

Medical Curriculum in Perioperative Care: Part 2

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Medical Curriculum in Perioperative Care

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1. GENERIC PROFESSIONAL CAPABILITIES IN PERIOPERATIVE CARE

It is expected that the majority of doctors in training will have attained the following generic professional capabilities (GPC) based on the <u>GMC Generic Professional Capabilities Framework</u>. These capabilities should have been demonstrated within earlier stages of medical training, at foundation, core, and early specialist levels, although there may be the need to re-enforce some of these domains. Where a doctor undertakes the qualification from a non-training or SAS route, there may be the need for additional time or assessment(s) to achieve in some of these domains. **All doctors** should be developing these capabilities further, as completion of the Fellowship requires leadership of multidisciplinary teams; planning services; devising clinical practice guidelines; education of doctors from other medical and professional groups, including non-clinical staff; and the ability to share skills in communication and teamwork.

GPC Domains are:

- Domain 1: Professional values and behaviours
- Domain 2: Professional skills
- Domain 3: Professional knowledge
- Domain 4: Capabilities in health promotion and illness prevention
- Domain 5: Capabilities in leadership and team working
- Domain 6: Capabilities in patient safety and quality improvement
- Domain 7: Capabilities in safeguarding vulnerable groups
- Domain 8: Capabilities in education and training
- Domain 9: Capabilities in research and scholarship

These nine domains of generic professional capabilities have been mapped against the practice of perioperative care outlined in the specialist capabilities below. The capability descriptors are not exclusive but do mirror how a doctor practising in perioperative care would be expected to use and evidence these skills.



2. SPECIALIST CAPABILITIES IN PERIOPERATIVE CARE

In line with the GMC guidance: Excellence by Design: Standards for Postgraduate Curricula, the CPOC fellowship qualification defines the capabilities specific to perioperative care for each doctor to achieve in order to practice safely and effectively. Once again, each specialist capability has been defined as learning outcomes with sub-domains and descriptors that aim to be as indicative as possible without being completely exclusive. Each capability has been cross mapped against a combination of formative and summative assessment tools to inform both trainers and learners.

Further specialist capabilities within perioperative care

Within the perioperative care capabilities identified below, every doctor training for the CPOC Fellowship qualification is expected to achieve understanding in the following further specialist capabilities:

- 1. Paediatric Perioperative Care
- 2. Dynamic Functional Assessment
- 3. Point-of-care Imaging
- 4. Public and Global Health

While all doctors undertaking the CPOC Fellowship will be expected to have an understanding of the science and clinical needs underpinning these specialist capabilities, it is expected that only a few will go on to practice in such highly specialised areas. This will require additional training to gain specific clinical competencies, many of which lead to accreditations which sit independent of this qualification. These further capabilities are outside the scope of this qualification.

In line with the <u>GMC's Good Medical Practice</u>, doctors must recognise and work within the limits of their competence and refer a patient to another practitioner where they cannot safely meet their needs. If additional training time beyond that already approved for the qualification is required to achieve sufficient clinical exposure in one or more of these highly specialised areas of perioperative care, then this will need to be sought separately from the employer and the relevant educational organisation.



3. HIGH-LEVEL LEARNING OUTCOMES AND CAPABILITIES IN PRACTICE

High-level learning outcomes (HLO) describe the scope of practice and responsibilities required for practitioners whilst **Capabilities in Practice (CiPs)** describe the professional activities within that scope of practice, based on those high-level learning outcomes as seen in figure 1 and table below. CiPs ensure utilising the professional judgement of experienced and appropriately trained assessors to form global judgements on professional performance, in a valid and defensible way.



Figure 1: Patient pathway domains



Capabilities in Practice (CiPs) based on perioperative HLO's should achieve the consistent, shared understanding of capabilities allowing individuals to demonstrate flexibility across a career in perioperative care in response to the needs of the population and health service. These perioperative CiPs include leadership and management skills and will sit alongside capabilities required from the practitioner's base specialty to broaden the ability of the doctor to enable and manage the care of patients preparing for and recovering from surgery.

Each CiP is linked to a set of descriptors which are intended to provide the minimum level of knowledge, skill and behaviours which should be demonstrated prior to completing the perioperative CPOC Fellowship. These descriptors are not exhaustive but are intended to help learners and trainers recognise the minimum standards that should be demonstrated for practice. There may be many examples outside of those listed that would provide equally valid evidence of performance.

HIGH LEVEL OUTCOME	CAPABILITY IN PRACTICE		
Across Perioperative Patient Journey	 Functions at consultant or specialist level within healthcare organisational and management systems, and understands strategic developments in perioperative practice within their workplace and the wider healthcare system 		
Preoperative	2. Undertakes a comprehensive preoperative assessment and		
Assessment	utilises critical thinking to identify patients who would benefit from further investigation and assessment		
	3. Selects and employs perioperative risk stratification tools and utilises critical thinking to identify patients who may benefit from further investigations and expert review		
	 Identifies the need for, undertakes and interprets appropriate preoperative investigations, communicating the outcome and significance of these to patients and members of the multidisciplinary team 		
Preoperative Planning	 Works collaboratively as a member of the multidisciplinary team, leading the assessment and management of complex clinical, safeguarding, ethical and legal issues relating to perioperative patient care 		
	6. Selects and uses communication skills to enable shared decision making, while maintaining appropriate situational		

SPECIALTY CAPABILITIES IN PRACTICE IN PERIOPERATIVE CARE



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	awareness, displaying professional behaviour, and exercising professional judgement	
Optimisation and Prehabilitation	 Works in collaboration with patients, the perioperative care team and specialists to optimise long-term conditions using clinical assessment, diagnostics, and interventions, in preparation for surgery 	
	8. Works with patients to optimise modifiable health-related behaviours in preparing for surgery. Flexibly and creatively applies knowledge of prehabilitation and liaises with primary care to develop community-based health programmes, services and interventions to improve preoperative health and reduce health inequalities	
Theatre care	 Understands surgical and anaesthetic techniques sufficiently to give clinical advice and practical advice whilst liaising with patients, specialists and theatre management teams 	
	10. Understands and manages patient care in the immediate postoperative period	
Postoperative care	 Manages surgical patients in postoperative care and acute surgical ward environments. Encourages timely return of functional status with emphasis on pain management, oral intake, mobilisation (DrEaMing) 	
	12. Recognises and manages postoperative complications using clinical assessment and critical interpretation of data. Initiates management of the acutely deteriorating surgical patient and delivers resuscitation, whilst escalating care to appropriate specialists	
Discharge and Rehabilitation	13. Supports patients recovering from surgery and co-ordinates hospital discharge. Works within a multidisciplinary team, including the planning and management of discharge in complex, dynamic situations	
	14. Flexibly and creatively applies knowledge of rehabilitation and liaises with hospital and community services in partnership with patients to optimise health and recovery following surgery	

