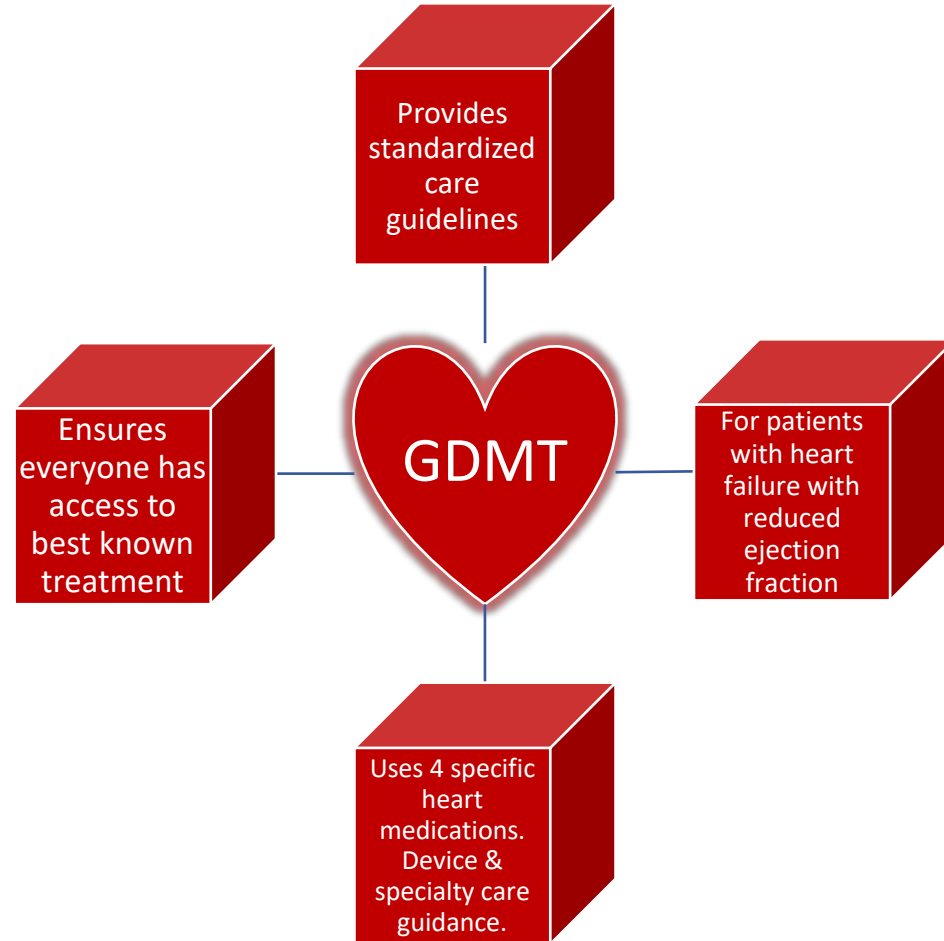


**Heart Failure Program**  
**Topic Series**  
**Guideline Directed Medical Therapy**  
**GDMT**



# GUIDELINE DIRECTED MEDICAL THERAPY GDMT

WHAT IS IT?



# HEART FAILURE with REDUCED EEJECTION FRACTION HFrEF

## HEART FAILURE

Heart failure with **reduced ejection fraction (HFrEF)** is another name for **systolic heart failure**.

**Systolic heart failure** is when the left ventricle (LV) **cannot pump** blood well out to the body.



HFpEF  
Preserved EF  
LVEF= or greater than 50%

HFmrEF  
Mildly Reduced EF  
LVEF 40%-49%

**HFrEF**  
**Reduced EF**  
**LVEF = or less than 39%**

## EJECTION FRACTION

Ejection fraction tells us the percentage (the fraction) of blood that is in the left ventricle (LV) that is ejected (pumped) into the body from the left ventricle.

