Chapter 1
Head and Neck

Facial pain or swelling

Diagnosis	Background	Key symptoms	Key signs	Additional information
Acute sinusitis (Rhinosinusitis)	Paranasal sinus inflammation Nose frequently involved Acute bacterial infection lasts between 10 and 30 days Common causes: *Haemophilus influenzae* and *Streptococcus* Common risk factors: URTI, smoking, asthma, allergy, DM, swimming, dental infection	*≥2 of the following lasting <12 wks:* Blocked nose Nasal discharge/post-nasal drip Facial pain or pressure Reduction or loss of smell ± Headache ± Malaise ± Upper toothache	Tenderness over sinuses Normal respiratory examination Facial pain worse on stooping ± Fever	
Ophthalmic shingles (See Painful eye)				
Temporal arteritis (Giant cell arteritis)	Age >50 yrs ≥25% also have polymyalgia rheumatica	Unilateral headache Worse at night Jaw claudication Acute visual disturbance in one eye Malaise	Scalp tenderness ± Optic neuritis (swollen optic disc, painful eye movements, visual field defect) ± Retinal artery thrombosis (pale retina, red fovea and arteriolar narrowing)	Requires immediate high-dose steroids Refer to ophthalmology if visual symptoms
Trigeminal neuralgia	Chronic debilitating condition Neuropathic disorder of V nerve Commonly age >50 yrs M<F Causes include: Vascular nerve compression, tumour, idiopathic Intermittent pains last days to months Often recurrent ≈4% cases associated with MS	Paroxysms of severe stabbing pains Last a second up to 2 mins Occurs day and night Commonly affects mandibular and maxillary areas Pain triggered by touch, facial movement, cold	Typically unilateral Pain affects ≥1 trigeminal divisions No facial neurological deficit	Exclude dental pathology
Temporomandibular joint dysfunction	Abnormal jaw function Jaw anatomy may be normal or abnormal Onset early adolescence/ adulthood Can persist into middle-age M:F ratio: ≈1:4 Associated with bruxism and/or joint disease (e.g. arthritis)	Facial pain Headache Painful jaw	Crepitus on jaw movement Restricted jaw movement Painful jaw movement ± Depression or anxiety	
Parotitis	Causes: Bacterial infection, dehydration (e.g. post-op), poor oral hygiene	Unilateral facial pain and swelling	Unilateral swelling at the angle of the jaw Firm tender swelling Erythema ± Fever	Pain or swelling on eating indicates calculi

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Mumps	Often no Mumps immunisation	Prodromal malaise	Fever Unilateral or bilateral parotid swelling Tenderness ± Unilateral orchitis a few days later	Notifiable disease Complications: Meningitis, pancreatitis, myocarditis, arthritis
Angioedema	Allergen factor often present (e.g. food, drugs, insect bite)	Acute onset Pruritis	Bilateral facial swelling Facial erythema Urticaria ± Lip and tongue swelling	Airway compromise warrants adrenaline and emergency admission
Erysipelas	Caused by beta-haemolytic *Streptococcus* skin innoculation Peak age 60–80 yrs Risk factors: Inflammatory dermatoses, skin trauma, nasopharyngeal infection, dermatophyte infections, poor hygiene, DM, alcohol abuse, immunodeficiency, nephrotic syndrome	Prodromal malaise and chills Followed by acute symptoms: Pruritis Skin burning Tender skin Red skin patch Enlarges over 3–6 days Affects face or legs Anorexia Fatigue Arthralgia	High-grade fever >39°C Shiny plaque Deep erythema Sharply demarcated Raised edges Skin oedema Indurated Warm and tender skin ± Vesicles and bullae	Compared with cellulitis, erysipelas is more sharply demarcated and has raised edges
Parotid tumour	≈90% are benign (pleomorphic adenoma)	Unilateral facial lump Slowly enlarges Pain worse on jaw movement	No fever Superficial mobile mass at angle of mandible	Facial palsy suggests malignancy
Superior vena cava obstruction	≈75% due to lung cancer	Shortness of breath Headache worse on stooping	Swelling of face, neck, upper limb Non-pulsatile dilated veins in neck and chest	Requires urgent investigation