Table 1: Speciality capabilities in practice in perioperative care



Speciality Capabilities in Practice in Perioperative Care

1. Functions at consultant or specialist level within healthcare organisational and management systems and understands strategic developments in perioperative practice within their workplace and the wider healthcare system

<u>Descriptors</u>

- Can work within a wider health and care team to provide clinical care to an older and more diverse population understanding the barriers experienced by people with mental health needs and diverse cultural, social and belief systems
- Develops and evaluates local perioperative care services, including benchmarking against regional and national services and standards, to ensure that local services are integrated, consistent, reliable and sustainable
- Discusses how utilising early screening, perioperative risk assessment and interventions alongside perioperative outcome data supports clinical risk management in patients undergoing surgery
- Discusses strategies to optimise perioperative processes, empowering staff and ensuring good team working. Displays clinical leadership: setting up perioperative processes, defining care pathways, and implementing national guidance where appropriate. Discusses the use of perioperative clinical registry data; national safety and quality standards of care in relation to specific perioperative, anaesthetic or surgical procedures, devices, drugs or products to improve patient outcomes
- Leads and delivers high quality perioperative care in the context of potentially challenging environments, different models of perioperative care delivery, innovation and rapidly evolving technologies
- Understands and critically appraises health inequalities by assessing for equity issues within existing and developing services using structured tools. Evaluates and monitors care to ensure impact of health inequalities is measured and acted upon
- Uses communication skills to liaise with and understand the roles and responsibilities of other members of the perioperative team, general practitioners, primary and secondary care providers to develop effective perioperative care services.



- Direct observation of procedural skills (DOPS)
- Mini clinical evaluation exercise (Mini-CEX)
- Co-ordinating educational supervisor's report
- Multi Service User Feedback (MSF)
- Patient feedback
- Reflective log / case study
- Audit of local practice or quality improvement project
- Attendance/presentation at regional or national perioperative meetings

- Describes the physiological responses of the body to surgery and factors which may trigger or modulate the stress response during the perioperative period
- Uses a structured tool to address inequalities and equity in perioperative programmes and services to drive change and generate improvements e.g. the Health Equity Assessment Tool (HEAT)
- Understands and mitigates the factors associated with digital exclusion when developing digital approaches to improve the reach and efficacy of perioperative services
- Uses local data from perioperative service tools (e.g. National Emergency Laparotomy Audit) to assess differences in groups experiencing health inequalities (e.g. people with clinical frailty) and take appropriate action
- Participates in clinical audit, quality improvement and research projects and supports the development and updating of practice protocols/guidelines and procedures, with awareness of national and local guidelines, where these exist
- Works with local surgical booking and scheduling teams to improve the perioperative patient journey



<u>Examples</u>

- Discusses how patients (and their friends and family) experience non-clinical aspects of the perioperative journey
- Identifies and critically analyses the differences between day-case surgery, enhanced recovery pathways, high risk anaesthetic services and older patient specific perioperative care
- Reviews local policies and critically appraises these in terms of evidence-base and latest national guidelines, suggesting change where appropriate
- Analyses local pathways and challenges where new initiatives such as "default day surgery" may be limited by historical cultures, and works with team-members to improve surgical care pathways
- Critically compares and analyses how perioperative administrative processes function within different surgical care pathways
- Contributes to design and delivers induction and ongoing training programmes for new members of the perioperative team

Preoperative Assessment

2. Undertakes a preoperative assessment and utilises critical thinking to identify patients who would benefit from further investigation and assessment

Descriptors

- Is able to develop, implement and synthesise the use of screening tools to be used early in the perioperative process to identify and triage higher risk patients and ensure they access targeted, specialist perioperative care
- Takes a collaborative, person-centred medical and psycho-social history, recognising individuals from diverse cultural, social and belief systems



- Performs a focussed physical examination (including the patient's airway and cardiorespiratory system) where necessary to identify clinical conditions relevant to perioperative care
- Uses frailty screening tools and can apply the components of comprehensive geriatric assessment (CGA), recognising the benefits and limitations of CGA, to assess, diagnose and describe the complexity, uncertainty, and individual expectations of older surgical patients
- Works within the perioperative team to devise a plan for investigation, escalation, and management of surgical patients, seeking timely engagement with other colleagues as appropriate
- Communicates clinical reasoning with patients and those important to them and works with them to help reach decisions

- Direct observation of procedural skills (DOPS) especially around patient examination
- Mini clinical evaluation exercise (Mini-CEX)
- Reflective log
- Patient feedback

<u>Examples</u>

- Demonstrates how screening tools which can be self-administered by patients or by non-registered healthcare staff can be integrated into perioperative services to triage patients into targeted care pathways
- Performs a clinical assessment and creates a collaborative plan for a patient with complex needs and / or learning disability in the preoperative assessment clinic
- Assessment and collaborative plan for a patient living with clinical frailty in the preoperative assessment clinic



<u>Examples</u>

- Assessment and referral to functional dynamic testing clinic of patient planning to undergo major surgery with functional limitations e.g. heart failure / COPD.
- Demonstrates how to use the assessment process as an opportunity to give general advice in an empowering manner, for example about exercise, nutrition and self-care.
- Facilitates person-centred care and formulates perioperative investigation planning for higher risk patients (addressing physical, psychological and social considerations), which may include the rationale for advanced physiological testing
- 3. Selects and employs perioperative risk stratification tools and utilises critical thinking to identify patients who may benefit from further investigations and expert review

