UVA Health

Objectives

TO EXPLORE AN EXAMPLE OF HEART FAILURE CARE COORDINATION AT UVA HEALTH

TO SHARE A MULTIDISCIPLINARY APPROACH TO PROBLEM SOLVING

TO ADDRESS CONSIDERATIONS INVOLVED IN CARING FOR PATIENTS FROM DIFFERENT CULTURAL BACKGROUNDS

Members of this panel have no disclosures or conflicts of interest that interfere with this content.

Patient identity has been removed from this study.

Team Panel

EB Enfield, RN, MSN, CCNS

Heart Failure Nurse Navigator

- Works closely with patients who are admitted with a Heart Failure exacerbation to ensure they have appropriate care once they transition from inpatient to outpatient
- Provides continuity of care between hospital admissions as well as between hospital to outpatient transition
- Works with Cardiology team to ensure complex patient data from outpatient is known to inpatient teams and vice versa

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Mirna Dickey, LPC

Senior Intensive Case Management Caseworker at the Charlottesville office of the International Rescue Committee (IRC)

- Provides individualized and complex case management for refugees with special medical and mental health needs
- Connects clients with community resources and collaborates with community partners to address clients' barriers
- Assists clients in navigating systems, providing advocacy and education, while guiding them toward self-sufficiency

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Theresa Guyton, MSN, RN, AG-ACNP

Nurse Practitioner, UVA Advanced Heart Failure Inpatient Service
Advanced Heart Failure Inpatient APPs:

- Work collaboratively with Advanced Heart Failure Cardiologists to care for patients with heart failure
- Advanced Heart Failure Team works to get patients on GDMT and determine if patients are candidates for advanced heart failure therapies
- Communicate and work with Heart Failure Nurse Navigator and outpatient Heart Failure Clinic APPs to create continuum of care for patient medication and heart failure clinic follow up

Pace Morris, LPN

Licensed Practical Nurse, Cardiology Home Visit Program UVA Advanced Heart Failure

- My role is pivotal in assisting patients with heart failure and myocardial infarction management in their home aiming to reduce hospital readmissions and enhance overall patient outcomes.
- Works closely with a multidisciplinary team of healthcare providers, both within and outside of the UVA network ensuring seamless communication and comprehensive care for our patients.
- Provides vital signs, pill box and cardiology prescription management along with an assessment that includes communicating my findings to the Nurse Practitioner.

Kirstie Perry, PharmD, BCACP

Ambulatory Clinical Pharmacist

- Work collaboratively with HF providers to review referrals and see patients post-discharge for medication review and adherence assessment (including focus on medication indication, side effects, and adherence aids including pill-packs and pillbox fills)
- Educate patients on GDMT medications
- Identify and address medication cost barriers
- Sees patients through CPA/protocol for HF GDMT titration in stable patients

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Patient Background

Mirna Dickey
Senior ICM Caseworker,
International Rescue Committee

Family Background

- Born in Congo, DR—Eastern Province of North Kivu
- Hutu ethnicity
  (Rwandan origin?)
- Native langu*age:* Kinyabwisha/
  Kinyarwanda

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Educational/Vocational Background

- Little Formal Education

- Family of Farmers

Flight—Refugee Camp

- Fled to Uganda at age 19 (pregnant with first child)
- Fall During Flight—Chest Injury
- 14 Years in Nakivale Refugee Settlement

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Life in Nakivale Refugee Settlement

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Resettlement

- Resettled in Charlottesville by IRC in September 2019
- Came with husband and 6 children (aged 5-13)
- Referred and enrolled in ICM in June 2021

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Intensive Case Management Program

- Funded by ORR
- Extended case management (12-24 months)
- Clients with special medical and mental health needs
- Connecting with resources to address barriers

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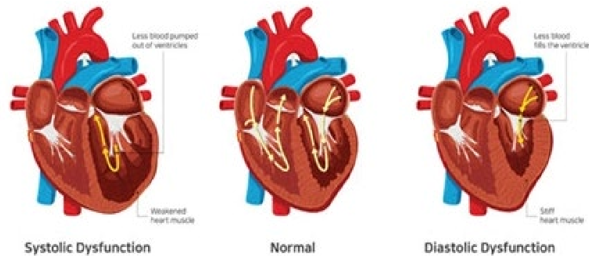
First Hospitalization: June 2021 –July 2021
AHRF --> Acute systolic heart failure

