

Reducing Readmissions for Individuals With Congestive Heart Failure



Presented by:

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October 24, 2024

Objectives

- Understand CHF's disease process, causes, and symptoms that can lead to rehospitalization.
- Learn strategies for proactive, interdisciplinary identification and management of changes in condition.
- Know the key role of nursing assessment and effective discharge planning in readmission prevention.

Klemen Ribic, MD, CMD

MEDICAL DIRECTOR

Dr. Klemen Ribic earned his bachelor's degree in biology from the University of Akron and his M.D. from the Medical College of Ohio. He completed a three-year internal medicine residency at Rush University Medical Center, Chicago.

After working for Home Physicians performing house calls for three years, he moved to Florida and joined Bay Area Hospitalists, where he has attended nursing homes and assisted living facilities for nearly 15 years. He is currently the medical director at two nursing homes and has been a certified medical director through AMDA since 2013.

In 2018, he received the Best in Medicine Award from the American Health Council. Dr. Ribic joined Alliant Health Solutions as Florida medical director in 2023 to improve nursing home care quality.



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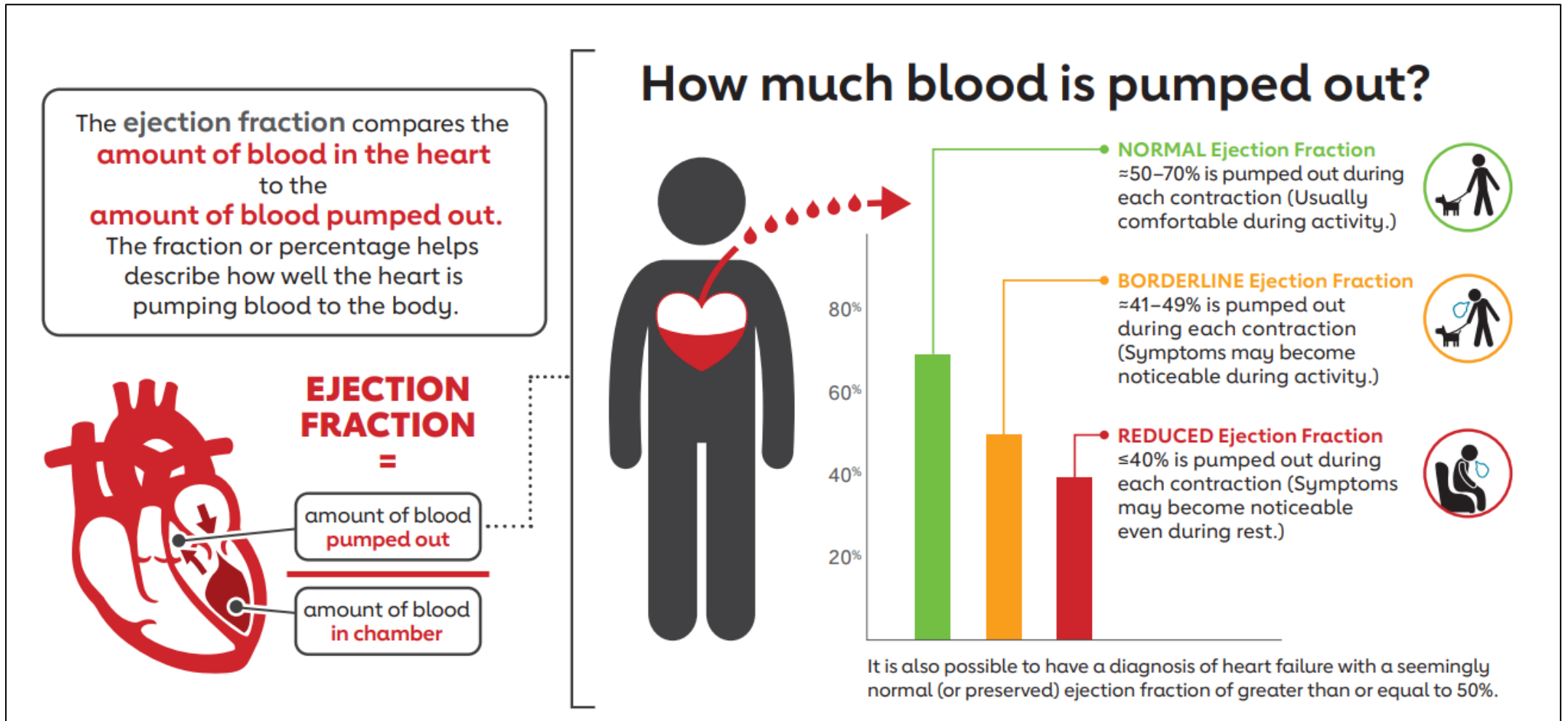
Congestive Heart Failure

Heart failure, also known as congestive heart failure, occurs when the heart can't pump enough blood and oxygen to support the body's organs.

This can happen when the heart is too weak or stiff or can't fill up with enough blood.

