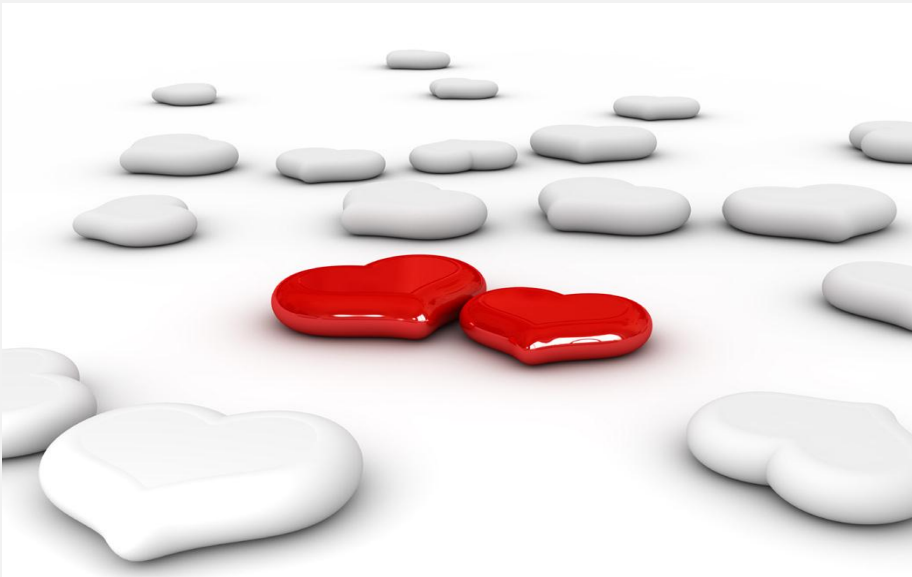


# WALGREENS INFUSION SERVICES, HEART FAILURE INFUSION THERAPY



Presented By:  
Stacy Shillan, Clinical Consultant  
Lynne Brown, Regional Heart Failure  
Specialist



# LOCATION OF IV MEDICATION ADMINISTRATION

- Home
  - Preferred site for most patients, resume normal lifestyle
  - Administered by the patient, caregiver or nurse
- Alternate treatment sites
  - For patients healthy enough to travel to site and need an infusion
  - Lower costs, less travel for nurses
- Physician-based infusion clinic
  - Beneficial for medications that need close supervision of physician
  - Medications are usually shipped from specialty pharmacies
- Hospital-based infusion clinic
  - Difficult to administer
  - Used for medication with a high risk of life-threatening reactions

# WHY USE HOME INFUSION?



- Local pharmacy and nurse support
- Medication provided locally, maximizing access
- Patient comfort and convenience, particularly for those with mobility issues
- Cost-effective option

# NURSING IMPLICATIONS FOR HOME INFUSION

- Need to be aware of how to safely handle and administer these medications
- Need to educate patient on proper storage conditions for the medications
- In instances when patients or caregivers need to administer medications themselves, nurses need to educate them on how to correctly do this (i.e., draw up medication from vials and put it into a bag, start IV infusion)
- Depending on the medication and disease state, nurses should appropriately monitor their patients (i.e., blood work, BP, weight, urine output, etc.)
- Need to be aware of Black Box Warnings and adverse reactions

# SPECIALTY INFUSIONS



# WHAT IS A SPECIALTY INFUSION MEDICATION?

There is no universal definition for a specialty infusion medication, but these drugs often have one or more of the following characteristics:

- Treat complex, lifelong conditions or illnesses
- Require patient-specific dosing and close clinical management
- Need special handling (i.e., refrigeration)
- Are expensive, greater than \$500 per month
- Usually have limited pharmacy distribution channels
- Often require Statement of Medical Necessity from prescriber

Patient education is key to successful therapy since medications are often self-administered.



