

Clinical Guideline for Undifferentiated “Dizziness”

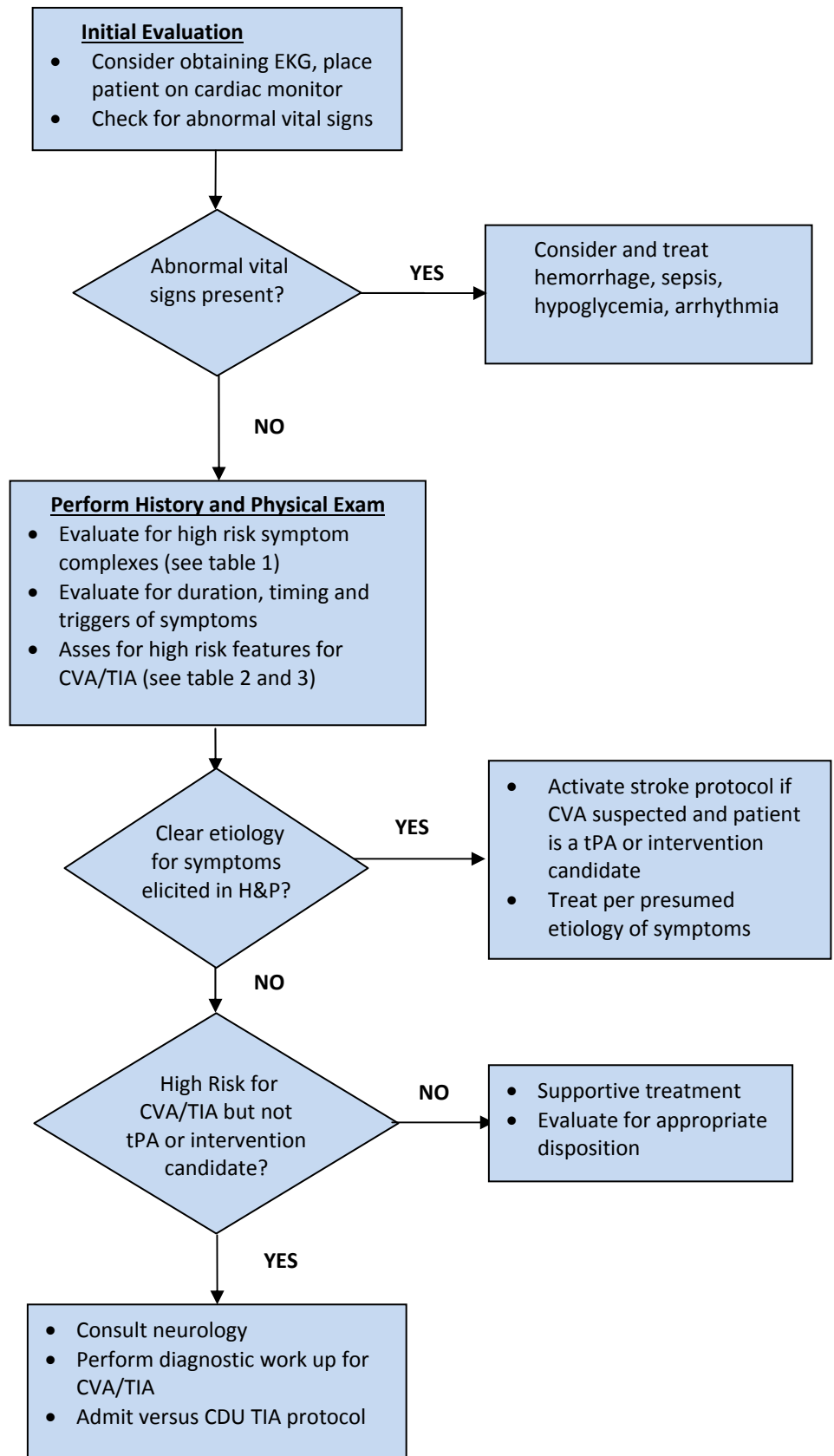


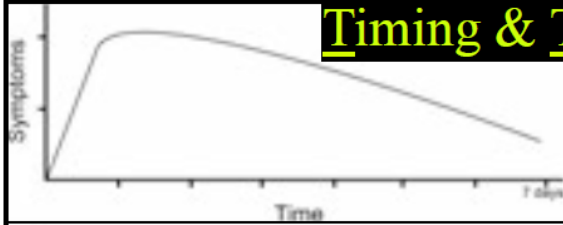
Table 1. High Risk Symptom Complexes

Symptom Complex	Potential Diagnosis
Dizziness + Headache and/or Neck Pain	<ul style="list-style-type: none"> • Subarachnoid Hemorrhage • Hemorrhagic Stroke • Dissection
Dizziness + Chest pain and/or SOB	<ul style="list-style-type: none"> • Acute coronary syndrome • Pulmonary embolism
Dizziness + Palpitations	<ul style="list-style-type: none"> • Arrhythmia
Dizziness + Focal neurological deficit and/or ataxia	<ul style="list-style-type: none"> • Stroke • Ramsay-Hunt (otitic herpes zoster)

