



FELLOWSHIP EXAMINATION

AUSTRALASIAN COLLEGE
FOR EMERGENCY MEDICINE

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STUDY GUIDE FOR THE DOMAIN OF MEDICAL EXPERTISE

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Paediatric Topics

It should be noted that there is no separate section on paediatric topics. Instead, topics relevant to the paediatric age group are integrated throughout the topic list. This in no way diminishes the importance of paediatric emergency medicine either in practice or in examinations.

1. RESUSCITATION

1.1 Airway

a) Basic airway maintenance techniques	P	Ex
b) Oxygen delivery systems	Eq	Ex
c) Bag mask ventilation	P	Ex
d) Intubation and rapid sequence induction	P	Ex
e) Alternative/different airway techniques	P	Ex
i) laryngeal mask		
ii) other		
f) Needle/surgical cricothyroidotomy	P	Ex
g) Tracheostomy	P	H
h) Tracheal suctioning	P	Ex

1.2 Airway Management

a) Elective intubation	P	Ex
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	Columns	
	LO	LP
b) Confirming endotracheal tube position	P	Ex
c) Laryngeal mask airway	P	Ex
d) Capnography	I	Ex
e) Pulse oximetry	I	Ex
f) Extubation	P	Ex
g) Ventilators		
i) Used in EDs	Eq	Ex
ii) Other	Eq	H
h) Non-invasive ventilation	Eq	Ex
1.3 Life Support		
a) Cardiac arrest	DIS	Ex
b) Basic life support	P	Ex
c) ACLS drugs and algorithms	M	Ex
d) Defibrillation	P	Ex
e) Special arrest situations		
i) Paediatric	M	Ex
ii) Trauma	M	Ex
iii) Hypothermia	M	Ex
iv) Out-of-hospital	M	Ex
1.4 Vital sign measurement		
a) Clinical vital signs (BP, pulse, RR, temp)	I	Ex
b) Non-invasive electronic monitoring	I/P	Ex
c) Invasive monitoring	P	H
1.5 Shock		
a) Intravenous fluid composition and therapy	M	Ex
i) High volume intravenous infusion techniques	P	Ex
ii) Autotransfusion	P	G
b) Peripheral venous access	P	Ex
i) Accessing indwelling vascular devices	P	Ex
ii) Vascular access techniques in infants & children	P	Ex
c) Central venous access		
i) Subclavian	P	Ex
ii) Internal jugular	P	Ex
iii) Femoral	P	Ex
iv) Cubital	P	Ex
d) Central venous pressure measurement	I	Ex
e) Alternative venous access		
i) Intraosseus	P	Ex

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	LO	LP
ii) Peripheral venous cutdown	P	H
f) Inotropes	D	Ex
g) Pressors	D	Ex
h) Arterial puncture and cannulation	P	Ex
i) Endotracheal drug delivery	M	Ex
j) MAST suit	P	G

1.6 Coma

a) Care of the comatose patient	M/I	Ex
b) Brain death	DIS	H

1.7 Age-specific differences

Be able to describe the anatomical and physiological differences that might affect resuscitation in the following groups

a) Neonatal	T	Ex
b) Infant	T	Ex
c) Paediatric	T	Ex
d) Elderly	T	Ex

2. ANAESTHETICS

2.1 General Anaesthetic Techniques

a) Intravenous induction and maintenance agents	D	Ex
b) Muscle relaxants	D	Ex
i) Depolarising		
ii) Non-depolarising		
c) Inhalational anaesthetic agents (including nitrous oxide)	D	H
d) Drugs for conscious sedation	D	Ex

2.2 Local Anaesthetic Techniques

a) Local anaesthetic pharmacology and toxicity	D	Ex
b) Regional nerve blocks	P	H
i) Digital		
ii) Wrist		
iii) Brachial plexus		
iv) Femoral		
v) Facial		
vi) Foot		
c) Intravenous regional anaesthesia	P	Ex
d) Local anaesthetic adjuncts and alternatives	D	H

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	LO	LP
2.3 Pain Management		
a) Acute pain management	M/I	Ex
i) Drugs		
ii) Methods of delivery		
iii) Adjuncts		
b) Chronic pain management	T	G
c) Pain scores	T	Ex
2.4 Procedural Analgesia and Sedation	P	Ex
3. MEDICINE		
3.1 Cardiovascular		
a) Clinical examination of the cardiovascular system	E	H
b) Interpretation of symptoms and clinical signs of the cardiovascular system	E	Ex
c) Acute coronary syndromes (ACS)		
i) Approach to the patient with chest pain	DIS	Ex
ii) Prehospital management	S	H
iii) Low-risk chest pain	I/S	H
iv) Stable angina	DIS	H
v) Unstable angina	DIS	H
vi) Myocardial infarction	DIS	Ex
vii) Right ventricular myocardial infarction	DIS	H
viii) Thrombolysis in myocardial infarction	M	Ex
ix) Left ventricular failure and cardiogenic shock in the setting of myocardial infarction	DIS	H
x) Interventional cardiology in acute coronary syndromes	M/P	G
xi) Pharmacological agents used in acute coronary syndromes	D	H
xii) Interpreting the ECG in the setting of acute coronary syndromes	I	Ex
xiii) ST elevation in the absence of myocardial infarction	I	Ex
xiv) An understanding of the major trials in acute coronary syndromes	T	H
xv) Current research in ACS	T	H
xvi) Chest pain pathways	M/S	H
xvii) Chest pain units	M/S	H
d) Syncope	DIS	H
i) Differential diagnosis		
ii) Identification of at-risk groups		
iii) Management and disposition		
e) Congestive cardiac failure	DIS	H
f) Valvular disorders		
i) Aortic	DIS	H
ii) Mitral	DIS	H
iii) Tricuspid	DIS	G
iv) Pulmonary	DIS	G

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		LO	LP
	v) Conditions that are associated with valvular disorders	DIS	G
g)	Disorders of the myocardium		
	i) Cardiomyopathy	DIS	G
	ii) Aneurysm	DIS	G
	iii) Atrial septal defect	DIS	G
	iv) Ventricular septal defect	DIS	G
	v) Dextrocardia	DIS	G
h)	Disorders of the pericardium		
	i) Acute pericarditis	DIS	H
	ii) Constrictive pericarditis	DIS	G
	iii) Pericardial effusion	DIS	G
	iv) Pericardial tamponade	DIS	H
	v) Pericardiocentesis	P	H
i)	Cardiogenic shock	DIS	H
j)	Hypertension		
	i) Urgencies	DIS	H
	ii) Emergencies	DIS	Ex
	iii) Pharmacological agents used to treat hypertension	D	H
k)	Disturbances of cardiac rhythm		
	i) Mechanisms of arrhythmias	T	H
	ii) Bradycardias		
	i. sinus bradycardia	DIS	Ex
	ii. heart block	DIS	Ex
	iii. other bradycardias	DIS	Ex
	iii) Tachycardias	DIS	Ex
	i. narrow complex regular	DIS	Ex
	ii. narrow complex irregular	DIS	Ex
	iii. wide complex regular	DIS	Ex
	iv. wide complex irregular	DIS	Ex
	v. torsade des pointes	DIS	Ex
	vi. ventricular fibrillation	DIS	Ex
	iv) Ectopy		
	i. narrow complex	DIS	Ex
	ii. wide complex	DIS	Ex
	v) Accessory pathways		
	i. Wolff-Parkinson-White syndrome	DIS	Ex
	ii. other	DIS	H
	vi) Electrophysiological testing	I	G
	vii) Drugs associated with cardiac arrhythmias	D	Ex
	viii) Pharmacological agents used to treat arrhythmias	D	Ex
	ix) International guidelines for the management of arrhythmias	D	Ex
l)	Implantable cardiac devices (ICDs)		
	i) Implantable pacemakers	Eq	G
	ii) Implantable defibrillators	Eq	G
	iii) Complications of ICDs	Eq/T	G