- Family Medicine Inpatient Service
- Cardiology consulted
- TTE and stress cardiac MRI, EF 15-20%, NICM
- Discharge: Diuresis: furosemide; GDMT: metoprolol succinate and lisinopril
- Unclear etiology for the NICM
- Risk factors: untreated hypertension, obesity, chest pressure since birth of one of her children 8 years prior
- Family history: mother has heart disease, and maternal aunt died young



Assessment
- Clinical history
- Physical examination
- ECG, labs

Natriuretic Peptide
- NT-proBNP >125 pg/mL
- BNP ≥35 pg/mL

Transthoracic Echocardiography
- Additional testing, if necessary

HF Diagnosis Confirmed
- Determine cause and classify

HFrEF	HFmrEF	HFpEF
LVEF ≤40%	LVEF 41%-49%	LVEF ≥50%

- Evaluate for precipitating factors
- Initiate treatment

Heart Failure Navigator

- Heart Failure Navigators consulted on cardiology and non-cardiology service patients
  - Provide education on heart failure management
  - Assist patient to get early HF follow up
  - Ensure patient has follow up with appropriate cardiology care after discharge
- Patient education documented provided by HF nurse navigator to all inpatients
  - Translated into Spanish and English

HEART FAILURE ZONES & SURVIVAL SKILLS

- Weigh yourself daily before breakfast after emptying your bladder and with the same types of clothes on – write it down
- Take your medicines as prescribed
- Watch your salt and sodium intake- no more than 2000 mg /day. Read the labels, avoid processed foods, fast food and canned foods
- Watch your fluid intake (any liquid or food that melts to liquid) take in no more than 2 liters/day (64 ounces or eight 8 ounce cups)
- Get daily exercise. We recommend 150 minutes per week of exercise. Can start with walking 5-10 minutes at a time and work up.
- Go to your follow up visits – call if you don't have any

Green – All clear Zone – keep up the good work

- No shortness of breath
- No weight gain of more than 3 pounds in one day or 5 pounds in one week (it may change one or two pounds some days)
- No swelling of your feet, ankles, legs or stomach
- No chest pain

Yellow- Warning Zone … Call your doctor, nurse or nurse practitioner if you have:

- Weight gain of 3 pounds in 1 day or 5 pounds in 1 week
- Increased swelling of your feet, ankles, legs or stomach
- Difficulty breathing when lying down and feel the need to sleep in a chair or reclincer or side of the bed
- Dry cough
- Worsening fatigue or no energy
- More shortness of breath
- Dizziness or lightheadedness
- Heart pounding or racing or palpitations
- Not wanting to eat, filling up quickly, nausea and or vomiting
- Chest pain that resolves quickly

Red – Medical Alert Zone … go to emergency room or call 911 if you have:

- Worsening Shortness of breath, can't talk without being short of breath, can't perform normal activities without shortness of breath (like brushing teeth, bathing, doing dishes, walking from room to room)
- Chest pain that does not resolve within 5 min (pain that you don't usually have)

Heart Failure admission

- Heart Failure Navigators consulted on cardiology and non-cardiology service patients
  - Provide education on heart failure management
  - Assist patient to get early HF follow up
  - Ensure patient has follow up with appropriate cardiology care after discharge

- For Jane, we didn't meet her that admission but ensured she had appointment scheduled with HF provider, Dr. Philips shortly after discharge
- 7/26/21 Dr. Philips saw Jane with her IRC Social worker. Was having heavy symptom burden at home. He increased lisinopril, and made referral to genetics
- Close follow up with cardiology 2 more times that fall and referred to Cardiology Home Visit Program

Cardiology Home Visit Program

Free Program

Heart Failure or MI patients

Must live within 60 miles of Charlottesville

NP led. LPN providing home visits

Vital signs, medication reconciliation including filling mediation boxes and assessing for volume.

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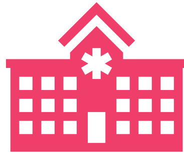
First home visit

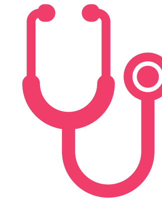
1. Very appreciative of having LPN visit as well as being provided with a free medication box.
2. LPN found patient was self-discontinuing medications.
3. LPN provided education on diagnosis.
4. In November LPN first started communication with IRC.