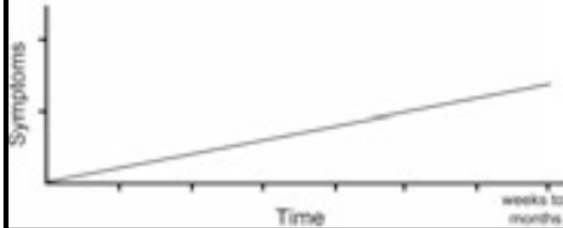
Table 2. Timing and Triggers

Vestibular Syndrome	Symptoms	Possible Diagnosis
Acute Vestibular Syndrome	Abrupt onset, continuous, days to weeks, may improve with time	<ul style="list-style-type: none"> • Stroke • Vestibular Neuritis • Multiple Sclerosis • Post-traumatic
Spontaneous Episodic Vestibular Syndrome	Spontaneous non-triggered episodes, minutes to days, that are not positional (may worsen with movement but continuously symptomatic)	<ul style="list-style-type: none"> • Vestibular Migraine • Acute labyrinthitis • Vestibular neuronitis • Meniere's • Seizures • Transient Ischemic Attack
Triggered Episodic Vestibular Syndrome	Brief episodes, usually last minutes, triggered by a change in body/head position – asymptomatic between episodes	<ul style="list-style-type: none"> • Benign Paroxysmal Vestibular Syndrome • Orthostasis
Chronic Vestibular Syndrome	Gradual onset, continuous, lasting weeks to months or longer, worsens (or plateaus) with time	<ul style="list-style-type: none"> • Mass (tumor or abscess) • Drugs/Toxins (Antiepileptics, Aminoglycosides, Loop diuretics, Salicylates), Inner ear disease • Vestibular neuronitis

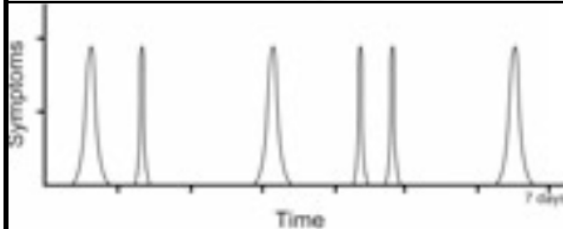
Timing & Triggers Patterns



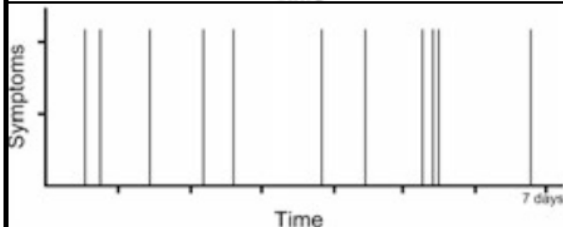
1: Acute vestibular syndrome
Rapid onset, prolonged course, improves with time



2: Chronic vestibular syndrome
Gradual onset, prolonged course, worsens (or plateaus) with time



3: Spontaneous episodic vestibular syndrome
spontaneous episodes that are not positional



4: Triggered episodic vestibular syndrome
(brief) episodes that are triggered by a change in body/head positional

Table 3. Risk Factors for CVA

Risk Category	History Features
High Risk Factors	<ul style="list-style-type: none"> Gait disturbance (OR 5.9-9.3)^{1, 3-5, 8, 10} Focal neurologic complaints suggesting cerebellar dysfunction (Diplopia, Dysarthria, Dysphagia, Dystaxia, Vertigo)^{1, 4, 8}
Moderate Risk Factors	<ul style="list-style-type: none"> Age > 60^{1, 8} Prior Stroke^{1, 7, 10} Sudden onset of Symptoms³⁻⁶ Headache^{3, 5} Stroke Risk Factors^{4, 6, 7, 9-11}
Low Risk or Non-predictive Factors	<ul style="list-style-type: none"> Positional symptoms¹ Isolated vertigo (0.7% risk of CVA)^{2, 6} Auditory symptoms⁶

Table 4. Physical Exam Risk Factors for CVA

Risk Category	Physical Exam Features
High Risk Features	<ul style="list-style-type: none"> Focal Neuro Deficit (OR 5.9; Sensitivity 64%, Specificity 100%)^{1, 4, 8} Severe Truncal Ataxia (Sensitivity 33%, Specificity 100%)⁴ Normal Head Impulse Test in Setting of Acute Vestibular Syndrome (+LR 18.3, Sensitivity 85%, Specificity 95%)^{9, 18} Direction-changing, rotatory or vertical nystagmus (Sensitivity 38%, Specificity 92%)¹⁸ Positive skew deviation (Sensitivity 30%, Specificity 98%)¹⁸ Abnormal HINTS (Sensitivity 88-100%, Specificity 85-98%)^{4, 18-21}
Low Risk Features	<ul style="list-style-type: none"> Normal Neurological Exam (-LR 0.49, OR 0.05)^{2, 4} Abnormal head impulse test (-LR 0.16)¹⁸ Normal HINTS exam (-LR 0-0.03)^{4, 19, 20}
Non-predictor	<ul style="list-style-type: none"> Dix-Hallpike maneuver (OR 0.0-1.2)¹

Links for physical exam maneuvers: <http://emcrit.org/misc/posterior-stroke-video/>

Table 5. Diagnostics Evaluation for CVA

MRI DWI	<ul style="list-style-type: none"> Sensitivity within 3 hours (≥41%)^{13, 16} Sensitivity within 24 hours (≥83%)^{13, 14, 16} Up to 23% may be missed in the first 48 hours^{9, 14, 17}
MRI T2 Imaging	<ul style="list-style-type: none"> Sensitivity within 24 hours (40%)¹⁵
CTA	<ul style="list-style-type: none"> Sensitivity within 6 hours (26-61%)^{13, 16}
CT Without Contrast	<ul style="list-style-type: none"> Sensitivity within 3 hours (10%)²² Sensitivity within 24 hours for posterior CVA (41%)¹³

References

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