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	LO	LP
m) External and internal emergent cardiac pacing	Eq/P	H
n) Disorders of the peripheral vasculature		
i) Deep venous thrombosis	DIS	H
ii) Pulmonary embolism	DIS	H
iii) Mesenteric ischaemia	DIS	H
o) Cardiac transplantation	DIS	G
p) Endocarditis	DIS	H
q) Tumours	DIS	G
r) Congenital heart disease	DIS	G
i) Cyanotic heart disease	DIS	H
s) Rheumatic fever	DIS	H

3.2 Respiratory

a) Clinical examination of the respiratory system	E	H
b) Interpretation of symptoms and clinical signs of the signs of the respiratory system	E	Ex
c) Respiratory failure	DIS	H
d) Upper airway obstruction	DIS	Ex
e) Infectious diseases		
i) Croup	DIS	H
ii) Bronchitis	DIS	H
iii) Pneumonia	DIS	H
iv) Empyema	DIS	H
f) Aspiration	DIS	H
g) Acute lung injury/respiratory distress syndrome	DIS	H
h) Asthma	DIS	Ex
i) Pneumothorax	DIS	Ex
j) Intercostal catheter insertion	P	Ex
k) Pneumomediastinum	DIS	H
l) Chronic obstructive pulmonary disease	DIS	H
m) Pleural effusions	DIS	H
n) Needle thoracocentesis	P	H
o) Haemoptysis	DIS	H
p) Cavitating lung lesions	DIS	G
q) Isolated “coin” lesions on chest x-ray	DIS	G
r) Disorders of the chest wall	DIS	G
s) Disorders of the mediastinum	DIS	G
t) The respiratory effects of obesity	DIS	G
u) Sleep apnoea	DIS	G

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	Columns	
	LO	LP
v) Lung transplants	DIS	G
w) Neoplastic disorders	DIS	G
x) Congenital/neonatal		
i) Bronchopulmonary dysplasia	DIS	G
ii) Cystic fibrosis	DIS	G

3.3 Gastrointestinal

a) Clinical examination of the gastrointestinal system	E	H
b) Interpretation of the symptoms and clinical signs of the gastrointestinal system	E	H
c) Gastrointestinal bleeding	DIS	H
i) Indications for urgent gastroscopy	M	Ex
ii) Techniques used with gastroscopy to control haemorrhage	P	G
iii) Pharmacological agents used in management toxicological agents	D	H
iv) Oesophageal varices	DIS	H
v) Balloon tamponade of gastro-oesophageal varices	P	G
vi) Peptic ulceration	DIS	H
vii) Angiodysplasia of the colon	DIS	G
d) Oesophageal disorders		
i) Infectious disorders	DIS	G
ii) Oesophagitis	DIS	G
iii) Gastroesophageal reflux	DIS	G
iv) Motor abnormalities	DIS	G
v) Mallory-Weiss syndrome	DIS	H
vi) Stricture and stenosis	DIS	G
vii) Tracheo-oesophageal fistula	DIS	G
viii) Neoplastic disorders	DIS	G
e) Peptic ulcer disease and gastritis	DIS	H
f) Feeding tube management	DIS	H
g) Inflammatory bowel disease	DIS	G
h) Irritable bowel syndrome	DIS	G
i) Infectious disorders and gastroenteritis	DIS	G
j) Hepatic disorders		
i) Jaundice	DIS	G
ii) Interpretation of liver function tests	I	H
iii) Hepatic failure	DIS	G
iv) Hepatitis	DIS	G
v) Other infectious disorders of the liver	DIS	G
vi) Vascular disorders	DIS	G
vii) Liver transplant patient	DIS	G
viii) Alcoholic liver disease	DIS	G
ix) Hepato-renal syndrome	DIS	G
x) Portal hypertension	DIS	G

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	Columns	
	LO	LP
k) Abdominal paracentesis	P	H
3.4 Neurological		
a) Clinical examination of the neurological system	E	H
b) Interpretation of symptoms and clinical signs of the neurological system	E	H
c) Disorders of the cranial nerves		
i) Facial nerve paralysis	DIS	H
ii) Other	DIS	G
d) Headache and facial pain		
i) Pharmacological agents	DIS	H
ii) Indications for imaging (CT, MRI)	I	H
iii) Migraine	DIS	H
iv) Cluster headache	DIS	H
v) Tension headache	DIS	H
vi) Raised intracranial pressure	DIS	H
vii) Temporal arteritis	DIS	H
viii) Neuralgia	DIS	G
ix) TMJ syndrome	DIS	G
e) Cerebrovascular accident (CVA)		
i) Transient ischaemic attacks	DIS	H
ii) RINDS	DIS	H
iii) Thrombotic CVA	DIS	H
iv) Embolic CVA	DIS	H
v) Haemorrhagic CVA	DIS	H
vi) Cerebellar CVA	DIS	H
vii) Thombolysis in CVA	M	H
viii) CVA and hypertension	DIS	G
ix) Syndromes of CVA	DIS	G
i. Anterior cerebral artery	DIS	G
ii. Middle cerebral artery	DIS	G
iii. Posterior inferior cerebellar artery syndrome	DIS	G
iv. Lacunar syndrome	DIS	G
v. Midbrain, pontine and brainstem syndromes	DIS	G
x) Stroke units	S	G
f) Altered mental state		
i) Coma	DIS	Ex
ii) Acute brain syndrome	DIS	H
iii) Dementia	DIS	G
iv) Memory disorders	DIS	G
g) Approach to ataxia and gait disturbances	DIS	G
h) Seizures	DIS	H
i) Status epilepticus	DIS	Ex
j) Dystonic reactions	DIS	H
k) Lumbar puncture	P	Ex

