



Competencies on Anaesthesia and Surgery to underpin circulation management

PACU Circulation Learning and Teaching Resource

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Competencies : Anaesthesia & Surgery

Core clinical learning outcomes:

- *Understands how general anaesthesia and surgery impact on normal cardiovascular function*
- *Explains how the anaesthetist safeguards circulation during surgery*
- *Rationalises the ongoing risk to cardio-vascular system in the post anaesthetic period caused by the residual effect of anaesthesia and surgery*

Content	<i>A. Anaesthetic pre-procedure risk assessment of cardiovascular function</i> • <i>Enables the novice to understand how the anaesthetist risk assesses his patient in order to plan safe delivery of anaesthesia</i>
1.	Discusses how the anaesthetist risk assesses his patient's cardiovascular function to plan safe delivery of anaesthesia with consideration of the following factors: • age • weight • surgical procedure • length of surgical procedure • cardiovascular status [i.e. any underlying medical conditions]
2.	Discuss how the following options may be used in safeguarding the high risk patient's circulation • method of ventilation [assisted, spontaneous] • monitoring devices for cardiovascular system • fluid management • thermoregulation

	B. Safeguarding cardiovascular function during anaesthesia • Enables the novice to understand how anaesthesia and surgery impact on normal cardiovascular function throughout the procedure • Enables the novice to understand how the anaesthetist protects cardiovascular function during this period
3.	Explains how induction agents impact on normal cardiovascular homeostasis
4.	Describes how the following drug groups used to maintain general anaesthesia may impact on the heart and circulation. Give two examples of drugs in each group - volatile agents - muscle relaxants - opioids
5.	Discusses how techniques used in anaesthesia may impact on cardiovascular system - epidural anaesthesia - spinal anaesthesia
6.	Describes how surgical procedures may impact on the cardiovascular system
7.	Discusses how the anaesthetist assesses cardiovascular function throughout the maintenance period of GA
8.	Explains how circulation is optimized during the maintenance phase
	C. Residual effect of general anaesthesia on cardiovascular function in the immediate post anaesthetic period • Enables the novice to understand how the residual effects of anaesthesia and surgery may put the patient at risk in the immediate post anesthetic period
9.	Discusses how the residual effects of anaesthesia may impair cardiovascular function in the immediate post anaesthetic phase in relation to the following: • cardiac output

	• systemic vascular resistance
10.	Discusses how surgical intervention may have a residual effect on cardiovascular function in the immediate post anaesthetic phase