

## Eastern and Greater Southern Surgical Skills Network

### Generic Surgical Sciences Examination Anatomy Education Sessions 2021

#### Important Instructions for Teaching Sessions:

- This curriculum is based on the major topics in *Last's Anatomy, Regional and Applied, 9<sup>th</sup> Edition, 1998 (reprinted 2003) – McMinn R.M.H., Churchill Livingstone.*
- The content from the Embryology should be based on both *Last's* and *Langman's Medical Embryology, 13<sup>th</sup> Edition, 2014 – Sadler T.W., Lippincott Williams and Wilkins.*
- 45 minutes of each section should be spent on important relational anatomy;
- 15 minutes should be spent going through dissections related to the initial discussion/teaching;
- Questions should preferably be written by presenters and not taken from the bank. Candidates can keep these questions as additional study preparation. These questions should be taken from *Last's* and double checked by another person.
- This curriculum was compiled with input from Dr Guy Henry, Senior Paediatric General Surgeon Sydney Children's Hospital and Dr Matthew Smith, Network Surgical SRMO.  
We would like to acknowledge and thank them both for their valued contributions.

Tutorial Date	Anatomy Session	Topics	Presenter
Tues 6 July 5.30pm - 7.00pm	<b>Introductory Tips</b>  <b>Upper Limb: From Shoulder to Hand</b>	<b>GSSE Study Tips, Resources, High Yield Topics</b>  <b>Upper Limb</b> <ul style="list-style-type: none"> <li>• Brachial plexus and its relations</li> <li>• Axillary contents/overview</li> <li>• Clavipectoral fascia and structures piercing</li> <li>• Triangular space + interval + quadrangular space</li> <li>• Events at the midpoint at the humerus</li> <li>• Cubital fossa</li> <li>• Carpal tunnel/structures at the wrist</li> <li>• Anatomical snuff box</li> </ul>	Matt Smith
Tues 13 July 5.30pm - 6.30pm	<b>Lower Limb: From Hip to Foot</b>	<ul style="list-style-type: none"> <li>• Lesser and greater sciatic foramina</li> <li>• Femoral triangle and passage of contents from pelvis to lower limb (NAVEL)</li> <li>• Sapheno-femoral junction and origin of fascia lata</li> <li>• Watershed muscles and separating structures (e.g. ab brevis separates anterior and posterior obturator trunks)</li> <li>• Popliteal fossa</li> <li>• Structures that imbed/groove bones in the leg and foot</li> <li>• Layers of the sole</li> <li>• Anatomical similarities between the upper</li> </ul>	Nick Skladnev

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<p><b>Tues 20 July</b> 5.30pm - 6.30pm</p>	<p><b>Abdomen</b></p>	<ul style="list-style-type: none"> <li>• Histological/anatomical differences across the gastrointestinal tract (e.g. jejunum vs ileum vs colon)</li> <li>• Roots of the mesentery and specifically derivatives of dorsal and ventral mesogastrium; abdominal compartments</li> <li>• Complex aspects of gastrointestinal vascular anatomy and variations in circulation (right gastric artery following gastroduodenal, replaced right and left hepatic artery, arc of riolan vs marginal artery of drummond)</li> <li>• Liver segments</li> <li>• Porta hepatis, relations of the entrance to the lesser sac</li> <li>• Transpyloric plane</li> <li>• Relations of the duodenum</li> <li>• Structures piercing the diaphragm (and behind the arcuate ligaments)</li> <li>• Spleen/Stomach/Duodenum/Pancreas</li> </ul>	<p>Andrew Zimmerman</p>
<p><b>Tues 27 July</b> 5.30pm - 6.30pm</p>	<p><b>Embryology</b> <b>(Content should be taken from both <i>Last's</i> and <i>Langman's</i>)</b></p>	<ul style="list-style-type: none"> <li>• Bilaminar to trilaminar development</li> <li>• Folding of the trilaminar embryo to an endodermal tube</li> <li>• Endodermal derivatives, and important rotations (foregut, midgut)</li> <li>• Formation of the serosal cavities (separation of splanchnopleura and somatopleura)</li> <li>• Origins of the diaphragm</li> <li>• Foetal cardiovascular anatomy</li> <li>• Neural crest cell derivatives</li> <li>• Branchial arches, derivatives, including artery derivatives forming the great vessels</li> <li>• Formation of definitive kidneys (metanephros)</li> <li>• Derivatives of paramesonephric and mesonephric ducts and possible remnants</li> <li>• Descent of the testes</li> <li>• Inguinal canal and layers of the testes</li> </ul>	<p>Matt Smith</p>