**Click the link to learn more**

[Heart Failure With Reduced Ejection Fraction \(Systolic Heart Failure\) \(healthwise.net\)](https://www.healthwise.net/topics/heart-failure-with-reduced-ejection-fraction)

# The 4 Pillars of GDMT Medications

1

Beta Blocker  
metoprolol  
carvedilol  
bisoprolol

2

MRA  
spironolactone  
eplerenone

3

ARNi  
Entresto  
(sacubitril/  
Valsartan)  
OR  
ACEi  
lisinopril  
enalapril  
ramipril  
captopril  
OR  
ARB  
losartan  
valsartan  
irbesartan

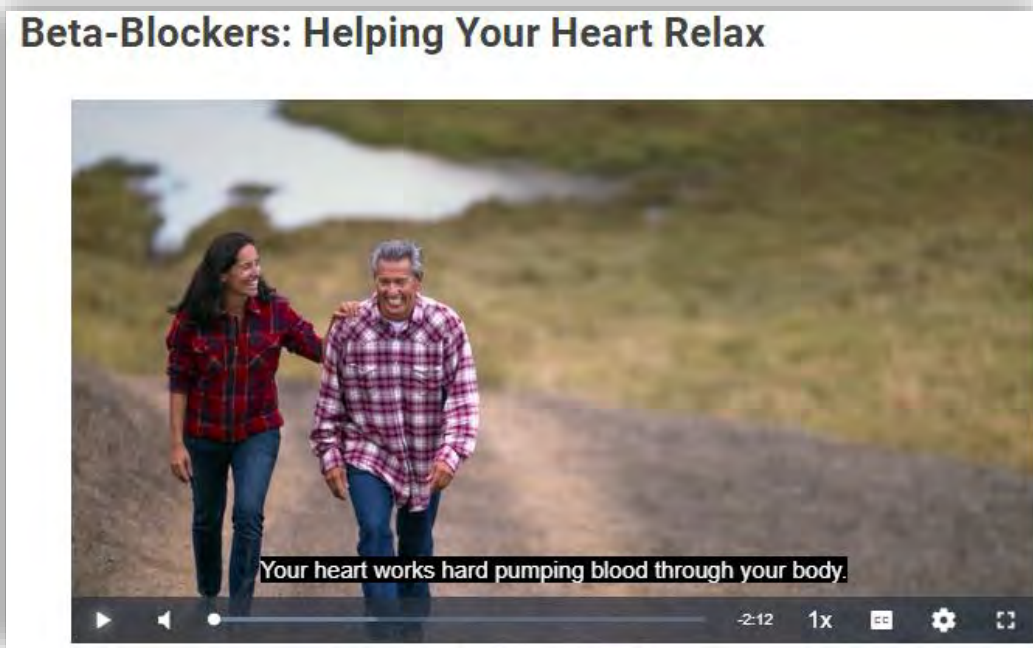
4

SGLT2  
Farxiga  
(dapagliflozin)  
Jardiance  
(empagliflozin)

# Beta Blockers

Click the link to watch a short video

[Beta-Blockers: Helping Your Heart Relax \(healthwise.net\)](https://www.healthwise.net)



To read more about Beta Blockers click the link  
[Beta-Blockers \(healthwise.net\)](https://www.healthwise.net)

## How Beta Blockers Help Your Heart

- beat slower
- beat with less force
- decreases stress on the heart

## Side Effects

- dizziness
- lightheadedness
- tiredness

## Serious Side Effects

- can worsen asthma symptoms
- dangerous to suddenly stop taking
- can hide symptoms of low blood sugar

## What Can I Do About Side Effects?

- let your Care Team know right away
- do not stop taking medication on your own
- Care Team will give guidance on what to do