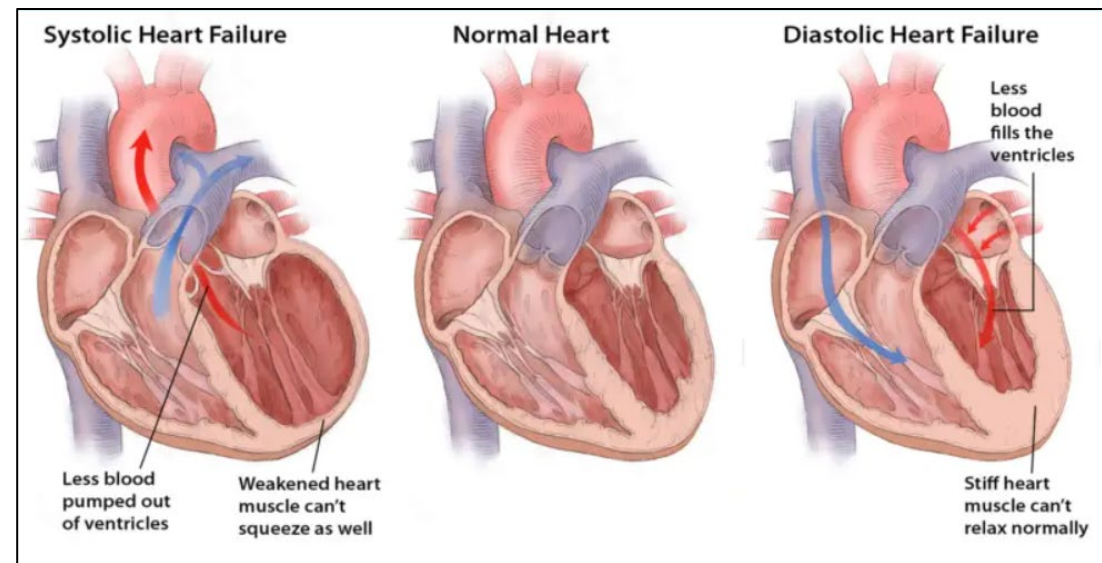
When the heart doesn't pump enough blood, the body doesn't get enough oxygen and nutrients.

