

Post-Operative Short Course Content Study

Short Course Components




The short course content that met the criteria for inclusion in the final round were allocated to one of five 'themes'. Regional differences in what the panellists considered important to include, has resulted in the variation in content seen below.

In the final round, to categorise the importance of each item within each theme, panellists were asked to indicate for each item whether it was important to include in a short course on postoperative care (yes or no). A star (*) indicates that 100% of panellists in the region thought the item was important. The remainder were arranged in order of importance based on panellist views.

How can you be involved?




We want to hear your views on our findings! Please [click here to fill in anonymous feedback \[https://redcap.link/PostopShortCourseStudy/\]](https://redcap.link/PostopShortCourseStudy/), which will help us develop the discussion when we analyse the data. It will be possible to provide feedback up until 21st of July 2021.

Theme: Patient and Health system considerations before surgery

 <p>African region</p>	 <p>Americas region</p>	 <p>South East Asian & Western Pacific regions</p>
* Delays to reaching surgical care (e.g. transport, cost) and their effect on complications after surgery	* Age related concerns that may affect care after surgery (e.g. children, the elderly)	* Age related concerns that may affect care after surgery (e.g. children, the elderly)
* How prognosis and risks after surgery might inform whether surgery is appropriate or not	* How prognosis and risks after surgery might inform whether surgery is appropriate or not	* Short term health issues (e.g. severity and nature of acute illness)
* Care standards and availability of treatment guidelines	* Care standards and availability of treatment guidelines	Care standards and availability of treatment guidelines
Short term health issues (e.g. severity and nature of acute illness)	Staffing levels, wellbeing and resilience, and their effect on complications after surgery	
Age related concerns that may affect care after surgery (e.g. children, the elderly)	Individualised risk assessment (based on risk calculators, e.g. P-POSSUM)	
Levels of care after surgery, and where they are offered (e.g. health centre, district general hospital, specialist centre)		
Staffing levels, wellbeing and resilience, and their effect on complications after surgery		




Theme: Anaesthesia and surgical care during surgery

A star (*) indicates that 100% of panellists in the region thought the item was important. The remainder were arranged in order of importance based on panellist views.

 <p>African region</p>	 <p>Americas region</p>	 <p>South East Asian & Western Pacific regions</p>
* Anaesthetic complications during surgery (e.g. airway complications, hypoxia, anaphylaxis, complications relating to regional anaesthesia)	* Anaesthetic complications during surgery (e.g. airway complications, hypoxia, anaphylaxis, complications relating to regional anaesthesia)	* Anaesthetic complications during surgery (e.g. airway complications, hypoxia, anaphylaxis, complications relating to regional anaesthesia)
* Effect of surgical complications during surgery (e.g. major blood loss, soiling, retained items) on care after surgery	* Effect of surgical complications during surgery (e.g. major blood loss, soiling, retained items) on care after surgery	* Effect of surgical complications during surgery (e.g. major blood loss, soiling, retained items) on care after surgery
* Effect of anaesthetic technique (e.g. GA, regional, sedation, local) on care after surgery	Effect of anaesthetic technique (e.g. GA, regional, sedation, local) on care after surgery	* Effect of anaesthetic technique (e.g. GA, regional, sedation, local) on care after surgery
* Availability of anaesthesia drugs, oxygen, and equipment	Effect of surgical technique (e.g. open or laparoscopic) on care after surgery	* Severity of surgery (e.g. minor, major, damage-control)
Urgency of surgery	Type of surgery (e.g. obstetric, general, neuro, multi-stage)	* Type of surgery (e.g. obstetric, general, neuro, multi-stage)
Effect of surgical technique (e.g. open or laparoscopic) on care after surgery	Severity of surgery (e.g. minor, major, damage-control)	* Urgency of surgery
Types of anaesthesia providers (e.g. physician or non-physician providers)	Urgency of surgery	Effect of surgical technique (e.g. open or laparoscopic) on care after surgery
Severity of surgery (e.g. minor, major, damage-control)	Availability of anaesthesia drugs, oxygen, and equipment	Availability of anaesthesia drugs, oxygen, and equipment
Type of surgery (e.g. obstetric, general, neuro, multi-stage)		
Indications for surgery		
Availability of surgical instruments and supplies (e.g. prostheses)		
Types of operating surgical provider (e.g. specialist or non-specialist providers)		




Theme: Common complications after surgery

A star (*) indicates that 100% of panellists in the region thought the item was important. The remainder were arranged in order of importance based on panellist views.

