MNEMONICS

Definition: /mnemonic n. a pattern of letters or ideas that aid the memory.

Introduction
Mnemonics are a great tool for the medical student. They allow complex information to be condensed into a few words and essentially make your memory more efficient. There is no substitute for hard work and wider reading but this is of little use if you cannot locate your facts or you get the information muddled up. Mnemonics allow you to secure information in your head with the aid of word play or visual associations. If a good depth of knowledge is the cake then mnemonics are the icing!

The mnemonics presented here have been created or collated by recent medical students who have found them to be invaluable to their studies. They are arranged into subjects for you to navigate through the material. For more mnemonics, see the PasTest book ‘Mnemonics for Medical Undergraduates’.

The best mnemonics are those that are most relevant and therefore it is beneficial to try and personalise them. A mnemonic should not have to try too hard or you will need a mnemonic to remember it! As well as learning from the mnemonics presented here, it can be really good revision for you to create your own, as this will help you memorise and consolidate facts. Note that mnemonics are not a substitute for revision from other sources, as they cannot always be comprehensive – just because the mnemonic for metabolic acidosis includes 7 causes, there are still other causes that are not included as they do not fit the mnemonic! This document contains a selection of mnemonics kindly provided by Pastest Ltd.

Acknowledgements
This material is provided by revise4finals (www.revise4finals.co.uk), courtesy of PasTest Online Revision for Medical Students (www.pastest.co.uk). You can find more mnemonics and other revision materials at both of these websites.

This document contains mnemonics on the following topics:
CLINICAL SKILLS
CARDIOVASCULAR
CLINICAL CHEMISTRY
DERMATOLOGY
ENDOCRINOLOGY
GASTROENTEROLOGY
HAEMATOLOGY
INFECTIOUS DISEASES
NEUROLOGY
OBSTETRICS AND GYNAECOLOGY
OPHTHALMOLOGY
PAEDIATRICS
PSYCHIATRY
RENAL
RESPIRATORY
RHEUMATOLOGY
SURGERY
TRAUMA AND ORTHOPAEDICS
CLINICAL SKILLS

Full Medical History
When taking a history:
**Mnemonic: OPERATES**
- **O** Onset of complaint
- **P** Progress of complaint
- **E** Exacerbating factors
- **R** Relieving factors
- **A** Associated symptoms
- **T** Timing
- **E** Episodes of being symptom-free
- **S** Relevant Systemic and general inquiry can be added here

Medications/allergies
**Mnemonic: PILLS**
- **P** Pills, is the patient taking any?
- **I** Injections/Insulin/Inhalers (as some patients forget to mention when asked about their medications)
- **L** ILlicit drug use
- **S** Sensitivities to anything, ie allergies

In every history, don’t forget to ask about the ‘FAWR’ non-specific symptoms that the patient may exhibit
**Mnemonic: FAWR**
- **F** Fever
- **A** Appetite
- **W** Weight loss (unintentional)
- **R** Reduced energy (i.e. fatigue/lethargy)

When assessing psychological state:
**Mnemonic: SAD CASE**
- **S** Suicidal ideations
- **A** Anxiety
- **D** Decreased mood/Deformations/Disordered thought
- **C** Difficulty Concentrating
- **A** Auditory or other hallucinations?
- **S** Difficulties Sleeping
- **E** Eating normally?

Information organization
When asked to discuss a particular disease, the following surgical sieve is widely regarded as the best way to proceed:
**Mnemonic: Dressed In a Surgeons Gown A Physician Might Make Progress**
- **D** Definition
- **I** Incidence
- **S** Sex
- **G** Geography
- **A** Aetiology
- **P** Pathogenesis
- **M** Macroscopic pathology
Cardiovascular

Anatomy
To remember heart valve auscultation sites:
Mnemonic: All Patients Take Medications
Starting from top left:
Aortic – 2nd intercostal space, right sternal edge
Pulmonary – 2nd intercostal space, left sternal edge
Tricuspid – 4th intercostal space, right sternal edge
Mitral – 5th intercostal space, mid-clavicular line

Angina
Management through lifestyle alterations
Mnemonic: SLEW
S Smoking cessation
L Low-fat diet
E Exercise
W Weight loss

Management of acute unstable angina
Mnemonic: 2 As and BALI
A Admit, bed rest, high-flow oxygen
A Analgesia
A Aspirin and clopidogrel
B Beta blockers
A Angiography with or without angioplasty/CABG if symptoms fail to improve
L Low molecular weight heparin (LMWH)
I Infusion of nitrates

