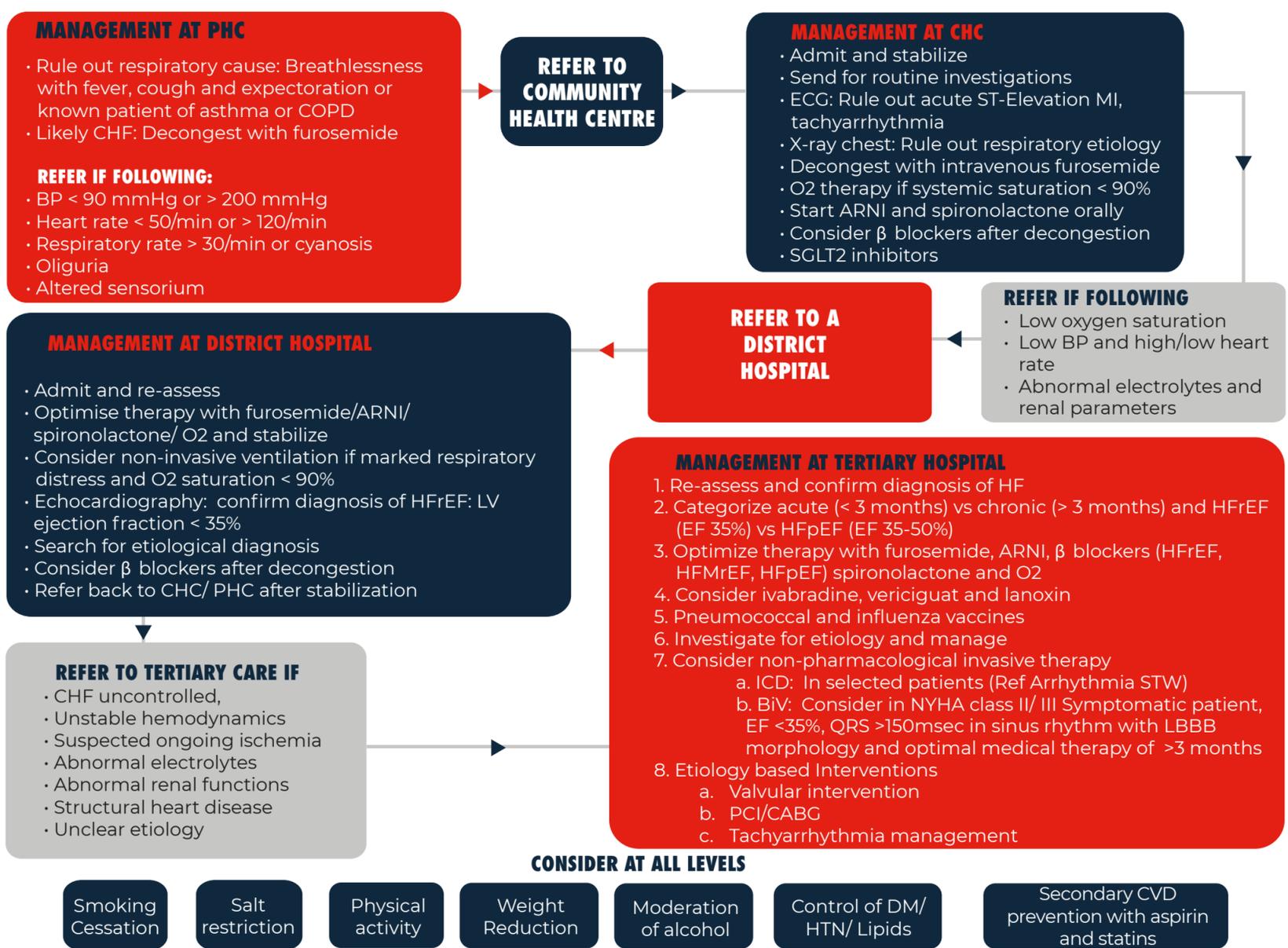
