VEST
CHEAT SHEET

Vestibular Emergencies

Time-Critical Diagnoses in Acute Dizziness

▸ Key principle

Most dizziness is benign — but a critical subset is life-threatening. Posterior fossa stroke, basilar occlusion, cerebellar haemorrhage, and Wernicke encephalopathy all present with dizziness and demand immediate action.

Must-Not-Miss Diagnoses

Diagnosis	Key Features	Immediate Action
Posterior fossa stroke	Normal HIT; direction-changing nystagmus; skew deviation; truncal ataxia	Stroke activation; CT angiography; MRI DWI; thrombolysis if eligible
Basilar artery occlusion	Progressive brainstem signs; altered GCS; quadriparesis	Stroke code; CT angiography; neurointerventional — thrombectomy up to 24 h
Cerebellar haemorrhage	Sudden headache + vertigo + ataxia; hypertension	Urgent CT head; neurosurgical consult; reverse anticoagulation
Wernicke encephalopathy	Encephalopathy + ophthalmoplegia + ataxia; alcohol/malnutrition	IV thiamine 500 mg BEFORE any glucose — do not delay
Posterior circulation dissection	Neck/occipital pain + vertigo + Horner's	CT angiography; neurology; anticoagulation; avoid thrombolysis

Posterior Fossa Stroke — ED Protocol

Step	Action
1 — HINTS exam	Normal HIT in AVS = central risk — activate stroke team immediately
2 — CT head	Excludes haemorrhage; low sensitivity for posterior ischaemia — do not reassure from negative CT
3 — CT angiography	Identifies basilar occlusion and posterior circulation anatomy
4 — MRI DWI	Gold standard; arrange urgently; sensitivity improves after 24–48 h
5 — Thrombolysis	IV alteplase if within 4.5 h onset and no contraindication
6 — Thrombectomy	Basilar occlusion — window up to 24 h; neurointerventional team

Wernicke Encephalopathy

Feature	Detail
Classic triad	Encephalopathy + ophthalmoplegia + ataxia — all three present in only 10–16%
Risk populations	Alcohol use disorder; malnutrition; bariatric surgery; prolonged vomiting; malignancy
CRITICAL rule	IV thiamine 500 mg BEFORE any glucose-containing fluid — glucose precipitates acute decompensation
Dosing	Pabrinex 500 mg (2 vials) IV TDS x 3 days → 250 mg daily x 5 days → oral thiamine

Vestibular Emergencies — *continued*

Cerebellar Haemorrhage — Surgical Emergency

▸ Urgent neurosurgical consult if:

Haematoma over 3 cm OR brainstem compression OR hydrocephalus.
Any GCS deterioration regardless of haematoma size.
Anticoagulation reversal: Warfarin → Vitamin K + PCC; DOAC → specific reversal agent.
Do NOT perform LP before CT in suspected posterior fossa haemorrhage.

Posterior Circulation Dissection

Feature	Detail
Presentation	Occipital/neck pain + vertigo + Horner's + ataxia; pain may precede neuro signs by hours–days
Triggers	Chiropractic manipulation; trauma; sudden neck movement; spontaneous
Diagnosis	CT angiography (fast, widely available) or MRI/MRA
Pitfall	Dismissed as musculoskeletal neck pain — any neck pain + neurological symptom = vascular imaging

Dangerous Mimics — Always Exclude

Mimic	Key Feature	Action
Hypoglycaemia	BSL below 4.0 mmol/L	Check BSL in ALL dizzy patients — immediate
Carbon monoxide poisoning	Multiple patients affected; headache; elevated COHb	High-flow O2; hyperbaric if available
Cardiac arrhythmia	ECG abnormality; syncope; palpitations	ECG; monitoring; cardiology input
Hypertensive emergency	BP above 180/120 + end-organ damage + brainstem symptoms	Controlled BP reduction; MRI brain

Disposition Guide

Diagnosis	Disposition
Posterior fossa stroke confirmed/suspected	Admit stroke/neurology; MRI DWI; antithrombotic therapy
Basilar artery occlusion	ICU / neurointerventional; thrombectomy assessment
Cerebellar haemorrhage	Neurosurgery; ICU monitoring; BP and anticoagulation management
Wernicke encephalopathy	Admit; IV thiamine; nutritional support; alcohol withdrawal
Posterior circulation dissection	Admit neurology; anticoagulation; serial imaging
Peripheral confirmed; mimic excluded	Discharge with safety netting and GP follow-up

Handover Essentials

Element	Communicate
Syndrome type	AVS / triggered EVS / spontaneous EVS
HINTS result	Each component; central or peripheral pattern stated explicitly
Time of onset	Critical for thrombolysis (4.5 h) and thrombectomy (24 h) windows
Imaging status	CT result; MRI arranged or rationale if deferred
Vascular risk factors	HTN, DM, AF, prior stroke/TIA, anticoagulation, dissection risk