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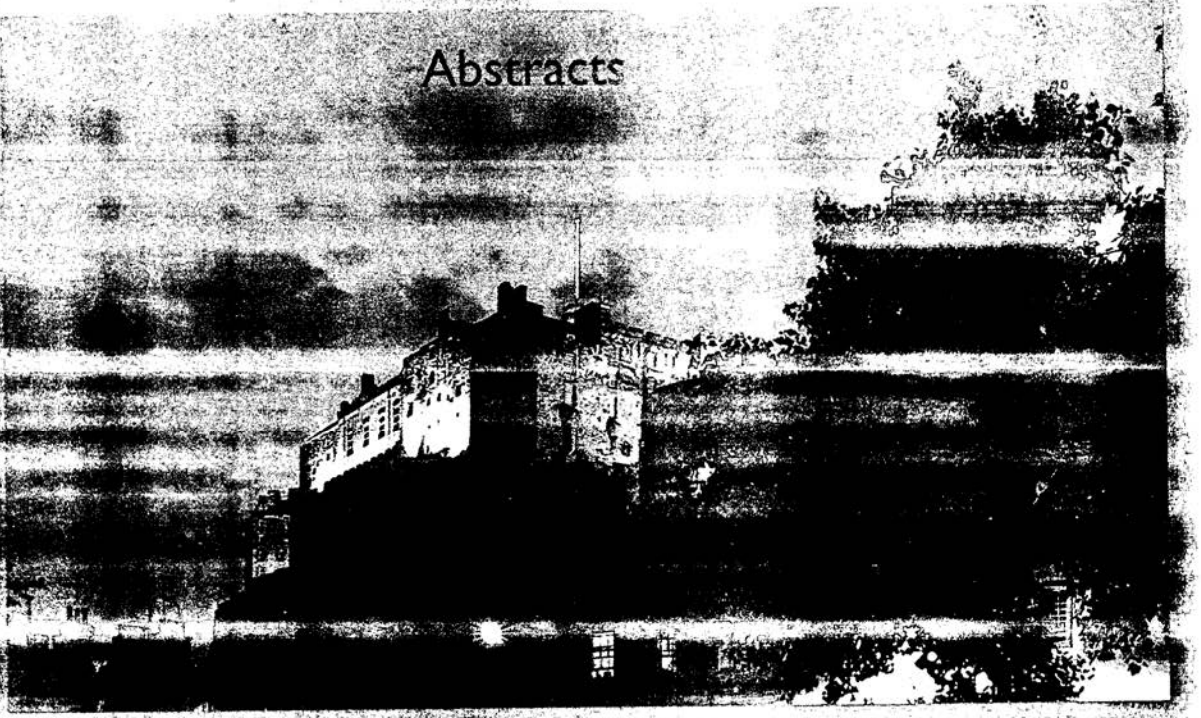
Abstracts



INTERNATIONALE BLUTTRANSFUSIONSGESELLSCHAFT

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A 2.6

Multi-component donations considering the safety of the donor

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Introduction: Multi-component donations (MCDs) are defined by obtaining more and different products from one single donor, using flexible and automated collection procedures.
Material and Methods: Procedure registration was handled with Vistaô, an apheresis management software system and Trimaò.
Results: Some of the current apheresis devices succeed in collecting a combination of platelet concentrates (P-C), RBC concentrates (RBC-C) and plasma products (PPs). In contrast with the classical approach, MCD allows considerable increases in flexibility, productivity and an adequate supply of blood products. However, one should consider that not all combinations of MCD are economical attractive. Only collection procedures where at least one P-C is collected seem to be advantageous. MCD challenges more the preservation of the donor's safety than a single product donation does. Simultaneous donation of multiple blood components can lead to unintended high blood component losses, especially RBC-C. The actual guidelines on donor safety are therefore no longer sufficient neither satisfactory.
Conclusion: Donor eligibility has to reflect the new ideas in MCD. It seems to make sense to adopt these criteria to the individual physiology of the donor. 'Post-donation-oriented' donor limits and intervals that also take into consideration the total blood volume of the donor could be conceivable.

A 2.7

Follow-up of donors false-positive in a transfusion microbiology screen assay

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It is now policy in the NBS to write to all donors who are false-positive in any transfusion microbiology screening assay. The letter tells the donor that there is no problem with their health and asks them to give a sample in 6 months time (now changed to 3 months). The previous policy was not contacting the donors but to allow them to continue donation, automatically discard the units and refer a sample for testing. This was considered to be unethical. A recent incident with the syphilis screening assay allowed us to easily assess this method of donor contact. A change in assay meant that in a 6-month period approximately 850 extra false-positives were identified. An increase in the number of 'follow-up' samples was seen approximately 6 months after the increase in screen reactives. Unfortunately only an increase of 450 was seen, i.e. approximately half of false-positives appear to have been 'lost' to the transfusion service.

A 2.8

Multiple component collections with Cobe Trima: efficiency, safety and donor acceptance

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Trima-automated blood collection system can collect platelets (PLT), plasma and packed red cells (RBC). The aim of this study was to evaluate Cobe Trima in terms of efficiency, donor safety and acceptance. For that reason, healthy donors, preselected with regard to vein quality, completed a collection procedure on Trima. The average blood volume was 5.1 ± 0.6 l, platelet count 304 ± 47 × 10^9 l^{-1}, haematocrit (HCT) 42.9 ± 2%. The following procedure targets were defined: PLT (3–6 × 10^{11}), RBC (286 ml), plasma (200 ml). Donor blood counts were performed immediately after the procedure. At the end of each collection, the donors were asked to answer questions designed to evaluate their opinions, side effects and readiness to repeat donation on Trima. Following collections, no significant alterations in donor haematological values were observed, apart from the expected decrease in platelet and HCT values. No serious adverse reactions occurred; minor citrate reactions and vein access problems were observed. Product targets were achieved in 94% of procedures. In answer to our questions, 81% of donors rated their experience as very positive, 12% as positive and 7% were neutral; 94% said they would donate on Trima again, mainly due to the convenient single-needle procedures with short run times. In conclusion, Cobe Trima was found effective in collecting multiple components, as well as safe and accepted by most donors.