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	Columns	
	LO	LP
l) Interpretation of CSF fluid biochemistry, cell count and microbiology	I	H
m) Infectious disorders of the CNS and PNS		
i) Meningitis	DIS	H
ii) Encephalitis	DIS	H
iii) Abscess	DIS	H
iv) Tuberculosis	DIS	G
v) Toxoplasmosis	DIS	G
vi) Cryptococcal infection	DIS	G
vii) HIV	DIS	G
n) Guillain-Barré syndrome	DIS	G
o) Multiple sclerosis	DIS	H
p) Myasthenia gravis & Eaton-Lambert syndrome	DIS	G
q) Botulism	DIS	G
r) Diphtheria	DIS	G
s) Tetanus	DIS	H
t) Motor neurone disease	DIS	H
u) Peripheral neuropathy	DIS	G
v) Disorders of the peripheral nervous system		
i) Peripheral nerve lesions	DIS	H
ii) Brachial plexus syndrome	DIS	G
w) Myopathy	DIS	G
x) Periodic paralysis	DIS	H
y) Parkinson's disease	DIS	G
z) Hydrocephalus	DIS	H
aa) Complications of the central nervous system devices	DIS	G
ab) Disorders of the spinal cord	DIS	G
ac) Medical problems in the spinally-injured patient	DIS	H
ad) Paraneoplastic disorders of the CNS and PNS	DIS	G

3.5 Endocrine

a) Clinical examination of the endocrine system	E	H
b) Interpretation of symptoms and clinical signs of the endocrine system	E	H
c) Hypoglycaemia	DIS	Ex
d) Diabetic ketoacidosis	DIS	Ex
e) Diabetic with unstable blood glucose	DIS	H
f) Alcoholic ketoacidosis	DIS	H
g) Hyperosmolar hyperglycaemic nonketotic syndrome	DIS	Ex
h) Adrenal disorders		
i) Acute adrenal insufficiency (adrenal crisis)	DIS	H

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	Columns	
	LO	LP
ii) Congenital adrenal insufficiency	DIS	G
iii) Cushing's disease	DIS	G
iv) Conn's syndrome	DIS	G
v) Pheochromocytoma	DIS	G
i) Thyroid disorders		
i) Urgencies associated with thyroid disorders	DIS	H
ii) Thyroid storm	DIS	H
iii) Hypothyroid crisis	DIS	H
j) Pituitary disorders	DIS	G
i) Panhypopituitarism	DIS	G
k) Parathyroid disorders	DIS	G

3.6 Haematological

a) Clinical examination of the haematological system	E	H
b) Interpretation of symptoms and clinical signs of the haematological system	E	H
c) Interpretation of haematological investigations	I	H
d) Anaemia	DIS	H
e) Abnormal haemoglobins	DIS	G
f) Disorders of haemostasis and coagulation	DIS	H
g) Anticoagulant agents	D	H
h) Antiplatelet agents	D	H
i) Neutropenia	DIS	H
j) Thrombocytopenia	DIS	H
k) Thrombocytosis	DIS	G
l) Disorders of white cells	DIS	G
m) Myelodysplastic disorders	DIS	G
n) Paraproteinaemia	DIS	G
o) Blood transfusion and component therapy	D/S	Ex
p) Transfusion reactions	DIS	H

3.7 Oncology

a) Clinical examination in patients suspected of having a malignancy	E	H
b) Interpretation of symptoms and clinical signs associated with malignancy	E	H
c) Complications of chemotherapeutic agents	D	G
d) Complications related to local tumour involvement		
i) Acute spinal cord compression	DIS	H
ii) Upper airway obstruction	DIS	H
iii) Malignant pericardial effusion	DIS	G
iv) Superior vena cava syndrome	DIS	G
v) Pancoast's syndrome	DIS	G

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	Columns	
	LO	LP
e) Hyperviscosity syndrome	DIS	G
f) Complications related to myelosuppression	DIS	G
i) Febrile neutropenia	DIS	G
ii) Immunosuppression and opportunistic infections	DIS	G
iii) Thrombocytopaenia and haemorrhage	DIS	G
g) Malignancies specific to organ systems	DIS	G
h) Paraneoplastic syndromes	DIS	G

3.8 Renal

a) Clinical examination of the renal system	E	H
b) Interpretation of symptoms and clinical signs of the renal system	E	G
c) Pyuria	I	H
d) Interpretation of urine dipstick results	I	H
e) Interpretation of urine microscopy and culture	I	H
f) Infectious disorders		
i) UTI	DIS	H
ii) Prostatitis	DIS	H
iii) Pyelonephritis	DIS	H
iv) Infected obstructed kidney	DIS	H
g) Acute renal failure	DIS	H
h) Chronic renal failure	DIS	G
i) Hyperkalaemia in renal failure	DIS	Ex
j) Renal dialysis		
i) Peritoneal	M	G
ii) Intermittent haemodialysis	M	G
iii) Continual renal replacement therapies	M	G
iv) Complications of renal dialysis	M	G
k) Renal transplant	DIS	G
l) Haemolytic uremic syndrome	DIS	G
m) Rhabdomyolysis	DIS	H
n) Polycystic kidney disease	DIS	G

3.9 Rheumatology

a) Clinical examination of the rheumatological system	E	H
b) Interpretation of symptoms and signs of the rheumatological system	E	G
c) Arthrocentesis	P	Ex
d) Rheumatoid arthritis	DIS	G
e) Osteoarthritis	DIS	G
f) Crystal arthropathies	DIS	H
g) Urgencies and emergencies in systemic rheumatic disease	DIS	H

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	LO	LP
h) Thoracic and lumbar pain	DIS	H
i) Neck pain	DIS	G
j) Shoulder pain	DIS	G
k) Tunnel syndromes		
i) Carpal tunnel	DIS	G
ii) Ulnar tunnel	DIS	G
iii) Tarsal tunnel	DIS	G
l) Complications of drugs used on rheumatic disease	D	G

3.10 Dermatology

a) Clinical examination of the dermatology system	E	H
b) Interpretation of symptoms and clinical signs of the dermatological system	E	G
c) Examination and description of a lump, lesion ulcer of the skin, or rash	E	H
d) Dermatitis and eczema	DIS	G
e) Urticarial and allergic rashes	DIS	H
f) Viral exanthems	DIS	G
g) Macular rashes	DIS	G
h) Maculopapular lesions		
i) Erythema multiforme	DIS	H
ii) Erythema nodosum	DIS	G
iii) Others	DIS	G
i) Papular and nodular rashes	DIS	G
j) Petechial and purpuric rashes	DIS	G
k) Vesicular and bullous rashes		
i) Pemphigus	DIS	G
ii) Pemphigoid	DIS	G
iii) Staphylococcal scalded skin syndrome	DIS	H
iv) Stevens-Johnson syndrome	DIS	H
v) Toxic epidermal necrolysis	DIS	H
vi) Herpetic infections	DIS	H
vii) Others	DIS	G
l) Ulceration	DIS	G
m) Cellulitis	DIS	H
n) Dermatological manifestations of underlying systemic disease	DIS	G
o) Dermatological manifestations of neoplastic disorders	DIS	G

3.11 Infectious disorders

a) Clinical examination in patients with infectious disease	E	H
b) Interpretation of symptoms and signs in patients with infectious disease	E	H
c) Blood cultures	P	Ex

