

Services include: IVA administration at a hospital outpatient clinic (HO); IVA administration at home by a general nurse (GN) or a specialist nurse (SN); or patient self-administered (SA) IVA administration following training. There is uncertainty regarding which OPAT services represent value for money; this study aimed to estimate their cost-effectiveness” Vargas-Palacios et al (2017).

Abstract:

Objectives: In the UK, patients who require intravenous antimicrobial (IVA) treatment may receive this in the community through outpatient parenteral antimicrobial therapy (OPAT) services. Services include: IVA administration at a hospital outpatient clinic (HO); IVA administration at home by a general nurse (GN) or a specialist nurse (SN); or patient self-administered (SA) IVA administration following training. There is uncertainty regarding which OPAT services represent value for money; this study aimed to estimate their cost-effectiveness.

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Methods: A cost-effectiveness decision-analytic model was developed using a simulation technique utilizing data from hospital records and a systematic review of the literature. The model estimates cost per QALY gained from the National Health Service (NHS) perspective for short- and long-term treatment of infections and service combinations across these.

Results: In short-term treatments, HO was estimated as the most effective (0.7239 QALYs), but at the highest cost (£973). SN was the least costly (£710), producing 0.7228 QALYs. The combination between SN and HO was estimated to produce 0.7235 QALYs at a cost of £841. For long-term treatments, SN was the most effective (0.677 QALYs), costing £2379, while SA was the least costly at £1883, producing 0.666 QALYs. A combination of SA and SN was estimated to produce 0.672 QALYs at a cost of £2128.

Conclusions: SN and SA are cost-effective for short- and long-term treatment of infections, while combining services may represent the second-best alternative for OPAT in the UK.

Reference:

Vargas-Palacios, A., Meads, D.M, Twiddy, M., Czoski Murray, C., Hulme, C., Mitchell, E.D., Gregson, A., Stanley, P. and Minton, J. (2017) Cost-effectiveness of outpatient parenteral antibiotic therapy: a simulation modelling approach. *Journal of Antimicrobial Chemotherapy*. 72(8), p.2392-2400.

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