


Clinical Glidepath™ Tools

Syncope

EVALUATION¹	<u>Robust Elderly</u> Life expectancy greater than five years and functionally independent	<u>Frail</u> Life expectancy less than five years or significant functional impairment	<u>Moderately Demented</u> Life expectancy two to ten years	<u>End of Life</u> Life expectancy less than two years
	<i>ALL GROUPS</i>			
	<u>SYMPTOMS</u>		<u>CAUSE</u>	
	a) warmth, nausea		a) vasovagal	
	b) postural symptoms		b) orthostasis	
	c) chest pain, dyspnea, post-exercise, dizziness, history of heart disease, palpitations, family history (prolonged QT) ²		c) cardiac ²	
	d) defecation, micturition, coughing, swallowing		d) situational	
	e) head turning or neck pressure		e) carotid sinus hypersensitivity	
	f) ictal symptoms, diplopia, headache, aura, hemiparesis		f) neurologic	
	g) occurs following meals		g) postprandial	
	h) heat exposure, poor fluid intake		h) dehydration	
	i) medication-related ³		i) medications ³	
	j) flushing, dermatographia, urticaria, dyspepsia		j) systemic mastocytosis	

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Recommendations: Highest  Lowest (see introduction for further explanation)	Robust Elderly Life expectancy greater than five years and functionally independent	Frail Life expectancy less than five years or significant functional impairment	Moderately Demented Life expectancy two to ten years	End of Life Life expectancy less than two years
EVALUATION (continued) PHYSICAL EXAMINATION¹	1. Focus on cardiac and neurologic examination. Auscultate for aortic stenosis and hypertrophic cardiomyopathy murmurs ² 2. Orthostasis (measure up to 2 minutes) 3. Look for differences in blood pressure in each arm 4. Consider blood pressure before and 1/2 to 1 hour after a meal	1. Focus on cardiac and neurologic examination. Auscultate for aortic stenosis and hypertrophic cardiomyopathy murmurs ² 2. Orthostasis (measure up to 2 minutes) 3. Look for differences in blood pressure in each arm 4. Consider blood pressure before and 1/2 to 1 hour after a meal	1. Focus on cardiac and neurologic examination. Auscultate for aortic stenosis and hypertrophic cardiomyopathy murmurs ² 2. Orthostasis (measure up to 2 minutes) 3. Look for differences in blood pressure in each arm 4. Consider blood pressure before and 1/2 to 1 hour after a meal	1. Focus on cardiac and neurologic examination. Auscultate for aortic stenosis and hypertrophic cardiomyopathy murmurs ² 2. Orthostasis (measure up to 2 minutes) 3. Look for differences in blood pressure in each arm 4. Consider blood pressure before and 1/2 to 1 hour after a meal
FURTHER EVALUATION	1. If acute cardiac or neurological event, send to ED. 2. ECG ¹ 3. Hgb/Hct, BUN/Cr, electrolytes 4. Check driving status and discuss potential dangers. No driving for uncontrolled syncope 5. Consider monitored carotid sinus massage if history suggestive of carotid sinus disease and	1. If acute cardiac or neurological event, discuss sending to ED. 2. ECG ¹ 3. Hgb/Hct, BUN/Cr, electrolytes 4. Check driving status and discuss potential dangers. No driving for uncontrolled syncope 5. Consider monitored carotid sinus massage if history suggestive of carotid sinus disease and	1. If acute cardiac or neurological event, discuss sending to ED. 2. ECG ¹ 3. Hgb/Hct, BUN/Cr, electrolytes 4. Check driving status and discuss potential dangers. No driving for uncontrolled syncope 5. Consider monitored carotid sinus massage if history suggestive of carotid sinus disease and	1. If acute cardiac or neurological event, consider sending to ED. 2. Consider ECG ¹ 3. Consider Hgb/Hct, BUN/Cr, electrolytes 4. Check driving status and discuss potential dangers. No driving for uncontrolled syncope 5. ****

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REFERENCES

1. The history, physical examination and ECG are the core of the syncope workup, giving a combined diagnostic yield up to 50%. Linzer M, *et al*, in a 2-part series, have reviewed English language studies between 1980-1995. The studies were randomized trials, observational studies, cohort studies or case series of >10 patients. In addition, footnotes 2,5, and 7 (below) are based on these papers.

Linzer M, Yang EH, Estes M 3rd, Wang, P, *et al*. Diagnosing Syncope Part 1: Value of history, physical examination, and electrocardiography. *Ann Intern Med* 1997; 126: 989-96.

Linzer M, Yang EH, Estes M 3rd, Wang, P, *et al*. Diagnosing Syncope Part 2: Unexplained syncope. *Ann Intern Med* 1997; 127:76-86.

2. Patients in whom heart disease is known or suspected or those with exertional syncope are at higher risk for adverse outcome.
3. Many drugs can cause syncope and near-syncope. However, in one multicenter case-controlled study of over 2300 patients, the following drugs were significantly associated with an excess risk of syncope: fluoxetine, haloperidol and L-dopa.

Cherin P, Colvez A, Deville de Periere G, Sereni D: Risk of syncope in the elderly and consumption of drugs: A case-control study. *J Clin Epidemiol* 1997; 50: 313-20.

4. Five referral studies of carotid sinus massage in syncope show that its greatest utility may be in older patients (mean age in studies 60-81). The test appears to be safe if done in the office in patients who do not have carotid bruits, recent myocardial infarction, recent stroke or history of ventricular tachycardia (incidence of neurologic complications