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	LO	LP
d) Universal and standard precautions	S	H
e) Protection of staff from infectious disease	S	H
f) Isolation of patients with infectious disease	S	H
g) Infection control in the ED	S	Ex
h) Body fluid exposure	S	Ex
i) Vaccination in the ED	M/D/S	H
j) Infectious disease surveillance	S	G
k) Infectious disease outbreaks	DIS	H
l) Reportable communicable diseases	S	H
m) Contact management of patients with serious infectious disease	T/S	H
n) Antibiotic use in the ED	D	Ex
o) Outpatient antibiotic therapy	M/D/S	H
p) Febrile infant management		
i) Bacteraemia	DIS	H
q) Systemic inflammatory response syndrome	T	H
r) Sepsis, severe sepsis and septic shock	T	H
s) Multiple organ dysfunction	DIS	H
t) Toxic shock syndrome	DIS	H
u) Infections in the returned traveller		
i) Malaria	DIS	G
ii) Dengue fever	DIS	G
iii) Haemorrhagic fevers	DIS	G
iv) Typhoid	DIS	G
v) Others	DIS	G
v) Bacterial		
i) Food poisoning	DIS	G
ii) Meningococcaemia	DIS	H
iii) Disseminated gonococcal infection	DIS	H
iv) Tuberculosis and other mycobacterial infections	DIS	G
v) Gas gangrene	DIS	H
vi) Necrotising fasciitis	DIS	H
vii) Fournier’s gangrene	DIS	H
viii) Diphtheria	DIS	G
ix) Haemophilus influenzae	DIS	G
w) Sexually transmitted infections	DIS	H
x) Viral		
i) HIV	DIS	H
ii) Infectious mononucleosis	DIS	G
iii) Influenza/parainfluenza	DIS	G
iv) Herpes simplex	DIS	H
v) Herpes zoster	DIS	H

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	LO	LP
y) Mycoplasma infections	DIS	H
z) Fungal infections	DIS	G
aa) Protozoal infections	DIS	G
ab) Tick-borne infections	DIS	G
ac) Infection from a marine source	DIS	H
ad) Infection in the burns patient	DIS	G
ae) Biologic weapons	D/S	H

3.12 Immunology

a) Clinical examination of the patient with a suspected immunological disorder	E	G
b) Interpretation of symptoms and signs of the immunological systems	E	G
c) Hypersensitivity		
i) Allergic reactions	DIS	H
ii) Anaphylactoid reactions	DIS	H
iii) Anaphylaxis	DIS	Ex
iv) Angioedema	DIS	Ex
v) Drug allergies	DIS	H
d) Collagen vascular disease		
i) Raynaud's syndrome	DIS	G
ii) Reiter's disease	DIS	G
iii) Scleroderma	DIS	G
iv) Systemic lupus erythematosus	DIS	G
e) Vasculitis		
i) Polyarteritis nodosa	DIS	G
ii) Wegener's granulomatosis	DIS	G
f) Kawasaki's disease	DIS	G
g) Sarcoidosis	DIS	G
h) Complication of immunosuppressant agents	D	G

3.13 Metabolic

a) Volumes and composition of the		
i) Total body water	T	H
ii) Intracellular fluid	T	H
iii) Extracellular fluid	T	H
iv) Plasma	T	H
v) Blood	T	H
b) Electrolytes		
i) Hypokalaemia	DIS/I	Ex
ii) Hyperkalaemia	DIS/I	Ex
iii) Hyponatraemia	DIS/ I	Ex
iv) Hypernatraemia	DIS/I	Ex
v) Hypocalcaemia	DIS/I	G

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	Columns	
	LO	LP
vi) Hypercalcaemia	DIS/I	G
vii) Hypermagnesaemia	DIS/I	G
viii) Hypomagnesaemia	DIS/I	H
ix) Hyperphosphataemia	DIS/I	G
x) Hypochloraemia	DIS/I	H
xi) Hyperchloraemia	DIS/I	H
xii) Inappropriate ADH syndrome	DIS/I	H
xiii) Interpretation of the electrocardiograph in electrolyte disturbance	I	Ex

3.14 Acid Base Disorders

a) Interpretation of arterial blood gases	I	Ex
i) Alveolar gas equation	I	H
ii) A-a gradient	I	H
b) Metabolic acidosis	I	H
c) Metabolic alkalosis	I	H
d) Respiratory acidosis	I	H
e) Respiratory alkalosis	I	H
f) Anion gap	I	Ex
g) Osmolar gap	I	H
h) Indications for the administration of sodium bicarbonate	D	H

3.15 Neonates and Infants

a) Apnoea of prematurity	DIS	G
b) Hyperbilirubinaemia	DIS	G
c) Feeding problems	DIS	G
d) Congenital heart disease	DIS	G
e) Diaphragmatic hernia	DIS	G
f) Congenital syndromes	DIS	G
g) Gastroesophageal reflux	DIS	G
h) Metabolic disease	DIS	G
i) Necrotising enterocolitis	DIS	G
j) Respiratory distress	DIS	H
k) Seizures	DIS	H
l) Infections/sepsis		
i) Occult bacteraemia	DIS	H
m) Sudden infant death syndrome	DIS	H

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	Columns	
	LO	LP
4. SURGICAL		
4.1 Trauma		
a) Epidemiology of trauma	T	H
b) Mechanisms of injury	T	H
c) Principles of management of trauma	T	Ex
d) Trauma team concepts	T	H
e) Trauma scoring systems	T	H
f) Glasgow Coma Score	E	Ex
g) Imaging modalities in trauma	I	H
h) Assessment and management of multiple trauma	DIS	Ex
i) Spinal immobilisation techniques	P	Ex
j) Head trauma		
i) Assessment and management of head trauma	DIS	H
ii) Scalp lacerations	DIS	H
iii) Skull fractures	DIS	H
iv) Extradural haematoma	DIS	H
v) Subdural haematoma	DIS	H
vi) Intracerebral haematoma	DIS	H
vii) Diffuse axonal injury	DIS	H
viii) Penetrating head injury	DIS	H
ix) Minor head injury	DIS	Ex
x) Post concussive syndrome	DIS	H
xi) Emergency department drainage of traumatic intracranial haematomas	P	G
k) Chest trauma		
i) Assessment and management of chest trauma	DIS	H
ii) Pneumothorax	DIS	Ex
iii) Haemothorax	DIS	H
iv) Pulmonary contusion	DIS	H
v) Myocardial contusion	DIS	H
vi) Fractured ribs	DIS	H
vii) Fractured sternum	DIS	H
viii) Flail chest	DIS	H
ix) Pericardial tamponade	DIS	H
x) Tracheobronchial rupture	DIS	H
xi) Oesophageal perforation	DIS	H
xii) Diaphragmatic rupture	DIS	H
xiii) Great vessel injury	DIS	H
xiv) Penetrating thoracic injury	DIS	H
xv) Emergency department thoracotomy	P	H
xvi) Traumatic asphyxia	DIS	H
l) Abdominal trauma		
i) Assessment and management of abdominal trauma	DIS	H
ii) Diagnostic peritoneal lavage	P	H

