Clinical History

A 35-year-old woman with a history of prior Cesarean section (C-section) now presents at 39 weeks of gestation for repeat C-section. A sample (ethylenediaminetetraacetic acid [EDTA] anticoagulant) is submitted to the blood bank for type and screen along with an order for two units of red blood cells (RBCs). The patient has no history of prior transfusion.

ABO/Rh/Antibody Screen

ABO/Rh (tube method)				
Patient RBCs (forward type)			Patient plasma (reverse type)	
Anti-A	Anti-B	Anti-D	A_1 cells	B cells
4+	0	3+	0	4+

Antibody screen (tube LISS method)		
	37 °C	AHG
SC1	0	W+
SC2	0	0

Reaction scale = 0 (no reaction) to 4+ (strong reaction)

Tube Panel

		Rh-hr								Kell						Duffy		Kidd		Lewis		MNS				P	Lutheran		Test results: IAT/tube LISS		
Cell #	Rh-hr	D	C	E	c	e	f	C^w	V	K	k	Kp^a	Kp^b	Js^a	Js^b	Fy^a	Fy^b	Jk^a	Jk^b	Le^a	Le^b	M	N	S	s	P_1	Lu^a	Lu^b	IS	37 °C	AHG
1	$R_{o}R_{1}$	+	+	0	0	+	0	+	0	0	+	0	+	0	+	0	+	+	+	0	+	0	+	+	+	+	0	+	0	0	0
2	R_1R_1	+	+	0	0	+	0	0	0	+	+	0	+	0	+	+	+	+	0	0	+	+	+	+	0	0	0	+	0	0	0
3	R_1R_2	+	0	+	+	0	0	0	0	0	+	0	+	0	+	+	0	+	0	+	0	+	0	+	+	+^{S}	0	+	2+	0	W+
4	R_2r	+	0	0	+	+	+	0	0	0	+	0	+	0	+	0	0	+	0	0	0	+	+	+	+	+	0	+	0	0	0
5	r'r	0	+	0	+	+	+	0	+	0	+	0	+	0	+	0	+	0	+	+	0	0	+	0	+	+	0	+	2+	0	W+
6	r''r	0	0	+	+	+	+	0	0	0	+	0	+	0	+	+	0	0	+	0	+	+	+	+	+	+^{w}	0	+	0	0	0
7	rr	0	0	0	+	+	+	0	0	+	+	0	+	0	+	0	+	+	+	0	0	0	+	+	+	+^{S}	0	+	0	0	0
8	rr	0	0	0	+	+	+	0	0	0	+	+	+	0	+	+	+	0	+	+	0	+	+	+	0	+^{S}	0	+	2+	0	W+
9	rr	0	0	0	+	+	+	0	0	0	+	0	+	0	+	0	+	+	0	0	+	0	+	0	+	0	0	+	0	0	0
10	rr	0	0	0	+	+	+	0	0	0	+	0	+	0	+	+	0	+	0	0	+	+	0	+	+	+^{w}	0	+	0	0	0
11	R_1R_1	+	+	0	0	+	0	0	0	0	+	0	+	0	+	0	+	+	0	+	0	+	0	+	0	+	0	+	2+	0	W+
Patient cell																												0	0	0

Reaction scale = 0 (no reaction) to 4+ (strong reaction); *S* strong, *W* weak

- Anti-Lea is detected in this panel.
- Anti-V and anti-Kpa cannot be ruled out but are unlikely since these react more strongly at warm temperatures.
- Anti-Lea as well as anti-Leb antibodies are not usually clinically significant since they are cold reacting IgM antibodies, that do not cause haemolytic transfusion reactions or HDFN.
- Lewis antibodies are typically found in Le(a-b-) individuals.
- It is not uncommon for some women who are Lea+ or Leb+ to lose the Lewis antigen expression during pregnancy and develop Lewis antibodies.
- Warm reacting IgG anti-Lea has been found on rare occasions but is unlikely to cause HDFN as Lewis antigens are poorly expressed on neonatal RBCs
- IAT can be performed at strict 37 to see if weak reaction are no longer present.