Presentation
Mnemonic: SCAR
S Sudden central pain, ‘tearing’ in nature, may radiate to the back
C Coronary artery occlusion can lead to chest pain, MI or angina pectoris.Carotid obstruction can lead to hemiparesis, dysphasia or blackouts
A Anterior spinal artery can be affected leading to paraplegia
R Renal artery can be affected leading to anuria or renal failure

Cardiac arrest
Management, Basic Life Support (BLS)
Mnemonic: ABC
A Airway: clear and maintain with chin lift/jaw thrust/head tilt (if no spinal injury)
B Breathing: look, listen and feel, if not breathing give two life saving breaths immediately
C Circulation: carotid pulse for at least 10 s, if absent give 15 chest compressions at 100/min

Continue the cycle of 2 breaths and 30 compressions and check the circulation every minute, proceed to more advanced life support when possible.
Management, Advanced Life Support (ALS)

**Mnemonic: CDE** (with A after every step)

C  Cardiac monitor and defibrillator should be attached to the patient
A  Assess rhythm and pulse
D  Defibrillate x 3 if VF or pulseless VT, CPR for 1 min
A  Assess rhythm and pulse
E  EMD (no cardiac output despite ECG showing electrical activity) or asystole warrants CPR for 3 min
A  Assess rhythm and pulse

**Hypertension**

Treatment

**Mnemonic: ABCD**

A  ACE inhibitors/Angiotensin-II-antagonists (sometimes Alpha-agonists also)
B  Beta blockers
C  Calcium channel blockers
D  Diuretics (Thiazides)

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**CLINICAL CHEMISTRY**

**Aspirin**

Aspirin overdose – early symptoms

**Mnemonic: DAFT HID**

D  Deafness
A  Appear flushed
F  Fever
T  Tinnitus
H  Hyperventilation
I  Increased sweating
D  Dizziness

**Metabolic acidosis**

Causes

**Mnemonic: UK SLAMS**

U  Uraemia
K  Ketoacidosis
S  Salicylates
L  Lactic acidosis
A  Alcohol
M  Methanol
S  Sepsis

**Paracetamol**

Paracetamol overdose – (the most common intentional drug overdose in the UK).

Risk factors

**Mnemonic: COMAH**

C  Chronic alcohol abusers
O  On drugs that increase cytochrome P450 activity, anti-TB drugs
DERMATOLOGY

Skin
Functions of the skin
Mnemonic: **SKIN**
- **S** Specialised sensory innervation/Synthesise Vitamin D/Secretes pheromones for Sex
- **K** Keeps out unwanted molecules, microbes or radiation/Keeps in water, electrolytes and solutes
- **I** Immunological function; contains antigen-presenting cells
- **N** Normalises heat regulation

Common allergens for allergic contact dermatitis
Mnemonic: **CONTACT**
- **C** Cutaneous type IV reaction
- **O** Ointments and cosmetics containing lanolin
- **N** Nickel
- **T** Topical antibiotics can cause it (e.g. neomycin)
- **A** Autosensitisation can occur (secondary spread elsewhere)
- **C** Chromates (cement, leather)/Colophony (plasters, glues, inks)
- **T** Topical antihistamines and topical anaesthetics (haemorrhoid creams) can cause it

Infestations
Clinical presentation of impetigo
Mnemonic: **IMPETIGO**
- **I** Infection with Staphylococcus aureus, Streptococcus pyogenes or both
- **M** Mostly in young children
- **P** Particularly around nose and surrounding parts of face
- **E** Erythematous base with honey-coloured crusts
- **T** Treat with Topical antibiotic such as fusidic acid for localized lesions
- **I** Individuals are highly contagious from skin-to-skin contact; Improve hygiene; do not share towels
- **G** Gram stain and culture of swab diagnostic
- **O** Oral flucloxacillin required for widespread impetigo

Squamous cell carcinoma
Clinical presentation
Mnemonic: **S, CELL, C**
- **S** Sun-exposed areas are usually affected: ears, dorsum of the hands, bald scalp
- **C** Crusted, firm, irregular lesion
- **E** Excision used as treatment
- **L** Lower lip can be affected in smokers
- **L** Less likely to metastasise
- **C** Associated with Chronic inflammation such as venous leg ulcers
ENDOCRINOLOGY

Thyroid gland
Symptoms of hypothyroidism
*Hypothyroidism is 10 times more common in females & occurs mainly in middle life.*

Mnemonic: **MOM’S SO TIRED**
- **M** Memory loss
- **O** Obesity
- **M** Malar flush/Menorrhagia
- **S** Slowness
- **S** Skin and hair become dry
- **O** Onset is gradual
- **T** Tired
- **I** Intolerance to cold
- **R** Raised blood pressure
- **E** Energy levels are low
- **D** Depressed