Descriptors

- Articulates and applies a critical understanding of the principles of risk assessment and management and implements validated risk stratification tools, often applied early in the patient journey, to triage higher risk patients and support decision making that is patient-centred, acknowledging individual preferences and needs
- Performs accurate general perioperative risk assessment and accurately categorises patients based on co-morbidity and surgery profile: e.g. ASA-PS, SORT, NSQIP
- Devises processes to record accurate assessment of functional status, utilising clinical history and functional screening tools e.g. Duke Activity Status Index
- Implements accurate risk assessments related to specific conditions and perioperative outcomes and demonstrates how risk stratification guides shared decision making when determining perioperative care:
 - o Cardiac Risk e.g. Revised Cardiac Risk Score
 - Respiratory e.g. ARISCAT
 - Frailty e.g. Clinical Frailty Scale



- o Cognitive screening e.g. 4AT, 6CIT
- Venous Thromboembolism
- Nutrition Screening e.g. MUST
- Obstructive sleep apnoea e.g. STOP-BANG
- Alcohol Use Disorder e.g. AUDIT-C
- Substance and prescription drug use e.g. Opioid Risk Tool Assessment
- Common mental health disorders: anxiety (e.g. GAD-7) and depression (e.g. PHQ-9)
- Understands how multimorbidity and frailty influence perioperative management and postoperative outcomes to support clinical management of the older surgical patient
- Where necessary, refers patients for input from specialists e.g. single organ specialists and geriatric medicine / dementia services
- Applies behavioural risk stratification tools, for recognised factors including alcohol use, smoking, nutrition, psychological wellbeing, substance and prescription medicine misuse, physical activity and weight management. Uses the opportunity to deliver brief advice using empowering techniques e.g. motivational interviewing

- Direct observation of procedural skills (DOPS)
- Mini clinical evaluation exercise (Mini-CEX)
- Case-based discussion (CBD), particularly around risk stratification and individual decision making
- Discussion of alternative treatment options and their relative risks and benefits
- Reflective log



Examples

- Is able to discuss the interaction between physical and psychological wellbeing, chronic conditions including pain and poor perioperative outcomes
- Demonstrates skills in interpreting screening tools requiring further investigation and referral, using examples to include the impact of false positive and false negative results on patients
- Discusses predictive and risk factors for the onset of postoperative nausea and vomiting, and critically appraises strategies for prevention and treatment of nausea and vomiting
- Discusses how the implementation of risk-stratification tools can be achieved across the perioperative pathway using innovative strategies and quality improvement methodologies
- Critically appraises web-based material reading e.g. <u>CPOC assessment tool</u>
 <u>section</u>
- Is able to demonstrate how tools used to establish health-behaviour related risk can be implemented in a non-stigmatising manner

4. Identifies the need for, undertakes and interprets appropriate preoperative investigations communicating the outcome and significance of these to patients and members of the multidisciplinary team

<u>Descriptors</u>

• Uses clinical reasoning skills and uses clinical judgement when selecting, managing, interpreting and responding to appropriate investigations in a timely manner including liaising with specialists where necessary



- Demonstrates competency in interpreting and synthesising investigation results, including serum analyses, resting electrocardiography, echocardiography, pulmonary function tests, relevant imaging and urinalysis
- Interprets objective assessments of functional capacity, such as the 6-Minute Walk Test, Incremental Shuttle Walk Test, sit-to-stand and Cardiopulmonary Exercise Testing
- Has up to date knowledge of the clinical tools and investigations available to assess cognition and dementia, recognising their limitations and evidence base
- Interprets the clinical significance of the investigation results to the individual patient and effectively communicates this to patients, those important to them and members of the multidisciplinary team

- Direct observation of procedural skills (DOPS)
- Mini clinical evaluation exercise (Mini-CEX)
- Reflective log
- Case presentation or case-based discussion (CBD)
- Evidence of reading national guidelines e.g. NICE: Routine preoperative tests for elective surgery (NG45) and <u>CPOC Guideline</u>

- Interprets serum analyses, imaging and cardiological investigations in a patient with complex long-term health problems related to multi co-morbidity concluding with a sensitive communication with patient and the surgical team regarding potential for complications following surgery
- Demonstrates how individualised investigations & interpretation of results can increase day surgery rates in more complex situations



Examples

- Demonstrates awareness and critically evaluates (inter)national guidelines for preoperative investigations
- Is able to interpret, inform and discuss with patients regarding perioperative management of common conditions based on analysis of test results e.g. hypothyroidism, based on thyroid function tests or HbA1c with diabetes
- Is able to interpret and inform and discuss with patients regarding risk of postoperative complications based on analysis of dynamic functional testing (CPET) and discuss limitations of these techniques
- Is able to prepare and inform and discuss with patients and perioperative teams regarding strategies to reduce postoperative pulmonary complications based on pulmonary function tests
- Discusses the potential benefits and limitations of static cardiological imaging e.g. echocardiogram on predicting postoperative cardiovascular events
- Discusses how adoption of simple functional tests such as sit-to-stand and 6minute Walk Test can be used by perioperative team members to highlight postoperative requirements e.g. mobilisation following joint replacement

Preoperative planning

5. Works collaboratively as a member of the multidisciplinary team, leading the assessment and management of complex clinical, safeguarding, ethical and legal issues relating to perioperative patient care

Descriptors

• Applies team-working skills appropriately, including effectively leading and managing complex and dynamic perioperative patient care



- Demonstrates the ability to formulate perioperative management plans for patients, addressing complex physical, psychological and social considerations and facilitates shared decision making by using validated tools, to support person-centred care and agree perioperative plans with patients, working collaboratively with other professionals to manage its delivery
- Creates a culture where patients whose physiological status, social support and psychological wellbeing can be optimised, delivering care within an empathic and efficient service
- Recognises the interface between different specialties along the perioperative pathway and leads local perioperative services to support specialist teams involved in patient care to facilitate transdisciplinary working
- Communicates with older patients and those important to them and works with them to assess frailty, functional status and cognition in relation to perioperative planning
- Takes a holistic approach towards completion of Comprehensive Geriatric Assessment (CGA), empowering patients and referring to specialists as necessary
- Demonstrates the ability to advocate for and supports access to appropriate perioperative care for patients with a disability who may face additional barriers
- Develops systems to recognise and apply appropriate adjustments for people living with learning disability and cognitive impairment including knowledge of the law and best practice regarding capacity, consent and best interests
- Recognises religious or cultural requirements throughout the perioperative journey, appropriately utilising patient advocates
- Demonstrates the ability to formulate perioperative management plans for patients who have predictive factors for chronic postsurgical pain in consultation with a specialist in pain medicine, as required
- Devises systems of, and role-models, safe and effective handover ensuring continuity of patient care and accurate information sharing



