

2018 Infectious Diseases Society of America Clinical Practice Guideline for the Management of Outpatient Parenteral Antimicrobial Therapy^a

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A panel of experts was convened by the Infectious Diseases Society of America to update the 2004 clinical practice guideline on outpatient parenteral antimicrobial therapy (OPAT) [1]. This guideline is intended to provide insight for healthcare professionals who prescribe and oversee the provision of OPAT. It considers various patient features, infusion catheter issues, monitoring questions, and antimicrobial stewardship concerns. It does not offer recommendations on the treatment of specific infections. The reader is referred to disease- or organism-specific guidelines for such support.

Keywords. OPAT; parenteral antimicrobial therapy; treatment guideline; IV antimicrobial.

EXECUTIVE SUMMARY

Outpatient parenteral antimicrobial therapy (OPAT) is defined as the administration of parenteral antimicrobial therapy in at least 2 doses on different days without intervening hospitalization. Recommendations made in the updated guideline for the prescription and management of OPAT are summarized below. The panel followed a process used in the development of other Infectious Diseases Society of America (IDSA) guidelines, which included a systematic weighting of the strength of the recommendation and quality of evidence using Grading of

Recommendations Assessment, Development and Evaluation (Figure 1) [2–5]. This revision focuses on systematically reviewing the literature to answer specific OPAT practice questions using published evidence. Readers are referred to the 2016 IDSA OPAT eHandbook for a more in-depth discussion of background and hands-on advice on the practice of OPAT [6]. Best practice tables that address pharmacokinetic features, administration options, and potential adverse effects of selected antimicrobials are included in this guideline. The guideline is not intended to replace clinical judgment in the management of individual patients. A detailed description of the methods, background, and evidence summaries that support each recommendation can be found online in the full text of the guideline.

PATIENT CONSIDERATIONS

I. Should patients (or their caregivers) be allowed to self-administer OPAT?

Recommendation

1. Patients (or their caregivers) should be allowed to self-administer OPAT (strong recommendation, low-quality evidence).