Symptoms of hyperthyroidism
Mnemonic: **SWEATING**
- **S** Sweating
- **W** Weight loss
- **E** Emotional lability
- **A** Appetite is increased
- **T** Tremor/Tachycardia due to AF
- **I** Intolerance to heat/Irregular menstruation/Irritability
- **N** Nervousness
- **G** Goitre and Gastrointestinal problems (loose stools/diarrhoea)

Adrenal glands
Causes of Addison’s Disease
Mnemonic: **ADDISON**
- **A** Autoimmune (90% cases)
- **D** Degenerative (amyloid)
- **D** Drugs (ketoconazole)
- **I** Infections (TB, HIV)
- **S** Secondary (low ACTH); hypopituitarism
- **O** Others – adrenal bleeding
- **N** Neoplasia (secondary carcinoma)

Pancreas
Complications of diabetes mellitus
Mnemonic: **KEVINS**
- **K** Kidney: Nephropathy
- **E** Eye disease: retinopathy and cataracts
- **V** Vascular: coronary artery disease, cerebrovascular disease, peripheral vascular disease
- **I** Infective: TB, recurrent UTIs
- **N** Neuromuscular; Peripheral neuropathy
- **S** Skin: Necrobiosis lipoidica diabeticorum, granuloma annulare, diabetic dermopathy
GASTROENTEROLOGY

Abdomen distension
Causes
Mnemonic: 6 F's
F Fat
F Fetus
F Flatus
F Faeces
F Fluid
F Flipping great tumour

Chronic liver disease
Signs
Mnemonic: ABCDEFGHIJ
A Asterixis ('liver flap')/Ascites/Ankle oedema/Atrophy of testicles
B Bruising/BP.
C Clubbing/Colour change of nails; white (leuconychia)
D Dupuytren’s contracture
E Erythema (palmar)/Encephalopathy
F hepatic Foetor
G Gynaecomastia
H Hepato splenomegaly
I Increase in size of parotids
J Jaundice

Inflammatory bowel disease (IBD)
Features of ulcerative colitis
Mnemonic: ULCERS IN Abdomen
U Ulcers (mucosal and submucosal)
L Large intestine (rectum always involved. May extend proximally to involve entire colon)
C Clubbing
E Extra-intestinal manifestations
R Remnants of old ulcers (pseudopolyps)
S Stools bloody
I Inflamed, red, granular mucosa and sub mucosa
N Neutrophil invasion
A Abscesses in crypts

Complications of ulcerative colitis
Mnemonic: How To Perform GI Colonoscopy
H Haemorrhage
T Toxic megacolon
P Perforation
G Gallstones
C Colorectal carcinoma (in those with extensive disease for > 10 years)

Morphology and symptoms of Crohn’s disease
Mnemonic: CHRIS Has Too Much Diarrhoea and Abdominal pain
C Cobblestone appearance of mucosa
H High temperature
R Reduced lumen/Rose-thorn ulcers
I Intestinal fistulae/ileo-caecal region commonly involved (40% of cases)
S Skip lesions
H Hyperplasia of mesenteric lymph nodes
T Transmural inflammation (all layers, may ulcerate)
M Malabsorption
D Diarrhoea (watery)
A Abdominal pain

HAEMATOLOGY

Sickle cell disease
Signs
Mnemonic: SICKLE
S Splenomegaly/Sludging
I Infection
C Cholelithiasis
K Kidney – haematuria
L Liver congestion/Leg ulcers
E Eye changes

Leukaemia
Symptoms and sings
Mnemonic: LEUKEMIA (the US spelling!)
L Light skin (pallor)
E Energy decreased/Enlarged spleen, liver, lymph nodes
U Underweight
K Kidney failure
E Excess heat (fever)
M Mottled skin (haemorrhage)
I Infections
A Anaemia

Thrombocytopenia
Causes
Mnemonic: PLATELETS
P Platelet disorders: TTP, ITP, DIC
L Leukaemia
A Anaemia
T Trauma
E Enlarged spleen
L Liver disease
E Ethanol
T Toxins: benzene, heparin, aspirin, chemotherapy.
S Sepsis

Immune thromobocytopenic purpura (ITP)
Causes
Mnemonic: MAID
M Malignancy
A Autoimmune diseases: SLE, thyroid disease, RA
I Infections: malaria, EBV, HIV/Idiopathic (commonest cause)
D Drugs, e.g. quinine

Symptoms
Mnemonic: BBC
B Bruising
B Bleeding: mucosal and nasal
C Cycles heavy; menorrhagia