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		Columns	
		LO	LP
iii)	Splenic injury	DIS	H
iv)	Hepatic injury	DIS	H
v)	Renal injury	DIS	H
vi)	Pancreatic injury	DIS	H
vii)	Hollow viscus injury	DIS	H
viii)	Great vessel injury	DIS	H
ix)	Penetrating abdominal injury	DIS	H
x)	Abdominal compartment syndrome	DIS	G
m)	Genitourinary trauma		
i)	Assessment and management of genitourinary trauma	DIS	H
ii)	Ureteric injury	DIS	H
iii)	Urethral injury	DIS	H
iv)	Bladder injury	DIS	H
v)	Penile rupture	DIS	G
vi)	Testicular trauma	DIS	G
vii)	Penetrating genitourinary injury	DIS	G
n)	Pelvic trauma		
i)	Assessment and management of pelvic trauma	DIS	H
ii)	Major pelvic fracture	DIS	H
iii)	Exsanguinating pelvic injury	DIS	H
o)	Spinal cord injury		
i)	Assessment and management of spinal cord injury	DIS	H
ii)	Spinal cord syndromes	DIS	H
iii)	SCIWORA	DIS	H
p)	Neck trauma		
i)	Assessment and management of neck trauma	DIS	H
ii)	Penetrating neck injury	DIS	H
iii)	Laryngotracheal injury	DIS	H
iv)	Vascular injury	DIS	H
v)	Nerve injury	DIS	H
q)	Maxillofacial trauma		
i)	Assessment and management of maxillofacial trauma	DIS	H
ii)	Facial lacerations	DIS	H
iii)	Nasal fractures	DIS	H
iv)	Mandibular fractures	DIS	H
v)	Le Fort fractures	DIS	H
vi)	Zygomatic fractures	DIS	H
vii)	Orbital injury	DIS	H
viii)	Temporal bone fractures	DIS	H
ix)	Dental trauma	DIS	G
x)	Tooth avulsion	DIS	G
xi)	Intraoral lacerations	DIS	G
r)	Extremity trauma		
i)	Assessment and management of extremity trauma	DIS	H
ii)	Traumatic amputation	DIS	H
iii)	Arterial injury	DIS	H

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		Columns	
		LO	LP
	iv) Compartment syndromes	DIS	H
	v) Crush syndrome	DIS	H
s)	Trauma in pregnancy		
	i) Assessment and management of trauma in pregnancy	DIS	H
	ii) Obstetric complications of trauma	DIS	H
	iii) Uterine rupture	DIS	H
	iv) Perimortem caesarean section	DIS	G
t)	Trauma in children		
	i) Assessment and management of trauma in children	DIS	H
	ii) Paediatric aspects of trauma management	DIS	H
	iii) Non-accidental injury	DIS	H
4.2 Burns			
a)	Evaluation of the patient with burns	M	Ex
b)	Early management of severe burns	M	Ex
c)	Burn wound care	M	H
d)	Management of minor burns	M	H
e)	Inhalation injury	DIS	H
f)	Chemical burns	DIS	H
g)	Electrical burns	DIS	H
h)	Tar burns	DIS	H
i)	Sunburn	DIS	H
j)	Oral burns	DIS	H
k)	Escharotomy	P	H
4.3 Dental			
a)	Normal dental development	T	G
b)	Dental infections without upper airway obstruction	DIS	G
c)	Dental infections with possible upper airway obstruction	DIS	H
4.4 Thoracic			
a)	Spontaneous pneumothorax	DIS	Ex
b)	Pneumomediastinum	DIS	H
c)	Mediastinitis	DIS	H
d)	Oesophageal perforation	DIS	H
e)	Mediastinal masses	DIS	G
f)	Oesophageal foreign body	DIS	H
g)	Tracheobronchial foreign body	DIS	H
h)	Congenital		
	i) Diaphragmatic hernia	DIS	G

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	Columns	
	LO	LP
ii) Oesophageal	DIS	G
iii) Tracheobronchial	DIS	G
iv) Vascular ring	DIS	G

4.5 Abdominal

a) Assessment and management of abdominal pain	DIS	Ex
b) Pancreatitis	DIS	H
c) Cholelithiasis	DIS	H
d) Cholecystitis	DIS	H
e) Cholangitis	DIS	H
f) Non-traumatic splenic rupture	DIS	H
g) Bowel obstruction		
i) Post-surgical adhesions	DIS	H
ii) Malrotation	DIS	G
iii) Volvulus	DIS	H
iv) Congenital pyloric stenosis	DIS	H
v) Intussusception	DIS	H
vi) Insertion of a nasogastric tube	P	Ex
h) Diverticular disease	DIS	H
i) Meckel’s diverticulum	DIS	H
j) Perforated viscus	DIS	H
k) Acute appendicitis	DIS	H
l) Peritoneal adhesions	DIS	H
m) Ischaemic colitis	DIS	H
n) Peritonitis	DIS	H
o) Retroperitoneal haematoma	DIS	H
p) Intra-abdominal/retroperitoneal abscesses	DIS	H
q) Hernias	DIS	H
r) Tumours	DIS	G
s) Constipation	DIS	G

4.6 Anorectal

a) Haemorrhoids	DIS	H
b) Perianal haematoma	DIS	H
c) Anal fissure	DIS	H
d) Anorectal abscesses	DIS	H
e) Pilonidal disease	DIS	G
f) Rectal bleeding	DIS	H
g) Rectal prolapse	DIS	H

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		Columns	
		LO	LP
h)	Idiopathic anal pain	DIS	G
i)	Radiation proctitis	DIS	G
j)	Proctoscopy and sigmoidoscopy	P	H
k)	Rectal foreign bodies	DIS	Ex

4.7 Vascular

a)	Peripheral ischaemia	DIS	H
b)	Arterial occlusion	DIS	H
c)	Venous occlusion	DIS	H
d)	Intestinal ischaemia	DIS	H
e)	Thoracic dissection	DIS	H
f)	Intra-abdominal aneurysms	DIS	H
g)	Aortic disorders	DIS	H
i)	Aortic aneurysms	DIS	H
ii)	Aortic dissection	DIS	H
h)	Mycotic aneurysms	DIS	G
i)	Intra-arterial drug injection	DIS	H

4.8 Orthopaedic and Hand

a)	General principles of fracture management	T	Ex
b)	Paediatric considerations in orthopaedics	T	H
i)	Salter-Harris classification	T	H
ii)	Injuries about the elbow	DIS	H
iii)	The child with a limp	DIS	H
iv)	Bone dysplasia	DIS	G
v)	Connective tissue syndrome	DIS	G
vi)	Inflammatory arthritis	DIS	H
vii)	Injury rehabilitation	T	G
viii)	Metabolic bone abnormalities	DIS	G
ix)	Osgood/Schlatter disease	DIS	H
x)	Perthe's disease	DIS	H
xi)	Slipped capital femoral epiphysis	DIS	H
xii)	Transient synovitis	DIS	H
xiii)	Developmental hip dislocation	DIS	G
c)	Casting techniques	P	Ex
i)	Short arm POP	P	Ex
ii)	Long arm POP	P	Ex
iii)	Short arm backslab	P	Ex
iv)	Scaphoid POP	P	Ex
v)	Bennett's fracture POP	P	Ex
vi)	Volar splint	P	Ex
vii)	U Slab	P	Ex
viii)	Short leg POP	P	Ex