Ejection Fraction

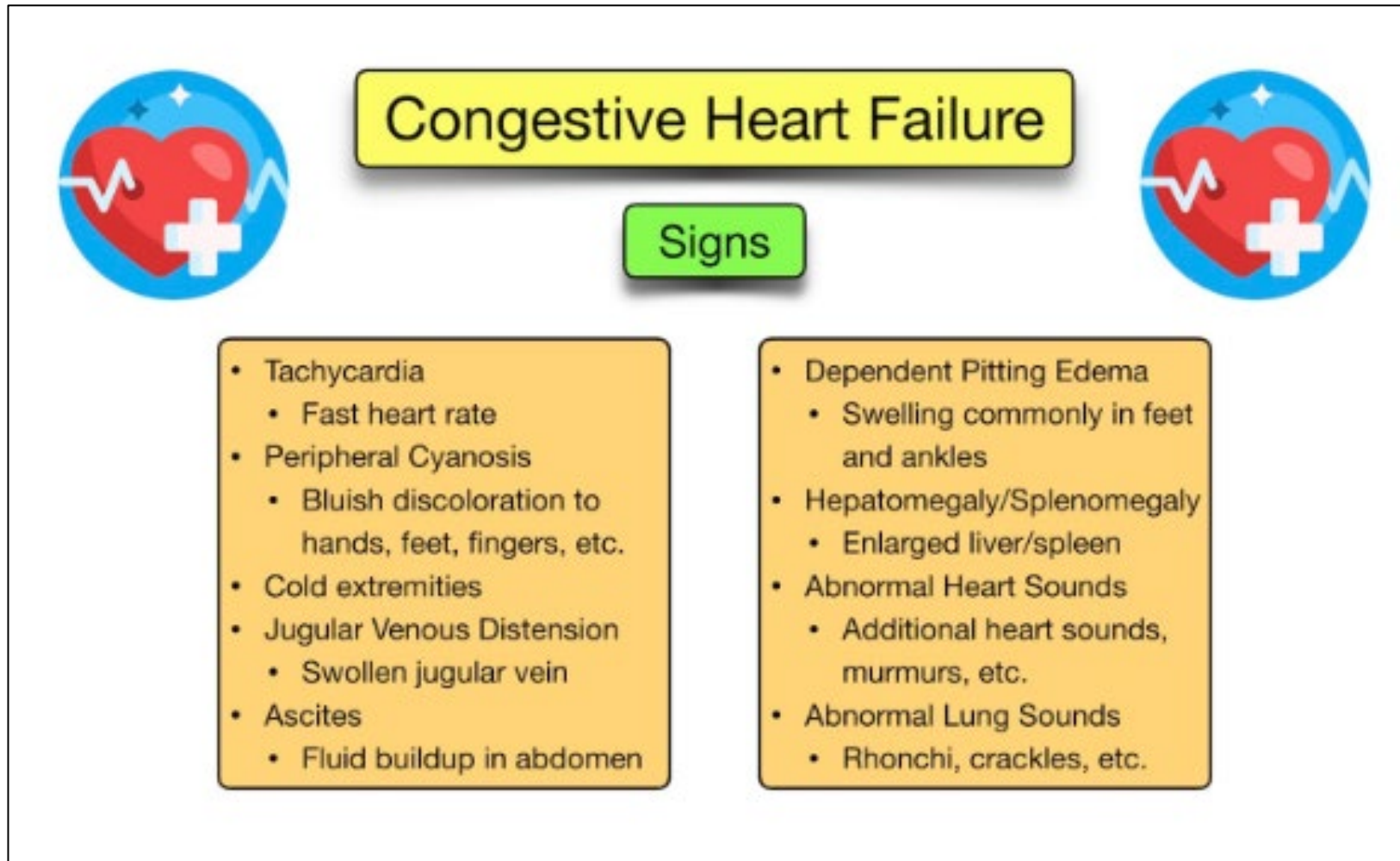


CHF: Two Types

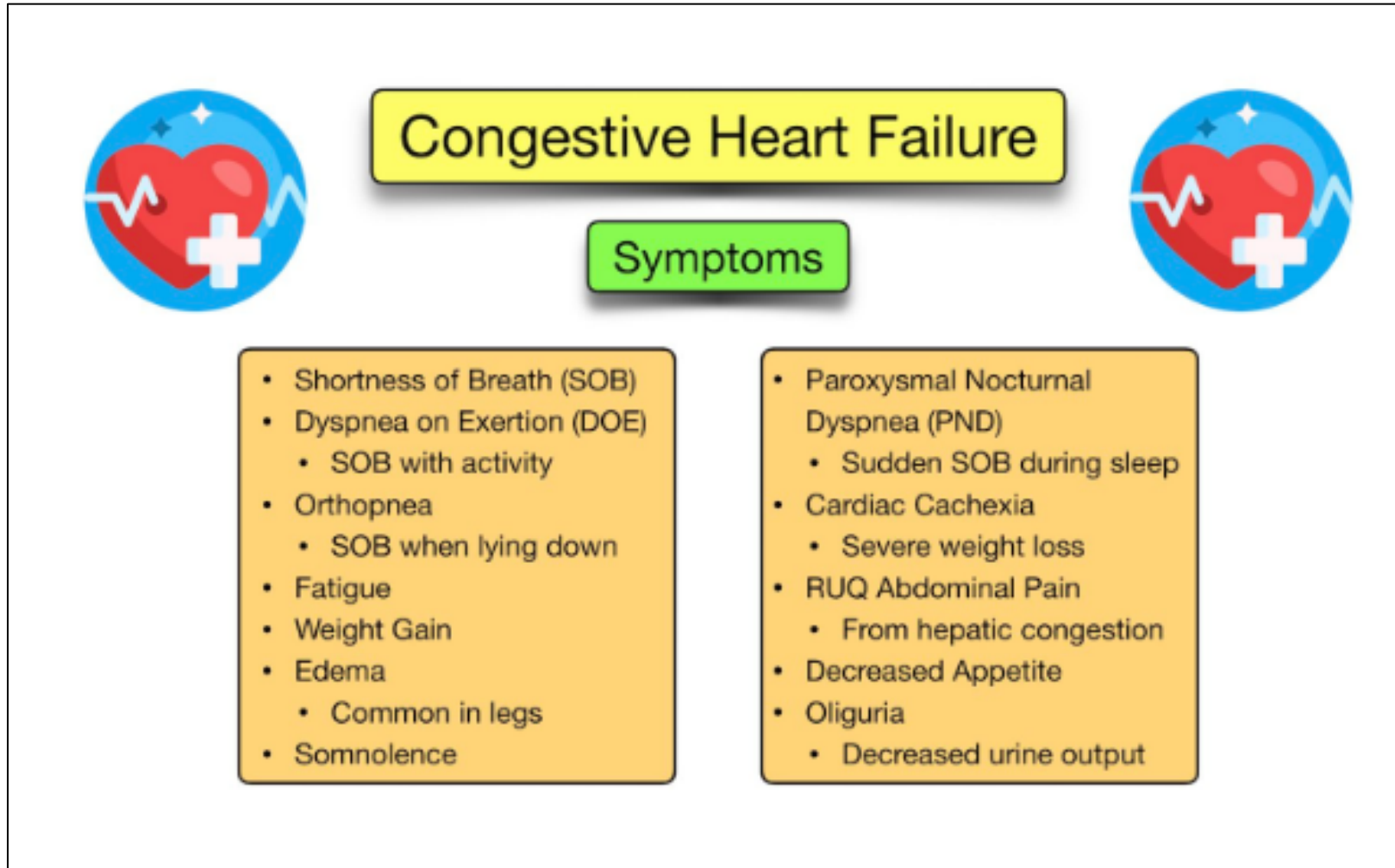
- 1. Preserved ejection fraction (HFpEF)** – also referred to as **diastolic heart failure**. The heart muscle contracts normally, but the ventricles do not relax as they should during ventricular filling (or when the ventricles relax).
- 2. Reduced ejection fraction (HFrEF)** – also referred to as **systolic heart failure**. The heart muscle does not contract effectively, and therefore less oxygen-rich blood is pumped out to the body.



Congestive Heart Failure: Signs



Congestive Heart Failure: Symptoms



Causes of Heart Failure

- Acute coronary ischemia
- Valvular dysfunction
- Cardiac arrhythmia
- Hypertensive emergency
- Pulmonary embolism
- Myocarditis
- Pericardial tamponade
- Severe anemia
- Worsening renal failure
- Sepsis
- Barriers to adhering to the care plan (medication regime)
- Dietary indiscretion
- Medication side effect
- Thyroid dysfunction

Avoid CHF Exacerbation

Heart Failure Co-morbid Conditions

Failure to stabilize co-morbid conditions in the hospital is a primary reason for readmission



Condition	Atrial Fibrillation	COPD	Kidney Disease	Diabetes	Anemia
Mean Prevalence in Heart Failure Population	28%	30%	42%	46%	50%

