**Gram-Negative Bacteria in HSCT Recipients**

**Preliminary results on part of cohort November 2015.** (Analysis on complete cohort ongoing).

**Pl:** Oana Averbuch and Dan Engelhard.

**Introduction:** We report on rate of infection in Gram-negative rods (GNR) in HSCT patients, risk factors for resistance and mortality in bacteria episodes caused by resistant vs. sensitive GNR.

**Patients and methods:** Data on all episodes of GNR bacteremia since the beginning of conditioning and during 6 months after the HSCT were collected prospectively by a specific form, containing information on pathogen, antimicrobial susceptibility, the risk factors, treatment and outcome. Background patient demographic and clinical data were obtained using MED form a ProMise. Four patterns of resistance were assessed: to quinolones, non-carbapenem beta-lactams; carbapenems (at least one of meropenem/imipenem/limpenem); multiresistant (MDR, at least 1 agent in at least any antimicrobial category).

**Results:** 444 patients (median age at SCT 51 years, range 0.5-73; 267 males) developed 485 episodes of GNR bacteremia in 58 HSCT centers from 23 countries. 181 patients underwent autologous, 263 allogeneic HSCT (65% of them excluded). The 100 days mortality was 15% (62/421); in 84 episodes this information was unavailable. Mortality according to resistance pattern was as follows: in those resistant vs. sensitive to non-carbapenem beta-lactam: 21% vs. 8%; p=0.002; in carbapenem-resistant vs. sensitive: 40% vs. 10%, p=0.001; in MDR vs. non-MDR: 21% vs. 8%; p=0.001.

**Conclusion:** The emergence of antibiotic resistance represents a major obstacle to successful outcome of GN bacteremia after HSCT, especially in case of carbapenem-resistant.

**Presentation at EBMT 2016:**

**Monday, April 6th 2016 / Room B1 / 14:45 – 15:05:**

**Tuesday, April 5th 2016 / Room 3E / 10:15 – 17:15**

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**Impact of donor EBV on GVHD**

**Pl:** Jan Styczynski

**PURPOSE:** We investigated the effect of Epstein-Barr virus (EBV) serostatus on the overall outcome of allo-HSCT.

**PATIENTS AND METHODS:** The study included 11,366 allo-HSCT: peripheral blood or bone marrow transplant patients carried out between 1997 and 2012 for acute leukemia. We analyzed the impact of donor and recipient EBV serostatus in 12,100 acute leukemia patients. The stem cells were from a seropositive donor with the same EBV status as the recipient. Results: Donors receiving grafts from EBV seropositive donors had the same overall survival as patients grafted from EBV-seronegative donors (hazard ratio [HR], 1.0, 95% confidence interval [CI], 0.97–1.1; p=0.23).

**RESULTS:** The year cumulative incidence of chronic GVHD of those with EBV seronegative donors was 44%, while for those with EBV-seropositive donor it was 35% (HR=1.24, 95%CI, 1.07–1.43; p=0.001) for chronic GVHD. In seronegative patients with seropositive donor HR was 1.34 (95%CI, 1.07–1.65; p=0.016) for acute and 1.43 (95%CI, 1.23–1.67; p=0.001) for chronic GVHD. Seronegative patients with seronegative donors did not have an increased risk of GVHD.

**CONCLUSIONS:** Our data suggest that donor EBV status significantly influences development of acute and chronic GVHD after allo-HSCT, especially in case of EBV-related GVHD.

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**Impact of Pre-Existing Invasive Aspergillosis on Allo-SCT**

**Pl:** Olaf Penrak

We are planning to conduct a prospective non-interventional study to assess clinical outcome of patients with and without history of pre-existing aspergillosis (IA) undergoing SCT.

**Background and Rationale:** In patients with pre-existing invasive aspergillosis allo-SCT is feasible without progression of fungal infection. However, the influence of invasive mold infestations on transplant related complications and on long term survival has not been investigated in a larger patient cohort under current conditions. Recently the IDWP and AUCP performed a retrospective analysis on the impact of pre-existing aspergillosis on allo-SCT outcome. In summary, there was a trend towards impaired outcome of allo-SCT in patients pre-symptomatic before transplant. IA was significant of patients with poor outcome. We have to more precisely investigate the impact of IA on allo-SCT, and a non-interventional prospective study is needed.

