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Oral Presentations

O.05 Safety Profile of Tacrolimus Used in General Practice in England: A Prescription Event Monitoring Study

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Background: Tacrolimus, a topical calcineurin inhibitor, was licensed in the UK in April 2002 for treatment of moderate to severe atopic dermatitis (AD) in adults and children >2yrs where other treatments have failed. AD affects 1-3% of adults and 15-20% of children in the UK. In March 2005, the FDA issued a public health advisory outlining concerns about a possible link to lymphoma and skin cancer.

Objective: To monitor the safety of tacrolimus, prescribed in primary care in England using Prescription Event Monitoring (PEM).

Methods: An observational cohort study in which patients were identified from dispensed prescriptions issued by primary care physicians (GPs) between May 2002 and September 2004. Demographic and clinical event data (causality not implied) were collected from questionnaires posted to GPs at least 12 months after the 1st prescription date for each patient. Long and short term users were analysed separately. Event incidence densities (IDs) (number of 1st reports of an event/1000 patient-weeks (short term) or months of exposure (long term) were calculated for events occurring in the 1st 6 weeks or 12 months of observation, depending on treatment duration. Follow-up and causality assessment of medically significant events was undertaken.

Results: The cohort comprised 12 897 patients (median age 31yrs; IQR 40 (11-51)); 47% male (6082/12 897). There were 196 patients <2yrs (1.5% of 12 897); 64% male (125/196). Where strength was specified, 40% of patients in the whole cohort were prescribed 0.03% and 60% 0.1% tacrolimus. In the <2yrs, 72% were prescribed 0.03% and 28% 0.1% tacrolimus. Of 128 ADRs reported (1% of 11 658 events); the most frequent was 'skin burning at application site'. In short term users, 'Skin unspecified' (includes skin burning at application site) was the *clinical* event with the highest ID in week 1 (ID_1=2.17/1000 patient-weeks of observation). For long term users, eczema was the *clinical* event with the highest ID in month 1 (ID_1=3.98/1000 patient-months of observation). There were 2 cases of lymphoma, both pre-existing and 13 skin cancers coded, 6 of which were pre-existing.

Conclusions: Tacrolimus was considered reasonably well tolerated. Due to the biology of skin cancer and lymphoma, extended monitoring may be necessary to explore a possible link between tacrolimus and malignancy.