INFECTIONOUS DISEASES

Gastroenteritis
Causes
Mnemonic: LESS GERMS
L Listeria
E Escherichia coli
S Staphylococcus aureus
S Salmonella
G Giardia lamblia
E Entamoeba histolytica
R Rotavirus
M Mushrooms
S Shigella

Malaria
Common early symptoms
Mnemonic: Heard A Mosquito
H Headache
A Anorexia
M Myalgia/Malaise

Common later symptoms
Mnemonic: Feel Rather Cold
F Fever (peaks every third day, i.e. tertian)
R Rigors
C Chills

Leprosy
Clinical presentation
Mnemonic: LEProsy
L Loss of sensation in affected skin/Loss of function (paralysis)
E Enlargement of affected superficial nerves (tender too)
P Positive identification of M. leprae under microscope

HIV
Groups at high risk of developing infection
Mnemonic: HIV
H Homosexuals (note the rising incidence in Heterosexuals too)/Haemophiliacs
IV IV drug abusers
NEUROLOGY

Anatomy
Cranial bones

Mnemonic: PEST OF 6
P  Parietal
E  Ethmoidal
S  Sphenoid
T  Temporal
O  Occipital
F  Frontal

6  This indicates the number of bones

Branches of the facial nerve

Mnemonic: To Zanzibar By Motorcar
T  Temporal nerve
Z  Zygomatic nerve
B  Buccal nerve
M  Marginal mandibular nerve
C  Cervical nerve

Clinical conditions
Stroke – investigations

Mnemonic: The 4 Ps
P  Plasma: FBC, U&E, ESR, glucose, lipids
P  Pump, i.e heart (ECG, echocardiogram)
P  Pipes: carotid Doppler ultrasound
P  Picture of brain: CT/MRI; detects ischaemia or haemorrhages

Stroke – management

Mnemonic: ABCDEFGHI
A  Advice – lifestyle changes e.g. stop smoking, reduce alcohol intake, lose weight
B  BP control
C  Cholesterol control
D  Diabetes control
E  Elastic stockings (prophylaxis for DVT, PE)
F  Fibrillation (anticoagulate, rate control and cardiovert as required)
G  Guardian drugs (aspirin, ACE inhibitors, etc)
H  Help from occupational therapy (OT), speech and language therapy (SALT) and specialist stroke nurse
I  Incontinence care and limit Immobility (pressure sores and contractures may develop otherwise)

Meningitis
Aetiology - Bacterial

Mnemonic: NHS
N  Neisseria meningitides (children and adults; meningococcus)
H  Haemophilus influenzae (children)
S *Streptococcus pneumoniae* (adults and elderly)/(*Streptococcus produces the Severest meningitis)/Viral

Aetiology - Viral

**Mnemonic:** V MECH

V VZV

M Mumps
E Enterovirus/EBV
C Coxsackie virus types A and B
H Haemophilus influenzae/HIV/HSV

Aetiology - Fungal

**Mnemonic:** 2 C’s

C Cryptococcus (associated with HIV infection)
C Candida

Migraine

Features

**Mnemonic:** EAT FUN

E Episodic
A Aura – zigzag lines
T Throbbing headache
F Family history/F(p)hoto-phobia
U Unilateral
N Nausea and vomiting

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**OBSTETRICS AND GYNAECOLOGY**

Clinical conditions
Labour - onset

**Mnemonic:** Ready Mom for Some Discomfort

R Regular and painful uterine contractions
M Membranes ruptured
S ’Show’
D Dilatation and effacement of cervix

Factors that determine the rate and outcome of labour

**Mnemonic:** 3 P’s

P Powers: strength of the uterine contractions
P Passages: size of the pelvic inlet and outlet
P Passengers: fetus – is it big or small, does it have anomalies, is it alive or dead?

Ante-partum haemorrhage (APH) causes

**Mnemonic:** APH

A Abruptio placenta
P Placenta praevia (or vasa praevia)
H Haemorrhaging from the genitourinary tract

Post-partum haemorrhage (PPH) causes
Mnemonic: 4 T’s
T  Tissue (retained placenta)
T  Tone (uterine atony)
T  Trauma (traumatic delivery, episiotomy)
T  Thrombin (coagulation disorders, DIC)

Gynaecology
Endometriosis - symptoms
Mnemonic: Classic ‘quartet’ of DIPS
D  Deep dyspareunia
I  Infertility
P  Pelvic pain (cyclical)
S  Secondary dysmenorrhoea

Menopause - symptoms
Mnemonic: FSH > 20 IU/L
Remembering that this is the most accurate blood test in confirmation of the menopause!
F  hot Flushes/Female genitalia (vaginal) dryness and burning
S  Sweats at night
H  Headaches
I  Insomnia
U  Urge incontinence
L  Libido decreases