Winter 2021



12/1/2021: Patient transitioned to **ARNI from lisinopril** in outpatient to improve mortality, symptoms

Cardiology home visits continue frequently to fill pill box and check in on patient's symptoms



2/4/2022: Home visit LPN notes patient is frequently missing her PM doses of medications. Reports racing HR, weakness, SOB

Collaborating care

February of 2022 home visit husband expressed concerns of current medications interfering with conceiving

NP advised patient not to conceive to health risk

April of 2022 patient reported to LPN during home visit positive pregnancy test

Worried about having to stop beneficial meds

NP placed referral to outpatient clinic pharmacist

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Outpatient Pharmacist Referral

- Pharmacist referral received regarding positive pregnancy test for medication review
- Identified numerous medications considered unsafe in pregnancy
- Relayed recommendations to the team to discontinue certain medications given pregnancy, including sacubitril-valsartan, atorvastatin
- Recommended hydralazine plus isosorbide dinitrate instead of sacubitril-valsartan

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Spring 2022

- 4/29/22 Jane saw Philips in the office and expressed she wanted to proceed with her pregnancy
- 5/9/2022-5/17/2022 patient admitted for SOB from Acute on Chronic Systolic HF
- Before D/C HF navigators worked with home visit LPNs
  - Concerns of cultural or cognitive barriers preventing her insight into her Heart Failure

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Home Visits from May-July 2022

May 2022 worsening cough, SOB on exertion, fullness in abd

NP increased furosemide and potassium

ICD candidate however would have to wait until after delivery.

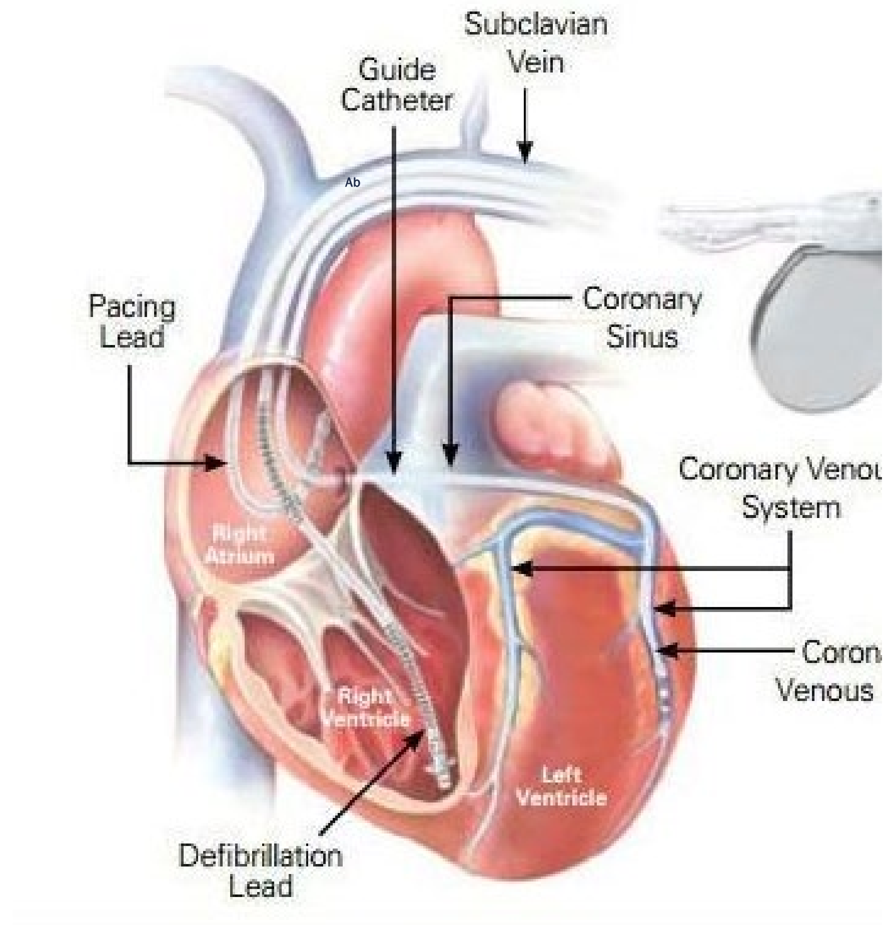
June 2022 home visit hydralazine increased from TID to QID