1

Beta Blocker  
metoprolol  
carvedilol  
bisoprolol

## TARGET DOSES Beta Blockers

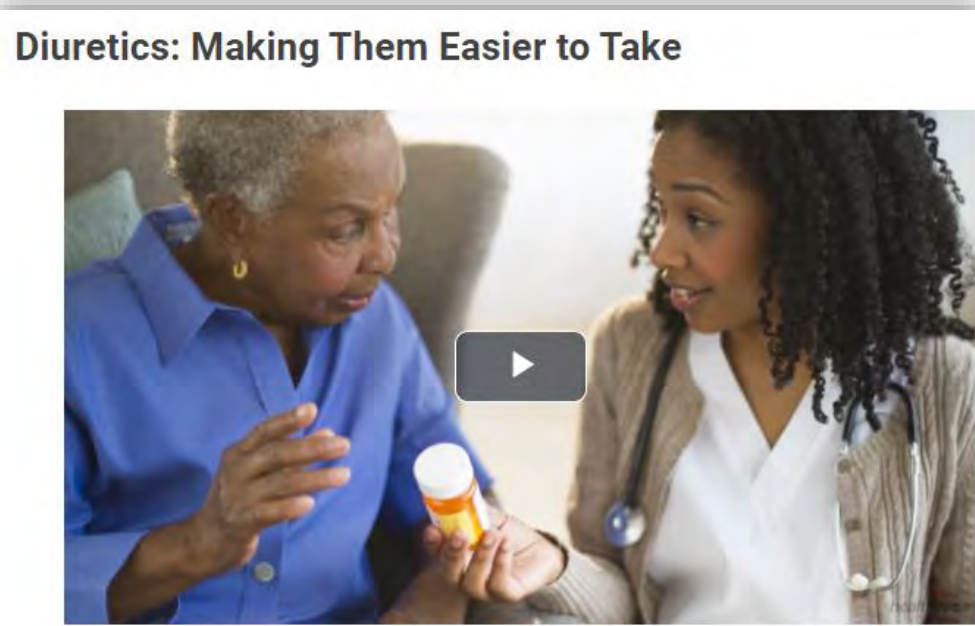
| Medication           | Starting Dose           | Target Dose            |
|----------------------|-------------------------|------------------------|
| Metoprolol Succinate | 12.5 to 25mg once daily | 200mg once daily       |
| Carvedilol           | 3.125mg twice daily     | 25 to 50mg twice daily |
| Carvedilol CR        | 10mg once daily         | 80mg once daily        |
| Bisoprolol           | 1.25mg once daily       | 10mg once daily        |

# MRAs

## mineralocorticoid receptor antagonists

Click the link to watch a short video

[Diuretics: Making Them Easier to Take \(healthwise.net\)](#)



To read more about MRAs click the link

[Spironolactone Oral Tablet \(SPIRONOLACTONE - ORAL\) \(healthwise.net\)](#)

### How MRAs Help Your Heart

- decrease fluid so heart doesn't have to work as hard
- lower blood pressure
- improves exercise tolerance, keeping heart healthier

### Common Side Effects

- increased urination
- can increase potassium levels
- dizziness

### Serious Side Effects

- breast pain or swelling
- fast, irregular or slow heartbeat
- muscle cramps or weakness

### What Can I Do About Side Effects?

- let your Care Team know right away
- do not stop taking medication on your own
- get blood work as directed by doctor
- Care Team will give guidance on what to do

