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## POSTER

**A prospective, observational study on the incidence of chemotherapy-induced neutropenia in Spain**

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**Background:** Neutropenia is common in patients (Pts) with cancer who receive myeloablative chemotherapy (CT). It usually appears during the first cycles of CT, causing delays and dose reductions which can compromise the clinical outcome. Granulocyte colony-stimulating factors (G-CSFs) represented a major development in the prevention of this disorder. Updated G-CSF guidelines (EORTC, ASCO, NCCN) recommend primary prophylaxis (PP) with G-CSF for Pts with an expected risk of febrile neutropenia (FN)  $\geq 20\%$ .

**Methods:** A multicentre, prospective, observational study assessing the incidence of grade 3–4 neutropenia (G3–4N) [defined as absolute neutrophil count  $<1.0 \times 10^9/L$ ] over the first four cycles of CT regimens with high or intermediate FN risk (FN risk  $\geq 20\%$  or 10–20%, respectively) in Pts with breast cancer (BrCa) or lymphoma (Lymph).

**Results:** This planned interim analysis included 301 Pts from 31 Spanish centres, 198 BrCa and 103 Lymph (51.5% male), median age 52.3 years (range: 19–83), 95% ECOG 0–1, 87.2% stage II–III for BrCa and 55.5% stage III–IV for Lymph. 81.8% of BrCa Pts were treated with taxane+anthracycline based-CT and 60.2% of Lymph Pts with R-CHOP (24.2% 2-weekly CHOP). G-CSF was used in 74.2% of Pts [77.8% PP, 22.2% secondary prophylaxis (SP)]. The G-CSF received was Filgrastim 49.3%/39.2% and pegfilgrastim 50.6%/60.5% in BrCa/Lymph Pts, respectively. The incidence of G3–4N and FN over the first four cycles was 11.9%/2.1% for BrCa and 35.8%/13.3% for Lymph Pts. Pts treated with PP had a G3–4N/FN incidence of 17.9%/6.7%, while the incidence was 34.0%/10.6% when treated with SP. Full Dose on Schedule (FDOS) [defined as  $\leq 15\%$  dose reduction and  $\leq 3$  days dose delay] was achieved in 76.1% of Pts treated G-CSF PP and 62.5% of Pts treated G-CSF SP.

**Conclusion:** This study of clinical practice suggests that current guideline recommendations on the use of G-CSF PP with CT are becoming widely adopted in Spain. In patients receiving CT with intermediate/high FN risk, G-CSF PP seemed to result in reduced neutropenia/FN and higher rates of FDOS compared G-CSF SP.

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## POSTER

**Hepatitis B and C viruses seroprevalence of cancer patients in southeastern region of Turkey**

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Hepatitis B virus (HBV) and hepatitis C virus (HCV) are hepatotropic viruses which are well described complication of cytotoxic chemotherapy that may result in hepatic failure. This has led to evaluation of potential association between HBV and HCV infections. In this study, we prospectively determined the HBsAg, anti-HBsAg, HBeAg, anti-HBeAg, HBcAg, anti-HBcIgM and anti-HBcIgG, HCV and anti-HCV antigens and antibodies in Southeastern region of Turkey where the prevalence of these infections are relatively high. A total of 312 patients who have solid or hematologic malignancies. 113 (37%) female and 197 (63%) male, median age 45 (14–76), HBsAg(+) was positive 21 (9.3%) in solid tumors and 11 (12.5%) in hematologic malignant patients. HBeAg(+) was positive in 2 (6.2%) patients and these two patients had solid tumor (Table 1). Two anti-HCV was detected in all of patient who have non-Hodgkin lymphoma and chronic lymphocytic leukemia.

HBsAg positivity was 8% in our region of Turkey. Although HBsAg positivity was higher in hematologic malignant patients than in general population but similar in solid tumor patients in our study. This difference seen in patients with cancer highlights importance of screening for pre-treatment hepatitis markers in these patients. Prophylaxis with lamivudine of HBsAg(+) patients is important and treatment should be continued until one year after termination of chemotherapy.

Table 1

Cancer	Incidence	HBV(+)
Breast cancer	61 (19%)	6 (18%)
Lung cancer	52 (16%)	6 (18%)
Colorectal cancer	37 (11%)	4 (13%)
Gastric cancer	18 (5%)	1 (3%)
Lymphoma	42 (13%)	8 (25%)
AML	13 (4%)	3 (10%)
ALL	6 (2%)	–
KLL	10 (3%)	1 (3%)
Myeloma	8 (2%)	–
Other cancers	85 (25%)	3 (10%)

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## POSTER

**How to integrate data from a centralized hospital information system (HIS) with a local developed departmental oncology treatment application – Patient Protocol Administrative System (PPAS).**

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**Background:** At Department of Oncology, the Finsen Centre, Rigshospitalet we are using an in house developed computer program called PPAS (Patient Protocol Administrative System) – a cancer treatment protocol, drug ordering and data-capturing program. In parallel with this the staff in the oncology wards is using a centralised hospital information system (HIS) called GS. As with many of these HIS systems users are only allowed to read data and not add or edit outside the HIS's user interface.

This raises a problem when all the ordering of chemotherapy is done through PPAS and the actual booking of patient receiving that particular treatment is done by the HIS system. Additionally the information stored in the booking part of the HIS system – regarding the treatment is very limited. Furthermore the staff has to manually modify the printed booking list from the HIS system – mark and colourise particular events and assigning a suitable treatment name, before the booking lists are in a state for use in the departments.

Information from both systems in the same application would optimize the use.

**Aims:** The aim was to develop a web based solution fulfilling the following issues:

- Easy administration
- Easy to update and add new information about booked patient
- Easy for user to find information
- All users have access to same information
- Secure against errors
- User-friendly interface

**Software Solution:** In the SQL server we developed a data warehouse handling all the request, transactions and scheduling to the HIS system, the further processing of data – converting data types, extracting subset of data. The result of this data pump was directed to our main database in PPAS for further utilisation in the web application. At runtime this booking information was merged with patient treatment data.

A web user interface was built incorporating selective dynamic reporting through use of Microsoft SQL Reporting Services (Report Viewer embedded in ASPX pages).

Users can choose booking period: month-, week- or day view and the ward(s) they are interested in. 2 reports are then generated – one graphically showing the event(s) marked as planned, cancelled or deleted and one more detailed showing the exact booking time and the treatment name.

These reports can then be printed and used as administrative tools in the ward(s) without the need for manual modification.

**Conclusion:** In summary, the management and administrative overhead for conducting treatments has become more complex, with many areas that are suitable for the development of new IT solutions.

There is an increasing need for better utilization of the sparingly resources in the department we have therefore embarked on a long-term initiative to use common commercial software, combined with custom developed software to make a platform that is maintained through a semiautomatic approach.