July 2022 home visit patient complained of headaches

Perinatal Hospital Admission: October 2022

- 33 weeks gestation
- HFrEF exacerbation and tachyarrthymias- in CCU until delivery at 36 weeks
- Close collaboration with Heart Failure Team and Gynecology for delivery plan
- Discharge GDMT (with consideration to breastfeeding) : metoprolol succinate, enalapril
- Rate dependent Left Bundle Branch Block

Admissions Post-partum to January 2023



HFrEF exacerbations

Jane has not been taking diuretics or GDMT at home

TTE with moderate mitral and tricuspid regurgitation

CRT-D (Biventricular ICD) placement

ICD shocks, ICD revision, Severe functional MR

ED visit and 2 admissions March and April 2023 for ICD shocks and HFrEF exacerbation

ICD pocket/lead revision April 2023

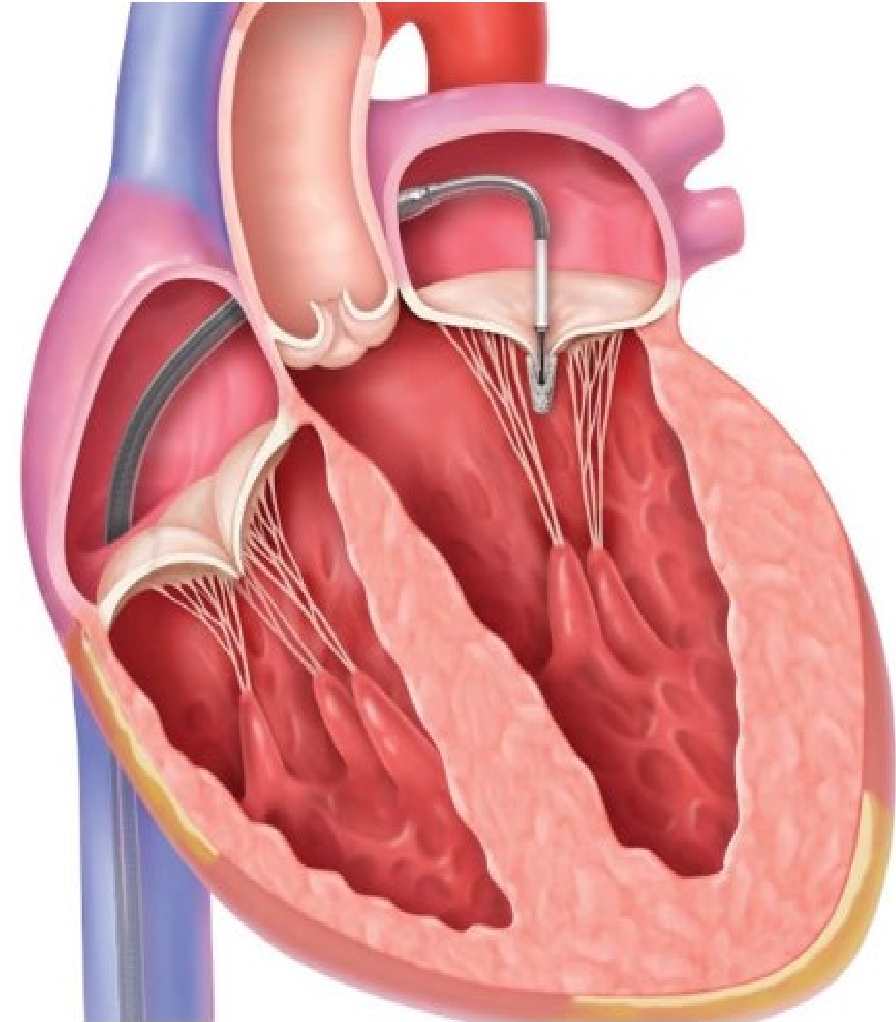
TTE, April 2023 severe functional mitral regurgitation

Referral to Advanced Valve Clinic for MitraClip intervention consideration

Mitra Clips and Acute Pericarditis

Admission May 2023 – June 2023

- HFrEF exacerbation
- IV diuresis, milrinone
- MitraClip placement
- GDMT is becoming limited due to intolerances and hypotension, Jane wants to decrease # of meds taking
- Aspirin for MitraClip



Admission June 2023

- Chest pain, thought to be acute pericarditis iso of recent MitraClip
- Colchicine and increased dose of aspirin
- Hypotension, required pressor support and fluids, improved.
- Torsemide dosing decreased, still recommended to continue GDMT.

