

before and 3 months after the guidelines were issued. Student's *t* test was used to compare the mean dose and average duration of gentamicin with the guidelines and compare gentamicin treatment before and after the guidelines.

**Results** 88 patients were included in the study period. Both groups (before/after) were similar in terms of age, weight and creatinine clearance (Cockcroft and Gault formula). The main aminoglycoside used was gentamicin (97.7%) (mostly with ceftriaxone). Before the recommendations, the mean gentamicin dose was  $2.0 \pm 0.7$  mg and mean gentamicin duration was  $2.4 \pm 0.6$  days. After the recommendations, the mean dose was  $2.2 \pm 0.9$  mg and mean gentamicin duration was  $2.4 \pm 1.1$  days. After the recommendations: 78% of gentamicin prescriptions were consistent with the recommended duration; 30% of prescriptions followed the recommended dose; the average dose of gentamicin differed significantly from the recommended dose ( $p < 0.001$ ); 24% of gentamicin treatments were consistent with recommendations. Average dose and duration of gentamicin did not significantly differ before and after the publication of the recommendation ( $p > 0.05$ ).

**Conclusions** Only 24% of geriatric patients have consistent gentamicin treatment. Guidelines did not change doctor's habits about gentamicin. We should now implement a new strategy for informing the medical staff, communication inside the institution and question their knowledge and make representations about kidney damage due to gentamicin. Clinical pharmacy should also be developed in order to help to improve the use of medicines.

#### Reference

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No conflict of interest.

#### GRP-063 EVALUATION OF INTRAVENOUS IMMUNOGLOBULIN (IVIG) PRESCRIPTIONS IN AN ITALIAN PAEDIATRIC HOSPITAL: AN OVERVIEW OF OFF-LABEL USES

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**Background** Our paediatric hospital 'G. Salesi' officially follows regional guidelines on the proper use of IVIG. Guidelines aim to improve the management of drug requests during times of shortage and to ensure IVIG supplies for critical situations.

**Purpose** To evaluate the suitability of IVIG prescriptions for children, to identify 'off-label' uses, to cheque the amounts of drug used.

**Materials and Methods** Retrospective analysis of prescriptions delivered to the hospital pharmacy from July 2011 to June 2012. IVIG requests were paper forms with 7 licenced directions according to regional guidelines: primary immune-deficiency disorder (PID), myeloma/chronic lymphocytic leukaemia (CLL), idiopathic thrombocytopenic purpura (ITP), Kawasaki disease (KD), Guillain-Barré syndrome (GBS), bone marrow allograft (BMAG) and severe bacterial infectious disease (BID).

**Results** We examined 154 drug requests for 67 patients admitted to one or more of the following wards: Onco-haematology, Paediatrics, Infectious Diseases Unit, Neonatology, Intensive Care Unit, Paediatric Neuropsychiatry. One patient was also affected by cystic fibrosis (CF).

Onco-haematology was the most demanding ward with 98 prescriptions, 46 patients and 58% (2430 g/4160 g) of dispensed IVIG. The CF patient with ITP received 580 g with 14 prescriptions over 6 months.

Most of the requests had licenced indications (131) classified as follows: BID (68), ITP (26), PID (23), KD (11), GBS (1) and BMAG (1).

Eighteen patients had 23 off-label requests. The main unlicensed uses were thrombocytopenia (6), hypogammaglobulinaemia in acute lymphoblastic leukaemia (5), autoimmune haemolytic anaemia (3), neonatal hyperbilirubinaemia (2) and Rh iso-immunisation (1). Seventeen off-label prescriptions didn't have written clinical certification to support the request. However the request form declared the physician's responsibility and the absolute necessity of IVIG treatment.

**Conclusions** Despite regional guidelines, off-label use of IVIG is constant in our hospital. Hospital pharmacists should work more closely with clinicians to identify off-label prescriptions without evidence/directions because this drug can be life-saving and it is necessary to keep it available for critical situations.

No conflict of interest.

#### GRP-064 EVALUATION OF MEDICAL ACCEPTANCE OF PHARMACEUTICAL INTERVENTIONS IN LAVERAN MILITARY HOSPITAL

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**Background** Laveran Military Hospital (Marseille, France) contains 18 clinical units (300-bed capacity). Every day, pharmacists analyse computerised prescriptions and formulate pharmaceutical interventions (PIs) defined by the French Society of Clinical Pharmacy as "a change in drug treatment initiated by the pharmacist".

**Purpose** To determine the most common medicines errors and to evaluate the clinical impact of pharmaceutical validation.

**Materials and Methods** A prospective study included all patients hospitalised in four medical units (internal medicine, pneumology-oncology, tropical and infectious diseases and orthopaedic surgery) from 14 May to 31 August 2012. Doctors were either notified of PIs by phone and/or by clinical staff interventions and/or by electronic notification (by Pharma software). Medical acceptance was defined as changing the prescription. Drug switches or drug discontinuations in case of unavailability in the hospital pharmacy were not included so as not to overestimate the acceptance rate.

**Results** In 16 weeks, pharmacists analysed 3334 prescriptions, which led to 247 PIs. The main problems were overdose (34.4%), inappropriate administration (19.4%), non-conformity or contra-indication (11.7%). The solutions most often suggested by pharmacists were dose adjustment (36.4%), optimization of administration (28.4%) and drug discontinuation (21.6%). The drugs most frequently involved were: antithrombotics (12.1%), antibacterials for systemic use (7.7%) and analgesics (6.1%). During the study period, 58.7% of PIs were accepted by the prescribers. This result depended on the different means of interventions: 81.3% and 72.2% of staff interventions or phone calls were accepted respectively, versus 48.7% for electronic notification. The acceptance rates were comparable to the studies reported in the literature [1].

**Conclusions** This study shows the superiority of oral notification and encourages a pharmaceutical presence in care units. Later, it would be interesting to identify the causes of non-acceptance, in particular for electronic notification.

#### References

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No conflict of interest.