2

MRA  
spironolactone  
eplerenone

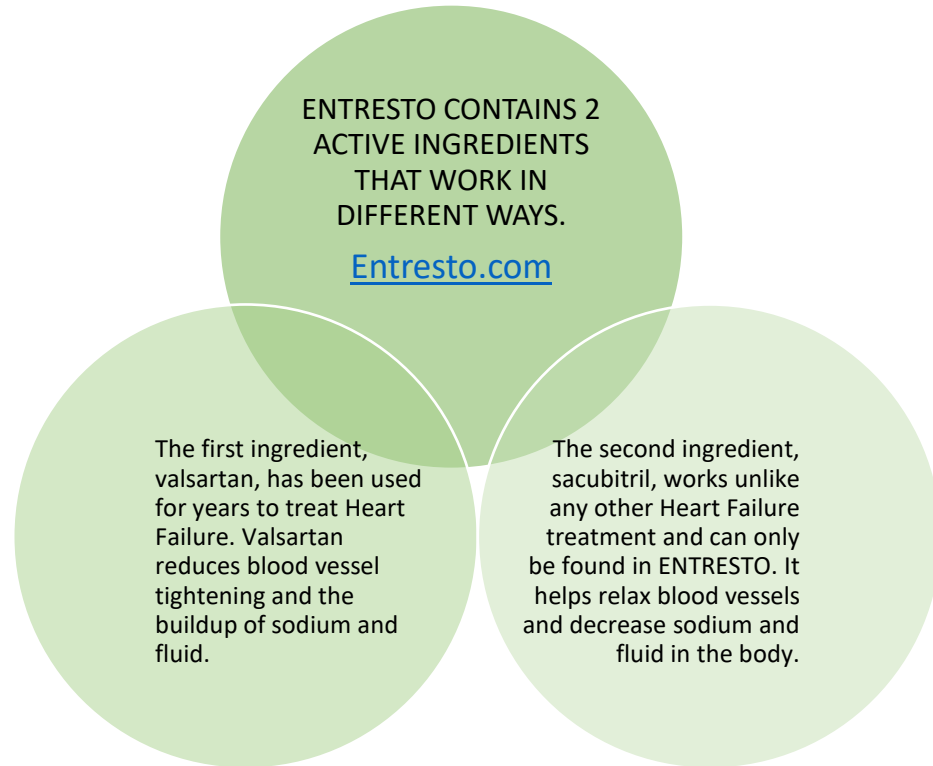
## TARGET DOSES MRAs

| Medication     | Starting Dose           | Target Dose           |
|----------------|-------------------------|-----------------------|
| Spironolactone | 12.5 to 25mg once daily | 25 to 50mg once daily |
| Eplerenone     | 25mg once daily         | 50mg once daily       |



# ARNi

## angiotensin II receptor blocker & neprilysin inhibitor combination drug



### How ARNi Helps Your Heart

- decrease fluid & salt retention
- keep blood vessels open
- decrease strain on heart

### Common Side Effects

- dizziness
- lightheadedness, low blood pressure
- cough

### Serious Side Effects

- high potassium levels
- back pain
- impaired kidney function (rare)

### What Can I Do About Side Effects?

- let your Care Team know right away
- do not stop taking medication on your own
- your Care Team will give guidance on what to do

To read more about ARNI click the link

[Sacubitril/Valsartan Oral Tablet \(SACUBITRIL/VALSARTAN - ORAL\) \(healthwise.net\)](https://www.healthwise.net/topics/sacubitril-valsartan-oral-tablet)

3

ARNi  
Entresto  
(sacubitril/  
Valsartan)  
OR  
ACEi  
lisinopril  
enalapril  
ramipril  
captopril  
OR  
ARB  
losartan  
valsartan  
irbesartan

## TARGET DOSES ARNi

| Medication                         | Starting Dose   | Target Dose                                    |
|------------------------------------|---|--|
| Sacubitril/Valsartan<br>(Entresto) | 49mg sacubitril/51mg<br>valsartan twice daily (may<br>be initiated as<br>24mgsacubitril26mg<br>valsartan twice daily) | 97mg sacubitril/103mg<br>valsartan twice daily |

# ACEi angiotensin converting enzyme inhibitor

Click the link to watch a short video

[ACE Inhibitors and ARBs: Helping Blood Flow Better \(healthwise.net\)](https://www.healthwise.net)

## ACE Inhibitors and ARBs: Helping Blood Flow Better



To read more about ACEi click the link

[Angiotensin-Converting Enzyme \(ACE\) Inhibitors \(healthwise.net\)](https://www.healthwise.net)

### How ACEi Helps Your Heart

- decrease fluid & salt retention
- keep blood vessels open
- decrease strain on heart

### Common Side Effects

- cough
- lightheadedness
- dizziness

### Serious Side Effects

- swelling of face, mouth or throat
- slow heartbeat
- shortness of breath

### What Can I Do About Side Effects?

- let your Care Team know right away
- do not stop taking medication on your own
- your Care Team will give guidance on what to do

3

ARNi  
Entresto  
(sacubitril/  
Valsartan)  
OR  
ACEi  
lisinopril  
enalapril  
ramipril  
captopril  
OR  
ARB  
losartan  
valsartan  
candesartan

## TARGET DOSES ACEi

| Medication | Starting Dose            | Target Dose            |
|------------|--------------------------|------------------------|
| Lisinopril | 2.5 to 5mg once daily    | 20 to 40mg once daily  |
| Enalapril  | 2.5mg twice daily        | 10 to 20mg twice daily |
| Ramipril   | 1.25 to 2.5mg once daily | 10mg once daily        |
| Captopril  | 6.25mg three times daily | 50mg three times daily |

# ARBs

## angiotensin II receptor blocker



To read more about ARBs click the link  
[Angiotensin II Receptor Blockers \(ARBs\) \(healthwise.net\)](https://www.healthwise.net)

### How ARBs Help Your Heart

- keep pressure from rising
- prevent a heart attack or limit damage after one
- help the heart pump more blood to the body

### Common Side Effects

- dizziness
- weakness
- cough, nasal congestion

### Serious Side Effects

- high potassium levels
- back pain
- impaired kidney function (rare)

### What Can I Do About Side Effects?

- let your Care Team know right away
- get blood work as directed by doctor
- do not stop taking medication on your own
- your Care Team will give guidance on what to do

