviewing trauma patients in the recovery area as needed, but particularly those on the femoral fracture pathway to ensure suitability for discharge.

• Assisting colleagues in the operating theatre, particularly in challenging cases

• Reviewing peri-operative medications

2.2.4 Fractured neck of femur discharge checklist (see appendix 2)

Our recovery area discharge checklist has been shown to improve mobilisation and delirium rates postoperatively for patients undergoing hip fracture surgery. The checklist ensures that blood pressure, pain score and point-of-care haemoglobin are satisfactory prior to discharge to the postoperative ward. This pathway was audited in 2019 and was shown to be simple to use and clinically effective by reducing delirium rates and improving day 1 postoperative mobilisation.

Appendix 2.docx

2.3 Emergency surgical pathways (excluding orthopaedic trauma)

All patients should have a Clinical Frailty Score and RESPECT form completed (see above).

Patients who have complex medical problems that are not well controlled should referred to medical services as required. A Consultant Anaesthetist is available to support the emergency theatre anaesthetist with preoperative assessment and management, Monday – Friday 0800 – 1800. A Consultant in Intensive Care Medicine is available for consultation 24/7.

Patients undergoing emergency laparotomy are scored for likely morbidity and mortality, and referral to the Intensive Care Unit for postoperative care is standard. UHL contributes to the National Emergency Laparotomy Audit (NELA), which reports individual hospital performance indicators. These are regularly reviewed with a view to improving trust-wide services.

2.4 Elective surgical care pathways

The care provided at UHL is standardised across the 3 sites for pre-operative assessment of patients undergoing elective procedures. Particularly relevant to Identifying and managing frailty in these patients includes:

2.4.1 Stratification of patients requiring Pre-operative assessment

- Risk stratification should be carried out based upon patient factors (ASA grade), surgical factors (grade of surgery, urgency) & anaesthetic factors (e.g. technique).
- Frailty is considered a referral criterion for medical preoperative assessment.

Patients Listed for surgery under anaesthesia and sedation

Patients listed for anaesthesia and sedation	**ASA 1** Normal healthy patient	**ASA 2** A patient with mild systemic disease	**ASA 3** A patient with severe systemic disease	**ASA 4** A patient with severe systemic disease that is a constant threat to life
Minor procedure	Virtual POA&P	Attending POA&P *	Attending for POA&P	Attending for POA&P
Intermediate procedure	Attending POA&P *	Attending for POA&P	Attending for POA&P	Attending for POA&P
Major/Major + procedure	Attending for POA&P	Attending for POA&P	Attending for POA&P	Attending for POA&P

*At the time of the COVID -19 pandemic attendances for POA should be minimised where it is safe and reasonable to do so and virtual consultation may be appropriate although this should only be initiated outside of the scope detailed with the approval of the Clinical Director, Lead POA Anaesthetist and Consultant Surgeons within the CMG and surgical specialty.

- Pre-operative assessment can be either virtual, telephone or face-to-face. It is accepted and understood that patients with communication requirements, cognitive impairment, learning disability or requiring the presence of an interpreter may not be suitable for telephone POA or virtual POA and should be offered a face to face for POA as appropriate. Pre-operative screening will occur at these appointments, however measurement of patients including BP, height & weight, will only be possible at face-to-face appointments.
- Patients with frailty are at increased risk of adverse postoperative outcome. Older patients undergoing intermediate and high-risk surgery are assessed for frailty in this setting.

2.4.2 Pre-operative screening

- Mandatory risk assessments and screening as per UHL policy and guidance are performed preoperatively, many of which are particularly relevant to frail patients:

o Early Warning Score (BP, HR, RR, Saturations, Temperature monitoring)

o Infection prevention screening

o Venous thromboembolism (VTE) – identifying key issues such as clotting disorders and escalating where appropriate.

o Malnutrition Universal Screening Tool (MUST)

o Cognitive screening tool

- o Waterlow risk assessment
- o Pressure ulcer risk assessment / Best shots
- o Patient handling risk assessment
- o Falls risk assessment

2.4.3 Patient information leaflets

Patients are provided with multiple information leaflets regarding the peri-operative period. Key leaflets relevant to frailty include;

- Your choice of anaesthetic (UHL)
- Becoming Confused After an Operation (RCoA)
- Pre-operative nutrition and hydration

2.4.4 Peri-operative medicines management

- All Patients asked to bring FP10 (copy of prescriptions) with them to pre-op assessment appointment. This allows a comprehensive medicines history including herbal remedies, over the counter, supplements to be taken along with confirmation from two sources of information. It also allows documentation of allergies and Medicines reconciliation to be carried out by a pharmacist.
- Where perioperative medicines management plans are required, there are ratified perioperative medicines guidelines that can be used by all of the multi-disciplinary team to support decision-making as some medicines may need to be withheld prior to surgery.
- Individualised perioperative anticoagulation plans can be easily accessed by following the UHL Anticoagulation Bridging Therapy Guidelines.
- Patients are provided with a point of contact from POA&P including opening times.

2.4.5 Clinical Frail Scale

Clinical Frail Scale is completed for all patients aged over 65 years who are booked for an elective surgical procedure. Patients identified as frail have an electronic alert added to their electronic notes, which helps identification of at-risk patients.

2.5 Dementia

Frailty is often accompanied by cognitive impairment. More than 90% of UHL staff have completed their dementia awareness training, with a growing network of dementia champions and admiral nurses.

Dementia care pathways have been formalised with the following initiatives (appendix 4):

Appendix 4.pdf

- The carers charter and ‘stay with me’
- ‘Forget me Not’ scheme
- ‘Know me Better’ patient summary

2.6 Nutrition

Along with screening, using the Malnutrition Universal Screening Tool (MUST) prior to admission, MUST is completed twice weekly whilst as an inpatient. Patient are identified who require support with feeding, along with specialist diets. Those who require specialist input from Dieticians will be identified (MUST score >4) and referred, so that they can be seen whilst they are an inpatient.

3. Education and Training

'None'.

4. Monitoring Compliance

What will be measured to monitor compliance	How will compliance be monitored	Monitoring Lead	Frequency	Reporting arrangements
National Hip fracture Database	Audit	Dr Morfey	monthly	Hip fracture MDT meeting
NELA	Audit	?	annually	Governance meeting presentation

5. Supporting References (maximum of 3)

NONE

6. Key Words

List of words, phrases that may be used by staff searching for the Guidelines on PAGL.

,Hip fracture management, emergency surgical pathways, elective surgical pathway, Floating Trauma anaethetist, older/ trauma/ frail surgical patient

CONTACT AND REVIEW DETAILS	
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Details of Changes made during review: New guideline	