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

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 hospital readmissions for heart failure, what proportion is considered to be avoidable?
   A. less than 5%
   B. about 10%
   C. about 25%***
   D. over 50%

Correct answer: C
About 25%. Data show that an estimated 27% of readmissions may be avoidable (range 5% to 79%).

2. 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.

3. Which of the following is a risk factor independently associated with increased hospitalizations for heart failure?
   A. first-time (index) admission for heart failure
   B. being on maximum tolerated dose of a beta-blocker
   C. persistent low levels of BNP/NT-proBNP at discharge
   D. heart failure severity (Class III/IV)***
Correct answer: D
Prior hospital admissions for HF are an independent risk factor, so response A is incorrect. For B, titrating to the maximum tolerated dose of a beta-blocker is the goal for many patients. In the case of BNP/NT-proBNP, *elevated* levels (not low levels) are a risk factor, so response C is incorrect.

4. 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.

5. 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. Both of the above***
   D. Requesting medical staff to review the chart for detection of drug-related errors

Correct answer: C
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 (D) is not accurate. (These items are summarized in Table 3 of this activity.)

6. 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).