3

ARNi  
Entresto  
(sacubitril/  
Valsartan)  
OR  
ACEi  
lisinopril  
enalapril  
ramipril  
captopril  
OR  
ARB  
losartan  
valsartan  
candesartan

## TARGET DOSES ARBs

| Medication  | Starting Dose         | Target Dose            |
|-------------|-----------------------|------------------------|
| Losartan    | 25 to 50mg once daily | 50 to 150mg once daily |
| Valsartan   | 20 to 40mg once daily | 160mg twice daily      |
| Candesartan | 4 to 8mg once daily   | 32mg once daily        |

# SGLT2i sodium-glucose cotransporter-2 inhibitor



## How SGLT2i Helps Your Heart

- improves heart function
- removes excess fluid, like a water pill
- decreases hospitalizations

## Common Side Effects

- dehydration
- urinary tract infections, yeast infections
- low blood pressure

## Serious Side Effects

- diabetic ketoacidosis
- low blood sugar

## What Can I Do About Side Effects?

- let your Care Team know right away
- get blood work as directed by doctor
- do not stop taking medication on your own
- your Care Team will give guidance on what to do

To read more about SGLT2i click the link

[SGLT2 Inhibitors for Heart Failure: What You Need to Know – Fact Sheet | CardioSmart – American College of Cardiology](#)

4

SGLT2  
Farxiga  
(dapagliflozin)  
Jardiance  
(empagliflozin)

## TARGET DOSES SGLT2

| Medication                | Starting Dose   | Target Dose     |
|---------------------------|-----------------|-----------------|
| Dapagliflozin (Farxiga)   | 10mg once daily | 10mg once daily |
| Empagliflozin (Jardiance) | 10mg once daily | 10mg once daily |



To print your GDMT Tracker  
Double click here



- Bring your tracker to appointments.
- Take your medications as ordered.
- Report any side effects.
- All four medications are usually started within a short time frame.
- How you feel, lab work & ECHO results guide your doctor.
- Meds often need to be adjusted.
- Stay focused on the benefits when you feel frustrated.

### My Heart Failure Meds GDMT Tracker

Are you on ONE medication of each color?

| TYPE                | MEDICATION              | X | STARTING DOSE                                | X | TARGET DOSE            | X |
|---------------------|-------------------------|---|--|---|------------------------|---|
| <b>BETA BLOCKER</b> | Metoprolol Succinate    |   | 12.5 to 25 mg daily                          |   | 200 mg daily           |   |
|                     | Carvedilol              |   | 3.125mg twice daily                          |   | 25 o 50mg twice daily  |   |
|                     | Carvedilol CR           |   | 10mg daily                                   |   | 80mg daily             |   |
|                     | Bisoprolol              |   | 1.25.g daily                                 |   | 10mg daily             |   |
| <b>MRA</b>          | Spirololactone          |   | 12.5 to 25mg daily                           |   | 25 to 50mg daily       |   |
|                     | Eplerenone              |   | 25mg daily                                   |   | 50mg daily             |   |
| <b>ARNi or</b>      | Entresto                |   | 49mg/51mg twice daily or 24mg/26 twice daily |   | 97mg/103mg twice daily |   |
|                     | Lisinopril              |   | 2.5 to 5mg daily                             |   | 20 to 40mg daily       |   |
|                     | Enalapril               |   | 2.5mg twice daily                            |   | 10 to 20mg twice daily |   |
| <b>ACEi or</b>      | Ramipril                |   | 1.25 to 2.5mg daily                          |   | 10mg daily             |   |
|                     | Captopril               |   | 6.25mg three times daily                     |   | 50mg three times daily |   |
| <b>ARB</b>          | Losartan                |   | 25 to 50mg daily                             |   | 50 to 150mg daily      |   |
|                     | Valsartan               |   | 20 to 40mg daily                             |   | 160mg twice daiy       |   |
|                     | Candesartan             |   | 4 to 8mg daily                               |   | 32mg daily             |   |
| <b>SGLT2</b>        | Farxiga dapagliflozin   |   | 10mg daily                                   |   | 10mgdaily              |   |
|                     | Jardiance empagliflozin |   | 10mg daily                                   |   | 10mg daily             |   |
|                     |                         |   |  |   |                        |   |