- Direct observation of procedural skills (DOPS)
- Mini clinical evaluation exercise (Mini-CEX)
- Case-based review
- Multi Service User Feedback (MSF)
- Reflective log
- Critical appraisal of National Guidelines e.g. <u>National Day Surgery Delivery Pack</u>
- Critical review of web-based material

- Compares and contrasts the multiprofessional organisation of local perioperative care pathways e.g. daycase surgery / enhanced recovery / high risk anaesthetic / elderly medicine services/ cancer services and analyses how these can be streamlined through perioperative leadership
- Describes the decision-making process regarding postoperative destination of care: home; virtual ward; 23 hour stay unit; surgical ward; enhanced care area or critical care
- Discusses how day-case surgery planning for a patient with complex care needs can result in same day discharge
- Demonstrates how physiological status and / or psychological preparedness can be improved so care is delivered within a more efficient surgical pathway e.g. day-case surgery or Enhanced Recovery (ERAS)
- Demonstrates perioperative management of patient with chronic pain including preoperative pain management, troubleshooting postoperative pain and encouraging opioid de-escalation during recovery from surgery
- Discusses how indirect discrimination can impact patient care



<u>Examples</u>

- Demonstrates the communication skills required for sensitively leading a bestinterest meeting regarding perioperative care
- Demonstrates how to sensitively co-ordinate and discuss advanced care planning and treatment escalation plans with higher risk patients considering surgical intervention
- Observes and critically reflects on the management of complaints and clinical incidents in perioperative care, including policies regarding time frames, responsible persons, local resolution, appeals processes and where necessary, behavioural contracts
- Discusses how to recognise and mitigate poor behaviours within a team, having clear standards, ensuring all staff feel supported, preventing bullying, recognising diversity, participating in active bystander training and challenging unprofessional behaviour
 - <u>www.rcsed.ac.uk/professional-support-development-resources/anti-</u> bullying-and-undermining-campaign
 - <u>www.anaesthetists.org/Home/Wellbeing-support/-KnockItOut-tackling-</u> workplace-bullying-harassment-and-undermining
- 6. Selects and uses communication skills to enable shared decision-making, while maintaining appropriate situational awareness, displaying professional behaviour, and exercising professional judgement

Descriptors

- Selects and uses a range of communication skills and recognised shared decision making tools to explore patients' priorities and values, to support shared decision making in the planning of treatment in dynamic and complex situations
- Selects, uses and role-models a range of strategies to overcome communication barriers such as cognitive change, diversity, learning disability and sensory impairment



- Supports patient decision making in balancing disease specific treatment with personalised care and specific support needs, whilst sensitively managing expectations and addressing the emotional needs of the patient and those important to them in complex situations which can lead to advanced care planning
- Supports patient decision making when surgery may not be in the patient's best interest due to the patient's circumstances, goals and values and facilitates sharing these decisions across the wider perioperative team
- Recognises and applies communication skills, including active listening and communicating sensitive information
- Supports interdisciplinary communication to support shared decision-making and share information across clinical teams

- Direct observation of procedural skills (DOPS)
- Mini clinical evaluation exercise (Mini-CEX)
- Reflective log
- Multisource feedback (MSF)
- Patient feedback
- Critical appraisal of literature e.g. NICE guideline 2021 NG 197 Shared Decision Making

- Displays professional behaviour and sensitivity when communicating without prejudice or judgement during the shared decision-making process
- Demonstrates use of shared decision making tools for example the Circular Three Talk Model or 'BRAN' (Benefits, Risks, Alternatives and Non-operative options)
- Applies reflective learning to recognises the negative effects of stigma and over-emphasis on personal responsibility for health-related behaviours in the context of barriers such as socioeconomic deprivation, communication and health literacy



<u>Examples</u>

- Discusses with the patient how their condition and general health may change prior to surgery and that this may alter the benefits and risks, for example if having neo-adjuvant chemotherapy, or by improving their health with prehabilitation
- Clearly communicates preoperative instructions, such as fasting times and adjustment to medication to patients who face barriers to communication and where appropriate those important to them
- Implements effective two-way communication with clinical teams and patients, who may have complex needs, key information such as the discharge criteria for day surgery
- Leads the development and implementation of written and verbal patient information in order to facilitate surgery, even in complex cases
- Reflects on scenarios where the decision not to undergo surgery is taken and the communication skillset required to support this decision with patients and those important to them and the surgical team

Optimisation and Prehabilitation

7. Works in collaboration with patients, the perioperative care team and specialists to optimise long-term conditions using clinical assessment, diagnostics, and interventions, in preparation for surgery

Descriptors

- Identifies when medical co-morbidities may be improved through medical optimisation, is able to lead perioperative optimisation whilst appropriately escalating to specialist practitioners where necessary
- Demonstrates critical understanding of the principles of therapeutics, polypharmacy, de-prescribing, optimal prescribing, adverse and toxic medication effects, and medication burden particularly in older people



- Demonstrates effective communication skills when advising patients about medications in preparation for surgery
- Implements key aspects of patient blood management, including haemoglobin optimisation before surgery, minimisation of blood loss during surgery and management of postoperative anaemia
- Identifies common and complex medical and surgical co-morbidities and leads relevant perioperative care planning, which may start early in the patients perioperative journey:
 - o Diabetes
 - Cardiovascular disease including implantable devices
 - Respiratory disease
 - Chronic kidney disease
 - Anaemia and coagulation disorders
 - Cancer and side effects of cancer treatments
 - Complex pain management
 - Obesity and disorders of nutrition and metabolism
 - o Mental health disorders i.e. anxiety and depression
 - Non-obstetric surgery for the pregnant patient
- Applies expertise in working with older people, families and carers to devise and explain interventions aimed at addressing modifiable and reversible conditions
- Applies expertise in working with people with learning disability, alongside their family and friends to devise and communicate interventions aimed at modifying long-term conditions prior to surgery

- Direct observation of procedural skills (DOPS)
- Mini clinical evaluation exercise (Mini-CEX)
- Reflective log
- Multisource feedback (MSF)
- Patient feedback
- Simulation



