

Trauma Workshop
Skills Centre, St George Hospital
Saturday 15 March 2014

VMO facilitators: Dr Ricardo Hamilton (Campbelltown Hospital)
Dr Mary Langcake (St George Hospital)
Dr Anthony Chambers (St George Hospital)
Dr Christine Bowles (St George Hospital)

Lecture topics:

Welcome

0900-0915 (12 minute presentation, 3 minute discussion)
Registrar presenter: Sanjoy Dutta (St George Hospital)

The golden hour

What is the sensitivity and specificity of focussed abdominal sonography for trauma compared with CT scan, diagnostic peritoneal lavage or examination?
How can shock be classified and graded?

0915-0930 (12 minute presentation, 3 minute discussion)
Registrar presenter: Ruben Cohen-Hallelah (St George Hospital)

Damage control surgery

What is the lethal triad?
How does acidosis and hypothermia cause coagulopathy?
What are the options for managing the open abdomen?

0930-0945 (12 minute presentation, 3 minute discussion)
Registrar presenter:

Abdominal trauma

What is the evidence for non-operative management of splenic trauma? Is there evidence for bed rest or limitation of activity in patients with splenic trauma?
What are the complications of severe liver trauma?
When is it appropriate to perform a primary anastomosis in colonic injuries?

0945-1000 (12 minute presentation, 3 minute discussion)
Registrar presenter: Allan Kwok (St George Hospital)

Dealing with the retroperitoneum

What are the grades of pancreatic and duodenal trauma?
What are the zones of the retroperitoneum and does management differ with each?
How should renal trauma be managed?

1000-1015 (12 minute presentation, 3 minute discussion)
Registrar presenter:

Thoracic trauma

What are the indications for an ED thoracotomy in penetrating and blunt trauma?
What are the options for investigating a penetrating injury to the box?
What are the surgical options for accessing the thoracic cavity and in what settings are they most appropriate for?

Morning tea break (sponsored by Covidien)

1045-1100 (12 minute presentation, 3 minute discussion)
Registrar presenter:

Vascular trauma

What are hard and soft signs of vascular injury in trauma?
What are the benefits and limitations of using angiography, CT angiography, MR angiography, duplex ultrasound and ABI to investigate vascular trauma?
When is a fasciotomy indicated?

1100-1115 (12 minute presentation, 3 minute discussion)

Registrar presenter:

Limb trauma

How can soft tissue injuries be classified or graded?
What are the indications for early amputation?
How can compartment pressures be monitored?

1115-1130 (12 minute presentation, 3 minute discussion)

Registrar presenter:

Pelvic trauma

How can pelvic fractures be classified? What are the associated injuries?
What are the options for managing the fractured pelvis?

1130-1145 (12 minute presentation, 3 minute discussion)

Registrar presenter: Rodney Lui (Wollongong Hospital)

Abdominal compartment syndrome

How are abdominal pressures measured? What do these measurements mean?
What are the consequences of abdominal compartment syndrome?
What non-operative and surgical methods of management exist?

Trauma Workshop - Skills Stations (sponsored by Covidien)

Room 1:

Inserting intercostal catheters

Objectives

By the end of the session, trainees will be able to:

1. Recognise the components and equipment required to insert an intercostal catheter.
2. Insert an intercostal catheter into a simulation model.

Tasks

1. Examine the tray for inserting intercostal catheters and identify the equipment.
2. Discuss the steps involved in inserting an intercostal catheter, and identify relevant anatomical aspects.
3. Discuss the principles involved in a single-chamber and three-chamber chest drain.
4. Perform an intercostal catheter on a mannequin.
5. Discuss the principles involved in removing a chest drain.
6. Discuss common problems associated with the function of chest drains and how to troubleshoot them.

Trauma Workshop - Skills Stations (sponsored by Covidien)

Room 2:

Diagnostic peritoneal lavage

Objectives

By the end of the session, trainees will be able to:

1. Recognise the indications for and role of diagnostic peritoneal lavage in trauma.
2. Interpret the biochemical results of a diagnostic peritoneal aspirate / lavage specimen.
3. Perform a diagnostic peritoneal lavage.

Tasks

1. Discuss the indications for diagnostic peritoneal lavage and its relative sensitivity and specificity.
2. Discuss the parameters measured on a specimen sent for diagnostic peritoneal lavage, the normal range, and abnormal results.
3. Observe the session facilitator performing a diagnostic peritoneal lavage.
4. Perform a diagnostic peritoneal lavage on a simulation model.

Trauma Workshop - Skills Stations (sponsored by Covidien)

Room 3:

Viva practice

Examples:

Anatomy

1. Discuss the anatomy of the liver, paying attention to the segments.
2. Discuss the anatomy and relations of the spleen.
3. Discuss the course and branches of the abdominal aorta.
4. Discuss the anatomy and relations of the diaphragm.

Pathophysiology and critical care

1. A 26 year old man is brought in by ambulance following a stabbing to his neck. How would you prepare for his arrival? At initial assessment, he is tachypnoeic, his HR 120 and SBP 70 mmHg. How would you manage him?
2. A 35 year old man is brought in by ambulance following a motor vehicle accident. He is tachycardic, hypotensive and has a positive FAST. How would you manage him? At laparotomy, a deep laceration of the liver is noted. How do you grade liver lacerations and how would you manage this?
3. A 40 year old woman is found at the entrance of the emergency department with several stab wounds to the chest. They are medial to her left nipple, lateral to the sternal edge. How would you manage her?
4. A 19 year old man is retrieved from the national park where he has been mountain biking. After hitting a rock, he flew off his bike and sustained a handle-bar injury to his abdomen. He is tachycardic, hypotensive and has a positive FAST. At theatre, the spleen is injured. He has a haematoma and trauma to the second part of his duodenum with enteric contamination. How do you manage him?
5. A 68 year old woman falls in the bathroom and hits her chest. She becomes progressively dyspnoeic and presents to the emergency department. Her chest x-ray demonstrates a large pneumothorax. An intercostal catheter is inserted. Draw and discuss the principles of a single-chamber and three-chamber chest drain.
6. A 54 year old man is trapped at a building site under a brick wall that has collapsed on him. The extrication time is 80 minutes. What are your concerns in managing him?

Operative

1. Splenectomy
2. Trauma laparotomy
3. Fasciotomy
4. Cricothyroidotomy
5. Liver lacerations