A3 Viral epidemiology and emerging viruses

A 3.1

HBsAg, anti-HCV, anti-HIV, *Treponema pallidum* antibodies and anti-CMV in Macedonia blood donors

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Goal: To find the incidence of HBsAg, anti-HCV, anti-HIV, CMV antibodies and *Treponema pallidum* antibodies in volunteer blood donors in the eastern part of Macedonia.
Material and Methods: In the period 1999–2003 for the presence of HBsAg, anti-HCV, anti-HIV and *Treponema pallidum* antibodies 13 200 blood donations were tested. In Stip routine testing of donated blood for detection of CMV antibodies is not applied. In the Transfusion department in Stip of Transfusiology in Skopje for detection and confirmation of positive results for HBsAg and anti-HCV in both examined groups ELISA tests from the third generation from the company Organon teknika; for *Treponema pallidum* antibodies TrepanostikaTM TP-Microelisa system; and for this purpose we used CMV IgG instant test.
Results: From 13 200 blood units the presence of HBsAg at 325 (2.46%) is detected and the presence of anti-HCV at 175 (1.3%) is detected. The presence of anti-HIV and *Treponema pallidum* antibodies is not detected in any of the blood donations. From
Conclusion: The incidence of HBsAg in the blood donations is 2.46%; of anti-HCV is 1.3%; anti-HIV and *Treponema pallidum* antibodies is 0% and anti-CMV is from

A 3.2

Prevalence of hepatitis C, B and D infection among patients under chronic haemodialysis

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Objective: To determine the seroprevalence of HCV, HBV HDV infection among patients in haemodialysis centre.
Material and Methods: 64 patients (pts) undergoing haemodialysis. All were transfused with blood. Lab records were used to retrieve the total number of blood transfusions received and serologic study results. The detection of the markers was made by the ELISA technique. Patients with hepatitis B virus were tested for anti-delta antibody.
Results: HCV was confirmed to be present in 20 of pts (31.3%) while HBV was confirmed to be present in 17 of pts (26.6%). The prevalence of delta infection was 3/17 (17.6%). Coinfection was found in four of the pts who resulted infected with HBV, HCV and HDV (6.25%) and eight pts presented coinfetion with HBV and HCV (12.5%).
Discussion: The prevalence of HBV and HCV infections did not correlate with the age and the sex of the patients and depended on the quantity of transfused blood. Coinfection was found in the pts that had the longest mean duration of haemodialysis therapy. The correlation between the duration of the haemodialysis and the prevalence of the HBV and/or HCV infection suggested nosocomial transmission.
Conclusions: It exists a high incidence of HCV and HBV infection in our dialysis units playing a pathogenic role in liver disease in haemodialysed pts. This high prevalence is related to multiple blood transfusions. Every effort must be made for the successful control of this infection.

A 3.3

Evolution of the incidence of HCV-antibodies in blood collected units between 1995 and 2003

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Aims: The mandatory screening for anti-HCV has been introduced since 1995 for all the collected blood units. The study presents a retrospective evaluation of the incidence of anti-HCV positive blood units.
Materials: The authors analysed the data gathered from the compulsory evidence records of the TTI laboratory.
Methods: All the collected units were tested for anti-HCV using third-generation EIA tests. The repeatable reactive samples were referred to the TTI National Reference Laboratory for confirmation. There, the samples were tested in all currently used EIAs;

INCIDENCE OF HBsAg,ANTI-HCV,ANTI-HIV,TREPONEMA PALLIDUM ANTIBODIES AND CMV ANTIBODIES IN BLOOD DONORS FROM MACEDONIA

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Goal: To find the incidence of HBsAg,anti-HCV,anti-HIV,CMV antibodies and Treponema pallidum antibodies in volunteer blood donors in the Eastern part of Macedonia.

Material and methods: In the period 1999-2003 for the presence of HBsAg,anti-HCV,anti-HIV and Treponema pallidum antibodies 13.200 blood donations were tested.In Stip routine testing of donated blood for detection of CMV antibodies is not applied.For detemination of incidence of anti-CMV at 302 donated blood units, age from 18-25 and at 898 donated blood units, age from 40-65 testing is made for detection of anti-CMV.In the Transfusion department in Stip of Transfusiology in Skopje for detection and confirmation of positive results for HBsAg and anti-HCV in both examined groups ELISA-tests from the third generation from the company Organon teknika;for Trepanema pallidum antibodies Trepanostika™ TP-Microelisa system; and for this purpose we used CMV IgG Instant test.

Results: From 13.200 blood units the presence of HBsAg at 325 (2,46%) is detected and the presence of anti-HCV at 175 (1,3%) is detected.The presence of anti-HIV and Treponema pallidum antibodies is not detected in any of the blood donations.From 302 tested blood donations from pupils and students age from 18-25 the presence of anti-CMV at 63 (20,86%) is detected and from 898 blood units received from donors age from 40-65 the presence of anti-CMV at 502 (55,9%) serum samples is detected.

Conclusion: The incidence of HBsAg in the blood donations is 2,46%; of anti-HCV is 1,3%; anti-HIV and Treponema pallidum antibodies is 0% and anti-CMV is from 20,86 to 55,9%.

ISBT, Edingburg,2004

Presentation - poster only

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