Menopause – long-term effects
Mnemonic: CONU
C  Cardiovascular disease: IHD, stroke, arterial disease
O  Osteoporosis: accelerated bone loss leading to osteoporosis and pathological fractures
N  Neurological: Alzheimer’s disease
U  Urogenital atrophy: loss of pelvic floor muscle tone

Infertility – causes and risk factors
Mnemonic: INFERTILE (in females)
I  Idiopathic
N  No ovulation – PCOS, menopause, pituitary disease, thyroid disorders
F  Fibroids – physical hindrance
E  Endometriosis
R  Regular bleeding pattern disrupted – oligo/amenorrhoea
T  Tubal disease leading to blocked/damaged cilia
I  Increasing age >35 years
L  Large size – obesity
E  Excessive weight loss – anorexia nervosa

OPHTHALMOLOGY

Diseases and conditions
Allergic eye disease
Mnemonic: HFS
H  Delayed Hypersensitivity
Fever conjunctivitis

Spring catarrh

Clinical presentation of conjunctivitis
Mnemonic: **BURN**
B Burning and lacrimation along with itching and possibly photophobia
U Usually bilateral, if unilateral consider another differential diagnosis
R Red and inflamed conjunctiva, eyelids may be stuck together with purulent discharge
N Normally self-limiting, can be treated with antibiotics

Signs of optic neuropathy
Mnemonic: **PLAC**
P Pale disc
L Loss of visual acuity/Loss of red colour vision
A Afferent pupillary defect
C Central scotoma

Causes of retinal detachment
Mnemonic: **SITS**
S Secondary to some intraocular problem (melanoma)
I Idiopathic
T Trauma
S Surgery for cataract

The 4 Fs of retinal detachment
Mnemonic: **4 F’s**
F Floaters (small dark spots on a bright background are generally harmless)
F Flashes (migraine)
F Field loss (dark cloud covers a field of vision)
F Falling acuity (serious)

Causes of excess lacrimation
Mnemonic: **FACE**
F Foreign body or corneal abrasions
A Acute glaucoma
C Conjunctivitis
E Emotion (typical man, I list this last!)

PAEDIATRICS

The new born baby
Resuscitation - Indications
Mnemonic: **IF KEMP’T**
I Instrumental delivery
F Fetal distress
K Known congenital abnormality
E Emergency caesarean section
M Multiple births
P Prematurity
T Thick meconium stains the liquor
Congenital abnormalities
Features of Down's Syndrome

**Mnemonic: DOWNS**

D Dysplastic ears/Dysplastic pelvis (seen on X-ray)
O Occiput is flat/Overly large tongue
W Widely spaced 1st and 2nd toes and a high-arched palate/Weak/'floppy' baby (hypotonia)
N Neck skin abundant
S Short, broad hands with single palmar crease/Slanting eyes/Spckled iris (Brushfield’s spots)

Developmental assessment

Primitive reflexes

**Mnemonic: MPRAG**

M Moro
P Placing reflex
R Rooting
A Atonic neck reflex
G Grasp reflex

Infant nutrition

Breastfeeding - advantages

**Mnemonic: PACES**

P Psychological satisfaction
A Anti-infective property/Atopic disorders risk
C Convenient
E Expenseless, ie free
S Stimulates growth and development

Breastfeeding - disadvantages

**Mnemonic: KIDS**

K vitamin K deficiency in breast-milk
I Infection transmission risk eg HIV
D Drugs excreted in milk
S Stressful and tiring for mother

Acute presentations – the acutely ill child

Four main nodes of presentation of serious illness in children

**Mnemonic: SURE**

S Shock
U Unconscious/drowsy/fitting child
R Respiratory distress
E Emergencies (surgical)

Clinical presentation of brain tumours

**Mnemonic: BAN HENS**

B Blurred vision
A Ataxia (clumsiness)
N Nystagmus
H Headache
E Endocrine dysfunction
Nausea and vomiting
Squint (6th nerve palsy)

Causes of respiratory failure
Mnemonic: PC FED BRAHMS
P  Pneumonia
C  Cystic fibrosis/Croup
F  Foreign body
E  Epiglottitis
D  Drug ingestion
B  Bronchiolitis
R  Raised ICP
A  Asthma
H  Head injury
M  Meningitis/muscle weakness
S  Severe cardiac failure

Chronic presentations
Presentation of asthma
Mnemonic: CWS
C  Cough (dry/nocturnal/worse with exercise)
W  Wheeze
S  Shortness of breath