II. Should patients (or their caregivers) be allowed to self-administer OPAT at home without visiting nurse support?

Recommendation

2. Patients (or their caregivers) may be allowed to self-administer OPAT at home without visiting nurse support as long

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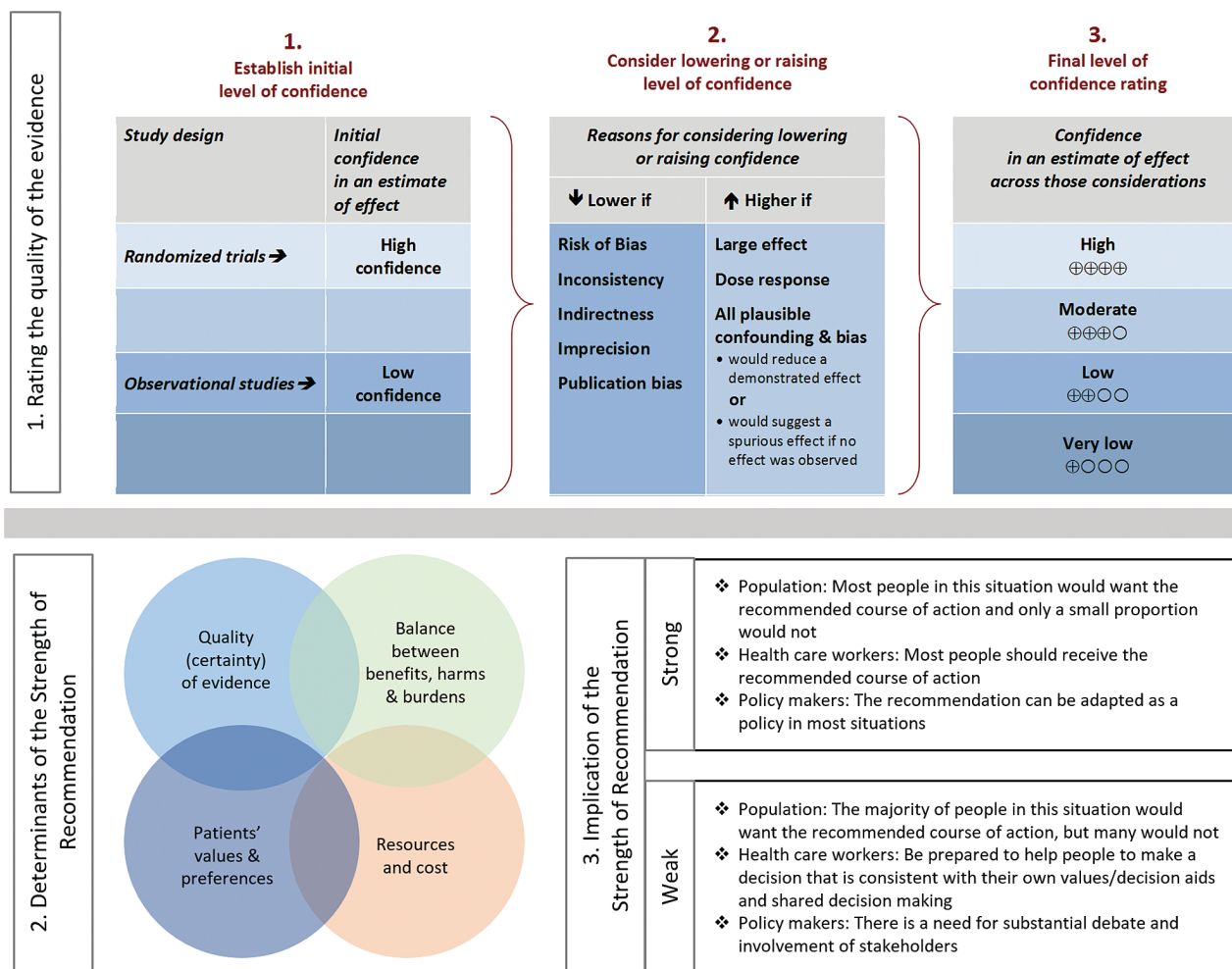


Figure 1. Approach and implications to rating the quality of evidence and strength of recommendations using the Grading of Recommendations Assessment, Development and Evaluation (GRADE) methodology. Unrestricted use of the figure granted by the USA GRADE Network.

as there is a system in place for effective monitoring for vascular access complications and antimicrobial adverse events (weak recommendation, low-quality evidence).

III. Can persons who inject drugs (PWID) be treated with OPAT at home? Recommendation

3. No recommendation can be made about whether PWID may be treated with OPAT at home (no recommendation, low-quality evidence). Decisions should be made on a case-by-case basis.

IV. Should elderly patients be allowed to be treated with OPAT at home? Recommendation

4. Elderly patients should be allowed to be treated with OPAT at home (strong recommendation, low-quality evidence). This recommendation assumes that potential challenges to OPAT in the elderly, such as cognition, mobility, and dexterity, have been duly considered and that the patient or

caregiver is able to communicate with the treatment team if necessary.

V. Should infants aged <1 month be treated with OPAT at home? Recommendation

5. No recommendation can be made regarding whether infants aged <1 month may be treated with OPAT at home (no recommendation, very low-quality evidence). Decisions should be made on a case-by-case basis.

ANTIMICROBIAL UTILIZATION

VI. Is it safe and appropriate to administer the first OPAT dose of a new antimicrobial at home? Recommendation

6. In patients with no prior history of allergy to antimicrobials in the same class, the first dose of a new parenteral antimicrobial may be administered at home under the supervision of healthcare personnel who are qualified and equipped to

respond to anaphylactic reactions (weak recommendation, very low-quality evidence).

VASCULAR ACCESS DEVICES

VII. In patients needing short courses of OPAT, is it acceptable to use a midline catheter (MC) instead of a central venous catheter?

Recommendation

7. In adult patients needing short courses of OPAT (less than 14 days), a MC may be used rather than a central venous catheter (weak recommendation, very low-quality evidence). No recommendations can be made regarding the use of MCs in pediatric patients.