- Case based discussion of perioperative care optimisation plan for a patient with complex co-morbidity and polypharmacy with specific reference to local and national guidelines pertaining to perioperative medication management
- Critically reflects on their assessment of a patient with complex long-term conditions and communication barriers, identifies areas for future medical optimisation
- Discusses how partnership between secondary care, led by perioperative care, with general practice and community services can help prepare patients for surgery but also impact upon longer term health status by optimising long-term medical conditions
- Critically appraises the evidence-base for preoperative iron therapy and avoidance of anaemia including local and national guidance and policies
- Critically appraises the evidence-base for perioperative diabetes management and avoidance of poor glycaemic control including local and national guidance and policies
- Critically appraises national documents such as '<u>Fitter Better Sooner'</u> from RCoA and digital resources e.g. <u>Moving Medicine</u>, <u>We Are Undefeatable</u> and considers how these can be applied within local services for optimisation of medical conditions, in particular as a learning resource for perioperative staff including non-clinical staff
- Discusses the barriers for perioperative patients to access specialist medical review in the context of accelerated surgical pathways (e.g. cancer) and critically appraises the benefits and risks of delays to surgery in order to medically optimise patients.
- Devises or leads a simulation to manage the care of a patient presenting for emergency surgery who is taking antiplatelet and anticoagulant medication
- Helps devise a plan for perioperative care of the pregnant patient having nonobstetric surgery
- Helps develop, liaises with and signposts patients to community-based or online support groups for people with specific medical conditions



8. Works with patients to optimise modifiable health-related behaviours in preparing for surgery. Flexibly and creatively applies knowledge of prehabilitation and liaises with primary care to develop community-based health programmes, services and interventions to improve preoperative health and reduce health inequalities

<u>Descriptors</u>

- Implements health and wellbeing assessments, which can start with early screening, to identify when health and wellbeing may be improved for common health-related behaviours:
 - o <u>Smoking cessation</u>
 - o Identify and managing excess <u>alcohol consumption</u>
 - Identify and managing substance use including both recreational and prescription drugs
 - o Improving and increasing physical activity levels
 - Undertaking structured exercise training to enhance specific elements of physical fitness
 - Optimising sleep quality
 - o Nutrition and weight management
 - Managing anxiety and promoting good mental health
- Is aware of the 'teachable moment' and the positive impact on health-related behaviours, to devise and deliver brief interventions and appropriate person-centred advice for patients contemplating surgery
- Confidently signposts patients to hospital, community-based and digital resources in order to support health-related behaviour change
- Understands interplay between chronic health conditions and health-related behaviour which may be modifiable when preparing for surgery, by applying brief interventions and tailored prehabilitation programmes



- Recognises the opportunity to offer targeted or advanced support for health improvement in patients at higher risk of experiencing health inequalities e.g. patients from marginalised groups in society or people living in an area of deprivation
- Discusses the contribution of primary and community services in social prescribing when developing shared plans of care with patients in the perioperative period

- Direct observation of procedural skills (DOPS)
- Mini clinical evaluation exercise (Mini-CEX)
- Multisource feedback
- Reflective log
- Managing or enhancing Surgery School delivery to patients

<u>Examples</u>

- Is able to discuss behavioural change models and how to optimise patient activation and involvement to improve wellbeing when preparing for surgery
- Demonstrates use of screening tools e.g. Opioid Risk Tool Assessment
- Is able to demonstrate motivational interviewing techniques and how these have impacted on health-related behaviour. Uses the information within initiatives such as <u>Making Every Contact Count</u> and <u>Moving Medicine</u> to agree a personalised plan with patients
- Describes a range of community-based services in their local area and how perioperative care teams can develop effective signposting and referral of patients to these services
- Demonstrates how liaison with primary care occurs and how this could be improved by co-creating pathways with local GPs and other community organisations
- Demonstrates knowledge and the ability to inform discuss and mitigate the risks of overly rapid or restrictive behavioural change e.g. from short-term dieting or alcohol cessation



Examples

• Critically appraises the use of digital resources in promoting health-related behaviour and considers how the digital divide may impact people from marginalised groups or areas of deprivation and how perioperative services can overcome this barrier

Theatre care

 Understands surgical and anaesthetic techniques sufficiently to give clinical advice and practical advice whilst liaising with patients, specialists and theatre management teams

<u>Descriptors</u>

- Understands the potential impact of different types of surgical and anaesthetic techniques on perioperative care and outcomes
- Demonstrates knowledge of theatre care and processes and flexibly applies knowledge of interdisciplinary functioning to liaise with theatre management teams, anaesthetists and surgeons in complex situations, in order to plan surgery, anaesthesia and appropriate postoperative care
- Discusses the role of antimicrobial prophylaxis and stewardship in the perioperative setting
- Understands the practicalities of theatre work including patient safety and positioning, theatre skill-mix, equipment and technology in order to prepare patients for surgery
- Applies critical appraisal of clinical scenarios to facilitate interdisciplinary communication when planning theatre care



- Direct observation of procedural skills (DOPS)
- Mini clinical evaluation exercise (Mini-CEX)
- Reflective log
- Case based discussion (CBD)

- Case based discussion of management of complex surgical patient within theatre environment at preop assessment, theatre 'Team Briefs' and 'Surgical Safety Checklist'
- Reflection of following patient journey 'on the day' of surgery including attendance at checklists and team briefs. Critically comparing the day-case surgery pathway with a major surgical procedure requiring enhanced recovery or postoperative critical care
- Works alongside management and senior clinicians to reflect on how the balance between urgent and routine cases is optimised when allocating preoperative, theatre and postoperative care resources
 - Factors involved in scheduling an operating list personnel, types of equipment, appropriately skilled theatre and recovery staff
 - How staffing rotas are accounted for, and theatre maintenance scheduled
 - Inventories of equipment and standards for sterilisation of theatre equipment