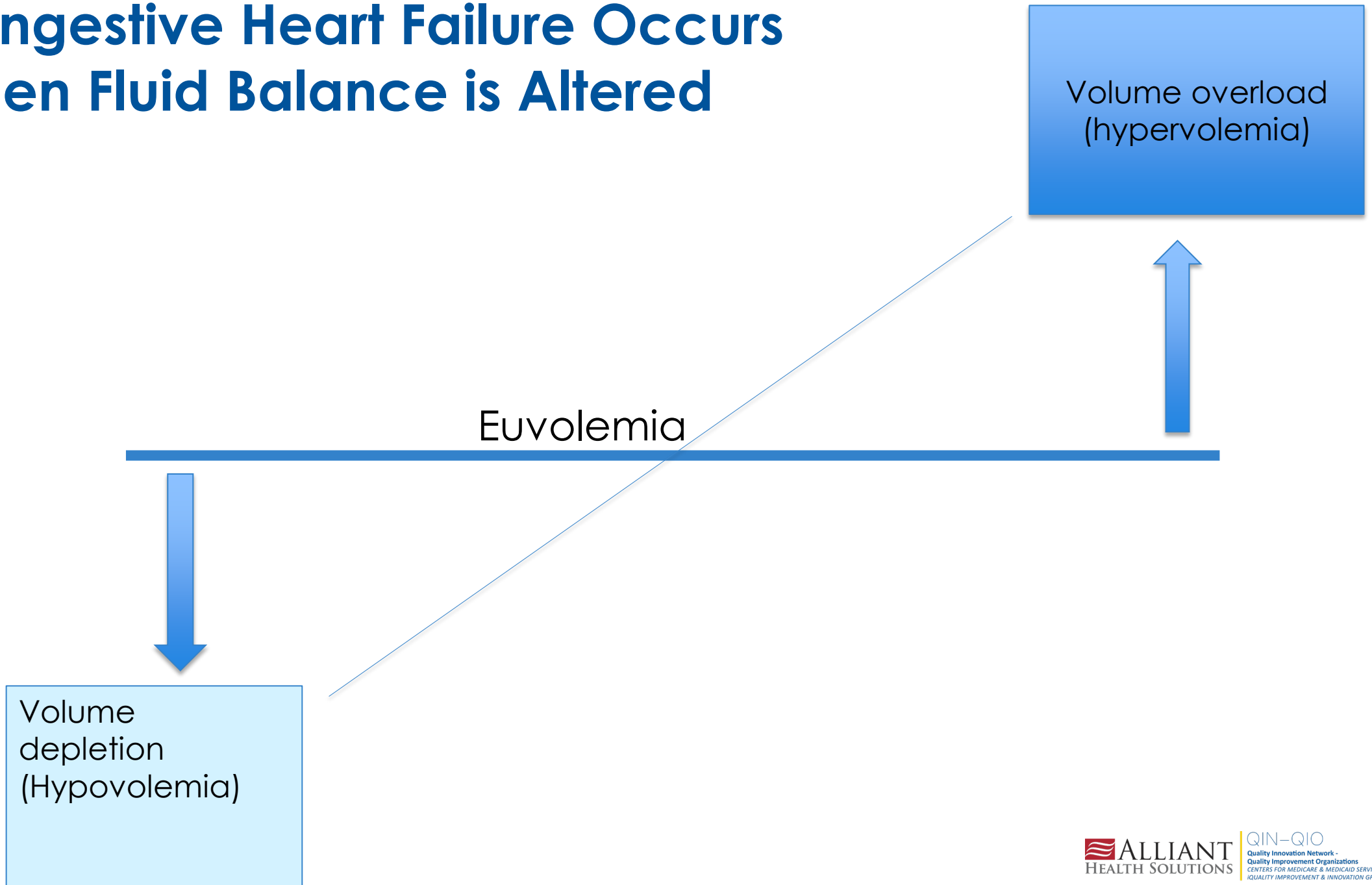
CHFCare™: data from AHA/JACC HF Clinical Practice Guidelines

Common Causes of Readmission

Related to Heart Failure or a related comorbid condition:

Fluid overload	Inadequate decongestion in the hospital
Blood Pressure	Uncontrolled Hypertension
Medication	Non-adherence, non-compliance
Dietary indiscretion	Excess fluid, excess sodium
Irregular Heart Rate	Arrhythmias: Tachy(fast) or brady(slow)
Heart Valves	Worsening valvular disease
Kidneys	Chronic kidney disease and renal-mediated volume retention
Infections	Infection leading to high output heart failure (UTI, URI, Pneumonia)
Thyroid	Thyroid disease (hypo or hyper)
Blood Cells	Anemia
Medications cause exacerbation	Iatrogenic decompensation (Calcium Channel Blockers (CCB), Nonsteroidal anti-inflammatory drugs (NSAIDs), Thiazolidinediones (TZD), Lyrica, etc).


Congestive Heart Failure Occurs When Fluid Balance is Altered



Detecting Worsening CHF: An IDT Approach

- Who can notice signs or symptoms that may indicate worsening heart failure?
 - Nursing, CNAs, therapy, dietician, housekeeping, activities, patient and care partner
- How? Communicate changes to nursing staff for further escalation

Stop and Watch
Early Warning Tool


Version 4.0 Tool

If you have identified a change while caring for or observing a resident/patient, please **circle** the change and notify a nurse. Either give the nurse a copy of this tool or review it with her/him as soon as you can.

S	Seems different than usual; Symptoms of new illness
T	Talks or communicates less
O	Overall needs more help
P	Pain – new or worsening; Participated less in activities
a	Ate less
n	No bowel movement in 3 days; or diarrhea
d	Drank less
W	Weight change; swollen legs or feet
A	Agitated or nervous more than usual
T	Tired, weak, confused, or drowsy
C	Change in skin color or condition
H	Help with walking, transferring, toileting more than usual

Check here if no change noted while monitoring high risk patient

Nursing Assessment

Respiratory	
Auscultation with stethoscope	<ul style="list-style-type: none">• Crackles on exam• Diminished breath sounds at bases• Egophony: An increased resonance of voice sounds<ul style="list-style-type: none">*When listening to the lungs with a stethoscope, the patient is asked to repeat the letter “E” over and over. The “E” to “A” transition indicates pneumonia.• CHF patients are at three times the risk of developing pneumonia
Tactile/Assessed by touch	<ul style="list-style-type: none">• Tactile fremitus, also known as Tactile Vocal Fremitus, refers to the vibration of the chest wall that results from sound vibrations created by speech or other vocal sounds.• Tactile fremitus is assessed by asking an individual to repeat a certain phrase while the examiner places the palms or the bony edge of their hands on the individual’s chest wall to feel for sound vibrations.• Decreased tactile fremitus may indicate build up of fluid in the lungs (Pleural effusion).

