Outpatient parenteral antibiotic therapy (OPAT) is an established antimicrobial delivery method in the United Kingdom. OPAT services differ nationwide with a paucity of high-quality outcome data to enable benchmarking. We studied clinical outcomes and adverse events of patients identifying factors associated with success and failure” Hatcher et al (2019).

Abstract:

OBJECTIVES: Outpatient parenteral antibiotic therapy (OPAT) is an established antimicrobial delivery method in the United Kingdom. OPAT services differ nationwide with a paucity of high-quality outcome data to enable benchmarking. We studied clinical outcomes and adverse events of patients identifying factors associated with success and failure.

METHODS: We performed a retrospective review of all patients treated during 2008 to 2017. Regression models were used to identify factors associated with OPAT success and adverse events were described for the study population using definitions recommended from the British Society of Antimicrobial Chemotherapy.

RESULTS: In the 10-year period 2870 patient episodes resulted in 69610 days of treatment. We report a 91.7% rate of successful completion of therapy with 92% of infection either cured or improved. We encountered 196 adverse events including one case of Clostridium difficile associated diarrhoea. Adverse events occurred in 11% of patient episodes. Adverse drug and line events occurred at a rate of 3.3 and 1.78 per 1000 treatment days respectively. Rashes, blood dyscrasias and hepatitis were the most common drug adverse events. The odds of OPAT success were greater for those patients who spent more time (>14 days) on OPAT therapy (OR 2.32, p<0.01), who utilised a peripheral line (OR 1.83, p<0.01), who were treated in clinic compared to self-administration (OR 2.1, p<0.02), and who did not experience an adverse event (OR 0.23, p<0.01) CONCLUSION: In our setting, the odds of a successful OPAT episode are associated with a longer course of treatment; OPAT delivered via a peripheral line; antibiotics administered in an OPAT clinic setting and no adverse line or drug events.
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Reference: