

Disease	initial	most accurate	Note
AF	ECG (EKG)	either : Holter monitor or, for inpatients, telemetry monitoring.	Echo for etiology and to see if a clot is present in the atrium. TTE is first but TEE is needed to truly exclude a clot.
Valvular diseases	Echocardiography (Echo 2D/color doppler), TEE better than TTE	Catheterization is performed only if the echocardiogram is inconclusive , do it is not routinely done but it its the most accurate	ECG (EKG)
ARF	Clinically by Jones criteria	- jones criteria ✓ - Evidence of a recent GAS infection by (ASO titer or Anti-Dnase B titer , throat culture) Both of them to confirm the diagnosis.	No single test to diagnose ARF , we used Echo to detect carditis
IE	blood culture	(Duke) Criteria ✓ (blood culture + echocardiogram)	TTE is done first. If the TTE is normal, then aTEE should be performed.
HF	Echocardiography (TTE) and Framingham Criteria "clinically"	MUGA or nuclear ventriculogram	CXR , RFT , thyroid, LFT , ECG
ACS	ECG then cardiac marker		

- The "best initial diagnostic test" for all forms of chest pain is an EKG.

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Cough	Chest X-ray	PFT	If you suspect GORD do : Esophageal pH monitoring for 24 hours.
PE	Chest X-ray , ECG , D-dimer , ABG	CT angiogram (spiral CT) , Lower extremity duplex	V/Q : with pregnant or when CT is contraindications
Plural effusion	Chest X-ray	Thoracentesis facilitated by US	- CT scan when we look for a mass or the Etiology of effusion.
COPD	Chest X-ray	PFT (spirometry, DLCO)	-
BRONCHIECTASIS	Chest X-ray	HRCT	Sputum culture is the only way to determine an infectious etiology.
Pneumoniae	Chest X-ray		
Asthma	Chest X-ray peak flow meter.	Spirometry before and after bronchodilators can confirm diagnosis	Assessing the Severity of Acute Asthma Exacerbation By Respiratory Rate


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Celiac disease	Antigliadin, antiendomysel , and anti-tissue transglutaminase antibody	Small bowel biopsy with loss of villus architecture
Achalasia	Barium swallow with a "bird's beak" sign and massively dilated esophagus	Esophageal manometry : shows high LES pressure with swallowing and aperistalsis
Tropic sprue	Small bowel biopsy showing microorganisms	
Chronic pancreatitis	Abdominal x-ray	Secretin stimulation with a lack of bicarbonate release (95% sensitive)
SBBO	Vitamin deficiency including B12 and Elevated folate	
IBS	No diagnostic test proves a person has IBS. It is a diagnosis of exclusion.	
Alcoholic cirrhosis	Liver biopsy with macrosteatosis and Mallory bodies	
GORD	PPI administration , Alarm symptoms in GERD = immediate endoscopic examination	24-hour pH monitoring

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Acid base		ABG	AG with metabolic Acidosis to differentiate between Etiology
AKI	Urinalysis BUN and creatinine , US	Depends on the disease: - Biopsy for GN - Urine eosinophils for AIN	Never biopsy in ATN
Glomerular diseases Nephrotic & Nephritic	urinalysis	Renal Biopsy	almost always a kidney biopsy is needed to diagnose any suspected primary glomerular disease.

Reference:

Master the boards and doctors note

إن أصبت فمن الله وإن أخطأت فمن نفسي والشيطان.

بالتوفيق يا أصدقاء 

أفنان المالكي.