Home Visits June 2023 to September 2023

- Seen 2 days after discharge in the home, complaining of blurry vision and seeing different colors. Educated on medication compliance
- 7 days later another home visit where patient was compliant with medications for the week even though complaining of nausea after she takes them.
- Admitted 1 day later for Pericarditis after Mitralclip procedure.
- Admitted for several days then discharged home. LPN made visit day after discharge to update med box with med changes.
- July 2023 started complaining of needle-like pain over ICD site
- September home visit complaining of leg cramps and vomiting, NP stopped Colchicine

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Traditional Healing

- Secretive practices to avoid regulations & legal restrictions
- Overlap between religion and traditional healing

- Common throughout continent
- Limited research into exact practices/beliefs

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Traditional Healers—Zulu Example

- Inyangas: make and administer herbal medicines

- Sangomas: fortune tellers who make diagnoses

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Traditional Beliefs About Illness

Physical illness as manifestation of spiritual illness

Sickness is:

1. Punishment from ancestors for not adhering to ethical standards

2. Malevolent behavior from witches or sorcerers

3. Pollution from impure objects or events

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Patient's Mistrust of Western Medicine

- Believed she had been cursed
- Became involved with traditional healers in Uganda
- Started taking Amakara powder as she discontinued prescribed medications
- Importance of prayer/faith

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Amakara Translation

- For Diarrhea, Poisoning, teeth, spine, heart, stomach, liver, Blood purifier, Intestinal tumors, uterus, gout, Obesity, leg cramps
- How to use: 1 teaspoon in a glass of boiled water Morning, noon, and evening.
- N.B: this medicine is useful for everyone and for all diseases
- This medicine treats many diseases that are not mentioned above.
- A medicine that treats many internal and external diseases that can treat even terminally ill patients and a medicine that you are not afraid to give to a sick patient.
- THIS INFINITE MEDICINE IS HEALTHY

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Patient’s Mistrust of Western Medicine

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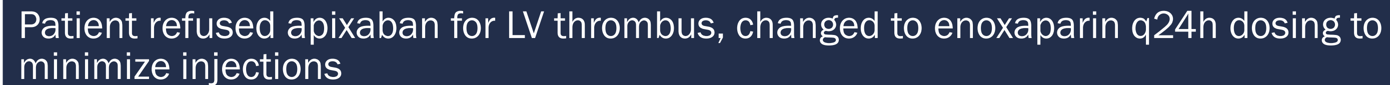
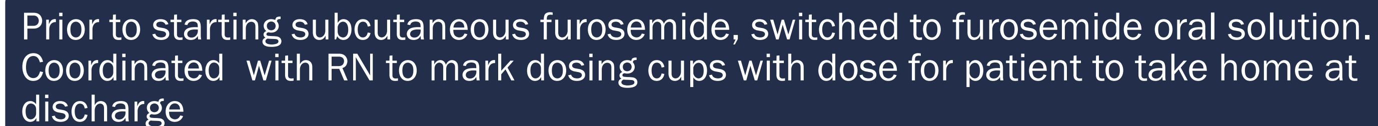
Medication Adjustments





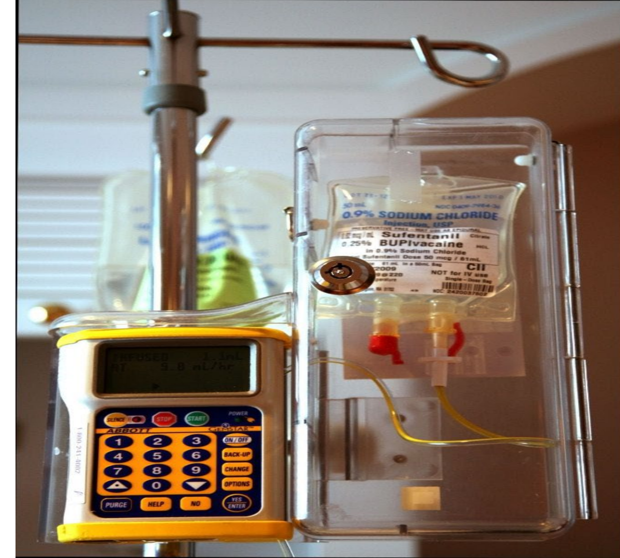
Ultimately transitioned to subcutaneous furosemide

