

screened within three point prevalence analyses at admission, during inpatient stay and at discharge, respectively. Medication is recorded and correlated to diagnoses and reason for admission. Patients are included in the study if they were admitted via the emergency department with at least five drugs prescribed on admission.

**Results** 660 patients were screened until 10/2012. 107 patients met the inclusion criteria, 63% of them were female, 64% (68/107) received at least one PIM at admission (48, 29 and 50 patients as defined by FORTA, PRISCUS and STOPP, respectively; multiple classifications possible), 82% (88/107) received PIM during inpatient stay (59 FORTA, 62 PRISCUS, 55 STOPP) and 57% (61/107) at discharge (40 FORTA, 27 PRISCUS, 48 STOPP). Zopiclone was the most often (29%) prescribed PIM during inpatient stay.

**Conclusions** Data of the interim analysis show that a high proportion of inpatients received PIM. Once the data acquisition is completed, further evaluation is needed to determine the consequences of PIM use, the correlation to reason for admission, which classification is best to detect PIM in hospitals and how the use of PIM at UKE can be minimised.

#### References

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No conflict of interest.

#### GRP-175 SMART INFUSION PUMPS IN CHEMOTHERAPY ADMINISTRATION

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**Background** Medication errors, mainly those that occur with high-risk drugs, are associated with high morbidity and mortality. About 38% of these errors occur during the administration phase and only 2% are intercepted.

**Purpose** To evaluate the use of smart infusion pumps in the oncology area and to assess if this technology reduces intravenous drug administration errors in cancer patients.

**Materials and Methods** We analysed the information in Signature-Edition® volumetric infusion pumps for the period January–September 2012 in the oncology area. All infusion pumps were configured with GuardRails® safety software. The drug library was specifically set up by a clinical pharmacist with all the intravenous drugs usually prescribed to cancer patients.

We established maximum and minimum limits for each drug. If the nurse in charge of drug administration exceeded the defined limit, an alarm was displayed to alert her.

**Results** Over nine months 14,693 infusions were administered to 4,628 patients. The safety system was used in 99.1% of infusions. 768 alarms were triggered, in 5.2% of infusions started.

Comprehensive analysis of the alarms showed that 289 (37.6%) were caused by a rate lower than the correct rate and 194 (25.2%) by infusions set at a higher than the established upper limit. 483 drugs had to be reprogrammed.

113 alarms were not associated with a real programming error.

**Conclusions** Implementation of smart infusion systems based on this safety software can prevent 5% of errors in intravenous drug administration and can help us to enhance the safety of high-risk medicines.

The alarms reported are not always associated with a real administration error. It is necessary to review the limits set for some drugs to improve system applicability.

No conflict of interest.

#### GRP-176 STUDY OF THE IMPORTANCE OF THE PHARMACEUTICAL CONTRIBUTION IN THE DETECTION OF NON CONFORMITY (NC) IN THE MEDICATION PROCESS IN CHEMOTHERAPY

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**Background** Pharmacists are responsible for system quality and patient safety and make a valuable contribution to the medication process in chemotherapy.

**Purpose** An assessment and inventory of non-conformity (NC) took place in the chemotherapy preparation area of the hospital's anti-cancer unit (PCAU). The importance of the pharmacist in the medication process in chemotherapy was assessed.

**Materials and Methods** Two activities were studied for 18 weeks: the analysis of the physician's prescriptions (using Chimio® software) and the preparation of the treatment by the pharmacy assistant. An assessment grid was made for each of these activities. NC was flagged in the data whenever it was detected by the pharmacist (or the intern) in order for the anomalies to be corrected.

**Results** Regarding NC in prescriptions: 149 NC events were quantified in 3936 lines (3.79%):

- 54.4% had an impact on the patient's health; mistakes in the progression of the course of treatment (14.81%), in indication and/or diagnosis (13.58%), in the dose of anti-cancer chemotherapy (12.35%) or in the date of administration (11.11%).
- 45.6% had a financial impact (alternation and rounded dosages, 88.24%)

Regarding NC in preparation, 88 NC events were quantified in 3374 preparations (2.61%) – omissions of light-protective containers (23.86%), and of double checking (required in the chemotherapy medication process) (14.77%), or omission faults (13.64%).

All anomalies were noted and corrected.

**Conclusions** Although there is a validated quality assurance system, the intervention of a pharmacist (or intern) is important at key stages of the sequence to allow the detection of NC that is not highlighted by prescribers or preparers.

No conflict of interest.

#### GRP-177 THE USE OF BEVACIZUMAB IN METASTATIC BREAST CANCER

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**Background** Many drugs are prescribed outside the terms of the marketing authorization (off-label), especially in oncology.

**Purpose** To describe the use of bevacizumab in metastatic breast cancer (MCB), evaluating its suitability after the extension of the indications in 2011 by the European Medicines Agency (EMA).

**Materials and Methods** Retrospective and descriptive monitoring study carried out between January and December of 2011 on the use of bevacizumab in MCB in a 446-bed tertiary care hospital. Demographic data, regimens, types of treatment, dose, number and frequency of cycles and indications were examined. During the study it was considered according to technical data that treatment regimens with bevacizumab combined with paclitaxel or capecitabine were among the best for metastatic illnesses.

**Results** The total number of patients with MCB in treatment during 2011 was 96, 40.6% (39 patients) of whom were being treated