Safety and patient satisfaction of infliximab administration in an extramural setting supervised by a rheumatology specialist nurse

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After introduction of reimbursement of the cost of infliximab for the treatment of patients with active rheumatoid arthritis (RA),¹ several hospitals had insufficient capacity at their hospital's day care centre to administer the drug. Therefore, we explored the possibility of administering infliximab in an extramural setting supervised by a rheumatology specialist nurse (RSN).

A vacant room in a nursing home 5 km from the hospital was prepared as the infusion facility. Two nurses and the nursing home physician were given details of the clinical aspects of RA, with emphasis on treatment with infliximab. The hospital infliximab protocol, including the screening before each infusion, the preparation and administration of infliximab, and the safety procedure, was adapted. A form to guarantee communication between the hospital and the extramural setting was developed. Arrangements with the hospital pharmacy were made to assure punctual delivery of the exact number of infliximab vials to the extramural setting on the day of the infusion. The infusions were organised and supervised by the RSN once a week.

At the start of the project, all patients with RA attending the day care centre for infliximab infusions completed a questionnaire and an interview was carried out. Information was obtained on demographic and disease characteristics, previous problems related to the infusion treatment, the EQ-5D,² and satisfaction with infliximab administration. Satisfaction with treatment was measured on a visual analogue scale (0–100; higher values better satisfaction) and by a self composed questionnaire comprising 33 items (four point Likert scale) over seven domains covering information, accessibility, professionalism, courtesy of personnel, recreation possibilities, accommodation, and continuity of care. At the new infusion centre, all administrative and clinical events connected with the administration of infliximab were recorded prospectively. After 6 months, the patients again completed the EQ-5D and satisfaction questions.

After a pilot with eight patients, all 57 remaining patients with RA who had received at least four infusions in the hospital completed the screening questionnaire in September and October 2002. Forty (70%) patients were female, with a mean (SD) age of 54 (14.8) years, mean disease duration 12.3 (10.3) years, mean duration of infliximab administration 13.1 (6.8) months. Four patients were not considered eligible by the rheumatologist owing to events during one of the previous infusions or comorbidity, 13 refused extramural treatment for personal reasons, and nine had stopped the infusions before continuing extramurally because of the inefficacy of infliximab. Overall, the patients not participating were older (56 (17.3)) than the other patients (51 (12.7)). Of those who refused to change to the extramural setting, the schedule of a weekday infusion was unsuitable (54%) or they were resistant to change for non-obvious reasons (46%). Those with personal reasons for resistance were older (58

(18.5)) than those who had a practical reason (45 (14.9)). No differences in comorbidity were found between these two groups.

In September 2004, 24 of the initial 31 patients were still receiving infusions. All other patients stopped the infusion because of lack of efficacy. After telephone consultation with the rheumatology nurse, a planned infusion was postponed on 10 occasions because the patient had a minor infection. A total of 341 infusions were carried out, and the nursing home physician was contacted 24 times. Twice the infusion was postponed, twice an allergic skin reaction was treated with H₁ antagonists and three times the infusion speed was reduced because of uncomplicated illness. Twenty three patients completed the 6 months' evaluation.

Patients reported increased satisfaction with information provided about the treatment and its safety, and the increased possibility for contact with peers. Global satisfaction with infliximab administration improved from 74 (SD 12) to 81 (21) (paired *t* test: *p* = 0.05) and the EQ-5D from 0.44 (0.33) to 0.60 (0.25) (paired *t* test: *p* = 0.09).

Administration of infliximab organised and supervised by an RSN in an extramural setting is feasible and safe. Older patients, especially, resisted the change. Nevertheless, patients participating in the project reported improved satisfaction, especially with information on several aspects of the treatment. This shows that intramural treatment can be improved by giving more and better information about treatment. Although treatment by an RSN was initially begun because the hospital had insufficient capacity, fewer patients than expected started intravenous infliximab infusions, because subcutaneous products became available. However, the success of treatment in an extramural setting will be generalised to administration of infliximab for other conditions and other intravenous drugs.

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