Headache

Diagnosis	Background	Key symptoms	Key signs	Additional information
Tension headache	Episodic or chronic (>15 days per month) Associated with emotional stress	Generalised pressure/tightness around head Radiation to or from neck	Normal neurological examination	Exclude musculoskeletal problems (e.g. cervicogenic headache)
Migraine	Late teens to 50s M:F ratio:: ≈1:3		Normal examination between attacks	
Subtypes:				
Classical migraine	Aura present	Unilateral throbbing headache Aura precedes headache *Visual aura*: Homonymous hemianopia Scintillating scotoma "Zigzag" of flashing lights (fortification spectrum)		Aura can be visual, sensory, involve speech or limbs Stop COCP
Common migraine	Aura absent	No aura ≥5 headaches lasting 4–72 h Nausea/vomiting or Photophobia and phonophobia *Plus ≥2 of the following:* Unilateral headache Pulsating nature Affects QoL Aggravated by routine activity		Look for triggers (e.g. diet, stress)

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Post-concussion syndrome	Common causes: RTA, sports injury, fall, assault Full recovery should be achieved within 2 wks	Onset symptoms days after minor head trauma Persistent mild headache Not getting worse Dizziness Memory loss (retrograde or anterograde) Low mood Poor concentration Irritability Nausea with no vomiting	GCS 15/15 No confusion Normal gait and balance No visual problems No focal neurology (e.g. limb weakness)	Discharge from nose or ear suggests CSF leak from basal skull fracture Refer immediately
Medication	Chronic analgesia use: NSAID, paracetamol, codeine, ergotamine Medication side-effects: GTN, nifedipine, substance withdrawal	Onset symptoms after taking medication	Normal neurological examination	
Temporal arteritis (Giant cell arteritis)	Age >50 yrs ≥25% also have polymyalgia rheumatica	Unilateral headache Worse at night Jaw claudication Acute visual disturbance in one eye Malaise	Scalp tenderness ± Optic neuritis (swollen optic disc, painful eye movements, visual field defect) ± Retinal artery thrombosis (pale retina, red fovea and arteriolar narrowing)	Requires immediate high-dose steroids Refer to ophthalmology if visual symptoms
Cluster headache	Age >20 yrs M:F ratio: ≈6:1 Recurrent annual event	Daily symptoms for 6–12 wks Severe unilateral headache Retro-orbital pain Worse at night	Unilateral Red watery eye Ptosis Rhinorrhoea or nasal blockage	
Malignant hypertension	BP >200/130 mmHg Young adults Commonly Afro-Caribbean Other risk factors include: Obesity, smoking, DM	Visual disturbance	Bilateral retinal haemorrhages Encephalopathy *Abnormal urinalysis:* Proteinuria	Admit for BP control
Intracranial tumour	<1% of all headaches Age >50 yrs	New onset headache Worse in the morning Progressively worsening Nausea/vomiting Personality change (e.g. disinhibition) ± Seizures (≤50%)	Drowsiness Falling pulse and rising BP (Cushing's reflex) Papilloedema (≈50%) Focal neurology	Refer for urgent neurology review
Subarachnoid haemorrhage	M<F Causes: Berry aneurysms, arterio-venous malformation, bleeding disorder	Sudden onset occipital headache Severe pain Nausea/vomiting	Neck stiffness Focal neurology Collapse ± LoC *Positive Kernig's sign:* Pain and resistance on passive knee extension with hips flexed	Emergency admission

Diagnosis	Background	Key symptoms	Key signs	Additional information
Meningitis	Common viruses: Echovirus, herpes simplex and zoster, coxsackie, HIV, measles, influenza Common bacteria: *Streptococcus pneumoniae, Neiserria meningitidis, Haemophilus influenzae* type B, *Listeria* Elderly and young age <2 yrs are particularly susceptible	Acute onset of symptoms Frontal headache Nausea/vomiting Severe leg pains Neck pain ± Non-blanching purple skin rash	Fever Cold peripheries Drowsiness Irritability Neck stiffness Photophobia Papilloedema (raised ICP) ± Petechial rash *Positive Kernig's sign:* Pain and resistance on passive knee extension with hips flexed *Positive Brudzinski's sign:* Hips flex on bending head forward	Notifiable disease DO NOT delay antibiotic treatment Petechiae suggest meningococcus or pneumococcus meningitis
Benign intracranial hypertension	Commonly young women Typically obese Often self-limiting	Blurred vision or diplopia	Papilloedema *VI nerve palsy (lateral rectus):* Eye is medially deviated Lateral eye movement not possible Horizontal diplopia on looking out	
Carbon monoxide poisoning	Risk of fits and coma if prolonged exposure	Nausea/vomiting Dizziness Worse when heater or cooking appliance in use Relieved when away from house	Pink skin and oral mucosa Tachypnoea Tachycardia	Check gas appliances and flues
Pre-eclampsia (See Abdominal pain in pregnancy)				

