

Fluoroquinolones prescribed frequently, often inappropriately, at hospital discharge, study finds

ACP Hospitalist Weekly Staff

Fluoroquinolones are often prescribed at hospital discharge, and many such prescriptions may not be appropriate, according to a recent study.

Researchers performed a retrospective cohort study of patients at 122 Veterans Health Administration (VHA) [acute care hospitals during 2014 to 2016 to look at patterns of fluoroquinolone prescribing at discharge](#). Prescriptions were also compared among nine hospitals that responded to a VHA survey about antimicrobial stewardship and self-reported use of prospective audit and feedback, restrictive policies, or no strategies to optimize fluoroquinolone prescribing. For these hospitals, manual chart review was used to determine how often fluoroquinolones were prescribed appropriately. The study results were published Sept. 28 by *Clinical Infectious Diseases*.

The study included 1,685,475 admissions and 1,727,478 fluoroquinolone days of therapy. Of these, 674,918 (39.1%) were prescribed for inpatients and 1,052,560 (60.9%) were prescribed at discharge. The diagnoses most likely to be associated with postdischarge fluoroquinolone use were urinary tract infection (18.7%) and acute exacerbations of chronic obstructive pulmonary disease (14.5%). Overall, 39,587 postdischarge fluoroquinolone prescriptions (30.8%) were for patients who had not received a fluoroquinolone while hospitalized.

In the manual chart review, which involved 375 patients at the nine included hospitals, hospitals that reported using restrictive policies had lower fluoroquinolone exposure postdischarge than those that reported no strategy (3.8% vs. 9.3%; $P=0.012$). No significant difference in fluoroquinolone exposure was seen in hospitals that used prospective audit and feedback versus those that used no strategy. Postdischarge fluoroquinolones were considered to be inappropriate on manual chart review in 154 of 375 patients (41.4%). Hospitals that reported no strategy to optimize fluoroquinolone use were more likely to have inappropriate use postdischarge than those that used restrictive policies or self-reported audit and feedback (52.8% vs. 35.2%; $P=0.001$).

The researchers noted that survey responses were self-reported, that differences in administration of stewardship strategies by hospital were not considered, and that there is no gold standard for the appropriateness of fluoroquinolone use, among other limitations. They concluded that in their study, most exposures to fluoroquinolones occurred after discharge and a large proportion of these prescriptions were inappropriate, especially at hospitals that did not currently have a strategy for managing fluoroquinolone prescribing in place. “Our findings suggest that stewardship efforts to minimize and improve fluoroquinolone prescribing should also focus on antimicrobial-prescribing at hospital discharge,” the authors wrote.

An accompanying editorial called hospital discharge “a major temporal moment for [antimicrobial stewardship]” and noted that the current study, despite its limitations, offered several opportunities for improvement in this area. Most of the inappropriate fluoroquinolone use at discharge was related to excessive duration or to selection error, meaning that the [drugs should not have been prescribed in the first place, the editorialist said](#).

“[Antimicrobial stewardship] opportunities at hospital discharge warrant further study to elucidate best practices and strategies as standard protocols and checklists have demonstrated in other general healthcare and [antimicrobial stewardship] settings,” the editorialist wrote. “Successful implementation of [antimicrobial stewardship] at this critical transition point will need to leverage and engage frontline providers, staff, pharmacists, case management, nurses and the entire care team to impact this unmet need, optimize antibiotic use, and improve patient care.”