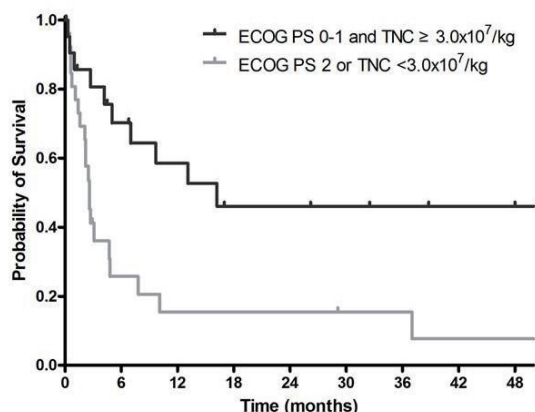


developed in 23 patients. The 2-year overall survival (OS) was 29.6%. In multivariable analysis, ECOG performance status (PS) =2 (hazard ratio [HR] 6.42,  $p=0.001$ ) and total nucleated cell dose  $<3.0 \times 10^7/\text{kg}$  (HR 2.59,  $p=0.012$ ) were poor prognostic factors for OS. Factors associated with graft failure were ECOG PS 2 ( $p=0.012$ ) and non-TBI-based conditioning ( $p=0.026$ ). CBT outcomes after January 2009 were significantly improved compared to those before January 2009 ( $p=0.012$ ).

**Conclusions:** Although in the past, the clinical outcome of adult CBT was not satisfactory in Korea because of high NRM, it has been improved in recent years. Our data suggest that the clinical outcome substantially depends on the cord blood cell dose and PS.



## OS-HEM-12

## Hematology

### Single Centre Experience of Serum Galactomannan Levels in the Diagnosis of Invasive Aspergillosis

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**Background:** Invasive aspergillosis (IA) is a serious cause of morbidity and mortality in immunocompromised patients with haematologic malignancy. The serum galactomannan enzyme immunoassay (GM-EIA; Platelia Aspergillus EIA; Bio-Rad) was cleared by the Food and Drug Administration at an optical density index cut-off of 0.5 for a probable diagnosis of invasive aspergillosis. In this prospective study GM-EIA (Platelia Aspergillus EIA, Bio-Rad) with 0.5 cut-off value and sequential sensitivity-specificity for single, consecutive two and consecutive three positivity were investigated for the diagnosis of IA in neutropenic hematologic patients.

**Methods:** Serum samples were taken twice a week from patients during their hospitalization. IA was classified according to European Organisation for Research and Treatment of Cancer and Mycoses Study Group Guidelines as "proven", "probable", and "possible". The sensitivity was calculated from the results of patients with proven/probable and the specificity was calculated from the results of patients non-IPA patients.

**Results:** In 165 consecutive febrile episodes in 106 patients, 80 (48.5%) episodes were defined with IA (4 proven, 11 probable, 65 possible) and 85 (51.5%) episodes were defined as non-IA. Per episode average 8.3 serum samples were examined for a total of 1385 serum samples. Cut-off value of single GM-EIA = 0.5 for proven/probable IA with sensitivity/specificity 100%/ 27%, two consecutive positive GM-EIA = 0.5 with sensitivity/specificity 86%/ 71% and three consecutive positive GM-EIA = 0.5 with sensitivity/specificity 73%/85% were obtained.

**Conclusions:** Measuring the level of galactomannan twice a week and consecutive monitoring reduced the sensitivity and increased the specificity. Monitoring of the GM-EIA frequently from the first positivity can increase sensitivity/specificity.

## OS-IFD-01

## Infectious Disease

### Discrepancy in Reported Sensitivity of Pneumococcal Urine Antigen Test for Patients with Acute Lower Respiratory Tract Infection

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**Background:** Streptococcus pneumoniae (SP) is an important causative organism of Lower respiratory tract infection (LRTI), including pneumonia bronchitis and exacerbation of Chronic Obstructive Pulmonary Disease (COPD). LRTI secondary to SP is under-diagnosed due to limitations in current diagnostic techniques, using blood or sputum culture. Pneumococcal Urine Antigen (PUA) test, is an in vitro rapid immuno-chromatographic assay for the detection of PUA in the urine (BinaxNOW; Alere, USA) of patients with pneumonia. The package insert of BinaxNOW states the test has a sensitivity of 86% and specificity of 94% based on patients with positive blood culture for SP. We sought to test the efficacy of this test in diagnosing LRTI due to SP in the Veterans Affairs Medical Center.

**Methods:** Newly hospitalized patients with at least two of the following: fever, sputum production, cough, new and worsening shortness of breath and leukocytosis were eligible to participate. Patients were diagnosed with pneumonia based on new infiltrate or consolidation.

**Results:** A total of 166 patients, with LRTI were prospectively enrolled over 2 years. The mean age was 68 (±12) years. Pneumonia, COPD and bronchitis were diagnosed in 60, 67 and 39 patients respectively. Overall, 6 patients tested positive for PUA (3.6%), 3 had pneumonia and 3 had COPD. SP grew in the blood of 7 patients, out of whom, 6 patients had pneumonia. Only 2 of the 7 (28%) blood culture positive patients tested positive with the PUA test.

**Conclusions:** Contrary to the manufacturer's assertion of high sensitivity of PUA test, our study shows a very low rate of positive PUA among patients admitted with LRTI, including patients having SP bacteremia. Our study questions the high sensitivity of PUA test claimed by the manufacturer. A larger multi-center prospective study is needed to verify our findings.

## OS-IFD-02

## Infectious Disease

### Carbapenem Resistant Pseudomonas Aeruginosa in Urine Cultures: Prevalence and Risk Factors

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**Background:** The aim of this study was to analyze the prevalence of carbapenem resistant Pseudomonas aeruginosa (CRPA) in urine cultures in our hospital. Moreover, we determined the mortality and risk factors associated to CRPA infection.

**Methods:** Positive urine cultures to Pseudomonas aeruginosa between september 2012 and september 2013 were identified. We excluded repetitive cultures from the same patient and episode. We created a database with demographic, clinical and laboratory items, including previous antibiotic therapy and antimicrobial resistance.

**Results:** Forty-three cases with positive urine cultures to Pseudomonas aeruginosa were included. CRPA was observed in 12 cases, with a prevalence of 27.9%. Sixty per cent were male with a median age of 73 years (range: 17-102). Sixty-seven per cent of patients were hospitalized when the culture was collected, but only 30% met criteria to nosocomial infection. Twenty-one percent of urine cultures corresponded to asymptomatic bacteriuria and 25% presented with sepsis. Mortality at 30 days was 20.7% in CRPA patients and 13.8% in the other group, without statistical significance. Obesity ( $p=0.003$ ), previous treatment with ciprofloxacin ( $p=0.004$ ) and quinolones in general ( $p=0.001$ ) and previous treatment with more than one antibiotic ( $p=0.03$ ) or with more than one family of antibiotics ( $p=0.01$ ) were risk factors to CRPA infection in the univariate analysis. Only obesity ( $p=0.04$ ) and previous treatment with ciprofloxacin ( $p=0.02$ ) showed statistically significant differences in the multivariate analysis.

**Conclusions:** There is a high prevalence of CRPA in urine cultures in our population, which is a potential threat. We should assess the presence of risk factors for development of infections by such pathogen, as previous treatment with quinolones or obesity, in order to start appropriate empirical treatment in patients with severe urinary tract infections.