Life threatening attack of asthma
Mnemonic: CHEST
C  Cyanosis/Confusion/Coma
H  Hypotension
E  Exhaustion
S  Silent chest
T  Threatening PEFR <33% predicted in those above 5 years old

Chronic diarrhoea
Mnemonic: 5 C’s
Inflammatory causes of chronic diarrhoea include:
C  Crohn’s disease
C  Ulcerative Colitis

Malabsorptive causes of chronic diarrhoea include:
C  Cystic fibrosis
C  Coeliac disease
C  Cow’s milk intolerance

Features of Still’s disease
Mnemonic: STILLS
S  Spiking Illness/Severe malaise
T  There could be myalgia/arthritisalgia
I  Increased size of liver/spleen
L  Lose weight, anaemia
L  Looks like malignancy
S  Salmon-pink rash
Symptoms and signs in psychiatric disorders

Causes of delirium

**Mnemonic: DELIRIUM**
- D Degenerative
- E Epilepsy (post-ictal states)
- L Liver failure
- I Intracranial (injury to the head, subarachnoid haemorrhage, TIA, meningitis, cerebral abscess)
- R Rheumatic chorea
- I Infections – pneumonia, septicaemia
- U Uraemia
- M Metabolic – electrolyte imbalance

Disorders due to psychoactive substances

Alcoholism

**Mnemonic: CAGE questionnaire**
- C Have you ever felt you should Cut down on your drinking?
- A Have people Annoyed you by commenting on your drinking?
- G Have you ever felt Guilty about your drinking?
- E Have you ever needed a drink first thing in the morning to get rid of a hangover or for nerves (Eye opener)?

>1 'yes' answer makes alcoholism likely

Schizophrenia and delusional disorders

Positive symptoms (sometimes called type I schizophrenic symptoms)

**Mnemonic: THREAD**
- T Thinking may become disturbed, neologism usage
- H Hallucinations may occur, usually auditory
- R Reduced contact with reality, the natural barrier between subjective and objective deteriorates
- E Emotional control may be disturbed with inappropriate laughter or anger (incongruous affect)
- A Arousal may lead to worsening of symptoms
- D Delusions may occur

Negative symptoms (sometimes called type II schizophrenic symptoms)

**Mnemonic: LESS**
- L Loss of volition, underactivity and social withdrawal
- E Emotional flatness, lose normal modulation of mood
- S Speech is reduced, monosyllabic if at all
- S Slowness in thought and movement, psychomotor retardation may occur

Mood (affective) disorders

Symptoms of depression

**Mnemonic: SLUMP**
- S Suicidal ideation or plans
- L Lack of: interest, enjoyment (anhedonia), energy, appetite or libido
- U Unworthiness
- M Early Morning waking
- P Poor concentration/Psychomotor retardation or agitation
Suicide – risk factors

**Mnemonic: SAD PERSONS**

- **S**ex (male)
- **A**ge (older)
- **D**epression
- **P**revious attempt
- **E**xcessive alcohol or substance abuse
- **R**ational thinking, loss of
- **S**ickness (chronic illness)
- **O**rganised plan
- **N**o social supports
- **S**tated intention to self-harm

### RENAL

**Diseases and conditions**

Detection of acute renal failure (ARF)

**Mnemonic: ACUte**

- **A**cute presentation over hours or days
- **C**reatinine rises
- **U**rea rises (±oliguria <400 ml/24 h)

Causes acute renal failure (ARF)

**Mnemonic: ACUte**

- **A**TN/Acute GN
- **C**irculatory dysfunction (i.e. shock – hypovolaemia, sepsis, cardiogenic)
- **U**rinary outflow obstruction

Clinical presentation of chronic renal failure

**Mnemonic: RESIN & 8 P’s**

- **R**etinopathy
- **E**xcoriations (scratch marks)
- **S**kin is yellow
- **I**ncreased blood pressure
- **N**ails are brown
- **P**allor
- **P**urpura and bruises
- **P**ericarditis and cardiomegaly
- **P**leural effusions
- **P**ulmonary oedema
- **P**eripheral oedema
- **P**roximal myopathy
- **P**eripheral neuropathy

Complicated urinary tract infections (UTIs)

**Mnemonic: MARIO**

- **M**ale patients
- **A**bnormal renal tract
- **R**enal function is impaired
Impaired host defences
Organism that is virulent

Risk factors for UTIs

Mnemonic: UTIs

U Urinary tract obstruction or malformation
T The menopause
I Intercourse (sexual)/Instrumentation/Immunosuppression
S female Sex/Stones

