

ABSTRACTS OF SOCIETIES

Scottish Society for Rheumatology

14th March 2008, James Watt Centre

Jack Fairweather was awarded the prize for best oral presentation

A Feasibility Study to Assess the Benefit to Rheumatology Patients of a Change in Practice of the Preparation and Administration of Infliximab Intravenous Infusions.

C Callaghan^{1,2}, M Kinnear^{1,2}, C Dawson³, R Pullan³, S Menzies¹

¹NHS Lothian Pharmacy Services.

²Strathclyde Institute of Pharmacy and Biomedical Science.

³Rheumatic Diseases Unit, NHS Lothian.

Introduction: Rheumatologists in the UK identify patients eligible for treatment with infliximab using national criteria.¹ Assessments are undertaken to manage risks (anaphylaxis, infection) associated with infliximab administration. Within NHS Lothian, infliximab is prepared by the pharmacy aseptic unit, the infusion administered over two hours and the patient is observed for two hours post-infusion. Every six to eight weeks patients spend several hours within the day unit, often taking time off work. Recent studies have shown that there is no significant difference in efficacy, or adverse effects when infliximab infusions are administered rapidly.^{2,3} The aim of this project was to investigate the impact of changing from current practice to a new model of practice on the time invested in preparation, patient assessment and the duration of patient stay. **Materials and Methods:** A rapid infusion protocol was approved by rheumatologists. A risk assessment was completed to allow the safe preparation of infliximab by nurses within the day unit. A form was designed to record measurement of the time taken to prepare infusion by the aseptic department, and the time taken by the nurse practitioner to assess/prepare patients for infusion, order/collect the infusion, administer infusion and monitor/discharge patient (discharge time was arrival at unit to departure). Measurements were collected in three phases – current practice (phase 1), infliximab prepared by nurses (phase 2) and rapid infusion protocol implemented (phase 3). Short, semi-structured interviews were undertaken with three patients to inform the design of a patient questionnaire to obtain data on the impact of the treatment process on their daily lives, which was piloted in two patients and posted to 15 patients during phase 3. **Results:** During evaluation, the pharmacy aseptic unit prepared 44 infusions of infliximab (data was incomplete for four infusions). The total time spent by the pharmacy aseptic unit in preparing and checking these 40 infusions was 40.9 hours (median 1 hour, IQR 0.7-1.3 hours). Table I (see SMJ website) provides a summary of results. Nine (60%) patients responded; mean age 55 (17) years, seven (78%) female. Infliximab indications were rheumatoid arthritis (n=7), psoriatic arthritis (n=1) and ankylosing spondylitis (n=1). Data from questionnaires was: median duration of therapy 20 (12-20) months; mean travel time to unit 51 (24) minutes; median cost of travel 2 (0-2) pounds; mean perceived time spent in unit 160 (75) minutes. **Conclusions:** The redesign of service provision for patients receiving infliximab infusions for a rheumatological condition has resulted in less time spent by patients in the day case unit. The impact of this change should be further assessed in follow-up work.

For references see www.smj.org.uk

Peer-Assisted Learning by Medical Students Improves Musculoskeletal System Examination Skills.

ME Perry, JM Burke, L Friel, M Field

Objective: to determine if peer-assisted learning (PAL) by final year medical students as an integrated part of the curriculum improves musculoskeletal examination by using the Gait, Arms, Legs, Spine (GALS) examination system as a training tool. **Methods:** Twenty five final year students were trained in the GALS system for musculoskeletal

system examination (MSS) by a specialist registrar in rheumatology or a specialist physiotherapist, whilst attending Glasgow Royal Infirmary as part of their standard clinical medical attachment. These students (trainers) then trained 74 final year students (trainees) in MSS using the GALS system. Students were evaluated with pre/post confidence questionnaire (100mm visual analogue scale), course experience questionnaire (using a 5 point Likert scale) and end of year final examination OSCE score for musculoskeletal system. Results were compared with 79 students who were trained by the non-peer assisted standard curriculum in alternative hospitals. **Results:** Analysis from the confidence questionnaires showed an increase in all parts of the GALS examination after training from mean score of 4.1 pre-training to 8.6 post training. (Range 0-10, $p < 0.0001$) Results of the course experience questionnaire demonstrated benefits in all parameters investigated (teamwork, trainers performance, teaching skills). OSCE results showed that 66/79 (83%) of students in the standard curriculum passed the MSS OSCE station. By comparison, 68/74 (92%) of the trainees ($p < 0.0001$) and 25/25 (100%) of the trainers ($p = 0.058$) passed the MSS. **Conclusions:** PAL for teaching the MSS in final year students improves confidence, encourages development of generic skills and results in improved OSCE scores for final year examination of MSS when compared to the standard curriculum. This is the first time that PAL for examination of MSS has been shown to work as part of the standard curriculum for medical students.