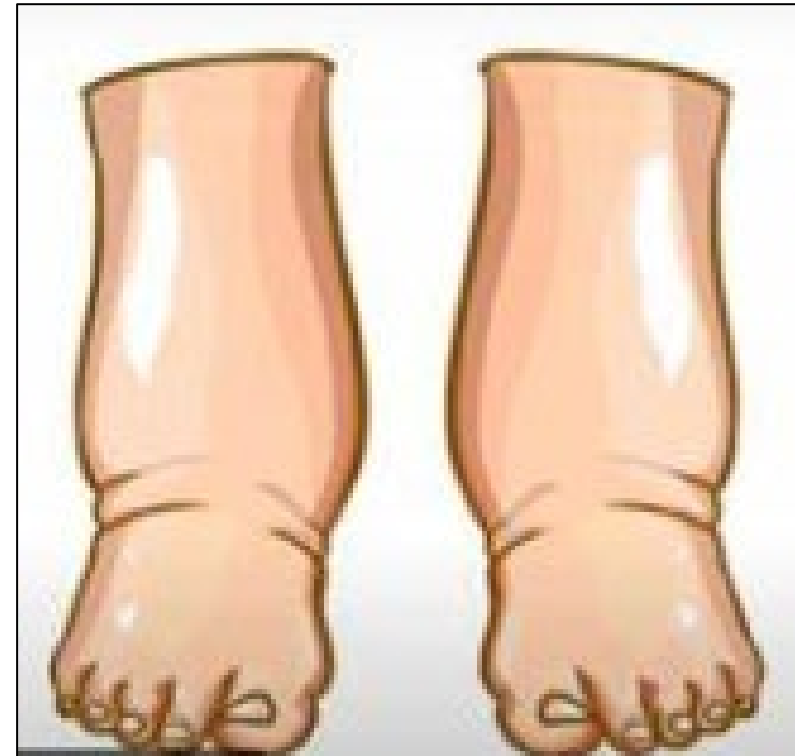
<https://www.youtube.com/watch?v=2NvBk61ngDY>