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	Columns	
	LO	LP
ix) Long leg cylinder	P	Ex
d) Splintage techniques including splintage procedures	P	Ex
i) Application of a broad arm sling	P	Ex
ii) Application of a collar and cuff	P	Ex
iii) Application of a figure-of-8 bandaging	P	Ex
iv) Application of a knee immobiliser	P	Ex
v) Application of a Donway/ Hare splint	P	Ex
vi) Application of a Thomas splint	P	Ex
vii) Pelvic stabilisation techniques	P	Ex
e) Fractures	DIS	H
i) Clavicle	DIS	H
ii) Scapula	DIS	H
iii) Proximal humerus	DIS	H
iv) Elbow	DIS	H
v) Forearm bones	DIS	H
vi) Wrist	DIS	H
vii) Carpal bones	DIS	H
viii) Spine	DIS	H
ix) Pelvis and hip		
i. Pelvic fractures	DIS	H
ii. Sacral fractures	DIS	H
iii. Coccygeal fractures	DIS	H
iv. Femoral neck fractures	DIS	H
x) Hip and femur		
i. Femoral shaft fractures	DIS	H
ii. Supracondylar fractures	DIS	H
iii. Condylar fractures	DIS	H
iv. Fractured patella	DIS	H
xi) Tibia and fibula	DIS	H
xii) Ankle	DIS	H
i. Classification of ankle fractures	T	H
xiii) Foot		
i. Talar fractures	DIS	H
ii. Calcaneal fractures	DIS	H
iii. Tarsal bone fractures	DIS	H
iv. Metatarsal fractures	DIS	H
v. Phalangeal fractures	DIS	H
f) Dislocations		
i) Shoulder	DIS	Ex
ii) Acromioclavicular joint	DIS	H
iii) Elbow	DIS	H
iv) Pulled elbow	DIS	Ex
v) Carpal–metacarpal bones	DIS	H
vi) Phalanges	DIS	H
vii) Cervical spine		
i. Atlantoaxial	DIS	H
ii. Facet joint	DIS	H

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	Columns	
	LO	LP
viii) Hip	DIS	H
ix) Knee	DIS	H
x) Patella	DIS	Ex
xi) Ankle	DIS	H
xii) Foot	DIS	H
xiii) Tarsal	DIS	H
xiv) Metatarsal	DIS	H
xv) Phalangeal	DIS	H
g) Soft tissues		
i) Shoulder		
i. Rotator cuff tears	DIS	G
ii. Bursitis	DIS	G
iii. Tendinitis	DIS	G
ii) Elbow		
i. Bursitis	DIS	H
ii. Tendinitis	DIS	G
iii) Knee		
i. Bursitis	DIS	H
ii. Ligament injury	DIS	H
iii. Cruciate injury	DIS	H
iv. Meniscal injury	DIS	H
v. Bakers cyst	DIS	H
iv) Ankle		
i. Ligament injury	DIS	H
v) Foot		
i. Foot injury	DIS	H
h) Hand injuries		
i) Metacarpal fractures/dislocations	DIS	H
ii) Phalangeal fractures/dislocations	DIS	H
iii) Lacerations	DIS	H
iv) Nail injuries	DIS	H
v) Extensor tendon injuries	DIS	H
vi) Mallet finger	DIS	H
vii) Boutonniere deformity	DIS	H
viii) Other	DIS	H
ix) Flexor tendon injuries	DIS	H
x) Infections		
i. Paronychia	DIS	H
ii. Infective tenosynovitis	DIS	H
iii. Other	DIS	H
xi) Foreign bodies	DIS	H
xii) Amputations	DIS	H
xiii) Nerve injuries	DIS	H
xiv) High pressure injection injuries	DIS	H
xv) Crush injury	DIS	H
i) Overuse syndromes	DIS	H

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		Columns	
		LO	LP
j)	Osteomyelitis	DIS	H
k)	Septic arthritis	DIS	H
l)	Complex regional pain syndrome type 1 (Sudeck's atrophy)	DIS	G

4.9 Neurosurgical

a)	Intracranial aneurysms	DIS	G
b)	AV malformations	DIS	G
c)	Subarachnoid haemorrhage	DIS	H
d)	Cerebral tumours	DIS	G
e)	Shunt complications	DIS	H
f)	Management of elevated intracranial pressure	DIS	H
g)	Intracranial abscesses	DIS	H
h)	Cerebral venous thrombosis	DIS	G
i)	Spinal epidural abscess	DIS	H
j)	Intravertebral disc disease	DIS	G
k)	Spinal stenosis	DIS	G

4.10 Urology

a)	Renal colic	DIS	E
b)	Urinary catheter insertion	P	Ex
c)	Suprapubic catheter insertion	P	Ex
d)	Urinary retention	DIS	H
e)	Obstructive uropathy	DIS	H
f)	Vesico-ureteric reflux	DIS	G
g)	Assessment and management of haematuria	DIS	G
h)	Urethritis	DIS	G
i)	Balanitis	DIS	G
j)	Prostatic hypertrophy	DIS	G
k)	Tumours	DIS	G
l)	Acute scrotum		
	i) Epididymitis	DIS	H
	ii) Orchitis	DIS	H
	iii) Testicular torsion	DIS	H
	iv) Torsion of the testicular appendage	DIS	H
m)	Priapism	DIS	H
n)	Phimosis/paraphimosis	DIS	H

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		Columns	
		LO	LP
4.11 ENT			
a)	Ear		
	i) Auroscopes	Eq	H
	ii) Otolgia	DIS	H
	iii) Otitis media	DIS	H
	iv) Otitis externa	DIS	H
	v) Aural toilet/wick insertion	P	H
	vi) Cholesteatoma	DIS	G
	vii) Perforated tympanic membrane	DIS	H
	viii) Chondritis/perichondritis	DIS	G
	ix) Mastoiditis	DIS	H
	x) Labyrinthitis	DIS	H
	xi) Meniere’s disease	DIS	G
b)	Nose		
	i) Epistaxis		
	i. Anterior packing	DIS	H
	ii. Cautery	DIS	H
	iii. Posterior packing	DIS	H
	iv. Balloon placement	DIS	H
	ii) Sinusitis	DIS	H
c)	Throat/oropharynx		
	i) Ludwig’s angina	DIS	H
	ii) Stomatitis	DIS	H
	iii) Pharyngitis	DIS	H
	iv) Tonsillitis	DIS	H
	v) Peritonsillar abscess	DIS	H
	vi) Retropharyngeal abscess	DIS	H
	vii) Epiglottitis	DIS	H
	viii) Laryngitis	DIS	H
	ix) Tracheitis	DIS	H
	x) Post-tonsillectomy bleed	DIS	H
d)	Foreign bodies		
	i) Nasal	DIS	H
	ii) Aural	DIS	H
	iii) Upper airway	DIS	Ex
	iv) Pharyngeal	DIS	Ex
4.12 Eye			
a)	Use of the slit lamp	Eq	H
b)	Ophthalmoscopes	Eq	H
c)	Measurement of intraocular pressure	P	H
d)	Evaluation of the red eye	E	H
e)	Evaluation of the painful eye	E	H
f)	Sudden visual loss	E	H

