

## 13<sup>th</sup> workshop on “standards and individual approaches in clinical blood transfusion”

The Pirogov National Medical and Surgical Centre organised its 13<sup>th</sup> workshop on “Standards and individual approaches in clinical blood transfusion” which was supported by ISBT.

The workshop took place on December 12-14, 2012. With over one hundred participants from Belarus, England, Russia and Scotland the workshop was well attended.

Professor Eugene Zhiburt opened the workshop and noted that the life span of the Russian Blood Service will be determined by a new federal law called: “Standards and individual approaches in clinical blood transfusion” which will be applicable starting from January 20, 2013.

Andrew Karavaev CEO of the Tula Regional Blood Bank talked about the decreasing numbers of donors. The number of blood donors in 2010 decreased by 29% in comparison to 2005. Also plasma donors decreased by 38% in the same period. However, due to intensified donation management the number of blood donations increased by 13% and plasma donations by 14%.

The Russian Transfusionist Association presented a diploma called: “Blood Service innovation leader in 2012” to Sangvis blood bank, Ekaterinburg for the first implementation of Automated Centrifuge & Separator Integration which maximises the platelet yield of pooled platelet concentrates.

Hospitals in the city of Ekaterinburg are in need of platelet concentrates. The need is increasing by 25% on a yearly basis.

An evidence-based audit of blood transfusions in these hospitals identified 20-25% of unnecessary transfusions. According to Professor Michael Potapnev:

- The inventory of blood component planning

- should be carried out every day;
- A regional or inter-regional blood inventory management system should be implemented;
- Blood establishments must have a plan in case of an emergency.

Angus MacMillan Douglas owner of DGP UK talked about the EU project “EQUAL”, designed to bring the best practices of the participating countries together to create a guide and a website that can help organisations to develop standard operating procedures (SOPs) for their blood service.

Development and implementation of SOPs involves 3 main phases:

### *Preparation Phase*

- Identify the Objective and Scope of the SOP and draft a Title
- Assign responsibility for Writing the SOP

### *Writing Phase*

- Use the BE’s Master SOP to write an SOP
- Design a Process Flow chart

### *Training and Implementation Phase*

- Initiate Document Change control
- Conduct Training of Staff in the use of the SOP

Professor Jean-Pierre Allain gave a presentation



**Sergey Sidorov**  
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about occult hepatitis B infection (OBI). Definition of OBI:

- Presence of HBV DNA in liver or plasma without detectable HbsAg
- Distinct from the pre-seroconversion Window Period (WP)
- Usually people with OBI carry anti-HBc (50% also carry anti-HBs)
- Rarely with only anti-HBs

*Characteristics of OBI:*

- Male donors (90%) ~ 50 years of age
- Median viral load ~20 IU/ml (<5-1000)
- Fluctuating level of DNA in 50% cases
- Normal ALT level
- Anti-HBc positive (>90%)
- Anti-HBc + anti-HBs (30-50%)
- Anti-HBs only (~ 5%)
- Multiple nucleotide and amino acid mutations.

*OBI current summary:*

- HBV is the highest risk of viral transfusion transmission
- HBsAg and NAT screening needed to achieve safety
- High NAT sensitivity is critical
- In East Asia, NAT yield around 1:1000 donations
- OBI diagnosis requires serology and follow-up
- Mutation accumulation explains diversity of mechanisms
- OBI is infectious by transfusion (20-30%)
- Median infectious dose ~1000 copies (range 100-4000)
- Anti-HBs in blood product or recipient is protective

Professor Valentin Migunov shared that in his clinic hepatitis in blood recipients developed in approximately 1 of 20 transfusions both before and after implementation of pathogen inactivation by amotosalen. According to Professor Allain this data was considered unique worldwide and he offered to help with virus sequencing and search for possible mutations.

The Russian Transfusionist Association will celebrate 10-years anniversary in 2013.

Traditionally the blood transfusion workshops in Pirogov will be held on May 15-17, 2013 and December 11-13, 2013.