

Correspondence

Reply

To the Editor:

We thank Seltsam and Mueller¹ for their comments concerning a possible increased risk of hypersensitivity reactions after transfusion of methylene blue (MB)-treated fresh frozen plasma (FFP-MB).²

They state that the imbalance between the number of units of the different types of FFP (FFP-MB; FFP secured by quarantine [FFP-Q], and solvent/detergent-treated FFP [FFP-S/D]) limits the validity of comparative analysis of the frequency of rare adverse events reported with these different labile blood products. By using another study time period, they find no statistically significant difference of severe allergic reactions between the above-mentioned different plasma types.

In view of the wide variability of rare adverse events reported per year, this statement can be regarded as highly questionable. On the contrary, it becomes important to us that the largest source of data available should be used in any comparison. This is the reason why, in our opinion, statistical analysis should include data obtained since 2005 for FFP-S/D and FFP-Q.

Seltsam and Mueller¹ also included data reported by the French Haemovigilance network in 2010, data that were published after the writing of our initial article. The incidences they calculate during the 2005-2010 period are of the same order of magnitude as during 2005-2009, and a trend for a higher risk is observed with FFP-MB, with an estimated incidence relative ratio of 1.75 versus FFP-S/D and 2 versus FFP-Q.

The last information collected by the French Haemovigilance Network in 2011 shows an incidence of severe reactions (grade ≥ 2) of imputability levels 3 to 4 of 1/15,926 for FFP-MB units and of 1/31,374 for FFP-S/D units, whereas distribution of FFP-Q was negligible. Data obtained in 2011 have been included to further investigate the relative risk of allergic reactions to FFP-MB. Table I summarizes the latest information concerning severe reactions and their imputability levels recorded between 2005 and 2011.

By using the same statistical method as described in our initial report,² the number of notifications that involved FFP-MB plasma over the 2005-2011 period was significantly higher than expected by comparison with other plasmas, irrespective of imputability levels (2-4 or 3-4, both $P < .01$). When analysis was restricted to the 2008-2011 period, this comparison remained significant for reactions of imputability level 2 to 4 ($P < .05$) and was borderline significant for reactions of imputability levels 3 to 4 ($P = .05$).

This updated analysis still supports our hypothesis of a possible increased allergy risk related to use of FFP-MB plasma. This risk could be related to the process of FFP-MB plasma production, as suggested by the analysis of adverse reactions to the MB/light pathogen inactivation process we provided in our initial report.

Finally, in their correspondence Seltsam and Mueller¹ focus on results brought about by the French Haemovigilance Network. Because they have been involved in the development of this technique in Germany,³ it would be of great interest whether they could provide additional hemovigilance information from their own country.

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TABLE I. Number of severe allergic reactions (grade 2 and 3) according to the imputability level for the different types of FFP in France between 2005-2011 and 2008-2011

FFP type	Units	2005-2011		Units	2008-2011	
		Imputability level 2-4	Imputability level 3-4		Imputability level 2-4	Imputability level 3-4
FFP- Q	636,174	30	15	119,037	5	1
FFP-S/D	847,089	37	27	468,059	27	21
FFP-IA	164,434	12	9	158,683	10	7
FFP-MB	716,666	64	45	716,666	64	45

European Union. The rest of the authors declare that they have no relevant conflicts of interest.

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