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<p><b>Tues 3 Aug</b> 5.30pm - 6.30pm</p>	<p><b>Retroperitoneum and Pelvis/Perineum</b></p>	<ul style="list-style-type: none"> <li>• Layout and relations of the retroperitoneum (e.g. l. renal v. anterior to aorta; structures in the renal hilum anterior to posterior; formation of portal vein posterior to neck of the pancreas; ventral branches of aorta anterior to ureters which are anterior to the branches of the lumbar plexus)</li> <li>• Aorta bifurcating at L4, IVC bifurcating at L3; quick comment on May-Thurner syndrome</li> <li>• Important pelvic relations (e.g. ureters vs vas and uterine artery; structures posterior and lateral to the rectum; vas deferens course [nothing intervenes it and the peritoneum]; major fixation points of the uterus, and the ovaries being on the posterior leaf of the broad ligament; ovarian fossa)</li> <li>• Emergence of the branches of the lumbar plexus from the psoas muscle</li> <li>• Rule for remembering branches of the lumbosacral plexus</li> <li>• Movement of pudendal artery and nerve (and nerve to obturator internus) with relation to ischial spine vs sacrospinous ligament; course through the ischial fossa and major branches</li> <li>• Superficial and deep perineal pouch</li> </ul>	<p>Tom Warburton</p>
<p><b>Tues 10 Aug</b> 5.30pm - 6.30pm</p>	<p><b>Thorax</b></p>	<ul style="list-style-type: none"> <li>• Relations at the left versus right lung hilum; differences in segments of the lung</li> <li>• Surface anatomy approximation of pleural margins</li> <li>• Cardiac venous anatomy</li> <li>• Transverse and oblique sinuses</li> <li>• Events at sternal angle of Louis, and structures within the divisions of the mediastinum</li> <li>• Relations of the vagus nerve, phrenic nerve, recurrent laryngeal nerve, and left brachiocephalic in the superior mediastinum</li> <li>• Course of the thoracic duct</li> <li>• Venous versus arterial intercostal vessel anatomy and relations in the subcostal groove of vein, artery, nerve</li> <li>• Structures that cross the diaphragm</li> </ul>	<p>Carlin Ngai</p>

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<p><b>Tues 17 Aug</b> 5.30pm - 6.30pm</p>	<p><b>Neck</b></p>	<ul style="list-style-type: none"> <li>• Anterior versus posterior triangle</li> <li>• Layers of cervical fascia, and important points of separation/fusion/continuation</li> <li>• Relation of nerves to the internal and external carotid artery</li> <li>• Branches of the cervical plexus and Erb's point; and the course of accessory spinal nerve in the posterior triangle</li> <li>• Parotid gland (with neck, as it is related to the layers of cervical fascia)</li> <li>• Constrictor muscle origins and layout, and commencement of oesophagus</li> <li>• Laryngeal anatomy, specifically muscle groups that shorten versus lengthen and abduct versus adduct</li> </ul>	<p>Belen Kornfeld</p>
<p><b>Tues 7 Sept</b> 5.30pm - 6.30pm</p>	<p><b>Head</b></p>	<ul style="list-style-type: none"> <li>• Infratemporal fossa and pterygopalatine fossa</li> <li>• Branches of trigeminal nerve (therefore branches of the maxillary nerve and mandibular nerve)</li> <li>• Branches of the maxillary artery</li> <li>• Middle ear</li> <li>• Branches of facial nerve</li> <li>• Nerves that 'steal muscles'</li> </ul>	<p>Nick Skladnev</p>
<p><b>Tues 14 Sept</b> 5.30pm - 6.30pm</p>	<p><b>Practice Exam</b></p>	<p>Please compile a mock exam to go through online with MCQs and anatomy spot questions. These should be questions written in the style of Lasts but unique questions not from the bank.</p>	<p>Andrew Zimmerman</p>
<p><b>Weds Oct 6 &amp; Thurs Oct 7</b></p>	<p><b>Generic Surgical Sciences Examination</b></p>		