

# ID specialist input improves outcomes for outpatient parenteral antimicrobial therapy

November 13 2018

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Before patients receive intravenous (IV) antimicrobial infusion therapy outside of the hospital—whether at home, a doctor's office or a skilled nursing facility—an infectious diseases (ID) specialist should review the order to ensure the most appropriate treatment, suggest updated guidelines released by the Infectious Diseases Society of America (IDSA). Once they begin receiving outpatient parenteral antimicrobial therapy (OPAT), patients should be monitored regularly, note the guidelines, which are being published in the journal *Clinical Infectious Diseases*.

OPAT has long been the standard of care to treat an infection that requires IV antimicrobials because it is less expensive than hospital-based treatment and is preferred by most [patients](#). Since the previous guidelines were published in 2004, three large studies have found this strategy to be safe: there is no difference in the number of adverse events related to OPAT compared to hospital-administered IV [antimicrobial therapy](#).

Additionally, new research underscores the value of review by an ID physician, nurse or pharmacist before starting OPAT, noting that it is associated with a lower risk of hospital readmission. In many cases the ID specialist will recommend an oral instead of an IV antimicrobial. Studies show up to 39 percent of OPAT patients can be switched from IV to oral antimicrobials and also note that as many as 1 in 10 patients don't need an antimicrobial at all. One study found an ID specialist-led stewardship program reduced pediatric OPAT orders by 24 percent,

without increasing readmissions.

"The majority of patients referred for OPAT therapy do need it, but in many cases an oral antimicrobial would do the job. Given the growing worldwide problem with antimicrobial overuse and resistance, any opportunity to de-escalate these drugs is critically important," said Anne H. Norris, MD, guidelines co-chair and associate professor of clinical medicine at the Perelman School of Medicine at the University of Pennsylvania, Philadelphia. "Not only does this provide good stewardship of antimicrobials, but lowers costs and potentially improves patients' well-being. It's always better to avoid IV access if possible, and the narrower spectrum oral antimicrobials kill off fewer healthy bacteria than broader spectrum agents."

Newer research also suggests patients should have regular blood tests while receiving OPAT to monitor for toxicity and ensure the drug levels are adequate. Although there is no definitive evidence regarding how often that should occur, most patients are tested weekly, said Dr. Norris.

Other new recommendations in the guideline include:

- OPAT vancomycin should be monitored closely throughout the course of treatment for [adverse events](#) as one study found 42 percent of patients developed nephrotoxicity (kidney damage) after 14 days on therapy. If nephrotoxicity develops, options include lowering the dose or stopping the vancomycin and switching to another medication such as daptomycin.
- In patients with no history of allergy to antimicrobials in the same class, the first dose of a new IV antimicrobial may be given at home under the supervision of a health care worker who is trained to manage an allergic reaction.
- In patients receiving OPAT antimicrobials for two weeks or less, it is acceptable to deliver the medication using a midline catheter

in the arm rather than via a peripherally inserted central catheter (PICC) or central venous catheter.

- If a patient with a PICC develops a blood clot, it is not necessary to remove and replace the catheter if anticoagulation is started, the catheter is well-positioned and arm pain and swelling have decreased.

**More information:** 2018 IDSA Clinical Practice Guideline for the Management of Outpatient Parenteral Antimicrobial Therapy, [academic.oup.com/cid/advance-a ... 3/cid/ciy745/5175018](https://academic.oup.com/cid/advance-article-abstract/doi/10.1093/cid/ciy745/5175018)

Provided by Infectious Diseases Society of America

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