

TABLE 1 Patient and units implicated pretransfusion and posttransfusion reactions with Amotosalen-UVA PCs



Patient #	Patient blood group	PCs prior to the first reaction		First reaction: PC blood group age		Second reaction: PC blood group age	PCs after the second reaction	
		A-UVA	Non A-UVA	PC blood group	PCs between reactions		A-UVA	Non A-UVA
1	O RhD-pos	11 O RhD-pos 1 O RhD-neg	9 O RhD-pos 1 O RhD-neg 1 A RhD-pos	B RhD-pos 4 days old	None	B RhD-pos 3 days old	5 O RhD-pos 1 A RhD-pos	17 O RhD-pos 7 A RhD-pos 2 O RhD-neg 1 AB RhD-pos
2	O RhD-pos	1 O RhD-pos	None	1 AB RhD-neg 4 days old	10 O RhD-pos A-UVA	1 O RhD-neg non-A-UVA 4 days old	AB RhD-pos 4 days old	None 2 O RhD-pos 3 A RhD-pos

Abbreviations: A-UVA-PC, Amotosalen/UVA-PCs; neg, negative; PC, platelet concentrates; pos, positive.

none of them had the B antigen. All units were purchased from the American Red Cross and contained the same formulation of PAS-C (contains citrate, acetate, and phosphate).⁵ In addition, there is no record of transfusion reactions caused by any of the four donors; each has donated from 13 to 251 times to date. The goal of this report is to share our experience with others as many institutions are moving toward using Amotosalen-UVA platelets exclusively in near future.

CONFLICT OF INTEREST

The authors have disclosed no conflicts of interest.

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SARS-CoV-2 and the safety of blood donations: Time for a brave revision?

Since the beginning of the COVID-19 pandemic, most of the regulatory authorities have implemented precautionary measures to prevent transmission of infection by transfusion of blood components, including not only deferral of donors positive or at risk, but also discarding

units collected from donors who tested positive for SARS-CoV-2 in the days following donation (post-donation information—PDI). The World Health Organization still recommends that “Blood and components collected within 14 days prior to disease onset in the donor or

collected within 14 days subsequent to contact exposure may be recalled as a precautionary measure.”¹ The European CDC is still recommending that “Donor information on the occurrence of confirmed or probable COVID-19 within 72 hours after blood donation should trigger the discarding of donated blood and blood components, unless they have been treated with approved pathogen reduction technology.”² India is still mandating discard if positivity occurs in the 28 days after donation (accessed online at: <https://www.mohfw.gov.in/pdf/2ndNBTCGuidanceinLightofCOVID19Pandemic.pdf> on January 13, 2022). The US FDA did not specify such a scenario in its guidelines.³ The rationale for such a decision about a respiratory pathogen was mostly over-protection, since the time that COVID-19 was discovered no case of transfusion-transmitted human sarbecovirus had ever been recorded, viremia from SARS-CoV-2 had been almost exclusively observed in severe inpatients (unable to donate), and was low-grade and transient. Despite blood surveillance during a pandemic can be challenging (e.g., making it difficult to distinguish transfusion-transmitted from non-transfusion transmitted infections), to date no confirmed case of transmission has been recorded after transfusion of a SARS-COV-2 RT-PCR positive unit.⁴ Despite that, most regulatory authorities are still maintaining the initial recommendations as a precautionary safety measure.

Under the current pandemic wave driven by the variant of concern Omicron, most countries are experiencing a ravaging spread, locking down up to 10% of the population at a given time (either as positive cases or as cases requiring quarantine after exposure to a confirmed case): such lockdowns proportionally affecting blood donors (and also blood collection staff), creating a shortage of blood components in already stressed systems. Under such circumstances, units collected from asymptomatic donors later discovered as either positive for SARS-CoV-2 or as high-risk contacts of confirmed cases represent a substantial number of units (up to 3% in our practice). These authors work in Italy, where Directive 797/2020 (issued on March 26, 2020) similarly mandated discarding units from donors who tested SARS-COV-2 positive within 14 days since donation.⁵ On January 10, 2022, 2 years into the pandemic, we formally asked the Italian National Blood Center to update the Directive in sight of revised knowledge about SARS-CoV-2 and the shortage of blood components in the Italian system. On January 11, 2022, the National Blood Center promptly issued a new recommendation (756/2022) stating “no action is required” on blood components collected from donors who either tested positive or reported a high-risk contact with a positive subject in the 7 days following donation

(accessed online at http://www.centronazionale sangue.it/wpcontent/uploads/2022/01/2022_0000756_Aggiornamento-misure-di-prevenzione-della-trasmissione-dellinfezione-da-SARS-CoV-2_PDI-signed.pdf on January 13, 2022), hence granting their clinical usage. Such changes are needed at this time, and we hope more countries follow the Italian model, while preserving attention on potential transmission events.

CONFLICT OF INTEREST

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