# DISEASE STATES THAT CAN BE TREATED WITH SPECIALTY INFUSION SERVICES

- Alpha-1 antitrypsin deficiency
- Crohn's disease
- Enzyme deficiencies
- Hemophilia
- Hereditary angioedema
- Immunodeficiency disorders
- Multiple sclerosis
- Rheumatoid arthritis



# NUTRITION SUPPORT





# IMPORTANCE OF NUTRITION SUPPORT

- Foundation for good health
- No disease process benefits from malnutrition
- Starvation causes depletion of body protein
- Severe malnutrition is associated with increased morbidity and mortality
- Moderate stress plus D5W causes 10-15 grams loss of nitrogen daily
- Patient outcomes depend on many factors – Nutrition plays an important role

# ANTI-INFECTIVE THERAPY



# NEW ANTIBIOTICS FOR MRSA

- Linezolid (Zyvox®)
- Quinupristin/dalfopristin (Synercid®)
- Daptomycin (Cubicin®)
- Tigecycline (Tygacil®)
- Doripenem (Doribax™)



Brand names are the property of their respective owners.

# ANTIBIOTIC RESISTANCE

- As healthcare providers, what can we do to decrease the rate of resistance?
  - Educate patients when antibiotics are appropriate and when they are not necessary
  - Help ensure patient adherence in terms of missed doses and completion of therapy
  - Ensure adequate dosing to avoid sub-therapeutic levels causing below-MIC concentrations
  - Monitor and assess patient response to antibiotics
  - Continue to promote hand washing and use of antimicrobial gel to prevent the spread of infections

# HEART FAILURE



# IMPACT OF HEART FAILURE ON HEALTHCARE SYSTEM

- Approaching one million hospital admissions annually<sup>1</sup>
- Accounts for 6.5 million hospital days annually<sup>1</sup>
- Number one hospital discharge diagnosis in patients over 65 years of age<sup>1</sup>
- 176.5% increase in hospital discharges for HF from 1979 to 2006<sup>2,3</sup>
- \$39.2 billion: 2010 estimated direct and indirect cost of HF in the United States compared to \$37.2 billion in 2009<sup>3</sup>
- More Medicare dollars are spent to diagnose and treat HF than any other diagnosis<sup>4</sup>

1. Heart Disease and Stroke Statistics—2010 Update. American Heart Association Web site. <http://circ.ahajournals.org/cgi/reprint/CIRCULATIONAHA.109.192667>. Accessed January 11, 2010.

2. Heart Disease and Stroke Statistics—2008 Update Web site. <http://circ.ahajournals.org/cgi/content/full/117/4/e25>. Accessed January 20, 2010.

3. 2009 Focused Update: ACC/AHA Guidelines for the Diagnosis and Management of Heart Failure in Adults. 2009 Writing Group to Review New Evidence and Update the 2005 Guideline for the Management of Patients With Chronic Heart Failure Writing on Behalf of the 2005 Heart Failure Writing Committee. Jessup M, Abraham WT, Casey DE, et al. *J Am Coll Cardiol*. 2009;53:1344-1382.

4. Massie BM, Shah NB. Evolving trends in the epidemiologic factors of heart failure: rationale for preventive strategies and comprehensive disease management. *Am Heart J*. 1997;133:703-712.



# IMPORTANT HEART FAILURE FACTS AND STATISTICS

- We compared 236 of our patients to a control group of Stage D HF patients. Our patients had **15.2% fewer admissions** which was a **4.1 Million dollar savings** on hospital costs.
- We have been very successful in “Breaking the Cycle” and decreasing re-hospitalization and ED visits.
- We are committed to conduct visits “PRIOR” to discharge. We do not get paid for these visits, but we are committed to conduct them because it reduces patient anxiety and improves outcomes.
- Extensive education for staff and patients, our clinical pathways and outcomes tracking.
- National Coverage. This especially important to transplant centers or areas that have patients who migrate with the seasons. We provide continuous uninterrupted services when patients move from one area to another.