Neck lump

Diagnosis	Background	Key symptoms	Key signs	Additional information
Non-specific reactive lymphadenitis	History of recent URTI infection	URTI symptoms (e.g. sore throat)	Enlarged cervical LN	LN usually reduce 2 wks post-infection
Tonsillitis	Commonly children and young adults	Acute onset Painful swallow Headache	Fever Erythematous tonsils ± white exudate Enlarged and tender anterior cervical LN	Consider ENT referral if ≥5 episodes per year
Glandular fever (Infectious mononucleosis)	Caused by Epstein Barr virus Commonly teenagers and young adults Droplet spread Post-viral fatigue is common	Often few symptoms Sore throat >1 wk Prolonged fatigue or malaise Transient non-itchy rash	Fine macular rash Transient bilateral upper eyelid oedema Palatal petechiae Generalised LN Splenomegaly (10%–30%)	Avoid amoxicillin Avoid contact sports for 6 wks due to risk of splenic rupture
Sebaceous cyst (Epidermoid cyst)	Proliferation of epidermal cells in the dermis Benign Slow growth Commonly young adults M>F Common sites: Face, trunk, neck, extremities, scalp Often resolves spontaneously Often recurs if not excised	Painless lump(s)	Skin-coloured nodule Single or multiple Often round or oval Variable in size Firm subcutaneous nodule Central punctum Fixed to skin Not reducible Not pulsatile ± Uninfected foul cheese-like discharge	A tender and erythematous cyst suggests infection
Thyroglossal cyst	Often presents 15–30 yrs of age	Painless neck lump	Smooth midline swelling Moves up on protrusion of tongue	Refer to ENT surgeon as risk of infection

Diagnosis	Background	Key symptoms	Key signs	Additional information
Goitre			Lump moves up with swallowing	
Subtypes:				
Physiological	Causes: Pregnancy, puberty and/or stress	Neck lump	Smooth enlarged thyroid	
Non-toxic simple	Thyroid enlarges to compensate for mild hypothyroidism M<F Causes: Iodine deficiency (rare in UK), familial inborn error of iodine metabolism	Neck lump	Smooth enlarged thyroid Becomes multinodular if untreated	
Non-toxic multinodular (Colloid)	Most common goitre in the UK Mild hypothyroidism	Pressure symptoms if large (e.g. dysphagia)	Enlarged irregular thyroid	
Toxic diffuse (Graves' disease)	Young adults M<F Hyperthyroid Due to thyroid autoantibodies	Hyperactivity Sweating Weight loss despite good appetite Heat intolerance	Tachycardia Exophthalmos Lid lag Smooth uniform enlargement of thyroid Fine hand tremor Audible bruit over goitre	
Toxic multinodular	Typically middle-age Hyperthyroid	Insidious onset Palpitations Weight loss Shortness of breath Swollen ankles	Irregular thyroid enlargement Atrial fibrillation Heart failure	
Solitary nodule	May be benign or malignant Hyperthyroid	Asymptomatic or Hyperactivity Sweating Weight loss despite good appetite Heat intolerance	Solitary lump in thyroid *Suspect malignancy if*: History of rapid enlargement Hard nodule Palpable cervical LN Hoarse voice	Clinically difficult to differentiate benign from malignant therefore refer for further investigation
De Quervain's thyroiditis (Acute thyroiditis)	Self-limiting viral infection Usually resolves within 2 wks	Acutely painful thyroid Pain radiates to ears Malaise	Fever Diffuse thyroid enlargement Firm and tender thyroid	Frank thyrotoxicosis is common initially, followed occasionally by post-viral hypothyroidism
Hashimoto's disease (Chronic lymphocytic thyroiditis)	Autoimmune destruction of thyroid Peak age 30–50 yrs M:F ratio: ≈1:15 ≈50% become permanently hypothyroid	Slow-growing neck lump Painless	Thyroid enlargement Non-tender Rubbery and mobile on palpation Initially hyperthyroidsim followed by hypothyroidism	
Postpartum thyroiditis	Affects 5%–10% women up to 12 months postpartum ≈25% become permanently hypothyroid	Fatigue Low mood Weight gain Constipation	Painless thyroid enlargement Coarse skin Dry hair	Exclude postpartum depression
Lymphoma				
Subtypes:				
Non-Hodgkin's	Five times more common than Hodgkin's lymphoma Commonly presents >50 yrs of age M<F Disease may originate from extranodal sites (e.g. GI, skin, chest)	Often asymptomatic or Presents like Hodgkin's	Anaemia Painless LN enlargement Hepatosplenomegaly	
Hodgkin's	Young adults and elderly M:F ratio: ≈2:1 Risk factors: History of infectious mononucleosis, HIV, immunosupression, smoking	*A symptoms:* Asymptomatic or pruritis *B symptoms:* Chronic weight loss >10% in 6 months Fever Night sweats	Cachexia Anaemia Painless LN enlargement (neck, axillae, supraclavicular) Hepatosplenomegaly	B symptoms indicate more extensive disease