Notes/Side Effects/Questions for MD

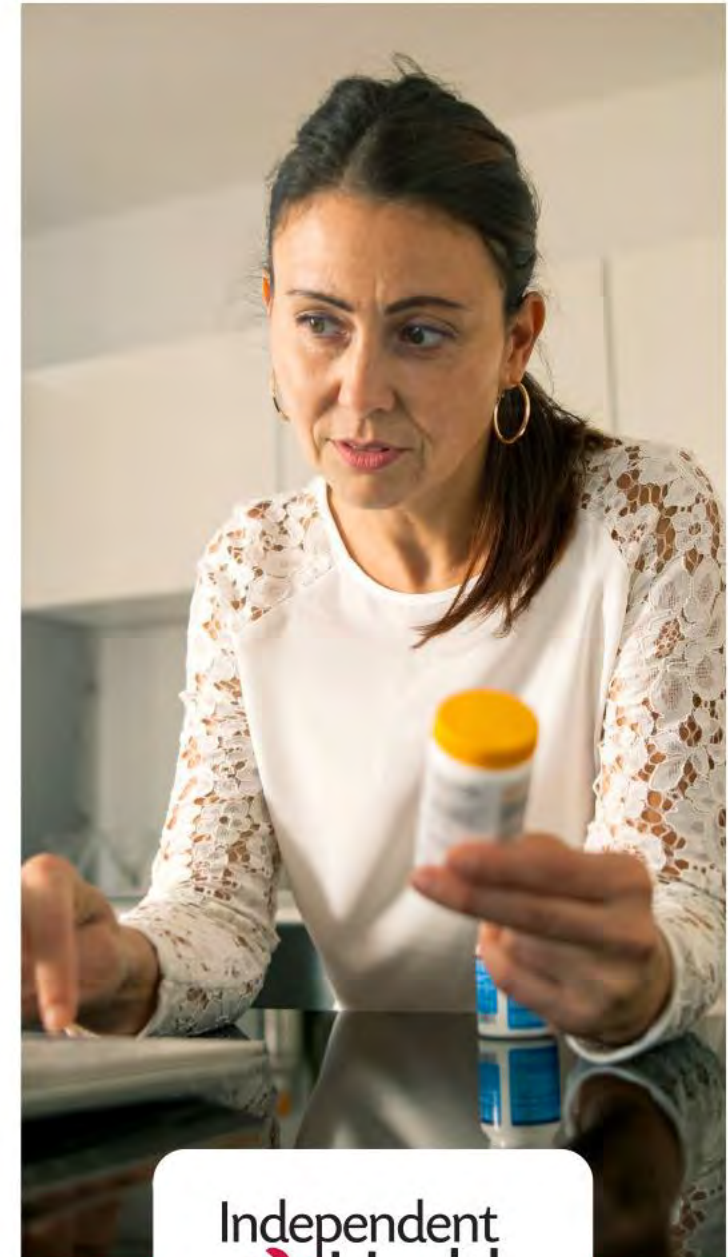
# How Does GDMT Help?

- Improves heart function.
- Decreases risk of hospitalization.
- Improves quality of life by decreasing heart failure symptoms and slows the progression of the disease.
- Addition of all 4 “pillars” decreases risk of death by up to 74%.
- The higher the doses of the medications, the bigger the benefit.
- Taking all 4 medications can add years to your life!



# What To Ask Your Doctor & Pharmacist

- Am I on the best medications for heart failure?
- What side effects should I expect from the medication?
- How often do I need to get blood work done?
- Are there any medications I should avoid?
- What time of day should I take this medication?
- Should I take this medication with food?



## GDMT Devices & Specialty Care

- In addition to the medication guidance, GDMT gives providers direction on devices and specialty care options that research has shown to have benefit to heart failure patients with reduced ejection fraction.
- Your healthcare team will discuss if appropriate for your situation.
- GDMT medication guidelines are the first line of treatment for HFrEF.

In this presentation you learned:

✓What GDMT is.

✓Who it is for.

✓What the 4 Pillars of GDMT are.

✓How it can help.

✓What to ask your doctor and pharmacist.

✓Your Heart Failure Program RN & Team Pharmacist are available to help you.

# We're Here For You

- To discuss any of the information contained in this presentation, contact your Care For You Heart Failure Program Nurse
- Thank you for letting us be a part of your Healthcare Team.

