

ESCMID Observership Report

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Report

During the Observership I learnt techniques of many new therapeutic and diagnostic procedures, treatment protocols and modern hospital management. I learnt and studied protocols of Anti-Infectives therapy and prevention from a new book – 'Leitlinie zur antiinfektiven Therapie und Prophylaxe', which was published in the Comprehensive Infectious Diseases Center Ulm in 2009.

I learnt that the common cause of deterioration of patients after bone marrow transplantation is the activation of CMV infection. Therefore, this group of patients is justified CMV-introduction of the vaccine, which runs II phase of clinical trials in Comprehensive Infectious Diseases Center in Ulm. I learnt about the double-blind, multicentre, parallel group, randomized, controlled trial to evaluate the possible benefit of isoniazid dose adjustment according to the genotype for NAT2 (arylamine N-acetyltransferase type 2) in patients with pulmonary tuberculosis.

I've also got new information about antiviral therapy in several studies: 1) a randomized, double blind, double dummy, parallel group, active controlled trial to evaluate the antiviral efficacy of 400 mgQD nevirapine extended release formulation in comparison to 200 mg BID nevirapine immediate release in combination with Truvada in antiretroviral therapy naive HIV-1 infected patients; 2) a prospective randomized, open-labeled, multi-centre trial comparing the safety and efficacy of ritonavir-boosted Aptivus (tipranavir) to that of Prezista (darunavir) in three-class treatment showed patients with resistance to more than one PI; 3) open-label, randomized clinical trial to compare the virological efficacy and safety of atazanavir/ritonavir on a background of tenofovir and emtricitabine vs. nevirapine on same background, in HIV-1-infected patients who have received no previous antiretroviral treatment; 4) study of the safety and efficacy of tipranavir 500mg/200mg BID in a diverse patient population; 5) early access of MK-0518 in combination with an optimized background antiretroviral therapy (OBT) in highly treatment experienced HIV-1 infected patients with limited to no treatment options. It's a great interest for me to introduce scientific work in a toxicogenomics study to identify unique genetic polymorphisms in patients who have experienced symptomatic hepatotoxicity or severe cutaneous toxicity within first 8 weeks of nevirapine therapy. Also I've heard for the first time about a new antiviral drug - peramivir and its high efficiency against the influenza virus H1N1 when visiting the anti-infectives colloquium. All this information helped me to widen my outlook and increased the level of my knowledge in infectious diseases.

Examples of how my practice will be change in the result of this visit

In case of body temperature increase and the deterioration of a patient after bone marrow transplantation it's necessary to make an emergency blood test - ELISA and PCR for Cytomegalovirus-infection, which will lead to the early application of ganciclovir or

valganciclovir. For HAART HIV-infection I will use a more optimal protocol: tenofovir + emtricitabine or zidovudin + lamivudin plus efavirenz or fosamprenavir + ritonavir. I will be able to use a more efficient scheme of antiviral treatment in patients with chronic viral hepatitis B and C in case of a co-infection - HIV: when raising AIT - tenofovir + emtricitabine (1 x 300 + 200 mg per os) + fosamprenavir (2 x 700 mg. per os) plus ritonavir (2 x 100 mg per os). After the first 8 weeks of nevirapine therapy, I will obligatory control the liver function and investigate severe cutaneous toxicity. When treating patients with neutropenic fever, I need to determine the level of interleukin-8, which is necessary for therapy (if the level of IL-8 < 2000 pg/ ml, necessary for application - ciprofloxacin + amoxicillin / clavulanate; in case the level of IL-8 > 2000 pg/ ml, necessary for application - piperacillin-tazobactam oder imipenem-cilastatin + ampicillin). Also I will use albendazole 2 x 400 mg per os until 2 years for treatment of patients with postoperation treatment of echinococcosis. Before vaccination of pregnant women - vaccine against H1N1 influenza, I will warn them that some side effects can also present after vaccination (the results of observations of 1 million vaccinated pregnant women revealed that 2780 women had spontaneous abortions within 7 days after vaccination, after few weeks - almost 17000 women).