



Quinolone Cross-Reactivity

Fluoroquinolones are commonly used oral and intravenous antibiotics with broad spectrum antimicrobial activity. While they are a [common target for antimicrobial stewardship programs](#), they still serve a large role in therapy, particularly when alternatives are not available or oral antibiotics are needed for a [Pseudomonas aeruginosa](#) infection. In patients who do require a fluoroquinolone, how should a fluoroquinolone allergy be managed?

What is the risk for cross-reactivity?

Fluoroquinolone immediate hypersensitivity cross-reactivity rates have been reported to be low among ciprofloxacin (2.5%), levofloxacin (2.0%), and moxifloxacin (5.3%).¹ When including delayed reactions as well, class cross-reactivity rates increase remain low (5.6%) and follow a similar trend with moxifloxacin (9.5%) followed by ciprofloxacin (6.3%) and levofloxacin (2.2%).²

How should an allergy be managed?

In a 2022 practice parameter for drug allergies the following recommendations are made. In mild reactions such as morbilliform drug eruption and urticaria that occurred ≥ 5 years ago, a 1 or 2 step challenge with the implicated fluoroquinolone may be used to confirm tolerance. For more severe or recent reactions, a 1 or 2 step challenge with a different fluoroquinolone may be used. In patients with proven allergies without an alternative, desensitization is recommended.³

Key Takeaway: Patients with an allergy to one fluoroquinolone are often able to tolerate a different fluoroquinolone.

References:

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2. Shah S, Clarke LG, Adams KK. In-class cross-reactivity among hospitalized patients with hypersensitivity reactions to fluoroquinolones. *Antimicrob Agents Chemother.* 2023; 67(6):e0037423. doi:10.1128/aac.00374-23.
3. Khan DA, Banerji A, Blumenthal KG, et al. Drug allergy: A 2022 practice parameter update. *J Allergy Clin Immunol.* 2022; 150(6):1333-93. doi:10.1016/j.jaci.2022.08.028.