

Despite the benefits of home treatment with outpatient parenteral antimicrobial therapy (OPAT), children with pyelonephritis and meningitis are rarely included” Hensey et al (2017).

Abstract:

BACKGROUND: Despite the benefits of home treatment with outpatient parenteral antimicrobial therapy (OPAT), children with pyelonephritis and meningitis are rarely included. We aimed to compare clinical characteristics and outcomes between hospital and home treatment for these conditions, and to identify factors influencing home treatment.

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METHODS: Children admitted to the hospital with pyelonephritis or proven and presumed bacterial meningitis from 1/1/2012-31/12/2013 were identified retrospectively. Patients who received any OPAT (home group) received daily visits via our Hospital-in-the-Home (HITH) program; inpatients (hospital group) received standard care. Clinical and demographic features, length of stay, readmission rate and cost were compared between hospital and home groups.

RESULTS: 139 children with pyelonephritis and 70 with meningitis were identified, of which 127 and 44 were potentially suitable for OPAT respectively. Of these, 12 (9%) with pyelonephritis received OPAT, contrasting with 29 (66%) with meningitis. Clinical features did not differ between hospital and home-treated patients for either condition. Patients with meningitis in the hospital group were younger than those transferred to HITH (1 month versus 2 months, $p=0.01$). All patients were afebrile before transfer to HITH. Admissions for pyelonephritis were brief with inpatients having a shorter length of stay than home patients (median 3 versus 4.5 days, $p=0.002$). Unplanned readmission rates were comparable across all groups. Transfer to HITH resulted in a saving of AU\$178,180.

CONCLUSIONS: Children with pyelonephritis and meningitis can feasibly receive OPAT. Age, treatment duration, and fever influence this decision. None of these should be barriers



to OPAT and the cost savings support change in practice.

Reference:

Hensey, C.C., Sett, A., Connell, T.G. and Bryant, P.A. (2017) A Comparison of Hospital Versus Outpatient Parenteral Antibiotic Therapy at Home for Pyelonephritis and Meningitis. The Pediatric Infectious Disease Journal. April 10th. .

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