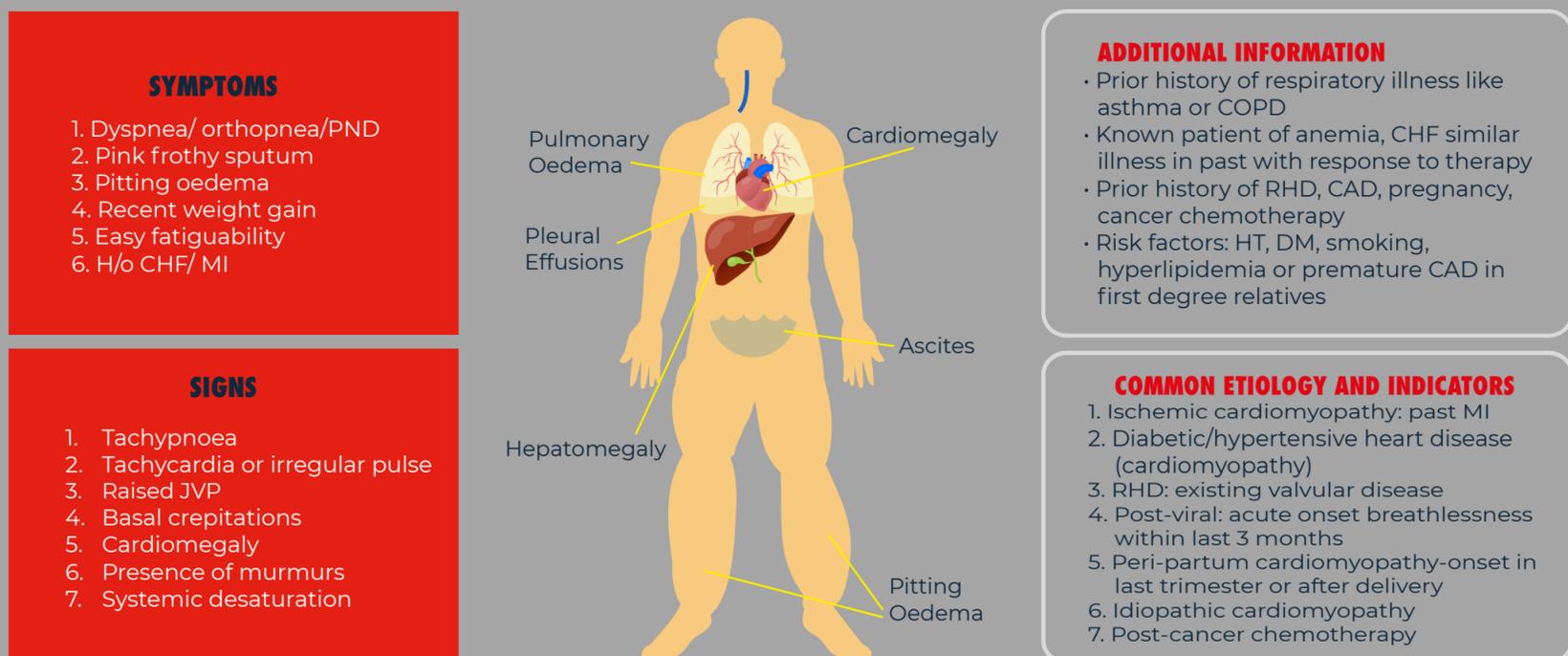