Nursing Assessment: Edema

Pitting Edema



Non-Pitting Edema



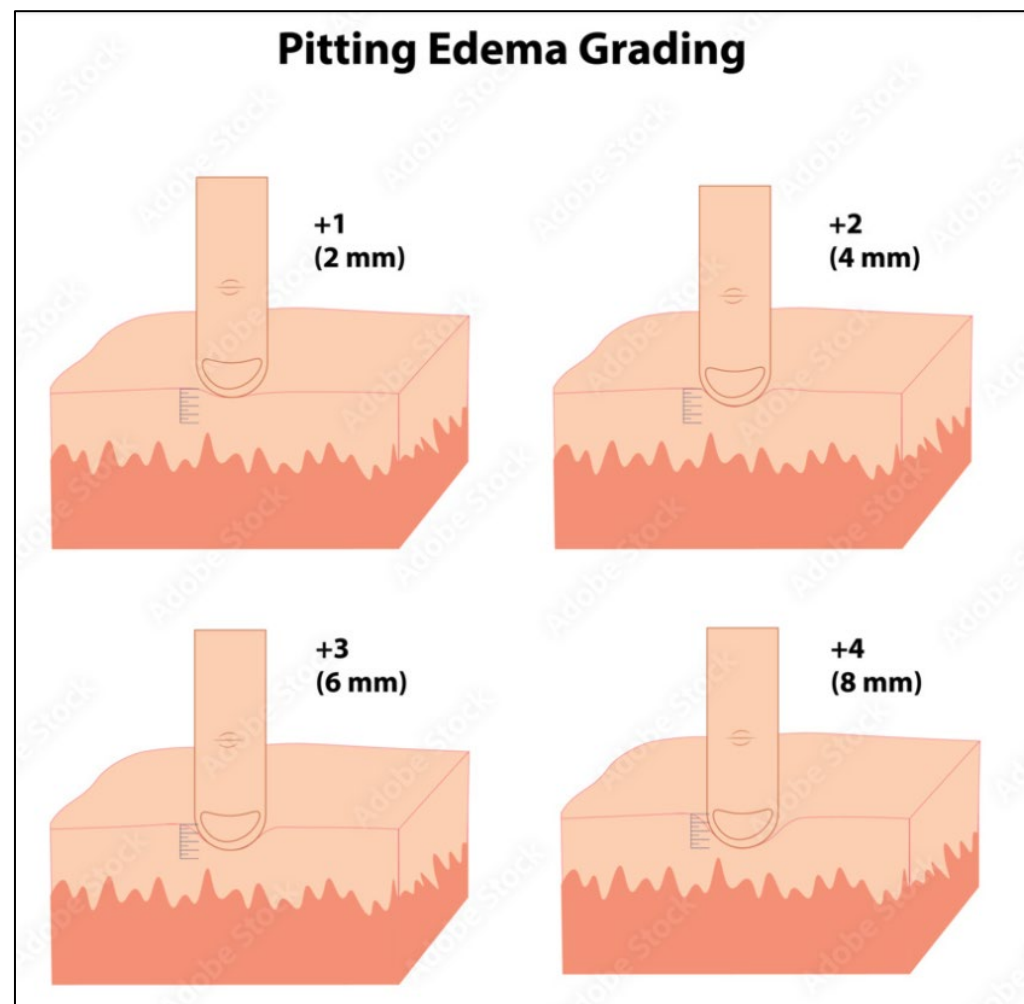
Circulation and Edema

What	How it impacts the Individual
Venous insufficiency	Condition in which the veins in the legs are weakened or not working properly. As a result, the veins are not able to return blood to the heart efficiently, thus fluid ends up being forced out of the veins and into the surrounding tissue.
Deep Vein Thrombosis (DVT)	Occurs when a blood clot forms in a vein deep inside the body.
Cirrhosis	A fibrotic liver impedes large volume circulation leading to abdominal edema, also known as ascites.
Kidney Disease	Nephrotic syndrome causes the kidneys to excrete too much protein in urine resulting in declining protein levels in the blood and excess fluid retention.

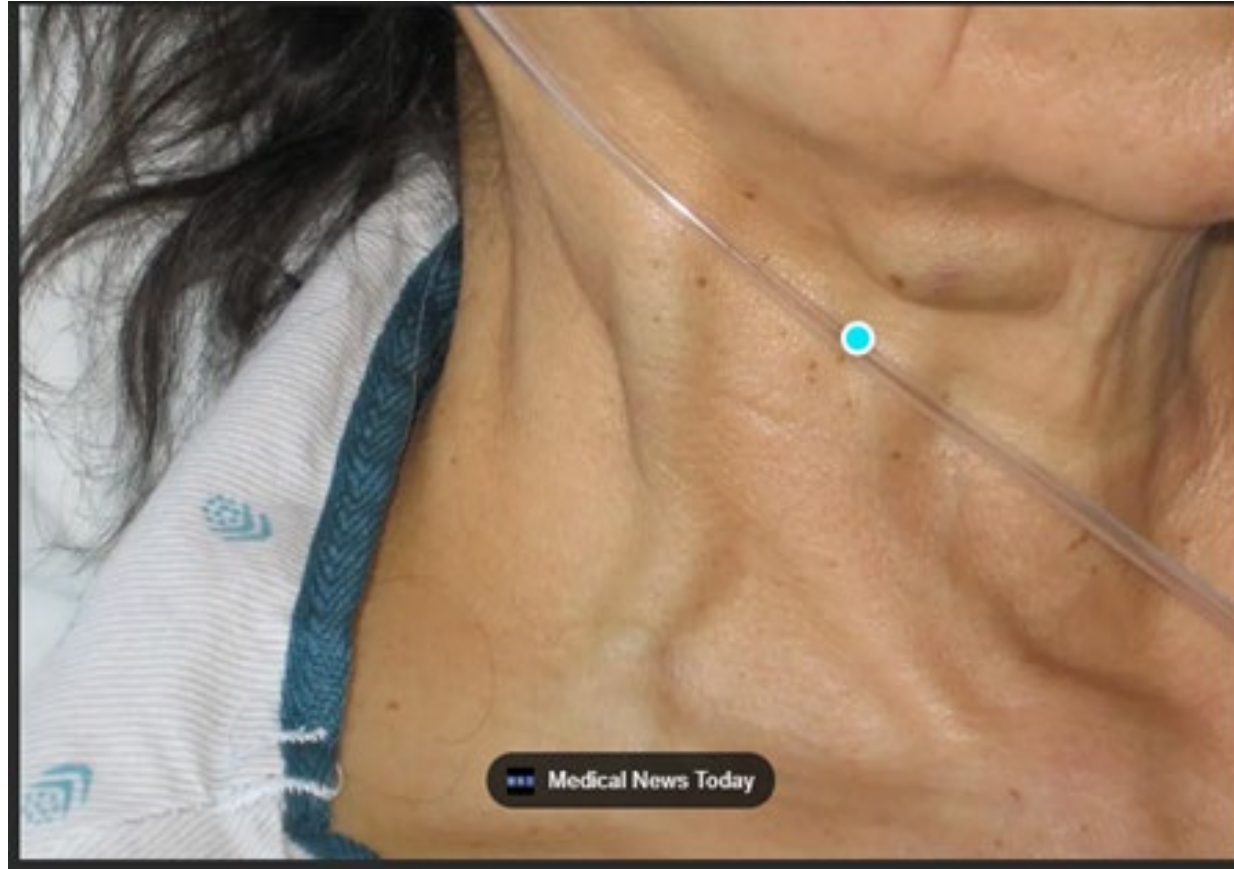
Assessing Edema

A **grading system** is often used to determine the severity of the edema on a scale from +1 to +4:

- **Grade +1:** up to 2mm of depression, rebounding immediately.
- **Grade +2:** 3–4mm of depression, rebounding in 15 seconds or less.
- **Grade +3:** 5–6mm of depression, rebounding in 60 seconds.
- **Grade +4:** 8mm of depression, rebounding in 2–3 minutes.