Diagnosis	Background	Key symptoms	Key signs	Additional information
Branchial cyst	Congenital Often enlarges post-URTI	Usually painless neck lump	Oval cystic swelling Deep to upper 1/3 of sternocleidomastoid muscle	Refer for excision Recurrent infection increases risk of sinus/fistula
Dermoid cyst	Commonly children	Neck lump Common sites: Periorbital, submental, sublingual	Smooth spherical neck lump Hard on palpation Not attached to skin Usually ≈1 cm in diameter Transilluminant	

Neck pain and stiffness

Diagnosis	Background	Key symptoms	Key signs	Additional information
Spasmodic torticollis (Wry neck)	Occasionally associated with poor posture Often self-limiting	Acute onset Neck pain and stiffness	Spasm of trapezius and sternocleidomastoid muscles Restricted passive and active neck movements ± Neck held flexed away from pain	Exclude neck trauma and upper-limb neurology
Cervical spondylosis	Chronic cervical disc degeneration Disc herniation, calcification and osteophytic outgrowths Age >40 yrs	Gradual onset symptoms Intermittent neck pain and stiffness Radiation to occiput, interscapular, upper limb ± Paraesthesia of arm ± Arm weakness	Usually unilateral Tender neck spine Shoulder joint non-tender on palpation Reduced ROM of neck ± Sensory loss and hyporeflexia of upper limb	
Whiplash injury	History of recent flexion/extension injury (e.g. RTA, sport, fall)	Symptoms occur hours/days post-trauma Neck stiffness ± Pain radiates to head, arms and back	Tender or tense trapezius muscle Pain on neck movement Reduced ROM of neck No upper limb neurology	Anxiety, depression and litigation can all delay recovery
Cervical disc prolapse	Due to neck trauma or degenerative disease Symptoms are acute in trauma and gradual in degenerative disease C6 and C7 are most commonly affected Often resolves spontaneously	Neck stiffness Worse on coughing or straining Relieved by lying down Shooting pains radiate to occiput, interscapular or upper limb Paraesthesia in distal limb	Usually unilateral Reduced ROM of neck Neck pain may be absent *Radiculopathy:* Upper-limb wasting Proximal limb weakness Reduced sensation in C6 and C7 dermatomes Reduced or absent biceps and triceps reflex	
Cervical cord compression	Common causes: Neck trauma, malignancy, prolapsed cervical disc LMN signs at level of lesion UMN signs below level of lesion	Paraesthesia in arms and hands Upper limb weakness	Tender cervical vertebrae Reduced grip/power in affected upper limb Reduced sensation in upper limb Lower limb spasticity and sphincter disturbance (late sign)	Emergency neurosurgical referral