

Surgical Education and Assessment Modules (SEAM) - Acute Abdomen

Module Overview

Rationale	<p>The general surgeon must have a very good grasp of the nuances of various pathological processes affecting the various abdominal organs.</p> <p>The aim of this module is to familiarise you with those pathological process and provide you with a "road map" that will help you throughout your professional career as a general surgeon.</p> <p>This module has been designed to introduce you to the fundamental aspects and diagnosis of non-traumatic acute abdomen. It builds on your baseline knowledge of abdominal anatomy and basic sciences.</p> <p>Assessing, diagnosing and managing the acute abdomen are integral and essential aspects of general surgical training.</p>	
Learning Objectives	<p>By the end of this module you should be able to:</p> <ol style="list-style-type: none"> 1. Describe the mechanisms of the different types of abdominal pain and associated clinical features 2. Apply pathophysiological processes and relevant anatomy to the assessment and management principles of the acute abdomen 3. Recognise common patterns in acute abdominal presentations 4. Recognise acute life-threatening abdominal presentations 5. Select the most appropriate investigations in the management of the acute abdomen 	
Topics and keywords	Topic	Keywords
	An analysis of abdominal pain	<i>visceral pain, parietal pain, referred pain, omentum, mesentery</i>
	Pathophysiological processes and pattern recognition	<i>luminal organs, solid organs, inflammation, obstruction, ischaemia, distension</i>
	Acute life-threatening abdominal presentations	<i>AAA, ectopic pregnancy, mesenteric ischaemia, acute myocardial infarction, perforated viscus</i>
	Investigations and treatment	<i>management, history, examination, diagnosis</i>
Recommended Further Reading	<p>Educational material provided within this module is not intended to be complete, and is not a textbook. Trainees are expected to undertake further reading in order to complete the module successfully.</p>	
	Recommended Reading	Learning Objective
	Bhangu A, Søreide K, Di Saverio S, Assarsson JH, & Drake FT. Acute appendicitis: Modern understanding of pathogenesis, diagnosis, and management. <i>The Lancet</i> 2015; 386: 1278–87	2, 3, 5
	Cox, M. R. Acute Abdominal Pain, in <i>Clinical Gastroenterology</i> . Talley, N. J. (Ed). 3rd edition: Elsevier Australia, 2011.	1, 3, 4, 5
	Evers, B. M., Beauchamp, R. D., Mattox, K. L., & Jr., C. M. T. <i>Sabiston textbook of surgery: The biological basis of modern surgical practice</i> . Chapters 45 & 54. Elsevier, 2016.	1, 2

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	Jim, J, & Thompson, R. W. <i>Management of symptomatic (non-ruptured) and ruptured abdominal aortic aneurysm</i> . https://www.uptodate.com/contents/management-of-symptomatic-non-ruptured-and-ruptured-abdominal-aortic-aneurysm , 2018.	4
	Kumar, V., Aster, J. C., & Abbas, A. K. <i>Robbins & Cotran pathologic basis of disease</i> , Chapter 17. 9th edition: Saunders, US, 2015.	2
	Paterson-Brown, S. <i>Core Topics in General & Emergency Surgery E-Book: Companion to Specialist Surgical Practice</i> , Chapter 5. 5th edition: Saunders, Great Britain, 2014.	3, 5
	Royal Australasian College of Surgeons. <i>Tests, treatments and procedures clinicians and consumers should question</i> . http://www.choosingwisely.org.au/recommendations/racs , 2016	5
	Sinnatamby, C. S., & Last, R. J. <i>Last's anatomy: Regional and applied</i> ; Chapter 5. 12th edition: Churchill Livingstone, Great Britain, 2011.	2
	Williams, N., Bulstrode, C., & O'Connell, P. R. <i>Bailey & love's short practice of surgery</i> , Chapters 59-73. 26th edition: CRC Press: London, 2013.	1, 2, 3, 5
Prerequisites	N/A	
How this module will be assessed	The e-learning module comprises learning activities and opportunities for Formative Assessment, with feedback. The Summative Assessment comprises twenty (20) Type A, Type X, and Type R multiple choice questions.	

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Learning Activities & Formative Assessment

Cognitive level	Learning Objective	Module Topic	Learning Activity	Formative Assessment
Apply	Describe the mechanisms of the different types of abdominal pain and associated clinical features	An analysis of abdominal pain	<p>After reading about mechanisms of abdominal pain, learners will be presented with a case scenario where they will match descriptions of pain with possible pathology.</p> <p>Learners will be able to identify causes of shoulder tip pain, based on indicators learnt in the module.</p>	Learners will be able to identify which organs / structures cause epigastric pain, based on indicators learnt in the module.
Apply	Apply pathophysiological processes and relevant anatomy to the assessment and management principles of the acute abdomen	Pathophysiological processes and pattern recognition	<p>Learners will sort various organs into luminal or solid, and receive feedback.</p> <p>After reading about pathophysiological processes that typically result in abdominal pain, learners will work through common examples of pattern recognition.</p>	Learners will review the case of a patient with severe epigastric abdominal pain, and make clinical decisions based on assessment and management principles learnt in the module.
Analyse	Recognise common patterns in acute abdominal presentations		<p>Learners will be able to differentiate symptoms of perforated peptic ulcer from acute pancreatitis, based on pathophysiological processes and patterns learnt in the module.</p>	
Analyse	Recognise acute life-threatening abdominal presentations	Acute life-threatening abdominal presentations	<p>After reading about acute life-threatening abdominal presentations, learners will work through a case scenario in which a patient has presented with lower abdominal pain.</p> <p>Learners will be able to identify the most appropriate investigative and treatment options based on consideration of acute life-threatening abdominal presentations.</p>	Learners will diagnose patients with acute life-threatening abdominal presentations, based on indicators learnt in the module.
Evaluate	Select the most appropriate investigations in the management of the acute abdomen	Investigations and treatment	<p>Learners will undertake a matching exercise with investigations used to confirm or refute diagnoses.</p> <p>Learners also arrange investigations based on prioritisation of tests, and arrange second line investigations.</p> <p>Learners will triage patients into one of five groups, ranging from stable to unstable.</p>	Learners will identify appropriate assessment and treatment of the acute abdomen, based on indicators learnt in the module.

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Learning Activities & Formative Assessment

Cognitive level	Learning Objective	Module Topic	Learning Activity	Formative Assessment
			<p>Learners will complete a progressive case scenario addressing appropriate management and investigations for a patient presenting with abdominal pain.</p> <p>Learners will be able to evaluate management and treatment options for appendicitis.</p>	