



**Department of Biological Standardisation  
OMCL Network & Healthcare (DBO)**

**Implementation of Pathogen Reduction Technologies for Blood Components for Transfusion:  
Updated Table 2009-2010**

**COUNCIL OF EUROPE  
European Committee (Partial Agreement) on blood transfusion (CD-P-TS)**

**Study coordinators: Miguel LOZANO<sup>1</sup>, Jean-Pierre CAZENAVE<sup>2</sup>, Bernhard BRÄUNIG<sup>3</sup>, Marie-Emmanuelle BEHR-GROSS<sup>3</sup>**

1. Hospital Clinic Provincial, Villarroel 170, 08036 Barcelona, Spain
2. Etablissement Français du Sang (EFS-Alsace), 10 rue Spielmann, BP 36, 67065 Strasbourg, France
3. European Directorate for the Quality of Medicines & HealthCare, Council of Europe, 67081 Strasbourg, France  
(Corresponding author: e-mail: [marie-emmanuelle.behr-gross@edqm.eu](mailto:marie-emmanuelle.behr-gross@edqm.eu))

Country	Fresh frozen plasma						Platelets					Remarks
	Quarantine	Solvent detergent	Methylen blue	Intercept	Mirasol	Number of plasma units transfused	Number of platelet adult doses transfused	Microbiological culture % of platelets conc.	O <sub>2</sub> content % of platelets concentrates	Intercept	Mirasol	
Australia	np	np	np	np	np	np	np	np	np	np	np	Pathogen reduction technology was not implemented in Australia in 2008. Universal leukocyte depletion was implemented in 2008
Austria	21,6% o p u	70,9%	7,2%	0	0	69206	38711	76	3	np	np	
Belgium	0%	small perc.	96,57%	3,43	0	np	69328	55,97	0	44,3	0	
Bosnia & Herzegovina	np	np	np	np	np	np	np	np	np	np	np	Pathogen reduction technologies remain under review
Bulgaria	65%	0%	0	0	0	78219	5700	1,8%	0	0	0	
Canada	np	np	np	np	np	np	np	np	np	np	np	Pathogen inactivated blood and blood components are not being manufactured or distributed by the Canadian blood establishments that supply all Canadian hospitals with blood and blood components intended for transfusion
Croatia	0%	0	0	0	0	50000 approx.	14000 approx.	6%	0%	0	0	
Cyprus	np	np	np	np	np	np	np	np	np	np	np	The Cyprus Blood Establishment does not perform plasma fractionation or manufacture medicinal products derived from human blood or plasma
Czech. Rep	100%	np	np	np	np	201200	31600	1%	experimentally	np	np	

Country	Fresh frozen plasma						Platelets					Remarks
	Quarantine	Solvent detergent	Methylen blue	Intercept	Mirasol	Number of plasma units transfused	Number of platelet adult doses transfused	Microbiological culture % of platelets conc.	O <sub>2</sub> content % of platelets concentrates	Intercept	Mirasol	
Denmark	0%	0%	0%	0%	0%	69753	42371	100%	np	0%	0%	
Estonia	0%	0%	0%	0%	0%	27317	6034	100%	0%	0%	0%	
Finland	np	100%	0%	0%	0%	53163	41659	10%	0%	0%	0%	
France	0%	21,79%	64,72%	13,46	0	380707	275779	np	np	7,94%	0%	
Georgia	7,520 units (2,820 units of FFP quarantined for 3 months, 4,700 quarantined for 2 months)	np	np	np	np	np	np	np	np	np	np	Plasma quarantine performed just in two blood facilities. In 2008, from approx. 32,000 units of FFP prepared countrywide, 7520 units have been quarantined
Germany	94%	6%	none	none	none	1124327	437014	np	np	0,07%	none	
Greece	51807 units (difficulties in logistics and stock management)	np	33,522 units (satisfactory results - Coagulation factors losses within the accepted range - adverse reactions rate 1:2,177)	np	np	np	np	np	np	np	np	A trial with pathogen reduction of 500 units of apheresis platelets using the Intercept technology was planned to start at the end of 2009
Hungary	np	np	np	np	np	np	np	np	np	np	np	
Iceland	np	np	np	np	np	np	np	np	np	np	np	

Country	Fresh frozen plasma						Platelets					Remarks
	Quarantine	Solvent detergent	Methylen blue	Intercept	Mirasol	Number of plasma units transfused	Number of platelet adult doses transfused	Microbiological culture % of platelets conc.	O <sub>2</sub> content % of platelets concentrates	Intercept	Mirasol	
Ireland	np	98,5%	np	np	np	np	np	100%	np	np	np	
Italy	3,9%	17%	np	np	np	485250	214599	9,5%	0%	np	np	
Latvia	100%	np	np	np	np	36758	6131	85%	Bact ALERT	np	np	
Lituania	93%	np	np	np	np	27805	14646	3%	np	np	2,7%	
Macedonia	np	np	np	np	np	25346	14119	1%	np	np	np	
Malta	30%	np	np	np	np	2689	1256	np	15%	np	np	
Moldova	np	np	np	np	np	46740	9083	-3%	np	np	np	
Montenegro	np	np	np	np	np	726	8562	np	np	np	np	
Netherlands	100%	0	np	np	np	82000	56000	100%	np	np	np	
New Zealand	np	np	np	np	np	np	np	np	np	np	np	
Norway	np	100%	0%	0%	0%	22982	np	78%	0%	17%	0%	
Poland	324694 units	np	961 units	443 units	20875 units	369474	90533	np	np	9	6971	
Portugal	np	np	np	np	np	np	np	np	np	np	np	
Romania	50%	np	np	np	np	259843	26630	100% for apheresis 10% for recovered	np	np	np	

Country	Fresh frozen plasma						Platelets					Remarks
	Quarantine	Solvent detergent	Methylen blue	Intercept	Mirasol	Number of plasma units transfused	Number of platelet adult doses transfused	Microbiological culture % of platelets conc.	O <sub>2</sub> content % of platelets concentrates	Intercept	Mirasol	
Russia	1176904 litres*	np	17 performed in blood transfusion	np	np	484171 liters *	454107 liters *	np	np	1 performed in blood transfusion	np	*Russian official BTS-statistic
	1345238 litres*	np	31 performed in blood transfusion	np	np	486236 liters *	452196 liters *	np	np	1 performed in blood transfusion	np	*Russian official BTS-statistic
Serbia	np	np	np	np	2,26%	10220	10220	5,2%	np	np	3,9%	
Slovak Rep.	70%	np	np	np	np	np	27717	1%	np	np	np	
Slovenia	np	np	np	np	np	29902	9277	2,57	np	68,45%	np	
Spain	35%	0	59%	5%	0%	194917	156514	20	5	21%	Evaluation	
Sweden	np	2%	np	np	np	92741	42553	37%	np	12%	np	
Switzerland	91,8%	8,2%	np	np	np	71571	29938	np	np	np	np	
United Kingdom	0	19%	3%	0	0	318761	240106	small number	0	0	0	
USA	np	np	np	np	np	2400000	2000000	74,7%	np	np	np	2008

np = not performed,  
opu = of plasma units

data from 2009 (2008 where specified)	Data from 2010
---------------------------------------	----------------