 <p>African region</p>	 <p>Americas region</p>	 <p>South East Asian & Western Pacific regions</p>
* Blood related (e.g. post-operative bleeding, coagulopathy)	* Blood related (e.g. post-operative bleeding, coagulopathy)	* Blood related (e.g. post-operative bleeding, coagulopathy)
* Cardiovascular (e.g. MI, arrhythmia, pulmonary oedema)	Cardiovascular (e.g. MI, arrhythmia, pulmonary oedema)	* Cardiovascular (e.g. MI, arrhythmia, pulmonary oedema)
* Respiratory (e.g. hypoxia, pneumonia, pulmonary embolism)	Respiratory (e.g. hypoxia, pneumonia, pulmonary embolism)	* Respiratory (e.g. hypoxia, pneumonia, pulmonary embolism)
* Management of nausea and vomiting	Management of nausea and vomiting	* Management of nausea and vomiting
* Complications encountered only in particular specialties (e.g. apnoea in paediatrics, pre-eclampsia in obstetrics, and so on)	Neuro (e.g. cognitive dysfunction, delirium)	* Neuro (e.g. cognitive dysfunction, delirium)
* Altered biochemistry (e.g. electrolyte disturbances)	Complications encountered only in particular specialties (e.g. apnoea in paediatrics, pre-eclampsia in obstetrics, and so on)	* Altered biochemistry (e.g. electrolyte disturbances)
* Management of pain (including in patients with substance abuse)	Management of pain (including in patients with substance abuse)	* Management of pain (including in patients with substance abuse)
* Infection (e.g. surgical site, sepsis)	Renal (e.g. acute kidney injury, urinary retention, urinary tract infection)	* Renal (e.g. acute kidney injury, urinary retention, urinary tract infection)
* Renal (e.g. acute kidney injury, urinary retention, urinary tract infection)	Infection (e.g. surgical site, sepsis)	* Infection (e.g. surgical site, sepsis)
Complications of ICU stay (e.g. difficulty weaning off ventilator, critical illness myopathy and neuropathy)		* Gastrointestinal (e.g. GI bleed, ileus, blood sugar disturbance)
Neuro (e.g. cognitive dysfunction, delirium)		Complications of ICU stay (e.g. difficulty weaning off ventilator, critical illness myopathy and neuropathy)
gastrointestinal (e.g. GI bleed, ileus, blood sugar disturbance)		Complications encountered only in particular specialties (e.g. apnoea in paediatrics, pre-eclampsia in obstetrics, and so on)
Effects of COVID-19 Infection on the surgical patient and role of vaccine		Effects of COVID-19 Infection on the surgical patient and role of vaccine




Theme: Monitoring of the patient after surgery

A star (*) indicates that 100% of panellists in the region thought the item was important. The remainder were arranged in order of importance based on panellist views.

 <p>African region</p>	 <p>Americas region</p>	 <p>South East Asian & Western Pacific regions</p>
* Hand-over and communication between health professionals	Basic monitoring equipment and their use (ECG, pulse oximetry, etc)	* Hand-over and communication between health professionals
* Early warning scores based on patient observations	Early warning scores based on patient observations	* Early warning scores based on patient observations
* Basic monitoring equipment and their use (ECG, pulse oximetry, etc)		* Common diagnostic testing and their role in monitoring the patient (e.g. Hb, renal function, blood glucose)
Common diagnostic testing and their role in monitoring the patient (e.g. Hb, renal function, blood glucose)		* Basic monitoring equipment and their use (ECG, pulse oximetry, etc)
Effect of nursing availability and level of training on care after surgery		* Role of physiotherapy (e.g. early mobilisation, chest physio)
Location of care (e.g. recovery area, ward, critical care)		
Role of physiotherapy (e.g. early mobilisation, chest physio)		
Critical care outreach services (e.g. ICU nurse follow-up)		




Theme: “Ability to rescue” the patient with surgical complications

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 <p>African region</p>	 <p>Americas region</p>	 <p>South East Asian & Western Pacific regions</p>
* Considerations on when to refer and transfer to higher centres for continued care	* Capacity of ward staff to manage resuscitation and cardiac arrest (e.g. training, availability of defibrillator and other equipment)	* Capacity of ward staff to manage resuscitation and cardiac arrest (e.g. training, availability of defibrillator and other equipment)
* Capacity to manage acute pain (e.g. pharmacological, regional, availability of medications in hospital or with patient if having to buy it themselves)	Capacity to manage acute pain (e.g. pharmacological, regional, availability of medications in hospital or with patient if having to buy it themselves)	* Capacity to manage acute pain (e.g. pharmacological, regional, availability of medications in hospital or with patient if having to buy it themselves)
Capacity of ward staff to manage resuscitation and cardiac arrest (e.g. training, availability of defibrillator and other equipment)		* Considerations on when to refer and transfer to higher centres for continued care
Availability and prioritisation of resources for higher level of care (e.g. ventilators, dialysis)		* Considerations on unplanned return to theatre
		Ability to escalate level of care (e.g. proximity to nursing station, transfer to higher level care)
		Availability and prioritisation of resources for higher level of care (e.g. ventilators, dialysis)
		Availability and considerations on when to use blood bank and/or blood products

Prioritising the broad content themes.

Panellists were asked to rank from “Most important” to “Least important” the broad content themes for the short course. Here, the lists for each region represent the order of importance according to the panellists, with the most important at the top and least important at the bottom.