Dialysis

Indications for

Mnemonic: AEIOU

A Acid–base problems (severe acidosis or alkalosis)
E Electrolyte problems (hyperkalaemia)
I Intoxications
O Overload, fluid
U Uraemic symptoms

Or

Mnemonic: SHARPE

S Severity of condition increases
H Hyperkalaemia persistent (K+ >7 mmol/l)
A Acidosis is metabolic and worsening (pH <7.2 or base excess <−10)
R Refractory pulmonary oedema
P Pericarditis (uraemic)
E Encephalopathy (uraemic)

Complications of dialysis

Mnemonic: CHAIR

C Cardiovascular disease
H Hypertension
A Anaemia
I Infections
R Renal bone disease

Urinary tract malignancies

Features of renal cell carcinoma (RCC)

Mnemonic: RCC

R Renal tubule (proximal) epithelium is involved
C Renal Cancers are 90% RCC
C Clinical features include haematuria, loin pain, abdominal mass, anorexia, malaise and weight loss

RESPIRATORY

Diseases and conditions

Definition of Acute Respiratory Distress Syndrome (ARDS)

Mnemonic: ROAR

R Reduced lung compliance
O  Oedema, non-cardiogenic pulmonary
A  Acute respiratory failure
R  Refractory hypoxaemia

Causes of Acute Respiratory Distress Syndrome (ARDS)
Mnemonic: ARDS
A  Aspiration-gastric/Acute pancreatitis/Amniotic fluid embolus
R  Raised ICP/Respiratory tract infection – pneumonia
D  DKA/DIC/Drugs
S  Sepsis/Shock/Smoke inhalation/Severe burns

Risk factors of asthma
Mnemonic: FEAR UP
F  Family history
E  Eczema
A  Acid reflux
R  Rhinitis (allergic)
U  Urticaria
P  Polyps (nasal)

History of asthma
Mnemonic: WIND
W  Wheeze
I  Interferes with schooling, exercise, sleep and work
N  Nocturnal cough, or early morning cough
D  Dyspnoea

Clinical manifestations of influenza infection
Mnemonic: FLU
F  Fever
L  Lethargy
U  Upset appetite (nausea and vomiting)

Features of Tuberculosis (TB)
Mnemonic: 4 C’s
C  Cough
C  Caseation
C  Calcification
C  Cavitation

RHEUMATOLOGY

Rheumatoid arthritis (RA)
Features
Mnemonic: RHEUMATISM
R  Rheumatoid factor (RF) +ve in 80%/Radial deviation of wrist
H  HLA-DR1 and DR-4
E  ESR/Extra-articular features (restrictive lung disease, subcutaneous nodules)
U  Ulnar deviation of fingers
M  Morning stiffness/MCP+PIP joint swelling
A  Ankylosis/Atlanto–axial joint subluxation/Autoimmune/ANA +ve in 30%

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T-cells (CD4)/TNF
Inflammatory synovial tissue (pannus)/IL-1
Swan-neck deformity, Boutonniere deformity, Z-deformity of thumb
Muscle wastage of small muscles of hand

Management
DMARDs (Disease-Modifying Anti-Rheumatic Drugs)

Mnemonic: Most Sufferers Can Get Appropriate Pain Control
M Methotrexate
S Sulfasalazine
C Ciclosporin
G Gold
A Azathioprine
P Penicillamine
C HydroxyChloroquine

Joint pain
Causes
Mnemonic: ARTHRITIS
A Arthritis – rheumatoid or osteoarthritis
R Reactive arthritides
T Tendon/muscle damage
H Hyperuricaemia; gout
R Referred pain
I Autoimmune, eg connective tissue disease – systemic sclerosis, SLE
T Tumour
I Ischaemia
S Sepsis/Spondyloarthritides

Arthritis
Features of Ankylosing spondylitis
Mnemonic: SPINAL
S Sacroiliac and low back pain
P Pleuritic chest pain
I Inherited gene marker: HLA-B27 (>90% HLA-B27 +ve, general population frequency – 8%)
N Neck hyperextension – question mark posture
A Arthritic symptoms in peripheries (asymmetrical)
L Loss of spinal movement which is progressive

Components of CREST syndrome
Mnemonic: CREST
C Calcinosus
R Raynaud’s phenomenon
E Esophageal dysmotility
S Sclerodactyly
T Telangiectasia

Surgery
Anatomy
Abdominal wall muscles

**Mnemonic:** TIRE

- T Transversus abdominis
- I Internal oblique
- R Rectus abdominis
- E External oblique