Nursing Assessment: Jugular Vein Distention (JVD)

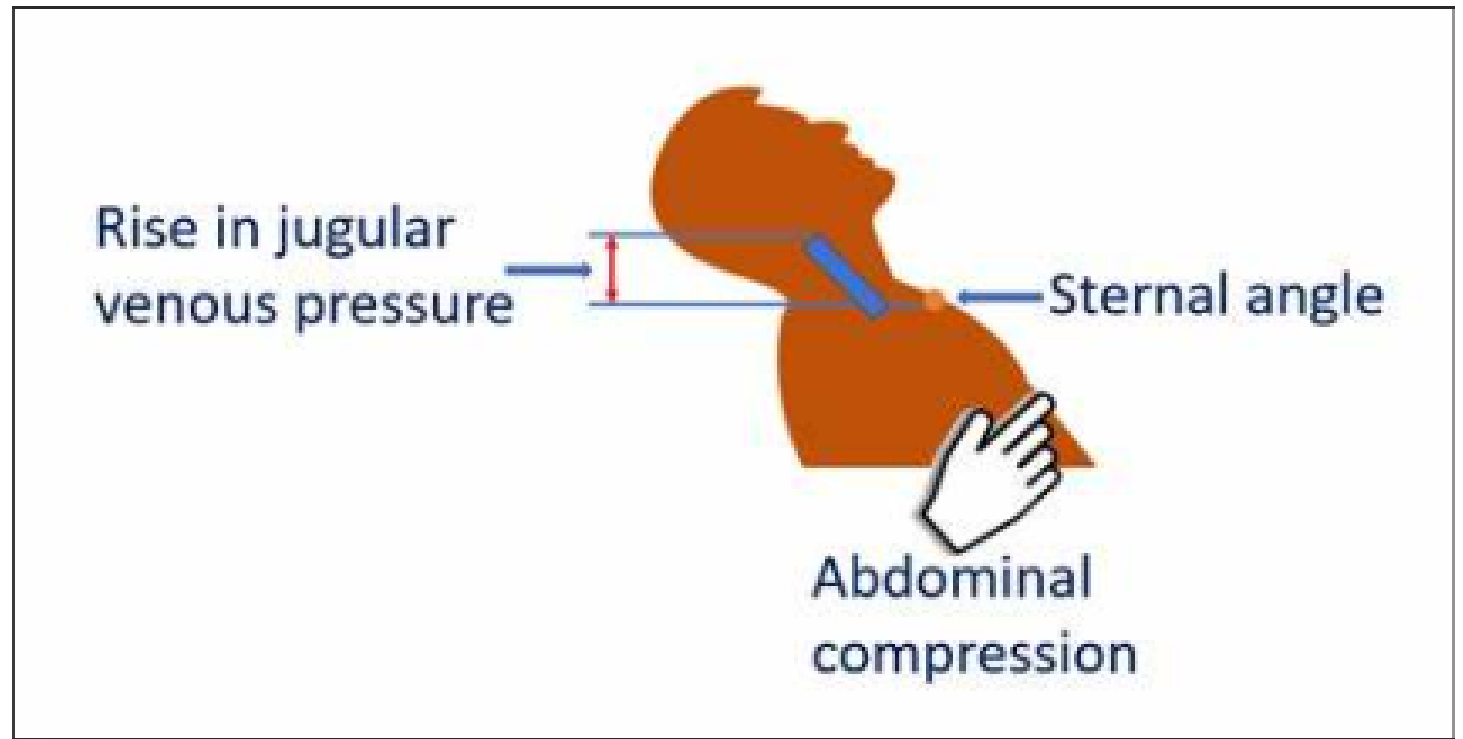


Measuring Jugular Venous Pressure (JVP) - OSCE Guide (Clip) | UKMLA | CPSA (youtube.com)

[Jugular vein distention \(JVD\): Causes, risk factors, and diagnosis \(medicalnewstoday.com\)](https://www.medicalnewstoday.com)

Hepatojugular Reflux

- Pressing on the patient's right upper quadrant (RUQ) of the abdomen elicits jugular venous distention
- Distention greater than 4cm is abnormal and indicates fluid overload



[Hepatojugular Reflux \(inspiredpencil.com\)](http://inspiredpencil.com)

Sample CHF Order Set

- Weights q, Mon, Wed, Fri: Call MD for weight gain greater than 3 lbs.
- Fluid restriction 2 liter or _____cc (if furnished hospital) sample
- CBC, BMP, BNP, TSH, MG2+ in am after admission
- Cardiology consult (in-house if available)
- If on Coumadin, check INR in am every Monday and Thursday
- O2 sat every shift; call MD if O2 sat less than 90%
- Vitals every shift: call MD for temp greater than 100.4, systolic BP greater than 180, diastolic less than 60, heart rate greater than 100

Challenges in Skilled Nursing Facility Setting


- Challenges to measure strict I/O
- Weight accuracy
- Pt's ability to adhere to the care plan (fluid restriction, low Na+ diet, medications)
- Hospital medication discrepancy (diuretic held on admission r/t acute kidney injury, never restarted)

Best Practices for Reducing Rehospitalization in CHF Patients

- Careful review of hospital records
- Review home meds vs. hospital med rec/careful medication reconciliation
- Close observation of patient/changes in condition
- Optimal treatment of comorbid conditions
- Communication of changes in condition to the provider
- Strong nursing assessments
- Medication changes in a timely manner
- Cardiology consultation, if available
- Patient education (disease process, dietary implications, medication adherence)
- Close follow-up with PCP/Cardiologist on discharge
- Home Health Care on discharge orders for close monitoring and continued education at home
- Referral to Cardiac Rehab

CHF Zone Tool

ZONE TOOL | Heart Failure



Remember:

- ✓ Keep your doctor appointments.
- ✓ Take all of your medications to each doctor's appointment.
- ✓ Ask your doctor about getting a pneumonia vaccine.
- ✓ Get a flu shot and COVID vaccine every year.

