APPROACH TO THE DIZZY PATIENT

Clinical Cheat Sheet — A Systematic Framework

THE TiTrATE FRAMEWORK

The TiTrATE framework (Timing, Triggers, And Targeted Examination) replaces the obsolete "type of dizziness" classification. Three-step cognitive approach:

Step 1 — Timing

– **Acute continuous:** Sudden onset, days–weeks → Acute Vestibular Syndrome (AVS). DDx: vestibular neuritis vs posterior circulation stroke.

– **Episodic:** Recurrent attacks with symptom-free intervals. Duration: seconds (BPPV) to hours (VM, Ménière's) → Episodic Vestibular Syndrome (EVS).

– **Chronic persistent:** Weeks–months, constant or fluctuating → Chronic Vestibular Syndrome (CVS). DDx: PPPD, bilateral vestibular failure, central.

Step 2 — Triggers

– **Positional:** Head position → BPPV (Dix-Hallpike, supine roll).

– **Orthostatic:** Standing → orthostatic hypotension / POTS.

– **Visual/motion:** Complex environments → PPPD / visual vertigo.

– **Spontaneous:** No trigger → VM, Ménière's, VP, TIA.

Step 3 — Targeted Examination

– **AVS** → HINTS+ (Head Impulse, Nystagmus, Test of Skew + Hearing).

– **Triggered EVS** → Dix-Hallpike / Supine Roll for BPPV.

– **Spontaneous EVS** → Migraine features, aural symptoms, vascular risk.

– **CVS** → Full neuro-otological battery (vHIT, VEMP, posturography, audiometry).

♦ The single most important paradigm shift: from "what type of dizziness" to "when does it occur and what brings it on." TiTrATE improves diagnostic accuracy and reduces unnecessary investigation.

INITIAL TRIAGE — RULE OUT SYSTEMIC CAUSES

Before applying TiTrATE, exclude life-threatening non-vestibular causes:

– **Cardiovascular:** Arrhythmia, severe HTN, orthostatic hypotension, HF. ECG + orthostatic vitals.

– **Metabolic:** Hypoglycaemia, hypothyroidism, hyponatraemia. BSL, electrolytes, TFTs.

– **Haematological:** Severe anaemia, hyperviscosity. FBC.

– **Medication:** Aminoglycosides, cisplatin, CNS sedatives, antihypertensives. Full med review.

– **Psychiatric:** Panic disorder (diagnosis of exclusion — vestibular disorders also cause anxiety).

♦ Always check orthostatic BPs before attributing dizziness to a vestibular cause. A 20 mmHg systolic drop on standing = orthostatic hypotension. This 2-minute bedside test is frequently omitted.

ACUTE VESTIBULAR SYNDROME — HINTS+

AVS = new onset continuous dizziness/vertigo, nausea, gait unsteadiness, nystagmus >24h. Key DDx: vestibular neuritis (peripheral) vs posterior circulation stroke (central).

HINTS is more sensitive for posterior fossa stroke than early MRI-DWI in first 24–48 hours (Kattah et al., Stroke 2009).

Component	Peripheral ✓	Central ✗
Head Impulse	Abnormal — catch-up saccade (impaired VOR)	Normal — no saccade despite vertigo
Nystagmus	Unidirectional, horizontal-torsional, fixation suppresses	Direction-changing, pure vertical/torsional, fixation fails
Test of Skew	No vertical misalignment	Skew deviation on cover test
Hearing (+)	Normal	New unilateral SNHL (AICA stroke)

♦ PERIPHERAL = INFARCT-safe: abnormal HIT + unidirectional nystagmus + no skew. Any ONE central sign → urgent MRI. Never rely on CT to exclude posterior fossa stroke.

EPISODIC VESTIBULAR SYNDROME

Triggered EVS

– **BPPV:** Most common cause. Seconds to <1 min. Positional. Dix-Hallpike +ve (posterior canal, 85%). Epley manoeuvre = first-line Rx.

– **Orthostatic:** ≥20 mmHg systolic drop on standing. Check vitals.

– **Atypical positional:** Non-fatigable nystagmus, direction-inconsistent → MRI brain.

Spontaneous EVS

– **Vestibular Migraine:** Most common spontaneous EVS. Min–72h. Photophobia, phonophobia. Headache absent in ~30%. Bárány/IHS criteria. Rx: lifestyle + preventive agents.

– **Ménière's Disease:** 20 min–12h. Fluctuating low-frequency SNHL + tinnitus + aural fullness. Audiometry required. Rx: hydrops diet, betahistine.

– **Vestibular Paroxysmia:** <1 min, multiple/day. Vascular cross-compression CN VIII. MRI FIESTA/CISS. Dramatic response to carbamazepine.

– **TIA:** Minutes. Vascular risk factors. Concurrent neuro symptoms. Urgent MRI + CTA + vascular referral.

♦ VM vs Ménière's: (1) Audiometry — fluctuating LF SNHL = Ménière's; (2) Migraine history favours VM; (3) Ménière's rarely >12 hours. They can coexist — treat what has objective evidence (audiogram first).

CHRONIC VESTIBULAR SYNDROME

Acute-Onset Persistent

→ Urgent HINTS+ for stroke. Incomplete recovery from VN can produce months of residual imbalance if rehab not started early.

Insidious-Onset Persistent

– **PPPD:** Most common chronic dizziness. ≥3 months. Exacerbated by upright posture, motion, complex visual stimuli. Often post-trigger event. Rx: vestibular physio + SSRI/SNRI + CBT.

– **Bilateral Vestibular Failure:** Oscillopsia on head movement, worse in dark/uneven ground. Bilateral vHIT abnormal. Causes: aminoglycosides, autoimmune, idiopathic (50%). Rx: vestibular rehab.

– **Peripheral Neuropathy:** Sensory ataxia, distal sensory loss, reduced ankle reflexes. Check B12, HbA1c, NCS.

– **Presbystasis:** Elderly. Multifactorial mild deficits across vestibular, visual, proprioceptive, MSK, cognitive. Falls prevention + multidisciplinary rehab.

– **Central Pathology:** Progressive ataxia, frequent falls, neuro signs. MRI brain + neurology referral.

♦ PPPD is a disorder of sensory processing — not "functional" in the dismissive sense. Often post-trigger (VN, BPPV, panic). Early identification + treatment significantly improves prognosis. Always screen with HADS.

FOUR PILLARS OF VESTIBULAR MANAGEMENT

– **1. Accurate diagnosis:** Vestibular sedatives (antihistamines, benzodiazepines, prochlorperazine) for short-term acute relief ONLY. Prolonged use delays compensation.

– **2. Condition-specific Rx:** BPPV → Epley; Ménière's → diet + betahistine; VM → preventives; VN → short prednisolone; PPPD → SSRI + physio; TIA → secondary prevention.

– **3. Vestibular rehabilitation:** Exercise-based rehab accelerates central compensation. Primary evidence-based intervention for PPPD, BVF, presbystasis. Early referral.

– **4. Psychological support:** Anxiety/depression highly prevalent. Screen with HADS. Integrated psychological support improves outcomes.

KEY PITFALLS & RED FLAGS

– **HINTS accuracy:** Sensitivity <70% without vestibular training. CT posterior fossa stroke sensitivity ~16% — use MRI-DWI.

– **BPPV–VM overlap:** VM can mimic BPPV. Check nystagmus characteristics carefully.

– **Isolated dizziness as stroke:** 11% of posterior circulation strokes. PPPD misdiagnosis: exclude vestibular pathology first.