Anti-TNF Therapy in AS: Review of Evidence and Glasgow Royal Infirmary Patients

JA Fairweather¹, RD Sturrock², F McDonald²

¹Faculty of Medicine, University of Glasgow, Glasgow, United Kingdom.

²Centre for Rheumatic Diseases, Glasgow Royal Infirmary, Glasgow, United Kingdom.

Anti-Tumour-Necrosis-Factor Therapy in Ankylosing Spondylitis – A Scottish Experience

Background: Until recently, management of Ankylosing Spondylitis (AS) had been limited to symptom-modifying therapies. The discovery of tumour-necrosis-factor alpha activity in active AS and development of biological agents directed against it has revolutionised AS treatment. Infliximab, etanercept and adalimumab have all been shown in randomised, controlled trials to be effective and safe in the treatment of AS. The prediction of likelihood of response to treatment is an area in which the evidence is weaker. There is clearly a need for further investigation here, along with clinical audit to evaluate efficacy of anti-TNF agents in a real patient population. **Methods:** A retrospective audit was performed to evaluate the outcomes for all patients treated with Anti-TNFs at one specialist rheumatology centre in Scotland. Data was extrapolated from clinical notes in which outcome scores were routinely recorded at follow-up appointments. BASDAI improvement at three and six months was considered the primary outcome. BASFI, Pain Score, Patient Global Assessment, Physician Global Assessment, ESR and CRP and the proportion of subjects achieving ASAS 20, 40, 50 and 70 responses was also examined. Scatter graphs of numerous candidate predictors against outcome were produced. The proportions of CRP normal and CRP elevated patients responding was compared; as were the proportions of patients with short and long duration of disease. **Results:** Thirty two patients were included. There were 22 males and 10 females. The mean age of females was 47.3 years and the mean age of males was 45.0. The mean duration of disease was 17.4 years. The mean BASDAI change at three and six months were 2.21cm (32.8%) and 2.34cm (37.2%), respectively; and the proportion of subjects reaching BASDAI 50 was 39.1% and 31.2% at three and six months. All outcomes indicated improvement over the first six months of treatment, in some cases by up to 50%, and 41.7% of treatments resulted in an ASAS 20 response. Scatter-graphs for each predictor versus outcome showed no obvious relationships and the 2-sample t tests for difference in BASDAI change between CRP positive and CRP negative, and short disease duration and long disease duration were not significant.

Conclusions: The results of this audit show that these therapies are moderately effective in this setting. More than a third of patients responded well. However, compared with published trial results, the responses here are poor. Furthermore, no convincing evidence of a predictor-response relationship was found.

Audit of Anti-TNF Alpha Use in Edinburgh for Inflammatory Rheumatic Diseases.

J Heaney

SpR Western General Hospital, Edinburgh.

Objective: Biologic drugs such as anti-TNF alpha drugs have been shown to be effective in the treatment of rheumatoid arthritis (RA), psoriatic arthritis (PSA), and ankylosing spondylitis (AS) in many clinical trials. We wished to audit the efficacy and safety of these drugs in treating these diseases in routine clinical practice. **Methods:** Patients who had started an anti-TNF alpha drug during a one year period between 2005 and 2006 were identified from prescription records. Data was primarily gathered from an electronic database of clinic letters, any missing data was then collected from case notes. Initial response was recorded after three months of treatment. The first year of treatment was followed for changes in treatment, adverse events and switches between biologic drugs. **Results:** We identified 68 patients with RA who had started an anti-TNF alpha drug in this year. Fifty of these patients (74%) had made a satisfactory response judged by BSR standards. When assessed by EULAR criteria 9% had achieved remission, 15% had a good response, 57% had a moderate response, and 13% were non-responders. Twenty one per cent of patients had adverse events, of which one patient had a significant adverse event (renal carcinoma) that was found coincidentally with starting anti-TNF alpha. Thirty four per cent of those taking NSAIDs were able to stop, and 53% of those taking prednisolone could make a reduction in dose. Twelve patients who had not had a satisfactory response to their first anti-TNF alpha switched to a second. This switch was effective for eight patients. Four patients made a switch to a third biologic drug. After one year 72% were continuing their first anti-TNF alpha drug, and 90% were continuing a biologic treatment. Fourteen patients with AS were identified, all of whom made a satisfactory BASDAI response (mean improvement of 4.89). One adverse event occurred (flare of colitis). All patients were continuing their first anti-TNF alpha drug after one year. Twenty five patients with PSA were identified. Information for one patient was not available. Of the 24 remaining patients all made a satisfactory response and were continuing their first anti-TNF alpha drug after one year. Three minor adverse events occurred. The median tender joint count improved from 16 to 3.5, and the median swollen joint count improved from seven to two. **Conclusion:** Biologic drugs are effective in the treatment of RA, PSA and AS. In routine clinical practice the outcomes reflect those in clinical trials.