
Clinical: Therapy and Observation

Abstract citation ID: jjae190.1058**P0884****Environmental impact and costs of a switching program of intravenous to subcutaneous infliximab in Inflammatory Bowel Disease**R. Oliveira¹, J. Roseira¹, N. Araújo², C. Cavaco¹, J. André¹, M. Sousa², H. Tavares de Sousa¹, M. Cunha³¹Unidade Local de Saúde do Algarve, Gastroenterology Department, Portimão, Portugal ²Unidade Local de Saúde do Algarve, Pharmacy Department, Portimão, Portugal ³Unidade Local de Saúde do Algarve, Colorectal Group - General Surgery Department, Portimão, Portugal

Background: We aimed to compare real-life direct and indirect costs and the environmental impact of switching IBD patients from IV to SC infliximab (IFX).

Methods: Adult IBD outpatients in clinical remission who switched from IV to SC IFX were studied. Data on direct and indirect costs for the hospital (€), and environmental impact (Carbon dioxide equivalents [CO_{2e}]), were evaluated before and after switching. Patients also completed an anonymous pilot questionnaire designed to assess the indirect costs associated with their own drug administration. A consecutive sample of patients was used to calculate costs over 6 months of both therapy regimens.

Results: Twelve patients switched to SC IFX (91.7% were under-optimised IV dosage). Before switching, most missed work (58.3%) or changed shifts for infusions (25%), leading to a median of 4 missed workdays over 6 months, translating to an estimated median loss of 328€ in self-earnings. Patients spent a median of 92.5 min travelling to and 720 min at the hospital. Post-switch, hospital time decreased to 195 min (p=0.005). However, due to pharmacy stock rules requiring frequent hospital visits to collect SC therapy, both travel time (190 min; p=0.009) and travel frequency (4.0 vs 6.0 visits; p=0.004) increased. Estimated travel costs for patients rose from 89.6€ to 196.0€ over 6 months (p=0.007).

Median direct costs were 1321.34€ for IV IFX and 2604€ for SC IFX (p=0.008), while indirect costs dropped as preparation time fell from 140 min for IV to 70 min for SC (p=0.001), corresponding to an estimated cost reduction of 9.59€ (p<0.001). Similarly, nursing staff time significantly reduced from 600 min with IV to 40 min with SC (p=0.002), corresponding to 95.01€ reduction (p<0.001), respectively. Over 6 months, IV IFX had a median carbon footprint of 20.95 kg CO_{2e}q (11.6 kg from infusions; 9.35 kg from patient travel), while SC IFX generated 24.15 kg CO_{2e}q (3.6 kg from injections; 20.55 kg from patient travel) per patient (p=0.859).

Conclusion: Our analysis shows SC IFX incurs higher direct costs than IV IFX without reducing the carbon footprint. However, reduced indirect patient costs and improved pharmacy and day hospital efficiency may offset these expenses. To maximise benefits, pharmacies should adjust stock management policies and minimise patient travel. These factors should be evaluated locally in a switching program design.