

**Outpatient parenteral antimicrobial therapy (OPAT) is increasingly used to treat children at home, but studies in children are scarce. We aimed to describe the use, appropriateness and outcomes of OPAT in children” Hodgson et al (2016).**

Abstract:

**OBJECTIVE:** Outpatient parenteral antimicrobial therapy (OPAT) is increasingly used to treat children at home, but studies in children are scarce. We aimed to describe the use, appropriateness and outcomes of OPAT in children.

**DESIGN:** This was a 12-month prospective observational study.

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**SETTING:** The hospital-in-the-home programme of The Royal Children’s Hospital Melbourne.

**PATIENTS:** All patients receiving OPAT.

**INTERVENTIONS:** Data were collected including demographics, diagnosis, type of venous access and antibiotic choice.

**MAIN OUTCOME MEASURES:** Length of stay, adverse events, readmission rate and appropriateness of antibiotic use.

**RESULTS:** 228 patients received OPAT in 251 episodes. The median age was 7.4 years (range 1 week to 21 years), with 22 patients (10%) under 1 year. The most frequent diagnoses were exacerbation of cystic fibrosis (17%), urinary tract infection (12%) and cellulitis (9%). Most patients were transferred from the ward, but 18% were transferred directly from the emergency department, the majority with skin and soft-tissue infection (66%). Venous access was most commonly peripherally inserted central catheter (29%) and

peripheral cannula (29%). 309 parenteral antibiotics were prescribed, most frequently ceftriaxone (28%) and gentamicin (19%). The majority of antibiotics (72%) were prescribed appropriately. However, 6% were deemed an inappropriate choice for the indication and 26% had inappropriate dose or duration. The incidence of central line-associated bloodstream infections was 0.9%. The unplanned readmission rate was 4%, with low rates of OPAT-related adverse events. Three children (1%) had an inadequate clinical response.

**CONCLUSIONS:** OPAT is a safe and effective way of providing antibiotics to children. Despite high rates of appropriate antibiotic use, improvements can still be made.

Reference:

Hodgson, K.A., Huynh, J., Ibrahim, L.F., Sacks, B., Golshevsky, D., Layley, M., Spagnolo, M., Raymundo, C.M. and Bryant, P.A. (2016) The use, appropriateness and outcomes of outpatient parenteral antimicrobial therapy. *Archives of Disease in Childhood*. May 10th. .

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