VIII. Should vesicant antimicrobials (medications associated with tissue damage caused by extravasation) be administered via central catheters vs noncentral catheters only?

Recommendation

8. Mandatory use of a central catheter over a noncentral catheter for OPAT with vancomycin is not necessary (weak recommendation, very low-quality evidence). No recommendation can be made for choice of vascular catheter for OPAT with other vesicant antimicrobials such as nafcillin and acyclovir (no recommendation, very low-quality evidence).

IX. Should patients with chronic kidney disease (CKD) requiring OPAT have a tunneled central venous catheter (t-CVC) for vascular access rather than a peripherally inserted central catheter (PICC)?

Recommendation

9. For patients with advanced CKD requiring OPAT, a t-CVC is recommended rather than a PICC (strong recommendation, low-quality evidence).

X. Should patients requiring frequent OPAT courses have a long-term central catheter (LTCC) inserted with the intention of leaving it in place between courses?

Recommendation

10. No recommendation can be made about whether patients who require frequent courses of OPAT should have a LTCC left in place between courses (no recommendation, no evidence).

XI. Should the vascular access device be removed if a patient develops symptomatic catheter-associated venous thromboembolism (CA-VTE) while on OPAT?

Recommendation

11. It is not necessary to remove a vascular access device if CA-VTE develops during OPAT, as long as the catheter remains well positioned and arm pain and swelling decrease with anticoagulation (weak recommendation, very low-quality evidence).

XII. Should patients with prior CA-VTE be treated with prophylactic anticoagulation while on OPAT?

Recommendation

12. No recommendation can be made regarding the need to treat patients with a history of prior CA-VTE with

prophylactic oral anticoagulation while on OPAT (no recommendation, no evidence).

XIII. Should children receive OPAT through a PICC or a LTCC?

Recommendation

13. For most children requiring OPAT, a PICC should be placed rather than a LTCC (strong recommendation, very low-quality evidence).

MONITORING

XIV. Should patients receiving OPAT have laboratory test monitoring while on therapy? If so, which tests should be done and how often?

Recommendation

14. Serial laboratory testing should be monitored in patients receiving OPAT (strong recommendation, high-quality evidence). Data are insufficient to make evidence-based recommendations about specific tests and specific frequencies of monitoring for individual antimicrobials used in OPAT.

XV. For patients receiving vancomycin as part of OPAT, should vancomycin serum levels be measured regularly throughout the course of treatment?

Recommendation

15. Vancomycin blood levels should be measured regularly throughout the course of OPAT treatment (strong recommendation, very low-quality evidence). The optimal frequency of measurement is undefined, but the general practice in the setting of stable renal function is once weekly.

XVI. How frequently should patients on OPAT have scheduled physician office visits for monitoring of treatment?

Recommendation

16. No generalized recommendation on frequency of outpatient follow-up can be made for patients treated with OPAT (no recommendation, no evidence). The treating physician should dictate the frequency of office visits, giving consideration to patient characteristics, the nature of the infection, the patient's tolerance of and response to therapy, and individual patient social factors.

ANTIMICROBIAL STEWARDSHIP

XVII. Should all patients have infectious diseases (ID) expert review prior to initiation of OPAT?

Recommendation

17. All patients should have ID expert review prior to initiation of OPAT (strong recommendation, very low-quality evidence).

Notes

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requires full disclosure of all relationships, regardless of relevancy to the guideline topic. Evaluation of such relationships as potential conflicts of interest is determined by a review process that includes assessment by the SPGC chair, the SPGC liaison to the development panel, and the board of directors liaison to the SPGC, and, if necessary, the Conflicts of Interest Task Force of the board. This assessment of disclosed relationships for possible conflicts of interest will be based on the relative weight of the financial relationship (ie, monetary amount) and the relevance of the relationship (ie, the degree to which an association might reasonably be interpreted by an independent observer as related to the topic or recommendation of consideration). The reader of this guideline should be mindful of this when the list of disclosures is reviewed.

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