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		Columns	
		LO	LP
g)	External eye		
i)	Blepharitis	DIS	G
ii)	Dacryocystitis	DIS	H
iii)	Conjunctivitis	DIS	H
iv)	Corneal abrasions	DIS	H
v)	Corneal ulcers	DIS	H
vi)	Keratitis	DIS	H
vii)	Foreign bodies		
i.	Conjunctival	DIS	H
ii.	Corneal	DIS	H
viii)	Spontaneous subconjunctival haemorrhage	DIS	H
ix)	Amblyopia	DIS	G
x)	Ocular burns		
i.	Caustic	DIS	H
ii.	Flash burns	DIS	H
iii.	Thermal	DIS	H
h)	Anterior pole		
i)	Glaucoma	DIS	H
ii)	Uveitis	DIS	G
i)	Posterior pole		
i)	Retinal detachment	DIS	G
ii)	Vitreous haemorrhage	DIS	G
iii)	Retinal haemorrhage	DIS	G
iv)	Retinal vascular occlusions	DIS	G
v)	Optic neuritis	DIS	G
j)	Orbit		
i)	Cellulitis		
i.	Orbital	DIS	H
ii.	Pre-orbital	DIS	H
iii.	Endophthalmitis	DIS	G
ii)	Ocular trauma		
i.	Blunt	DIS	G
ii.	Penetrating	DIS	H

4.13 Wound management

a)	Classification of wounds	T	H
b)	Surgical wound management	P	H
c)	Basic wound closure techniques	P	H
d)	Wound dressings	P	H
e)	Wound infections	DIS	H
f)	Chronic ulcers	DIS	G
g)	Special wounds		
i)	Puncture wounds	DIS	H
ii)	Bites and stings	DIS	H

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	Columns	
	LO	LP
iii) Blast injury	DIS	H
iv) Degloving injury	DIS	H
v) Amputations	DIS	H

4.14 Plastics

a) Plastic surgical techniques		
i) Grafts	P	G
ii) Flaps	P	G
iii) Advanced wound closure	P	G

4.15 Breast

a) Carcinoma of the breast	DIS	G
b) Mastitis	DIS	H
c) Breast abscess	DIS	H

5. OBSTETRICS AND GYNAECOLOGY

5.1 Pregnancy

a) Normal pregnancy	DIS	G
i) Antenatal screening	DIS	G
ii) Physiological changes	DIS	G
iii) Foetal development	DIS	G
b) High risk pregnancy	DIS	G
c) Complications of pregnancy		
i) Hyper-emesis gravidarum	DIS	H
ii) Miscarriage	DIS	H
iii) Anembryonic pregnancy	DIS	H
iv) Septic abortion	DIS	H
v) Ectopic pregnancy	DIS	H
vi) HELLP syndrome (haemolysis, elevated liver enzymes, low platelets)	DIS	H
vii) First trimester bleeding	DIS	H
viii) Haemorrhage, antepartum		
i. Abruptio placentae	DIS	H
ii. Placenta praevia, vasa praevia	DIS	H
iii. Other	DIS	H
ix) Infections, including urinary tract infection	DIS	G
x) Fevers	DIS	G
xi) Isoimmunisation	DIS	H
xii) Pregnancy-induced hypertension, pre-eclampsia	DIS	H
d) Normal labour and delivery	P	H
e) Complications of labour		
i) Foetal distress	DIS	G
ii) Premature labour	DIS	G
iii) Premature rupture of membranes	DIS	G

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	Columns	
	LO	LP
iv) Other	DIS	G
f) Complications of delivery		
i) Mal-presentation	DIS	G
ii) Mal-position	DIS	G
iii) Nuchal cord	DIS	G
iv) Prolapsed cord	DIS	H
v) Rupture or inversion of uterus	DIS	H
vi) Retained placenta	DIS	G
vii) Other	DIS	G
g) Post-partum complications		
i) Haemorrhage, postpartum		
i. Primary	DIS	H
ii. Secondary	DIS	H
ii) Endometriosis	DIS	G
iii) Retained products of conception	DIS	G
h) Drugs in pregnancy	D	H

5.2 Gynaecology

a) Vagina and vulva		
i) Bimanual and vaginal speculum examination	P	H
ii) Vaginitis/vulvovaginitis	DIS	H
iii) Foreign body	DIS	H
iv) Bartholin's cyst/abscess	DIS	H
v) Other	DIS	H
b) Uterus		
i) Dysmenorrhoea	DIS	G
ii) Dysfunctional uterine bleeding	DIS	G
iii) Cervicitis, endocervicitis	DIS	G
iv) Endometriosis	DIS	G
v) Tumours		
i. Leiomyoma	DIS	G
ii. Gestational trophoblastic disease	DIS	G
iii. Other	DIS	G
vi) Prolapse	DIS	G
c) Ovaries		
i) Cysts and cyst complications	DIS	H
ii) Mittelschmerz	DIS	H
iii) Tumours	DIS	G
iv) Ovarian hyperstimulation syndrome	DIS	G
d) Infections		
i) Pelvic inflammatory disease	DIS	H
ii) Fitz-Hugh-Curtis syndrome	DIS	G
iii) Tubo-ovarian abscess	DIS	G
iv) Herpes simplex	DIS	G
v) Human papilloma virus	DIS	G

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		Columns	
		LO	LP
e)	Contraception		
i)	Complications	D	G
ii)	Post-coital	D	H
f)	Sexual assault	DIS	H
6. PSYCHIATRY			
6.1 Evaluation			
a)	History	E	H
b)	Physical examination	E	H
c)	Mental state examination	E	H
d)	Investigations	I	H
6.2 Organic brain syndrome		DIS	H
6.3 Violent/agitated behaviour			
a)	Prevention	S	H
b)	Safety issues	S	H
c)	Restraint options and management	M	Ex
6.4 Deliberate self-harm		DIS	H
6.5 Depression		DIS	H
6.6 Anxiety disorders			
a)	Phobias	DIS	G
b)	Panic disorder	DIS	H
c)	Post-traumatic stress disorder	DIS	G
d)	Obsessive–compulsive disorder	DIS	G
e)	Hypochondriasis	DIS	G
f)	Other	DIS	G
6.7 Psychoses			
a)	Acute and chronic	DIS	H
b)	Bipolar effective disorder	DIS	H
c)	Schizophrenia	DIS	H
d)	Mania and hypomania	DIS	H
e)	Other	DIS	H

