

## HDFN TECHNICAL CASE # 2

Case study by Jim Perkins, M.D. ) (©2009)



**History:** A 42 year old woman came into the hospital in labor. She had received Rh immune globulin (RhIG) 11 weeks earlier, at which time her antibody screen was negative.. A new type-and-screen was ordered.

### ABO and Rh Typing

<A	<B	A1 cells	B cells	6% alb	<D	<D/AHG	CCC	Interp
4+	4+	0	0	0	0	0	2+	

### Antibody Screen

	Gel
SCI	0
SCH	w+

### Direct Antiglobulin Test (tube method)

	Poly	IgG	<C3
AHG	0		
CCC	2+		

### Selected cell panel

Lot# 8RA188		Rh system						Kell						Duffy		Kidd		Xg	Lewis		MNSs				P	Lutheran		Other					
Cell	Rh	D	C	E	c	e	V	K	k	Kp <sup>a</sup>	Kp <sup>b</sup>	Js <sup>a</sup>	Js <sup>b</sup>	Fy <sup>a</sup>	Fy <sup>b</sup>	Jk <sup>a</sup>	Jk <sup>b</sup>	Xg <sup>a</sup>	Le <sup>a</sup>	Le <sup>b</sup>	S	s	M	N	P1	Lu <sup>a</sup>	Lu <sup>b</sup>	Typings	Cell	Gel			
1	R1wR1	+	+	0	0	+	0	0	+	0	+	0	+	+	0	+	0	+	0	+	0	+	0	+	+	0	+	C <sup>w</sup>	1				
2	R1R1	+	+	0	0	+	0	+	+	0	+	0	+	+	0	+	0	0	0	0	+	0	+	+	+s	0	+		2				
3	R2R2	+	0	+	+	0	0	0	+	0	+	0	+	+	+	0	+	+	0	+	0	+	0	+	+	0	+		3	w+			
4	Ror	+	0	0	+	+	0	0	+	0	+	0	+	0	0	+	0	+	0	0	0	+	+	+	+s	+	+		4				
5	r'r	0	+	0	+	+	0	+	+	0	+	0	+	0	+	+	0	+	0	+	+	+	+	0	+s	+	+		5	0			
6	r''r	0	0	+	+	+	0	0	+	0	+	0	+	0	+	+	0	+	+	0	0	+	0	+	0	0	+		6	0			
7	rr	0	0	0	+	+	0	+	+	0	+	0	+	0	+	+	+	0	+	0	+	+	+	+	+s	0	+		7	0			
8	rr	0	0	0	+	+	0	0	+	0	+	0	+	+	+	0	+	0	+	0	+	+	0	+	+s	0	+		8	0			
9	rr	0	0	0	+	+	0	0	+	0	+	0	+	+	0	+	0	0	+	0	+	0	+	0	+s	0	+		9	0			
10	rr	0	0	0	+	+	0	0	+	0	+	0	+	+	0	+	0	+	0	+	0	+	0	0	0	0	+		10				
11	R1wR1	+	+	0	0	+	0	0	+	0	+	0	+	0	+	0	+	0	+	0	0	+	0	+	+	0	+	C <sup>w</sup>	11				
Patient																													AC				

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**Questions:**

1. What is the specificity of the patient's antibody?
2. Is any further workup needed to prove it?
3. Why aren't all of the antigen-positive cells reacting? (Hint: What cells have the strongest expression of the antigen?)
4. When she delivers, is this patient a candidate for RhIG? If so, what other testing should be done? What other positive test results might we observe?