# OUTCOMES OF HEART FAILURE

- 90% of patients who present to the emergency department in heart failure are admitted<sup>1</sup>
- Hospital readmissions:
  - 2% within two days<sup>1</sup>
  - 20% at 30 days<sup>1</sup>
  - 50% at six months<sup>1</sup>
- Mortality: almost 300,000 patients die annually<sup>2,3</sup>
- One in five die within first year after diagnosis<sup>4</sup>
- 50% at five years<sup>1</sup>

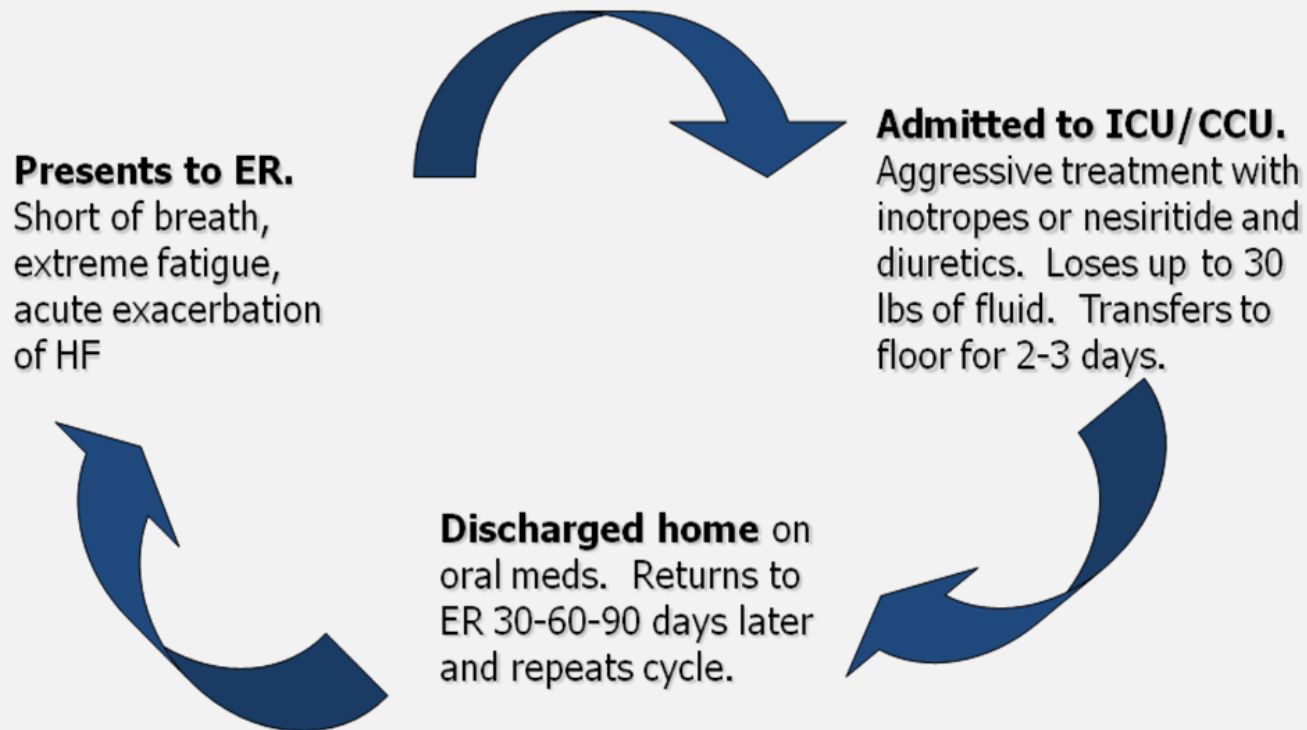
1. Aghababian RV. Acutely decompensated heart failure: opportunities to improve care and outcomes in the emergency department. *Rev Cardiovasc Med.* 2002;3(suppl 4):S3-S9.

2. Compressed Mortality File: Underlying Cause of Death. National Center for Health Statistics. Centers for Disease Control and Prevention Web site. <http://wonder.cdc.gov/mortSQL.html>. Accessed January 27, 2010..

3. Xu J, Kochanek KD, Tejada-Vera B. Deaths: Preliminary data for 2007. *Natl Vital Stat Rep.* 2009;58:1-51.

4. Heart Disease and Stroke Statistics—2010 Update. American Heart Association Web site. <http://circ.ahajournals.org/cgi/reprint/CIRCULATIONAHA.109.192667>. Accessed January 11, 2010.

# LIFE CYCLE OF PATIENTS WITH SEVERE HEART FAILURE



Used with permission from Nita Meaux, RN, CRNI.