February 2024 – March 2024: Cardiogenic Shock

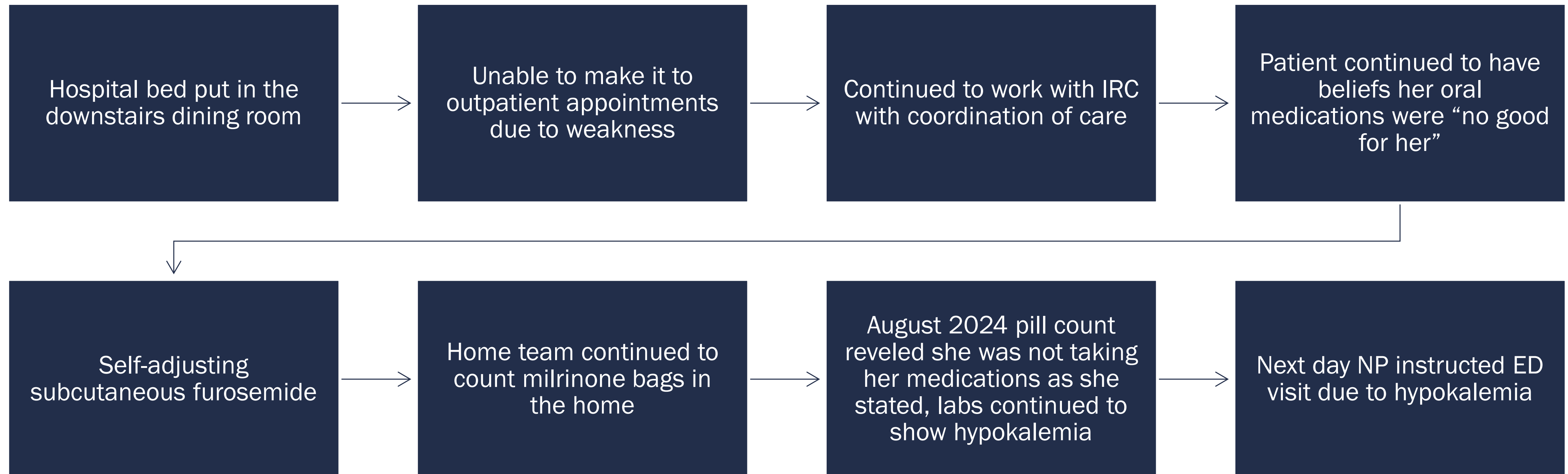
Now milrinone dependent

Midodrine started for hypotension

Not taking GDMT per Jane's preference



Home Visits July-August 2024



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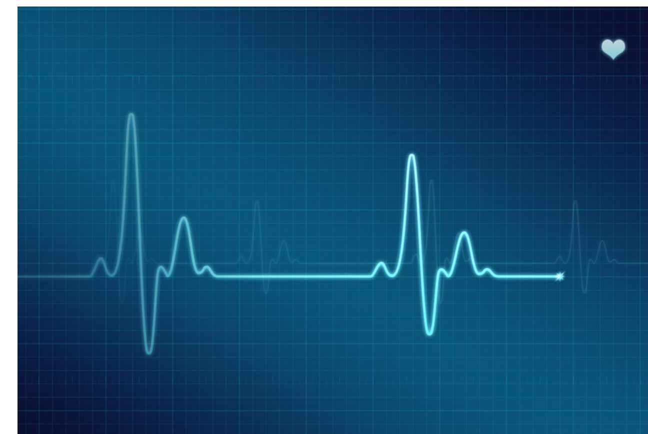
VT, VF arrest, ICD shocks

Admission 6/2024

- VT and ICD shocks, K 3.0
- Still has home milrinone 0.25 mcg/kg/min
- HF team recommended further inpatient HF management, but patient declined to stay any longer

Admission 8/2024- 9/2024

- Mixed cardiogenic/septic shock
- AMS, worsening hypoxia, intubated, RUL PNA
- 3 polymorphic VT arrests
- Known LV thrombus