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		Columns	
		LO	LP
6.8 The “challenging” ED patient			
a)	Personality disorder	DIS	H
b)	Malingering	DIS	H
c)	Frequent presenter	DIS	H
d)	Conversion disorder	DIS	H
e)	Pain disorder	DIS	H
f)	Somatization disorder	DIS	H
g)	Munchausen’s by proxy	DIS	H
h)	Management strategies	DIS	H
i)	Other	DIS	H
6.9 The mental health patient in the ED			
a)	Triage	S	Ex
b)	Appropriate psychiatric assessment area	S	H
c)	Community teams	S	H
d)	Psychiatry liaison nurse as part of the ED team	S	H
e)	In-patient psychiatry services	S	H
f)	Psychiatric facilities/units	S	H
g)	ED staff issues – appropriate training, debriefing	S	Ex
6.10 Therapy			
a)	Pharmacology of therapeutic agents		
i)	Benzodiazepines	D	H
ii)	Anti-psychotics	D	H
iii)	Antidepressants	D	H
iv)	SSRIs	D	H
v)	Sedatives	D	H
vi)	Other	D	H
b)	Non-pharmacologic therapy		
i)	ECT – complications	M	G
ii)	Other	M	G
6.11 Involuntary detention			
		M	Ex
a)	Legal aspects of mental health care	S	Ex
7. TOXICOLOGY			
7.1 General principles			
a)	Prehospital care	M	H
b)	Epidemiology and prevention of poisoning	T	H

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		LO	LP
c)	Management issues		
i)	Emesis	M	Ex
ii)	Gastric lavage	M	Ex
iii)	Activated charcoal	M	Ex
iv)	Cathartics	M	Ex
v)	Whole bowel irrigation	M	Ex
d)	Poison centres	M/S	G
	Demonstrate knowledge of the role of poison centres in the management and prevention of poisoning	M/S	G
e)	Risk assessment/prediction of toxicity	DIS	H
f)	Toxidromes	E	Ex
7.2 Analytical toxicology			
a)	Principles	I	H
b)	Drug testing and screening	I	H
7.3 Chemical dependency and substance abuse			
a)	Drug abuse	T	G
b)	Drug dependence	DIS	G
c)	Drug withdrawal	DIS	H
d)	Tolerance	T	G
7.4 Antidotes			
a)	Anticholinergics	D	H
b)	Chelation agents	D	G
c)	Benzodiazepine antagonists	D	H
d)	Calcium	D	H
e)	Cyanide treatment	D	H
f)	Desferioxamine	D	H
g)	Fuller’s earth	D	H
h)	Glucagon	D	H
i)	Methylene blue	D	H
j)	Opioid antagonists	D	Ex
k)	Physostigmine	D	H
l)	Pyridoxine	D	G
m)	Oximes	D	H
n)	Protamine	D	H
o)	Vitamin K	D	Ex
p)	Folinic acid	D	H

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	Columns	
	LO	LP
q) Oxygen – normobaric	D	Ex
r) Oxygen – hyperbaric	D	H
s) N-acetylcysteine	D	EX
t) Digibind	D	EX
7.5 Anti-inflammatory agents and analgesic poisoning		
a) Paracetamol	D	Ex
b) NSAIDs	D	H
c) Salicylates	D	H
d) Gout drugs	D	H
e) Opioids	D	Ex
7.6 Antimicrobial poisoning		
a) Antibiotics	D	G
b) Antifungal	D	G
c) Antiparasitic	D	G
d) Antiseptics	D	H
e) Antiviral	D	G
f) Anti-tuberculous	D	H
7.7 Autonomic agent poisoning		
a) Anticholinergics	D	Ex
b) Antihistamines	D	H
c) Serotonergic drugs	D	H
d) Cholinergics	D	H
e) Ergot alkaloids	D	G
f) Methylxanthines	D	H
g) Sympathomometics	D	Ex
7.8 CNS drugs and muscle relaxant poisoning		
a) Alcohols	D	Ex
b) Anticonvulsants	D	Ex
c) GHB and related compounds	D	H
d) Anti-Parkinsonian drugs	D	G
e) Psychiatric drugs	D	H
i) Antipsychotic agents	D	H
ii) Antidepressants	D	H
iii) Lithium	D	Ex

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		Columns	
		LO	LP
f)	Hallucinogens	D	H
g)	Sedatives, hypnotics, anxiolytics	D	H
h)	Smooth muscle relaxants	D	G
7.9 Cardiovascular			
a)	Antiarrhythmics	D	H
b)	Anticoagulants	D	Ex
c)	Anti-hypertensives	D	H
7.10 Environmental toxicology			
a)	Plant ingestions	D	H
7.11 GI agents			
a)	Antacids	D	G
b)	Antidiarrhoeals	D	G
c)	Laxatives	D	G
7.12 Industrial toxicology			
a)	Metals		
	i) Arsenic	D	G
	ii) Lead	D	G
	iii) Mercury	D	G
	iv) Metal fumes	D	G
	v) Other	D	G
b)	Toxic gases		
	i) CO	D	H
	ii) Chlorine	D	H
	iii) CO ₂	D	G
	iv) Cyanide	D	H
	v) Hydrogen sulphide	D	H
	vi) Hydrocarbons	D	H
	vii) Phosgene	D	G
c)	Hydrogen fluoride/hydrofluoric acid	D	H
d)	Nitrites	D	G
7.13 Pesticides, herbicides and rodenticide poisoning			
a)	Organophosphates	D	H
b)	Carbamates	D	H
c)	Glyphosate	D	H
d)	Paraquat	D	H
e)	Naphthalene/camphor	D	H

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		LO	LP
f)	Strychnine	D	H
g)	Phosphine	D	G
h)	Super warfarins	D	H
7.14 Pharmacology principles			
a)	Techniques for drug removal	M	H
b)	Drug delivery vehicles/diluents	D	G
c)	Drug interactions	D	H
d)	Adverse drug reactions	D	H
e)	Pharmacokinetics	D	H
Demonstrate knowledge of pharmacokinetic principles, including drug absorption, distribution, metabolism and clearance			
7.15 Vitamins, minerals, bone and endocrine agents			
a)	Hypoglycaemic agents	D	H
b)	Electrolytes and minerals	D	H
c)	Iron	D	H
d)	Steroids	D	G
e)	Thyroid drugs	D	G
f)	Vitamins	D	G
g)	Hormones	D	G
8. ENVIRONMENTAL			
8.1 Heat			
a)	Heat stroke	DIS	Ex
b)	Heat stress/exhaustion	DIS	H
c)	Drug related hyperthermia	DIS	H
8.2 Cold			
a)	Hypothermia	DIS	H
b)	Frostbite	DIS	G
8.3 Venomous bites and stings			
a)	Snakes	DIS	Ex
b)	Spiders	DIS	Ex
c)	Hymenoptera – bees, wasps, ants	DIS	Ex
d)	Jellyfish	DIS	H
e)	Stinging fish	DIS	H

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		Columns	
		LO	LP
f)	Blue-ringed octopus	DIS	H
g)	Other	DIS	H
8.4 Aquatic			
a)	Near drowning	DIS	H
b)	Decompression illness	DIS	H
c)	Barotrauma	DIS	H
d)	Toxic marine ingestions	DIS	H
8.5 Electricity			
a)	Electric shock	DIS	H
b)	Lightning strike	DIS	H
8.6 Aviation			
a)	Acute mountain sickness	DIS	H
b)	High altitude cerebral oedema	DIS	G
c)	High altitude pulmonary oedema	DIS	H
8.7 Exercise-associated illness		DIS	H

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