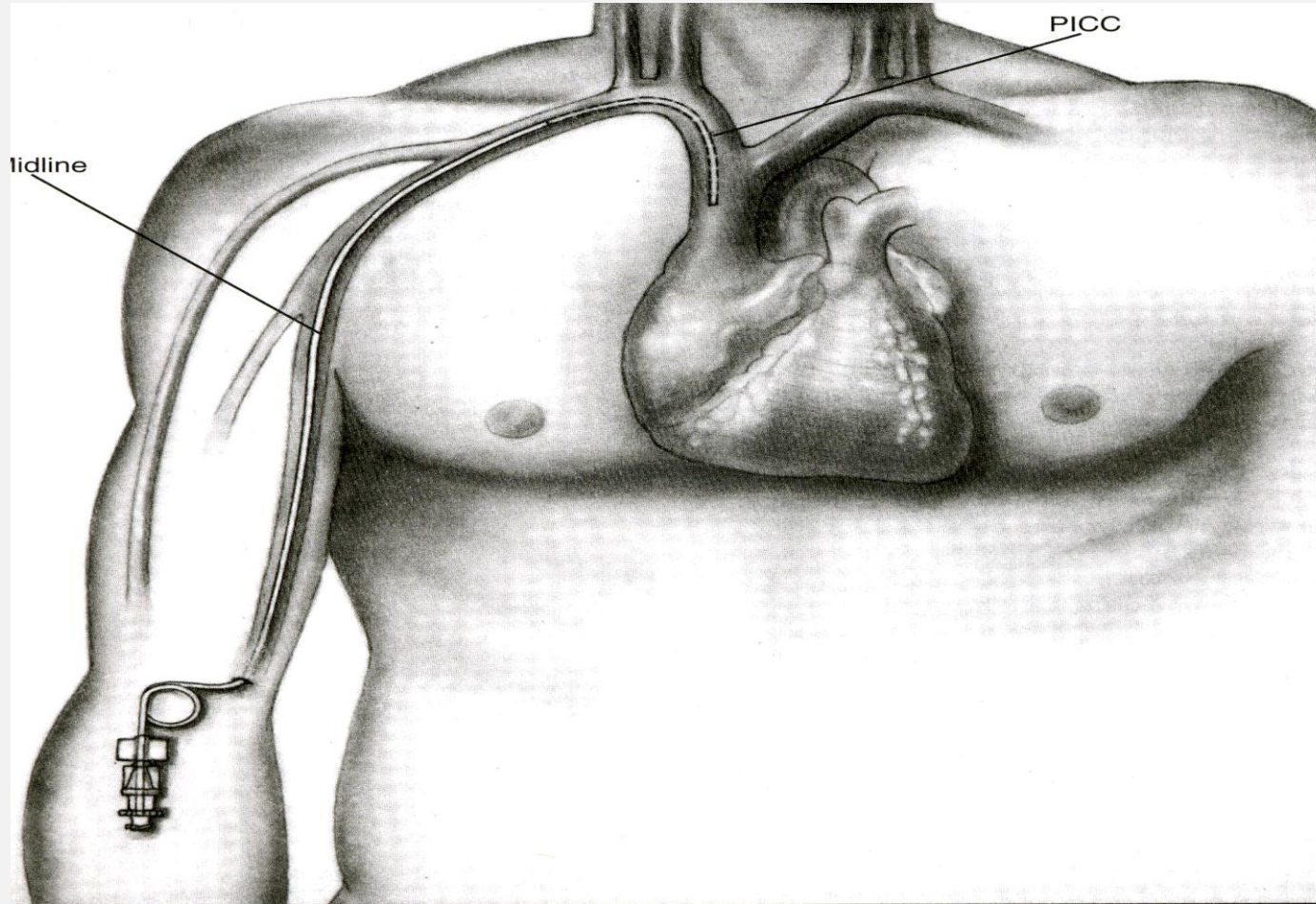
# VASCULAR ACCESS DEVICES



# VASCULAR ACCESS DEVICES

- Subcutaneous
- Short Peripherals
- PICC's
- Subclavian / Jugular
- Tunneled Silastic Catheters (e.g. Hickman, Broviac)
- Implanted Ports

# PICC Line





Walgreens Infusion Services

(800) 294-9003

[www.WalgreensHealth.com](http://www.WalgreensHealth.com)