Introduction

Patients with severely impaired antibody mediated immunity require lifelong immunoglobulin replacement therapy (IgRT). Without adequate IgRT, patients experience recurrent infections which frequently require hospitalisation, and are at risk of developing bronchiectasis. Prompt diagnosis and treatment prior to the onset of complications is compatible with near normal life expectancy. However patients who develop complications have significantly impaired survival. (Chapel et al.2009)

IgRT reduces healthcare costs compared to leaving patients untreated (Modell et al. 2011). Home therapy is associated with decreased healthcare costs compared to hospital-based therapy, and improved health-related quality of life (Garduff et al., 2006).

Objectives

The aim of this service evaluation were:

• To establish the prevalence of IgRT in adults under the care of Immunologists in Ireland

• To assess whether treatment was delivered in the immunology centre, local hospitals or as home therapy

• To evaluate the safety of home therapy, as delivered in Ireland

• To examine barriers to home therapy

Methods

Consultant Immunologists, caring for adult patients were surveyed. The information sought was:

• Total number of patients currently on immunoglobulin
• How immunoglobulin is delivered – IV, sub cut, or facilitated subcut; and whether hospital based or home therapy
• Adverse events in the home therapy programme EVER
• Barriers to home therapy, including issues with funding over the last 3 years
• Bed days saved

Results

There were 227adult patients receiving IgRT under the care of immunologists nationally. Of these, 103 were treated in the immunology centre, 30 in local hospitals and 94 undertaking home therapy.

Type of therapy used:

• IV treatment was used by 124/130 (95%) of hospital infusers, with a small number (6, 5%) on facilitated-SubCut (f-SubCut).
• SubCut IgRT was used by 65/94 (69%), f-SubCut by 9/94 (10%), with IV by 20/94 (21%) home infusers

94 patients undertaking their own treatment at home saves 1,598 day admissions per year, as treatment is usually given 3 weekly

Home therapy by centre:

Barriers to home therapy:

• Insufficient consultant immunologists
• Lack of nurse specialists
• Funding

Funding applications agreed & time to agreement by area:

Marked geographical variation was found in the success of funding applications, and the time and paperwork required

Safety:

In over 500 patient years of observation (>25,000 infusions) there were 4 acute reactions (2 mild, 1 moderate, 1 severe). The patient with the most severe reaction attended ED, but did not require adrenaline.

2 patients developed repeated urticaria post infusion, requiring a change in product, which was successful.

Failure to go home/Return to hospital:

1 patient - large local site reactions; could not continue subcut IgRT.

4 patients - Change in home circumstances

2 patients - Change in medical circumstances

2 patients - Changed mind / felt unable to continue

Conclusions & Recommendations

• IgRT home therapy programmes in Ireland deliver safe care

• In centres where therapy can be offered to all suitable patients, up to 59% of patients avail of home therapy

• Home therapy provision to 94 patients nationally saves 1,598 day admissions per year, for life.

• Barriers to home therapy included lack of immunology nurse specialists, consultant immunologists and funding.

• Geographical inequality should be addressed by national guidelines.