Digoxin reduces 30-day all-cause hospital admission in older patients with chronic systolic heart failure.

**Abstract**

**BACKGROUND:** Heart failure is a leading cause of hospital admission and readmission in older adults. The new United States healthcare reform law has created provisions for financial penalties for hospitals with higher than expected 30-day all-cause readmission rates for hospitalized Medicare beneficiaries aged ≥65 years with heart failure. We examined the effect of digoxin on 30-day all-cause hospital admission in older patients with heart failure and reduced ejection fraction.

**METHODS:** In the main Digitalis Investigation Group trial, 6800 ambulatory patients with chronic heart failure (ejection fraction ≤45%) were randomly assigned to digoxin or placebo. Of these, 3405 were aged ≥65 years (mean age, 72 years; 25% were women; 11% were nonwhite). The main outcome in the current analysis was 30-day all-cause hospital admission.

**RESULTS:** In the first 30 days after randomization, all-cause hospitalization occurred in 5.4% (92/1693) and 8.1% (139/1712) of patients in the digoxin and placebo groups, respectively, (hazard ratio {HR} when digoxin was compared with placebo, 0.66; 95% confidence interval {CI}, 0.51-0.86; P=.002). Digoxin also reduced both 30-day cardiovascular (3.5% vs 6.5%; HR, 0.53; 95% CI, 0.38-0.72; P<.001) and heart failure (1.7 vs 4.2%; HR, 0.40; 95% CI, 0.26-0.62; P<.001) hospitalizations, with similar trends for 30-day all-cause mortality (0.7% vs 1.3%; HR, 0.55; 95% CI, 0.27-1.11;
Digoxin reduces 30-day all-cause hospital admission in older patients with chronic systolic heart failure. Younger patients were at lower risk of events but obtained similar benefits from digoxin.

CONCLUSIONS: Digoxin reduces 30-day all-cause hospital admission in ambulatory older patients with chronic systolic heart failure. Future studies need to examine its effect on 30-day all-cause hospital readmission in hospitalized patients with acute heart failure.

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