Reducing Hospitalizations in Patients with Heart Failure: The Pharmacist’s Role - Article

EDUCATIONAL OBJECTIVES

Upon completion of this program, participants should be better able to:

1. Identify risk factors associated with hospitalization of patients with heart failure (HF).
2. Describe the effectiveness of interventions used to reduce hospitalizations in patients with HF.
3. Review the recommended functions of contemporary HF clinics.
4. Describe the role of the pharmacist in reducing hospitalizations in patients with HF.

Post-Test/Rationale

1. Among patients discharged from a hospital following an admission for heart failure, what proportion are readmitted within 30 days?

   A. 10%
   B. 20%***
   C. 40%
   D. 50%

Correct Answer: B
Data show that the highest risk for readmission for patients with heart failure occurs within 1 to 2 months following discharge and in the last 2 months of life.

2. Which of the following was not initially included in the CMS Hospital Readmission Reduction Program (HRRP)?

   A. myocardial infarction
   B. heart failure
   C. chronic obstructive pulmonary disease***
   D. pneumonia

Correct Answer: C
The initial program in 2012 targeted heart failure, myocardial infarction, and pneumonia. Additional diagnoses were added subsequently, including COPD.

3. In the “three-phase terrain” of hospital admission in heart failure, which phase includes the highest proportion of hospitalizations?

   A. end-of-life***
   B. plateau phase
   C. following initial hospital discharge
   D. hospitalizations are equally spread over all three phases
Correct Answer: A
The end of life is, perhaps not surprisingly, associated with the highest hospitalization rate (about 50% of hospitalizations). The time following discharge is the second-highest.

4. What is the most common reason for patients hospitalized with heart failure to be re-hospitalized?
   A. sepsis
   B. heart failure***
   C. pneumonia
   D. kidney injury

Correct Answer: B
Decompensated or symptomatic heart failure is the most common reason for patients to be readmitted, but a variety of cardiovascular and non-cardiovascular causes contribute to readmissions.

5. The largest outpatient clinic visit study (HART) demonstrated that, compared to informational mailings, face-to-face group meetings resulted in:
   A. reduced all-cause mortality
   B. reduced all-cause hospitalizations
   C. reduced heart failure-related hospitalizations
   D. no improvements in hospitalizations or mortality***

Correct answer: D
In this study of 902 patient discharged following a heart failure admission, 18 2-hour group meetings did not yield improved results over self-management (18 educational mailings).

6. The FDA-approved implantable device designed to identify patients with increasing subclinical intracardiac pressures is:
   A. right ventricular pressure monitor
   B. intrathoracic impedance monitor
   C. pulmonary artery pressure monitor***
   D. left ventricular outflow pressure monitor

Correct Answer: C
This device was approved based on findings from the CHAMPION study showing 37% reduction in hospitalization among monitored versus unmonitored patients.

7. According to the American College of Clinical Pharmacy (ACCP), routine discharge counseling and medication education in the hospital should include:
   A. an intensive review session encompassing a minimum of 60 minutes
B. only the most essential information
C. an in-depth discussion of non-pharmacologic interventions
D. a discussion of advanced treatment options for patients refractory to guideline-directed medical therapy

Correct Answer: B
This document stresses that patients have greater information retention 1 to 2 weeks post-discharge and should not receive an overwhelming amount of information while in the hospital.

8. Steps in the HFSA/ACCP consensus recommendations on the pharmacist’s role in preventing hospitalizations in patients with heart failure include:

   A. Medication reconciliation
   B. Therapeutic drug monitoring
   C. Requesting medical staff to review the chart for detection of drug-related errors
   D. A and B above

Correct Answer: D
Medication reconciliation and therapeutic drug monitoring are roles for pharmacists recommended by HFSA/ACCP. Chart review for detection of adverse events and medication errors is highlighted as part of the pharmacist’s role, so “requesting medical staff” to do so (C) is not accurate. (These items are summarized in Table 3 of this activity.)

9. According to the HFSA recommendations, when should patients be seen for initial follow-up after discharge for a heart failure hospitalization?

   A. 7 days
   B. 14 days
   C. 30 days
   D. 6 weeks

Correct Answer: A
HFSA Recommended Elements of Heart Failure Disease Management Programs call for follow-up within 7 days of discharge (Table 2, item 4 in this activity).

10. Non-invasive telemonitoring for patients with heart failure involves which of the following interventions?

    A. pulmonary artery pressure monitoring
    B. structured telephone support
    C. remote monitoring of cardiac rhythm, blood pressure, and weight
    D. all of the above

Correct Answer: C
Pulmonary artery pressure monitoring would fall under the category of invasive telemonitoring, so A is incorrect. Structured telephone support is more education-based and does not involve physiologic monitoring, so B and D are incorrect.