## **Clinical pharmacy and clinical trials**

followed by dispensing (22.1%), recording (9.6%) and reception (8.6%). The causes of prescribing incidents during 2009, 2010 and 2011 were respectively: no specification that the patient was included in CT (74.2%, 27.1% and 5.3%); incomplete prescription (2.6%, 24.2% and 31.6%), non-adherence to the study protocol (2.6%, 12.2% and 15.8%), incorrect dose (18%, 18.2% and 36.8%) and other causes (2.6%, 18.2% and 10.5%). The percentage of prescription incidents was: 2.01% (n = 1932) in 2009, 1.64% (n = 2012) in 2010 and 0.92% (n = 2050) in 2011. Prescribing incidents decreased significantly in 2011 compared to previous years. In these cases, there was an immediate intervention with a communication to the investigator.

**Conclusions** To manage the process as the Ethics Committee requires it is essential to have excellent communication and coordination between the pharmacy department and the other professionals involved. Measures taken were: increased electronic prescribing, using a specific application for CT prescribing and communication to researchers. The measures were effective in achieving a reduction in incidents in CT prescribing.

No conflict of interest.

## CPC-058 FACTORS ASSOCIATED WITH ANTIRETROVIRAL MEDICINES ADHERENCE AMONG HIV-INFECTED CHILDREN

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**Background** The aims of highly active antiretroviral therapy (HAART) in HIV-infected children are to achieve and sustain full HIV-RNA viral load (VL) suppression and CD4-reconstitution, in order to prevent the progression of the HIV infection and allow normal growth and development.

Adherence to HAART is a strong predictor of therapeutic efficacy. Previous studies have shown that therapeutic success requires adherence > 95%. Among paediatric HIV patients, adherence to HAART is reportedly suboptimal.

There are a number of factors that can compromise treatment compliance. These can be classified as those related to the medicine, the patient, the family/caregiver and the healthcare system.

**Purpose** To estimate the correlation between adherence to HAART and treatment efficacy.

To assess factors related to non-adherence among HIV-infected children.

**Materials and Methods** Retrospective cohort study from January 2008 to July 2012 including all HIV-infected patients on HAART followed by the Paediatrics Department.

Age, sex, lipoatrophy, number of pills/day (P/d) and frequency of daily dosing: once a day (QD) or twice a day (BID), were analysed.

Adherence was assessed by using the pharmacy refill records and pill count, according to the following formula:

Adherence (%) = (N° dispensed doses-  $N^{\rm o}$  returned doses)/N° prescribed doses  $\times$  100

Undetectable VL was defined as VL < 20 copies/ml.

Data were analysed by multiple logistic regression methods using SPSS software (version 19.0).

**Results** 24 HIV-infected patients were included (mean age =  $15.3 \pm 5.5$  years; 29.2% male, 70.8% female).

37.5% of patients presented lipoatrophy.

54.2% and 45.8% of the children were treated with a QD and BID regimen, respectively.

Only 50% of patients were considered adherent to treatment (adherence >95%).

The relationship between risk factors and adherence was: see Table  $% \left( {{{\rm{T}}_{{\rm{T}}}}_{{\rm{T}}}} \right)$ 

Patients with poor adherence had a higher risk of virological failure (OR = 11.67; CI95 = 1.14-119.54; p = 0.039) **Conclusions** Adherence to HAART represents a significant chal-

lenge in the paediatric HIV population.

The P/d was significantly associated with adherence. Every pill/ day increased up to 2.3-fold the risk of non-adherence to HAART.

Simplifying HAART by reducing the pill burden may contribute to improving compliance in the paediatric HIV population.

## Abstract CPC-058 Table 1

Factors	OR	CI 95%	р	
P/d	2.323	1.276-5.529	0.048	
Sex	0.238	0.018-3.084	0.272	
Age	0.858	0.622-1.182	0.348	
BID	0.347	0.014-8.716	0.52	
QD	0.494	0.030-8.204	0.623	
Lipoatrophy	0.591	0.58-6.072	0.658	

No conflict of interest.

## CPC-059 FIRST GLOBAL ANTIMICROBIAL STEWARDSHIP SURVEY – INTERIM ANALYSIS OF NON-UK EUROPEAN DATA

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**Background** Antimicrobial stewardship (AMS) has been surveyed at national and continental level, but never at a global level. The European Society of Clinical Microbiology & Infectious Diseases, Guidelines & Policies Working Group (ESGAP) supported a worldwide survey of AMS. This aimed to quantify the delivery & impact of AMS across the world.

**Purpose** A literature review identified published surveys and standards for AMS. The survey aimed to quantify those aspects of AMS that were being delivered; the barriers to delivery; funding & staffing of AMS; and its impact on financial, safety and resistance outcomes.

**Materials and Methods** This was an open web-based survey of hospitals via SurveyMonkey software using good practise methodology. It was piloted in 11 countries in 6 continents, refined, then disseminated through microbiology, infectious diseases and pharmacy networks & websites.

**Results** By the initial deadline, 513 hospitals worldwide & 298 from Europe (including 122 from the United Kingdom (UK)) had entered data.

26 non-UK European countries entered data (range: 1 (many) to 24 (France); average 7; mean 3). 65% of hospitals had AMS standards & 19% were planning them. 74% had an AMS Committee, 58% had an AMS Programme in place & 25% had one planned. Lack of information technology was the main barrier. Antimicrobial or infectious diseases pharmacists were present on 86% of AMS committees. On average, there was 8 hours per week of pharmacist time for AMS from the 75 responses. 80% had an antimicrobial formulary, 69% guidelines, 58% restriction, 40% day 3 review, 50% IV-tooral switch guidance & 57% had dose optimisation on request. 61% had AMS ward rounds mainly on intensive care & medicine. 34 centres had formally assessed their AMS programmes and had demonstrated reductions in expenditure, broad spectrum & inappropriate prescribing, but no decrease in length of stay or reduction in antimicrobial resistance.

**Conclusions** AMS appears to be well developed in many parts of Europe, and pharmacists are actively involved in its delivery.

No conflict of interest.