Bowel components

**Mnemonic:** Dr Jones Investigates Carefully And Cuts Randomly

*From proximal to distal:*

- D Duodenum
- J Jejunum
- I Ileum
- C Caecum
- A Appendix
- C Colon
- R Rectum

Clinical conditions

Initial management of all surgical emergencies

**Mnemonic:** 4 A’s, 2 C’s, 2 N’s (could be remembered as a set of GCSE results!)

- A ABC assessment
- A Analgesia, eg morphine
- A Anti-emetic
- A Aggressive fluid resuscitation – IV fluids and electrolyte replacement
- C Central venous pressure (CVP) line – may be needed
- C Catheter (urinary)
- N Nil by mouth (NBM)
- N Nasogastric (NG) tube

Post-operative complications

**General immediate**

**Mnemonic:** PROBS

- P Primary haemorrhage/Pain
- R Reactive haemorrhage
- O Oliguria – acute urinary retention
- B Shock/Sepsis

**General early**

**Mnemonic:** ABCDE

- A Analgesia- or Anaesthetic-related nausea + vomiting
- B Breakdown of wound or anastomosis due to infection or haematoma – dehiscence / ↓BP – ↓fluid input → hypovolaemia →↓BP
- C Confusion – acute
- D DVT leading possibly to PE
- E Elevated temperature – pyrexia

**General late**

**Mnemonic:** RIB

- R Recurrence of malignancy
- I Incisional hernia
- B Bowel obstruction
Lumps and bumps
Examining
**Mnemonic:** 3 S’s, 3 C’s, 3 T’s and the F’er
3Ss    Site, Size, Shape
3C�    Colour, Consistency, Contour
3Ts    Tenderness, Tethering, Transillumination
F’er   Fluctuance

**Hernias**
Groin lump: differential diagnosis
**Mnemonic:** Surgeons Like To Manage Various Hernias
S    Spermatic cord (lipoma, hydrocoele)/Skin (sebaceous cyst)
L    Lymph nodes
T    Testicle (ectopic, undescended)
M    Muscle (psoas abscess)
V    Vascular (femoral artery aneurysm, saphena varyx)
H    Hernias (inguinal, femoral)

TRAVMA AND ORTHOPAEDICS

**Anatomy**
Cubital fossa contents
**Mnemonic:** Please Remember Be Brave Medically
*From lateral to medial:*
P    Posterior interosseus nerve
R    Radial nerve
B    Biceps tendon
B    Brachial artery
M    Median nerve

Adductor muscles of thigh
**Mnemonic:** Post-Graduates Love their Bachelor Of Medicine
P    Pectineus
G    Gracilis
L    Adductor Longus
B    Adductor Brevis
O    Obturator nerve innervates all these muscles expect for the pectineus
     (femoral nerve). Part of the adductor magnus is supplied by the sciatic nerve
M    Adductor Magnus

**Clinical conditions**
Painful neck - differentials
**Mnemonic:** Jock STRAP
J    Jerking back of the head and neck, ie whiplash
S    Spondylosis/Spondylolisthesis of cervical discs
T    Torticollis (spasmodic/infantile)
R    Cervical Rib
A    Abnormal posture
P    Prolapsed cervical disc
Carpel tunnel syndrome – causes and risk factors

Mnemonic: **CARPAL**
- C: Cardiac failure/Combined OCP use
- A: Acromegaly
- R: Renal disorder – nephrotic syndrome/Raised glucose levels; DM
- P: Pregnancy/Poor thyroid function; hypo-thyroidism
- A: Arthritis of the wrist (rheumatoid, osteoarthritis)
- L: Large size – obesity

Painful back - differentials

Mnemonic: **TOMS DIScman**
- T: Tumours of spine
- O: Osteoporosis/Osteomalacia
- M: Mechanical
- S: Spondylolisthesis
- D: Disc prolapse/lesion
- I: Infection
- S: Stenosis of lumbar spine/lateral recess (due to facet joint osteoarthritis)

Differential diagnosis of a limp

Mnemonic: **STARTSS HOT**
- S: Septic joint
- T: Tumour
- A: Avascular necrosis (Legg–Calve–Perthe's)
- R: Rheumatoid arthritis/juvenile rheumatoid arthritis
- T: Tuberculosis
- S: Sickle cell disease
- S: Slipped upper femoral epiphysis (SUFE)
- H: HSP
- O: Osteomyelitis
- T: Trauma

**Trauma**

Soft tissue injuries - treatment

Mnemonic: **RICE** (protocol employed in the 1st 24 hours following the injury)
- R: Rest
- I: Ice
- C: Compression
- E: Elevation

For more mnemonics, visit [www.revise4finals.co.uk](http://www.revise4finals.co.uk) or [www.pastest.co.uk](http://www.pastest.co.uk).