10. Understands and manages patient care in the immediate postoperative period

Descriptors

- Assesses and manages the respiratory function of patients following surgery, identifying factors that put patients at risk of postoperative hypoxia and hypercarbia
- Assesses and manages the cardiovascular system of patients following surgery, identifying factors that may lead to postoperative haemodynamic instability
- Critically evaluates how older surgical patients are at increased risk of adverse postoperative outcomes and collaboratively plans for postoperative management of the older surgical patient
- Identifies the risk factors for the development of postoperative neurocognitive disorders (specifically delirium) and discusses the impact upon postoperative outcomes. Devises and implements evidence-based management of postoperative delirium and neurocognitive disorders
- Demonstrates leadership in the postoperative management of disturbances of homeostasis including thermoregulation; fluid and electrolyte imbalance; hypoglycaemia; hyperglycaemia and acute kidney dysfunction
- Applies understanding of postoperative analgesic techniques to develop and implement guidelines on assessment, documentation, and treatment of postoperative pain, including complex pain immediately following surgery
- Implements safe and effective handover from theatre recovery, ensuring continuity of patient care, effective analgesia and accurate information sharing
- Understands and leads the logistics and clinical support required to transfer an acutely unwell patient to a higher level of care / place of safety



- Direct observation of procedural skills (DOPS)
- Mini clinical evaluation exercise (Mini-CEX)
- Reflective log
- Simulation
- Completion of relevant modules of e-learning

- Confidently manages the patient's airway following surgery by demonstrating options to relieve airway obstruction or laryngospasm. This could involve a simulated environment
- Deploys suitable interventions to support respiration in the postoperative period. This could be in a simulated environment
- Demonstrates optimisation of the circulation postoperatively, based on critical interpretation of invasive and non-invasive blood pressure monitoring, cardiac output monitoring and IV fluid choices. This could be in a simulated environment
- Demonstrates leadership in the postoperative recovery unit, supporting the multidisciplinary team with both clinical guideline development and educational interventions
- Discusses the physiology of nausea and vomiting and demonstrates how it can be managed in the postoperative period
- Recognises urgent issues such as circulation disturbance or excessive bleeding
- Discusses immediate postoperative issues specific to surgery including bleeding, drainage or leakage (into drains or dressing), nerve injury, compartment syndrome or instability of a limb
- Critically discusses criteria for discharge from the recovery room and devises systems to facilitate safe discharge by optimising homeostasis, analgesia and identifying indications for higher level postoperative place of care



Postoperative care

11. Manages surgical patients in postoperative care and acute surgical ward environments. Encourages timely return of functional status with emphasis on pain management, oral intake and mobilisation (DrEaMing)

Descriptors

- Leads the multidisciplinary team and performs complex clinical assessment and interpretation of investigations in patients recovering from anaesthesia and surgery
- Implements functional assessment and management of acute pain for patients including those with chronic pain; opioid or other analgesic drug use, in partnership with pain management specialists where required
- Promotes a positive patient experience, relating both to psychological wellbeing and visiting in the postoperative period with emphasis on drinking, eating, mobilising, sleep and performing self-care where possible (DrEaMing)
- Considers, addresses and leads multidisciplinary interventions to minimise barriers to mobilisation and independent care, recognising where vulnerable or disadvantaged people will require additional support
- Implements postoperative care in accordance with relevant enhanced recovery, specialist surgical and day-case pathways
- Effectively communicates risk of postoperative complications to wider postoperative care teams and helps develop clinical guidelines in order to proactively mitigate risk
- Describes perioperative indications for a higher level of postoperative care: Enhanced Care; High Dependency and Intensive Care and discusses criteria for discharge from higher levels of care following surgery



- Direct observation of procedural skills (DOPS)
- Mini clinical evaluation exercise (Mini-CEX)
- Reflective log
- Audit/quality improvement project

- Demonstrates leadership in providing individualised care for vulnerable patients in postoperative care environments e.g. relaxed visiting times for patients with dementia / increased risk of delirium
- Understands and applies the use of safe regional analgesia as an intervention for pain, and recognises contra-indications, possible complications, and benefits of regional analgesia techniques
- Participates in Acute Pain Ward Rounds critically discussing side effects, risks and monitoring requirements for analgesic techniques e.g. regional nerve blocks, patient-controlled analgesia (PCA), continuous local anaesthetic infusion or intermittent administration of opioids and other medications for acute pain management
- Simulation of a clinical scenario where differences in emphasis in priorities of postoperative care between team members can be resolved using conflict resolution skills
- Audit and 'Plan Do Study Act' cycles regarding improving engagement with 'DrEaMing' in postoperative care environments
- Demonstrates effective discharge decision-making from enhanced levels of postoperative care and how these criteria can be safely applied by non-consultant level staff



12. Recognises and manages postoperative complications using clinical assessment and critical interpretation of data. Initiates management of the acutely deteriorating surgical patient and delivers resuscitation, whilst escalating care to appropriate specialists

<u>Descriptors</u>

- Promptly identifies the deteriorating surgical patient using synthesis of clinical skills, vital sign observations and investigations
- Uses critical reasoning skills based upon knowledge of evidence-base and guidelines to select, manage and interpret appropriate biochemical, radiological and other clinical investigations in a timely manner, to diagnose causes of acute deterioration in surgical patients
- Uses clinical reasoning and appropriate clinical tools to diagnose and initiate timely clinical management of common and important postoperative complications, escalating to other specialists when required:
 - o Major adverse cardiovascular events including myocardial infarction, stroke, heart failure, myocardial injury, dysrhythmias
 - o Postoperative Pulmonary Complications
 - o Postoperative bleeding and coagulopathies
 - o Delirium and other causes of altered mental state following surgery
 - o Infection, including wound and surgical site infection, anastomotic leak and sepsis (all causes)
 - o Intra-operative positioning complications
 - o Venous Thromboembolism
 - o Acute kidney injury
 - o Complications related to analgesic techniques
 - o Drug toxicity including opioids and other analgesics
 - o Specific complications of common operations for example ischaemic limb, compartment syndrome, dislocation of a joint, displacement of a fracture, breakdown of an anastomosis, delayed or covert bleeding, ureteric injury
- Recalls, and acts in accordance with, professional, ethical and legal guidance in relation to cardiopulmonary resuscitation (CPR)
- Adapts to the needs and preferences of the older surgical patient in response to acute deterioration, identifying those who may have limited reversibility of their condition, and critically appraising the need for palliative and / or end-of-life care where appropriate



- Helps identify when restorative or curative treatment may not be appropriate and sensitively leads discussions between the multidisciplinary team and patients and those important to them regarding treatment escalation and advanced care planning
- Helps identify and facilitates planning for patients who may require palliative care services and / or end-of-life care, working alongside appropriate specialists within sphere of influence
- Demonstrates competence in carrying out and leading resuscitation.
- Judges challenges and risks in the safe transfer of critically ill patients, demonstrating the ability to prepare for and perform a safe transfer to critical care, safe monitoring, maintaining dignity during transfer and leading an appropriate safe handover