 <p>African region</p>	 <p>Americas region</p>	 <p>South East Asian & Western Pacific regions</p>
Common complications after surgery	Anaesthesia and surgical care during surgery	Monitoring of the patient after surgery
Ability to rescue the patient with surgical complications	Common complications after surgery	Anaesthesia and surgical care during surgery
Monitoring of the patient after surgery	Ability to rescue the patient with surgical complications	Common complications after surgery
Anaesthesia and surgical care during surgery	Monitoring of the patient after surgery	Ability to rescue the patient with surgical complications
Patient and health system considerations before surgery	Patient and health system considerations before surgery	Patient and health system considerations before surgery




Teaching methods

The teaching methods that met the criteria for inclusion in the final round were grouped together. Regional differences in what the panellists considered important to include, has resulted in the variation seen below.

In the final round, to categorise the importance of each item, panellists were asked to indicate for each item whether it was important to include in a short course on postoperative care (yes or no). A star (*) indicates that 100% of panellists in the region thought the item was important. The remainder were arranged in order of importance based on panellist views.

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 <p>African region</p>	 <p>Americas region</p>	 <p>South East Asian & Western Pacific regions</p>
* IN-PERSON or REMOTE - Small group workshops (e.g. to practice a skill, use of equipment)	IN-PERSON or REMOTE - Small group workshops (e.g. to practice a skill, use of equipment)	* IN-PERSON or REMOTE - Small group workshops (e.g. to practice a skill, use of equipment)
IN-PERSON - Simulation (high fidelity, e.g. in a dedicated simulation suite)	IN-PERSON or REMOTE - Short case studies (e.g. many cases used each session, with each case covering specific topics)	IN-PERSON or REMOTE -Short case studies (e.g. many cases used each session, with each case covering specific topics)
IN-PERSON or REMOTE - Discussion group (e.g. to discuss ideas, experiences)	REMOTE - Written material (summaries or slide show slides, emailed or downloaded)	IN-PERSON or REMOTE -Multiple choice questions (e.g. to emphasise key points, or test what has been learnt)
REMOTE - Pre-recorded presentations (video or audio, online or downloaded)	IN-PERSON - Simulation (high fidelity, e.g. in a dedicated simulation suite)	REMOTE - Online forum discussions WITH facilitator
IN-PERSON or REMOTE - Case stories from health care providers (e.g. experiences of understaffing, lack of equipment, success stories of difficult cases)	REMOTE - Pre-recorded presentations (video or audio, online or downloaded)	IN-PERSON - Simulation (low fidelity, e.g. with make shift equipment)
	REMOTE – Online forum discussions WITH facilitator	IN-PERSON – Simulation (high fidelity, e.g. in a dedicated simulation suite)
	IN-PERSON - “On the job” teaching (e.g. in the operating theatre)	

Participants and facilitators




Possible participants and facilitators of a short course on postoperative care that met the criteria for inclusion in the final round were presented to the panellists. Regional differences in what the panellists considered important to include, has resulted in the variation seen below.

In the final round, to categorise the importance of each possible participant and facilitator, panellists were asked to indicate for each whether they are important to include in a short course on postoperative care (yes or no). A star (*) indicates that 100% of panellists in the region thought the participant or panellist was important. The remainder were arranged in order of importance based on panellist views.

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Participants

 African region	 Americas region	 South East Asian & Western Pacific regions
* Non-Physician anaesthesia providers (e.g. nurse anaesthetists)	* Physician specialist anaesthesia providers (e.g. anaesthesiology trainees and consultants)	* Physician specialist anaesthesia providers (e.g. anaesthesiology trainees and consultants)
* Nurses (operating theatre & recovery)	Nurses (operating theatre & recovery)	* Nurses (operating theatre & recovery)
* Physician non-specialist anaesthesia providers	Specialist operative surgical providers (e.g. specialist surgical trainees and consultants)	* Nurses (critical care)
Nurses (critical care)		
Specialist operative surgical providers (e.g. specialist surgical trainees and consultants)		
Non-specialist operative surgical providers		
Physician specialist anaesthesia providers (e.g. anaesthesiology trainees and consultants)		
Anaesthesia technicians (or operating department practitioners, ODPs) - assist the surgical team, for example supporting the anaesthesia provider during surgery, and immediate postoperative recovery care of the patient		

Facilitators

A star (*) indicates that 100% of panellists in the region thought the participant or panellist was important. The remainder were arranged in order of importance based on panellist views.

 <p>African region</p>	 <p>Americas region</p>	 <p>South East Asian & Western Pacific regions</p>
* Physician anaesthesia specialist providers (e.g. anaesthesiology trainees and consultants)	* Physician anaesthesia specialist providers (e.g. anaesthesiology trainees and consultants)	* Physician anaesthesia specialist providers (e.g. anaesthesiology trainees and consultants)
Specialist operative surgical providers (e.g. specialist surgical trainees and consultants)	* International faculty (from neighbouring countries)	* National faculty (from country where course is held)
International faculty (from high-income countries)	International faculty (from other low-income and middle-income countries)	Specialist operative surgical providers (e.g. specialist surgical trainees and consultants)
	National faculty (from country where course is held)	

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