**Methods:**

**Study population:**

First allo-SCT in patients with acute leukemia, MDS or lymphoma given stem cell grafts.

- **Cohort 1:** History of proven/probable IA
- **Cohort 2:** Non history of proven/probable IA or possible mycosis

**Study period:**

- One year inclusion + One year follow up. Planned start date: May 1st, 2016

**Data collection:**

- All patients: (new) MED A; Patient Registration Form
- C1-Hunt: 1 Aspergillus Form; study follow-up; (Med A)

Please complete the participation form via the QR code:

Contact us for the IDWP data office for participation in the study: idwpmed@LUMC.NL

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**Current Treatment of HCV Infection after HSCT**

**Pl:** Malgorzata Mikulka

The availability of novel therapies with oral directly acting antivirals (DAA) might prompt clinicians caring for HCV-positive HSCT recipients to prescribe the treatment more frequently and possibly earlier after HSCT. Since numerous possible therapeutic combinations exist, the choice of the most appropriate one is not straightforward. It depends not only on its efficacy and toxicity, but also on availability (both through healthcare system and in expanded access programs), and cost. This non-interventional prospective study will focus on treatment strategies in HCV-positive HSCT recipients. The main focus will be the rate of treatment, the combination of drugs chosen, the length of treatment and the outcome. This study might provide additional data compared to previous older cohorts in the area of non-invasive assessment of fibrosis, HCV-RNA levels and genotyping.

**Inclusion criteria:**

- All HCV-RNA positive patients cared for between December 2015 and November 2017 who underwent HSCT (HCT or allo) from any time to May 2017

**Data collection:** (besides MED A)

- Patients not on treatment: 1 baseline form, 1 follow-up form at end of study.
- Patients on treatment: 1 treatment form, 1 follow-up form 6 months after the end of treatment (DOT).

**When interested in participation, please contact the IDWP Data Office:** idwpmed@LUMC.NL

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**Pneumocystis jirovecii Pneumonia (PJP) after allogeneic HSCT**

**Pl:** Christine Robin

The study is open to EBMT centres using BAL for the diagnosis of PJP. You may participate even when you have no pneumocystis PCR on site.

**The study aims at identifying risk factors, timing and diagnostic methods of PJP after allogeneic HSCT within the EBMT.** It consists of a prospective 12-months collection of new PJP cases occurring in the 24 months following an allogeneic HSCT. PJP is defined by any positive specific criteria in BAL (cytology or IF or PCR), whatever the clinical presentation and whether the patient has been treated or not. We will ask you for each PJP case to fill a specific short MedA. The IDWP data office will identify in your centre 2 control cases for each case of PJP and you will be asked to fill a short Med B for all of these. A registration of these patients is required.

The number of cases per EBMT centre during the last years is very low (up to 7 in very big centres) and this study represents few works for the centres, but may provide major information if most EBMT centres participate. We aim to collect 100 cases.

**Study period:**

- 1st March 2016 – 28 February 2017 + 90 days follow up.

**Inclusion criteria of the PJP cases:**

- Allogeneic HSCT within the previous 24 months.
- New case (first onset) of PJP documented in a BAL fluid, whatever the positive diagnostic test (cytology or IF or PCR) and whatever the presentation and treatment
- Any age.
- Pre or post-transplant informed consent to enter the data in the EBMT registry.

**Exclusion criteria of the PJP cases:**

- Autologous HSCT.
- Allogeneic HSCT recipient transplanted more than 24 months before the onset of PJP.
- Second episode of PJP since allogeneic HSCT (patients diagnosed with PJP before allogeneic HSCT are not included).

**When interested in participation, please contact the IDWP Data Office:** idwpmed@LUMC.NL

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**Starting soon**

**Impact of seropositive donors on development of acute and chronic GVHD (Cohort A)**

**Study population:**

- Patients receiving grafts from EBV seropositive donors (at least one of recipient (R)/donor (D) or Donor EBV status significantly influences development of acute and chronic GVHD after allo-HSCT.

**Study period:**

- Study follow-up: 3 years collection of new PcP cases occurring in the 24 months following an allogeneic HSCT (Cohort A). In patients with pre-existing IA, the study follow-up starts at time of preliminary analysis.

**Contact:**

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