- Direct observation of procedural skills (DOPS)
- Mini clinical evaluation exercise (Mini-CEX)
- Reflective log
- ALS / perioperative care course
- Simulation and debriefing
- Evidence of presentation at local morbidity and mortality meetings discussing postoperative complications





<u>Examples</u>

- Recognises the role of team resource management and human factors in managing acute perioperative events e.g. anaphylaxis, local anaesthetic toxicity, thromboembolism and major cardiovascular deterioration. This could be demonstrated in a simulated environment
- Simulation of a clinical scenario that resulted in an unexpected outcome and how this could be communicated to patients for example through duty of candour process and to the wider perioperative team through designing a debriefing session
- Case-based discussions of commonly occurring but significant surgical complications e.g. ischaemic limb, compartment syndrome, dislocation of a joint, displacement of a fracture, breakdown of an anastomosis, delayed or covert bleeding, ureteric injury
- Utilises communication skills to sensitively and effectively lead conversations relating to advance care planning, including treatment escalation planning and decisions to not attempt cardiopulmonary resuscitation, and involve patients and those important to them, as appropriate. This could be as part of a simulation
- Spends time with clinical governance leads and patient liaison services (PALS) to better understand the process, responsibilities and timelines in managing complaints from patients following surgery
- Demonstrates critical reflection of a resuscitation attempt (or simulation), recognising human factors, debriefing and engaging with others as needed, to identify learning needs and supporting an appropriate plan to address these



Discharge and Rehabilitation

13. Supports patients recovering from surgery and co-ordinates hospital discharge. Works within a multidisciplinary team, including the planning and management of discharge in complex, dynamic situations

Descriptors

- Develops and implements practitioner-led discharge criteria and effective communication with Primary Care following surgery; particularly for day-case surgery and enhanced care areas
- Applies team-working skills appropriately, including influencing, negotiating, reassessing priorities and supporting the management of postoperative discharge in complex, dynamic situations recognising the importance of discharge plan engagement with patients and those important to them
- Applies patient-centred care, including relevant professional assessments such as activities of daily living and home assessment to support shared decision-making for an individualised discharge plan for relevant patients (addressing physical, social and psychological needs) and works collaboratively with other professionals to manage and co-ordinate its delivery
- Provides safe and effective handover, ensuring continuity of patient care and engages with prompt and accurate information sharing

Evidence to inform decision

- Direct observation of procedural skills (DOPS)
- Mini clinical evaluation exercise (Mini-CEX) with reference to national programs e.g. CPOC/BADS/GIRFT '<u>National Day Surgery Delivery Pack'</u>
- Reflective log
- Demonstrates links to primary care, Hospital at Home and initiatives such as In-Reach



Examples

- _Demonstrates knowledge of selection criteria for day-case surgical patients and applies these when managing and advising complex patients on discharge from day-case environment
- Describes systems to monitor and minimise hospital re-admission following surgery
- Facilitates cross-sector and interdisciplinary working when supporting older adults to discharge to their preferred place of care, through co-ordination with external agencies and services in hospital, community and other care settings
- Demonstrates knowledge of community support systems and social prescribing for patients requiring social and financial / benefit support
- Demonstrates understanding of patient's concerns and their unique social situation and uses knowledge, skills and experience to agree a discharge plan regarding the practicalities of being at home
- Develops patient-facing discharge information using verbal, written and digital media offering advice on key outcomes such as pain relief, management of comorbidities and early recognition of postoperative complications

14. Flexibly and creatively applies knowledge of rehabilitation and liaises with hospital and community services in partnership with patients to optimise health and recovery following surgery

<u>Descriptors</u>

- Communicates the importance of maintaining or improving health-related behaviours in the longer term, and helps patients develop appropriate goals and plans including engagement with relevant support services
- Works with patients and people important to them, alongside healthcare professionals throughout the perioperative journey, to plan safe discharge and community-based



rehabilitation including home assessments, provision of mobilisation aids supported by postoperative digital and written resources

- Is able to communicate the risks and benefits of hospital discharge recognising the risks of delayed discharge including deconditioning, nosocomial infection, weaker bones and loss of confidence
- Facilitates rehabilitation team involvement in preoperative care phases alongside education of preoperative staff, so that patients and those important to them can plan their recovery and rehabilitation in the community
- Has awareness of appropriate primary care, community-based, voluntary sector and digital resources and helps refer and signpost patients to relevant support after discharge

Evidence to inform decision

- Direct observation of procedural skills (DOPS)
- Mini clinical evaluation exercise (Mini-CEX)
- Reflective log
- Audit or quality improvement project

- Participates in and leads elements of a quality improvement programme by liaising directly with community leisure services to help provide rapid equitable access to exercise spaces with supervised activities following surgery
- Involvement in co-creating perioperative care pathways to initiate health optimisation in primary care and surgical clinics, and to continue post-surgery by integration with Primary care, social prescribing and local authority support
- Implements communication aids aimed at improving longer term health-related behaviours following surgery using a variety of media, considering health literacy and the digital divide



Examples

- Reflects on a 'failed discharge' / readmission and critically identifies interventions that could have avoided this
- Identifies when rehabilitation could be optimised by specialist rehabilitation or pain management team input and refers appropriately
- Helps to develop or introduce digital or online / app-based rehabilitation tools, identifying factors to help patients and families overcome barriers to technology adoption

PART 3: ASSESSMENT

Introduction

The guidance has been written to reflect the fact that the training for the CPOC Fellowship is open to doctors from different specialty backgrounds. It also reflects that doctors may pursue the qualification within or outside of a CCT programme, either post-CCT or whilst holding an SAS grade post. The detail of this process and the organisational structures required to deliver training will be subject to agreement of the relevant Royal Colleges and Statutory Education Bodies.

The assessment system acknowledges that each individual doctor will have different personal circumstance and that the training period may be extended due to it being pursued on a parttime basis. Flexible training may also be pursued pre-CCT of the base specialty with training times being adjusted accordingly in agreement with the relevant base specialty training programme.