Standard Treatment Workflow (STW) HEART FAILURE: A BREATHLESS PATIENT ICD-11-BD10-BD1Z



INVESTIGATIONS:

BASIC INVESTIGATIONS	WHAT TO LOOK FOR IN X RAY	WHAT TO LOOK FOR IN AN ECG?	DESIRABLE INVESTIGATIONS	OPTIONAL INVESTIGATION
<ul style="list-style-type: none"> Hemogram, ESR Blood sugar Urine examination Urea/ Creatinine Sodium/ Potassium ECG Chest X-ray PA view 	<ul style="list-style-type: none"> Cardiomegaly Pulmonary venous congestion Pneumonia or other lung pathology 	<ul style="list-style-type: none"> Pathological Q wave Conduction abnormalities, especially LBBB Chamber enlargement Atrial fibrillation <p style="font-size: 0.8em;"><i>Note: If ST elevation present, manage as STEMI</i></p>	<ul style="list-style-type: none"> 2D Echocardiography BNP/NT pro-BNP Troponin Lipid profile Thyroid function test Iron profile 	<ul style="list-style-type: none"> Prolonged ECG monitoring Coronary angiography Radionuclide imaging CT scan MRI PET Mycardial biopsy Electrophysiological study

COMMON DRUGS AND DOSAGE FOR CHF

<h4 style="margin: 0;">FUROSEMIDE</h4> <ul style="list-style-type: none"> Dose 20-80 mg daily PO Intravenous 10-80 mg SOS in acute stage Change to oral when symptoms subside Monitor serum electrolytes, creatinine and uric acid on therapy 	<ul style="list-style-type: none"> CARVEDILOL Dose 3.125 to 25 mg twice daily PO METOPROLOL 12.5-50mg twice daily PO BISOPROLOL 1.25-10mg once a day PO <h4 style="margin: 0;">PRECAUTIONS</h4> <ul style="list-style-type: none"> Start after decongestion with low dose with BP > 100 mmHg and HR > 60/min Uptitrate dose 1-2 weekly till maximum tolerable dose Keep watch on BP, heart rate and recipitation of CHF symptoms Increase diuretics and reduce carvedilol to manage reappearance of CHF 	<h4 style="margin: 0;">ARNI</h4> <ul style="list-style-type: none"> Dose 50 to 200 mg twice daily PO Start with low dose with BP > 100 mmHg, normal electrolyte and creatinine less than 2.5 mg/dl Uptitrate dose 1-2 weekly till maximum tolerable dose Keep watch on BP and electrolytes before every increment and on follow-up
<h4 style="margin: 0;">SPIRONOLACTONE</h4> <ul style="list-style-type: none"> Dose 25-50 mg once daily PO Keep watch on serum potassium and creatinine every 2-4 weekly 		

ABBREVIATIONS

ICD: Implantable Cardioverter defibrillator BiV: Bi-Ventricular Pacing PND: Paroxysmal Nocturnal Dyspnea HFMREF: Heart Failure with Mid-Range Ejection Fraction	PCI: Percutaneous Coronary Intervention CABG: Coronary Artery Bypass Graft CVD: Cardiovascular Diseases RHD: Rheumatic Heart Disease CAD: Coronary Artery Disease	HFrEF: Heart Failure with reduced Ejection Fraction HFpEF: Heart Failure with preserved Ejection Fraction STEMI: ST elevation Myocardial Infarction LV: Left Ventricle COPD: Chronic Obstructive Pulmonary Disease
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REFERENCES

1. 2021 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure: Developed by the Task Force for the diagnosis and treatment of acute and chronic heart failure of the European Society of Cardiology (ESC) With the special contribution of the Heart Failure Association (HFA) of the ESC
2. Heart failure guidelines 2025 by Heart Failure Association of India. Heart Failure Journal of India | Volume 3 | Supplement 1 | January 2025."

MONITOR, MANAGE, AND MAINTAIN HEART HEALTH

This STW has been prepared by national experts of India with feasibility considerations for various levels of healthcare system in the country. These broad guidelines are advisory, and are based on expert opinions and available scientific evidence. There may be variations in the management of an individual patient based on his/her specific condition, as decided by the treating physician. There will be no indemnity for direct or indirect consequences. Kindly visit our web portal (stw.icmr.org.in) for more information.