STANDARD OPERATING PROCEDURE

Approach to Vertigo

Special Region (1)

Union of Myanmar

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Approved by: Internal Medicine Unit

1. Purpose

To provide a standardized, systematic, and practical approach for the evaluation and management of vertigo, ensuring early identification of life-threatening central causes and appropriate treatment in SR-1 healthcare settings.

2. Definition

Vertigo is a false sensation of movement (spinning or rotational) due to dysfunction of the vestibular system.

3. Classification

3.1 Based on Origin

Type	Cause	Examples
Peripheral Vertigo	Inner ear / vestibular nerve	BPPV, vestibular neuritis, Meniere's disease
Central Vertigo	Brainstem / cerebellum	Stroke, tumour, multiple sclerosis

ANY of the following → URGENT referral / imaging:

- New neurological deficits (weakness, dysarthria, diplopia)
- Severe headache (consider haemorrhage)
- Ataxia / inability to walk
- Vertical or direction-changing nystagmus
- Normal head impulse test
- Risk factors for stroke (HTN, DM, AF)

3.2 Based on Duration

Duration	Likely Cause
Seconds	BPPV
Minutes-Hours	Meniere's disease, TIA
Hours-Days	Vestibular neuritis
Persistent	Central causes

4. Red Flag Features (Central Cause Suspected)

- Neurological deficits (weakness, dysarthria, diplopia)
- Severe headache
- Ataxia / inability to walk
- Vertical or direction-changing nystagmus
- Normal head impulse test
- Stroke risk factors

5. Physical Examination

History

Feature	Suggests
Triggered by position	BPPV
Hearing loss + tinnitus	Meniere's
Recent viral illness	Vestibular neuritis

Sudden onset + neuro deficit	Stroke

Bedside Examination

A. Nystagmus

Type	Interpretation
Horizontal, unidirectional	Peripheral
Vertical / direction-changing	Central

B. HINTS Examination (Acute Vertigo)

Component	Peripheral	Central
Head Impulse	Abnormal	Normal
Nystagmus	Unidirectional	Direction-changing
Test of Skew	Negative	Positive

Central if ANY central sign present

C. Dix-Hallpike Test (for BPPV)

- Positive if **brief vertigo + torsional nystagmus**

6. Investigation

6.1 Basic Investigation

- Blood glucose
- Blood pressure
- ECG (rule out arrhythmia)

6.2 Imaging (If Red Flags)

- CT head or MRI (head)

7. Management

7.1 General Principles

1. Identify **peripheral vs central**
2. Avoid unnecessary medications
3. Early **stroke exclusion**

7.2 Specific Treatment

A. BPPV

- Epley manoeuvre (first-line)
- Avoid prolonged vestibular suppressants

B. Vestibular Neuritis

Treatment	Dose
Prednisolone	50-60 mg/day x 5 days → taper
Vestibular suppressants (short-term)	2-3 days only

C. Meniere's Disease

- Salt restriction
- Diuretics (e.g., HCTZ)
- Betahistine

D. Acute Symptomatic Relief

Drug	Dose
Betahistine	16 mg TDS
Prochlorperazine	5-10 mg TDS
Diazepam	2-5 mg (short-term only)

Avoid >3 days (delays vestibular compensation)

E. Central Vertigo

- Treat as stroke emergency

8. Admission Criteria

- Suspected central cause
- Severe vomiting / dehydration
- Unable to walk
- Elderly with comorbidities

9. References

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