The indicative period of training is one year of full-time equivalent which as a minimum would reflect three full days per week of clinical participation in a perioperative care service, with additional study time outside of these hours expected to be completed to attain the theoretical knowledge underpinning the practice of perioperative medicine.



Assessment principles

The qualification is divided into 14 specialist Capabilities in Practice (CIPs) which have been mapped to the domains of the <u>Generic Professional Capabilities</u> (GMC 2019). Four further specialist capabilities are optional for some doctors who may wish to pursue additional training.

Assessment uses a formative and summative approach. Formative assessment tools will be used to record supervised learning events to evidence capabilities achieved.

Summative assessments of performance will also inform on progress. A single assessment may capture many aspects of clinical performance across several sub-domains, cumulatively they will demonstrate satisfactory attainment of CIPs. Each doctor is expected to meet with their CPOC Fellowship Lead Trainer (training structure to be confirmed) on a quarterly basis – the duration of the 'Quarter' being determined by the indicative period of training.

Levels of Supervision

Doctors in training will need to demonstrate progression through the different levels of supervision for clinical activities. These levels of supervision are as per the table below.

The trainer will identify the level of supervision that the doctor in training requires for that activity at the time the supervised learning event is completed. This is the supervision level the doctor in training would require if they were to repeat that same activity again at that point in time.

1	Direct supervisor involvement, physically present in same clinical area throughout	
2A	Supervisor on other clinical area, available to guide aspects of activity through	
	monitoring at regular intervals	
2B	Supervisor within hospital for queries, able to provide prompt direction/assistance	
3	Supervisor on call from home for queries, able to provide direction via phone or non-	
	immediate attendance	
4	Should be able to manage independently with no supervisor involvement (although	
	should inform consultant supervisor as appropriate to local protocols)	
5	Independent practice	

Table 2: Levels of supervision



Entrustable Professional Activities (EPAs)

Entrustable Professional Activities (EPAs) are units of professional practice, defined as tasks or responsibilities to be entrusted to the unsupervised execution by a learner once he or she has attained sufficient specific competence (Montgomery KB, Mellinger JD, Lindeman B. Entrustable Professional Activities in Surgery: A Review. JAMA Surg. 2024). The EPA concept allows supervisors to make competency-based decisions on the level of supervision required by doctors undertaking training for a qualification in perioperative care.

EPAs are mapped against each outcome as indicative milestones as a guide for supervisors and doctors undertaking training, the duration of which can then be translated into each doctor's individual training programme. Satisfactory progression through the curriculum correlates with the change in the level of supervision as the candidate gains clinical confidence and moves towards independent practice and this will be monitored to ensure progress is being attained.

We have used the ten Cate model and Miller's pyramid with regards to assessment of competency as noted in the table below and these are intended to guide training and help review progress with these at each quarterly meeting.

Levels of Entrustment for EPAs (ten Carte)	Miller's pyramid (Hierarchy of competence)	Level of supervision
Observation without execution, even with direct supervision	KNOWS	1
Execution with direct, proactive supervision	KNOWS HOW	1
Execution with reactive supervision i.e. on request and quickly available	shows how	2A, 2B
Supervision at a distance and discussed pre or post event	DOES	3, 4
Supervision provided by the leaner to colleagues with less experience		4, 5

Table 3: Levels of Entrustment for EPAs

Supervised Learning Events (SLEs)

Supervised Learning Events (SLEs) should be used by learners and trainers to promote professional educational discussions and guide future learning, with the emphasis on feedback. Developmental conversations should enhance the improvement in performance that comes with



repeated cycles of experience, reflection, conceptualisation, and application. Feedback should include both the specialty specific and generic professional aspects of practice.

It is important to note that one SLE can provide evidence for more than one of the Key Capabilities in Practice the type and number of SLEs is not set in stone. Rather it should be tailored to suit the doctor learner's needs, specialty background and previous experience.

Assessment tools

These assessment tools provide a combined formative and summative assessment approach with the aim of allowing doctors to demonstrate capabilities in practice for perioperative care. This approach will also allow the training programme to meet the needs of the diverse group of doctors that this qualification is intended to be aimed at. The formative assessment tools will guide learners towards the development of their own learning skills as they reflect on their own practice and its consequences. Frequent interaction between doctors in CPOC Fellowship training programmes and their supervisors with supportive feedback is essential.

1. Supervised Learning Events (SLEs):

- CBD: Case-based Discussion
- DOPS: Directly Observed Procedural Skills
- 2. MSF: Multi-Source Feedback/Team Feedback
- 3. MTR: Multiple Trainer Report
- 4. Patient feedback
- 5. Reflective log
- 6. Quality Improvement Project

Clinical sessions

There are no fixed numerical targets for any of the competencies related to generic GMC or specialist capabilities, but rather the learner should demonstrate attainment of Capabilities in Practice and have robust Consultant, MSF, and patient feedback to convey confidence in their clinical decision making, leadership skills and overall performance.

It is essential that the overall training experience reflects the multidisciplinary practice of holistic perioperative care and learners and trainers should ensure that the sessions attended towards training reflect this.



Non-clinical sessions

This perioperative Fellowship curriculum aims to give a general understanding of the entire surgical patient pathway, encouraging CPOC Fellowship holders to become leaders in Perioperative Care. Learners will be expected to spend time with other members of the team, including booking teams, reception staff, administrative teams, theatre managers, day case surgery unit managers, Allied Health Practitioners, preoperative clinic teams, rehabilitation services, legal and governance teams. Perioperative care is unique in straddling multiple areas. It is essential that these are covered in sufficient depth for those completing the Fellowship to understand the pathway in general as potential leaders, and how it can be modified for individual surgical patients and the wider perioperative care service.

ASSESSMENT OF PROGRESS

The local trainer, regional advisor will liaise with a national body to agree training goals and milestones at the commencement of the qualification. The detail of this process will need agreement of the relevant Royal Colleges and Statutory Education Bodies.

CURRICULUM OVERSIGHT

It is anticipated that a cross-specialty Board representing the various medical specialties involved in perioperative care will form a Training Board with the intention of implementing and overseeing the perioperative curriculum training programme across the four nations of the UK. The detail of this process and the organisational structures required to deliver, oversee and monitor a Perioperative Fellowship will be subject to agreement between the relevant Royal Colleges and Statutory Education Bodies.