[P13] THE USE OF HOME PARENTERAL ANTIMICROBIAL THERAPY FOR DIABETIC FOOT INFECTIONS AND ITS ASSOCIATED COST SAVINGS AND REDUCTION IN INPATIENT STAY OVER A 1 YEAR PERIOD

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Aim: Diabetic foot infections (DFI) often require intravenous (IV) antibiotics resulting in a significant burden on inpatient hospital services. At our University Hospital, we have provisions to provide parenteral antimicrobial therapy at home via our Outpatient Parenteral Antimicrobial Therapy (OPAT) team. Trained nurses or patients themselves administer antibiotics at home and patients are followed up in clinic frequently. We reviewed our use of the OPAT service over 12 months to quantify the benefits.

Method: From the OPAT electronic records we identified 12 patients (8 male, mean age of 59 ± 9.4 years) who had IV antibiotics for DFI between January 2015 and January 2016. 8 patients had type 2 diabetes, 3 patients had type 1 diabetes and 1 patient had non-diabetic peripheral neuropathy. Mean HbA1C was 8.1% ± 1.7% (65mmol/mol ± 18.5mmol/mol). One patient had home antibiotics administered twice over that period via the OPAT service. Patients' paper and electronic records were retrospectively reviewed to assess method of admission; duration, nature and method of inpatient and outpatient antibiotic therapy; organisms identified with sensitivities; intravenous catheters used and resolution of infection.

Results/Discussion: 8 patients achieved resolution of their infection. The other 4 patients had either more severe infections or other factors affecting wound healing reflecting the multi-factorial nature of diabetic foot problems. The majority of patients were initially admitted to hospital, either from the foot clinic or as an emergency, and then discharged with OPAT. However 4 patients were started on OPAT directly from the clinic, bypassing any inpatient stay at initiation. Mean length of inpatient stay was 10.2 ± 8.8 days with a total of 132 bed-days. Assuming 1 bed-day costs approximately €410, this would cost the National Health Service (NHS) approximately €54120. This is likely to be an underestimation. OPAT antibiotics were given for a mean of 30.9 ±17.6 days, usually once daily via a midline (7 patients), PICC line (4 patients), Hickmann line (1 patient) or a peripheral cannula (1 patient). Two patients self-administered their antibiotics after proper training. In total, 402 days of OPAT antibiotics were administered.

Conclusion: Administering IV antibiotics at home is more cost effective than inpatient admission for IV antibiotics. With the increasing burden on hospital beds, administering antibiotics through the OPAT service can help reduce inpatient bed days resulting in a sizable cost saving to the NHS per patient. With the OPAT service some admissions can be avoided altogether which is beneficial for both patients and health care providers.