GREEN Zone: Great Control

- No shortness of breath
- No weight gain more than 2 pounds (it may change 1 or 2 pounds some days.)
- No swelling of your feet, ankles, legs or stomach
- No chest pain

GREEN Zone Means I Should:

- Continue to weight yourself in the morning before breakfast and write it down
- Eat low-salt/low-sodium foods
- Continue to balance activity and rest periods
- Continue to check to swelling in your feet, ankles, legs and stomach
- Continue taking all of your medications as prescribed

YELLOW Zone: Caution

Call Your Physician!

- Weight gain of 3 pounds in 1 day or a weight gain of 5 pounds or more in 1 week
- More swelling of your feet, ankles, legs or stomach
- Difficulty breathing when lying down. Feeling the need to sleep up in a chair.
- Feeling uneasy; you know something is not right
- No energy or feeling more tired
- More shortness of breath
- Dry hacking cough
- Dizziness

YELLOW Zone Means I Should:

Contact my doctor.

Write down my list of symptoms that I need to tell the doctor about.

Physician Contact:

Doctor: _____

Phone: _____



RED Zone: Medical Alert!

- A hard time breathing
- Unrelieved shortness of breath while sitting still
- Chest pain
- Confusion or can't think clearly

RED Zone Means I Should:


- **Act Fast... Heart Failure is Serious!**
- **Call 9-1-1 and request an ambulance to the Emergency Department**

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Zone Tool | Heart Failure (allianthealth.org)

HERRAMIENTA ZONA | Insuficiencia cardíaca



Acuérdate de:

- ✓ Asista a sus citas con el médico.
- ✓ Lleve todos sus medicamentos a cada cita con el médico.
- ✓ Pregúntele a su médico acerca de vacunarse contra la neumonía.
- ✓ Vacúnese contra la gripe y la vacuna contra el COVID todos los años.

Zona VERDE: Gran Control

- Sin dificultad para respirar
- Sin aumento de peso de más de 2 libras (puede cambiar 1 o 2 libras algunos días)
- Sin hinchazón de los pies, tobillos, piernas o de estómago
- Sin dolor en el pecho

Zona VERDE significa que debo:

- Continúe pesándose a sí mismo por la mañana antes del desayuno y anótelos
- Coma alimentos bajos en sal/bajos en sodio
- Continúe equilibrando la actividad y los períodos de descanso
- Continúe verificando la hinchazón de los pies, tobillos, Piernas y estómago
- Continúe tomando todos sus medicamentos según lo prescrito

Zona AMARILLA: Precaución

¡Llame a su médico!

- Aumento de peso de 3 libras en 1 día o aumento de peso de 5 libras o más en 1 semana
- Más hinchazón de los pies, tobillos, piernas o estómago
- Dificultad para respirar al acostarse. Sentir la necesidad de dormir en una silla.
- Sensación de malestar; sabe que algo no es correcto
- Sin energía o sensación de cansancio
- Más dificultad para respirar
- Tos por pirateo en seco
- Mareos

Zona AMARILLA significa que debo:

Póngase en contacto con mi médico.

Anote mi lista de síntomas que necesito para informar al médico.

Contacto médico:

El médico: _____

El teléfono: _____



Zona ROJA: ¡Alerta Médica!

- Dificultad para respirar
- Dificultad para respirar sin alivio mientras está sentado quieto
- Dolor en el pecho
- Confusión o no puede pensar con claridad

Zona ROJA significa que debo:

- **Actúa rápido... ¡La EPOC es grave!**
- **Llame al 9-1-1 y solicite una ambulancia al Departamento de Emergencias**

Este material fue preparado por Alliant Health Solutions, un contratista de mejoramiento de la calidad de los hospitales (PQCI) bajo contrato con los Centros de Servicios de Medicare y Medicaid (CMS), una agencia del Departamento de Salud y Servicios Humanos de los Estados Unidos (HHS). Las opiniones expresadas en este material no reflejan necesariamente las opiniones oficiales o la política de CMS o HHS, y cualquier referencia a un producto o entidad específicos en el presente documento no constituye una aprobación de dicho producto o entidad por parte de CMS o HHS. No. De publicación: AHSHQC-T034-21-007-06/2021

Zone Tool - Heart Failure | Spanish (allianthealth.org)

Questions?



Nursing Home and Partnership for Community Health: CMS 12th SOW GOALS



OPIOID UTILIZATION AND MISUSE

- Promote opioid best practices
- Reduce opioid adverse drug events in all settings



PATIENT SAFETY

- Reduce hospitalizations due to c. diff
- Reduce adverse drug events
- Reduce facility acquired infections



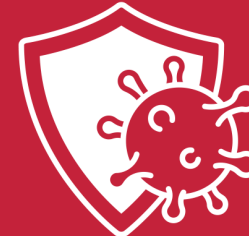
CHRONIC DISEASE SELF- MANAGEMENT

- Increase instances of adequately diagnosed and controlled hypertension
- Increase use of cardiac rehabilitation programs
- Reduce instances of uncontrolled diabetes
- Identify patients at high-risk for kidney disease and improve outcomes



CARE COORDINATION

- Convene community coalitions
- Reduce avoidable readmissions, admissions to hospitals and preventable emergency department visits
- Identify and promote optimal care for super utilizers



COVID-19

- Support nursing homes by establishing a safe visitor policy and cohort plan
- Provide virtual events to support infection control and prevention
- Support nursing homes and community coalitions with emergency preparedness plans



IMMUNIZATION

- Increase influenza, pneumococcal, and COVID-19 vaccination rates



TRAINING

- Encourage completion of infection control and prevention trainings by front line clinical and management staff



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