ICD removal discussion

- September 2024 patient continued to ask for ICD removal as she didn’t see benefit
- Relying on husband to provide 24/7 care
- Unable to walk downstairs, staying upstairs in bedroom
- Home visit in middle of September coordinated with NP and IRC in patients' home, 2+ hour visit that patient still demanded removal of ICD

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BIV ICD (CRT-D) Removal

Admission, October 2024

- VT/VF and ICD shocks, K 2.9 on admission
- Patient requested ICD removal
- Multiple team discussions, ultimately patient's wish granted, ICD removed
- Continues to refuse PO meds
- Cardiac cachexia with 50- pound weight loss over past year

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October-November 2024 home visits

- Eldest son felt ICD was killing the patient
- Expressing concerns over discomfort in arm of PICC line
- 1 week later asking for removal of PICC line, thoughts it making her lose weight and stressing her more
- Ongoing medication non-compliance
- 154 total home visits made, last visit asking for oral medication to make her stronger

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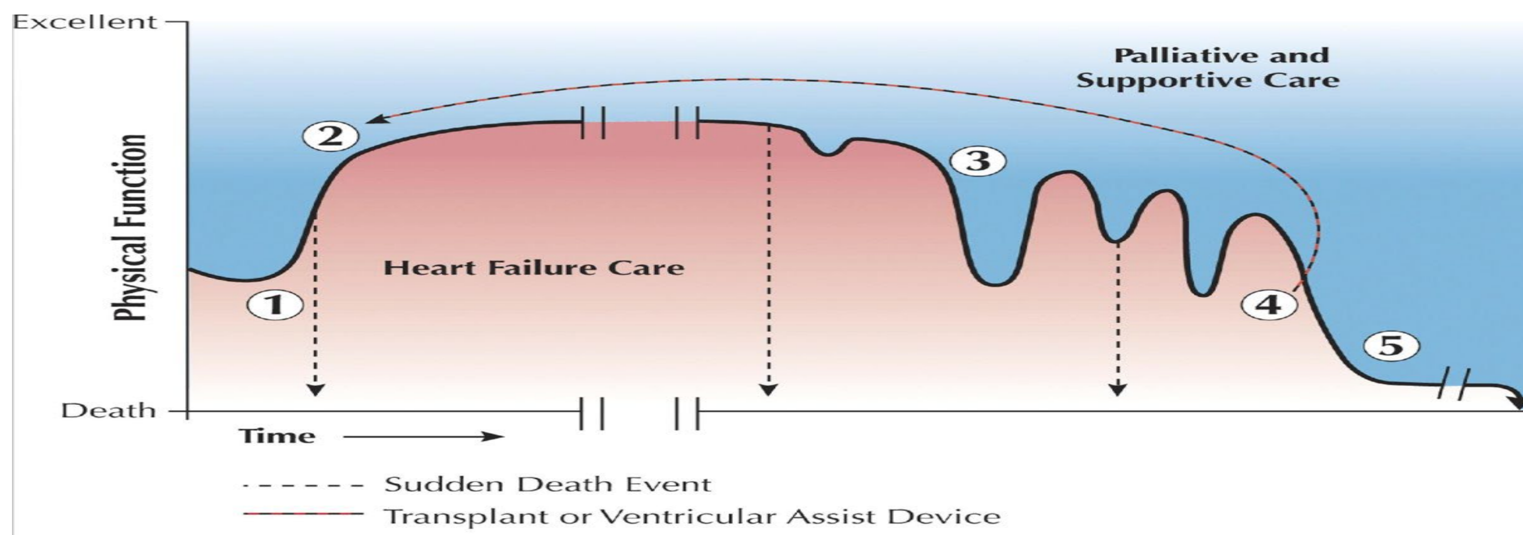

- At November 2024 Heart Failure Clinic appointment: APP counseled-milrinone discontinuation could hasten death, Jane wanted it stopped. Milrinone and PICC discontinued.
- Attempts to restart outpatient IV diuresis by outpatient team.
- During last admission November 2024- December 2024:
  - Patient allowed restart of IV milrinone
  - Palliative care team consulted
  - Transferred in and out of CCU for cardiogenic shock
  - Ethics consulted
  - Became SOB, hypoxic, intubated. Team discussions with husband even prior to intubation, wanted to remain full code. Started requiring multiple pressors requirement, CPR. Husband decided to make DNR and peacefully passed away.

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