

Scenario 1A

Automated Testing

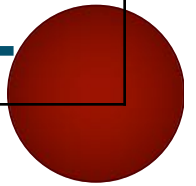
Anti-A	Anti-B	Anti-D	A ₁ Cells	B Cells
3+	0	0	1+	3+

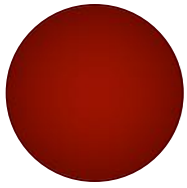
Forward Interp: ____

Reverse Interp: ____

Tube Testing

Anti-A	Anti-B	Anti-A ₁ Lectin	A ₁ Cells	A ₂ Cells	B Cells
4+	0	0	1+	0	3+





Scenario 1B

Automated Testing

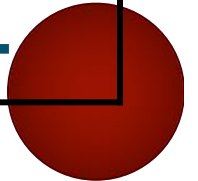
Anti-A	Anti-B	Anti-D	A ₁ Cells	B Cells
0	3+	3+	2+	1+

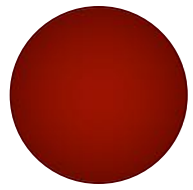
Forward Interp: ____

Reverse Interp: ____

Tube Testing

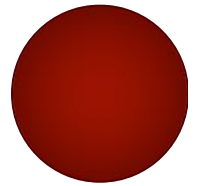
Anti-A	Anti-B	Anti-A ₁ Lectin	A ₁ Cells	A ₂ Cells	B Cells
0	4+	NT	2+	1+	1+





Gain of Antibody-Some Causes

- ABO subgroups
- Cold reacting antibodies (anti-M, anti-I)
- Reagent antibodies
- Rouleaux/hypergammaglobulinemia
- Transfusion (plasma, platelets)
- IVIG
- Transplantation





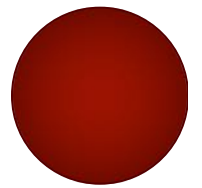
Scenario 2

Tube Testing

Anti-A	Anti-B	Anti-D	A ₁ Cells	B Cells
3+	1+	3+	0	4+

Forward Interp: ____

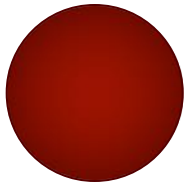
Reverse Interp: ____





Gain of Antigen-Some Causes

- Transplantation
- Rouleaux
- Acquired B
- B(A) or A(B) phenotype
- Transfusion
- Chimera



Scenario 3A

Automated Testing

Anti-A	Anti-B	Anti-D	A ₁ Cells	B Cells
4+	0	0	0	0

Forward Interp: ____

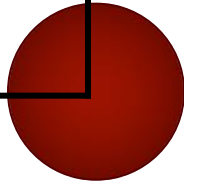
Reverse Interp: ____

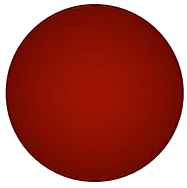
Tube Testing

Anti-A	Anti-B	Anti-D	A ₁ Cells	B Cells
4+	0	0	0	1+

Forward Interp: ____

Reverse Interp: ____





Scenario 3B

Automated Testing

Anti-A	Anti-B	Anti-D	A ₁ Cells	B Cells
0	0	4+	?	0

Forward Interp: ____

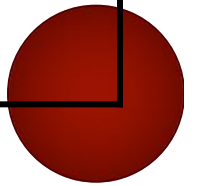
Reverse Interp: ____

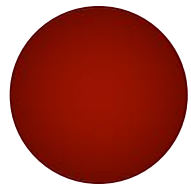
Tube Testing

Anti-A	Anti-B	Anti-A,B	A ₁ Cells	A ₂ Cells	B Cells
0	0	0	0	0	0

Forward Interp: ____

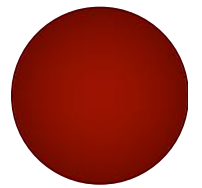
Reverse Interp: ____

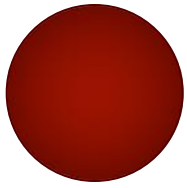




Loss of Antibody-Some Causes

- Very young or very old
- Immunosuppressed (e.g., congenital)
- Leukemia/lymphoma/myeloma
- ABO subgroup
- Transplantation





Scenario 4

Automated Testing

Anti-A	Anti-B	Anti-D	A ₁ Cells	B Cells
0	0	4+	4+	0

Forward Interp: ____

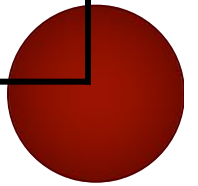
Reverse Interp: ____

Tube Testing

Anti-A	Anti-B	Anti-D	A ₁ Cells	B Cells
0	0	4+	4+	0

Forward Interp: ____

Reverse Interp: ____





Scenario 4

Tube Testing—**Washed** RBCs

Anti-A	Anti-B	Anti-D	A ₁ Cells	B Cells
0	3+	0	4+	0

Forward Interp: ____

Reverse Interp: ____



Loss of Antigen-Some Causes

- Transplantation
- Transfusion
- A or B subgroups
- Leukemia/lymphoma
- Excessive soluble blood group substance (e.g., pancreatic, stomach, ovarian cancer)



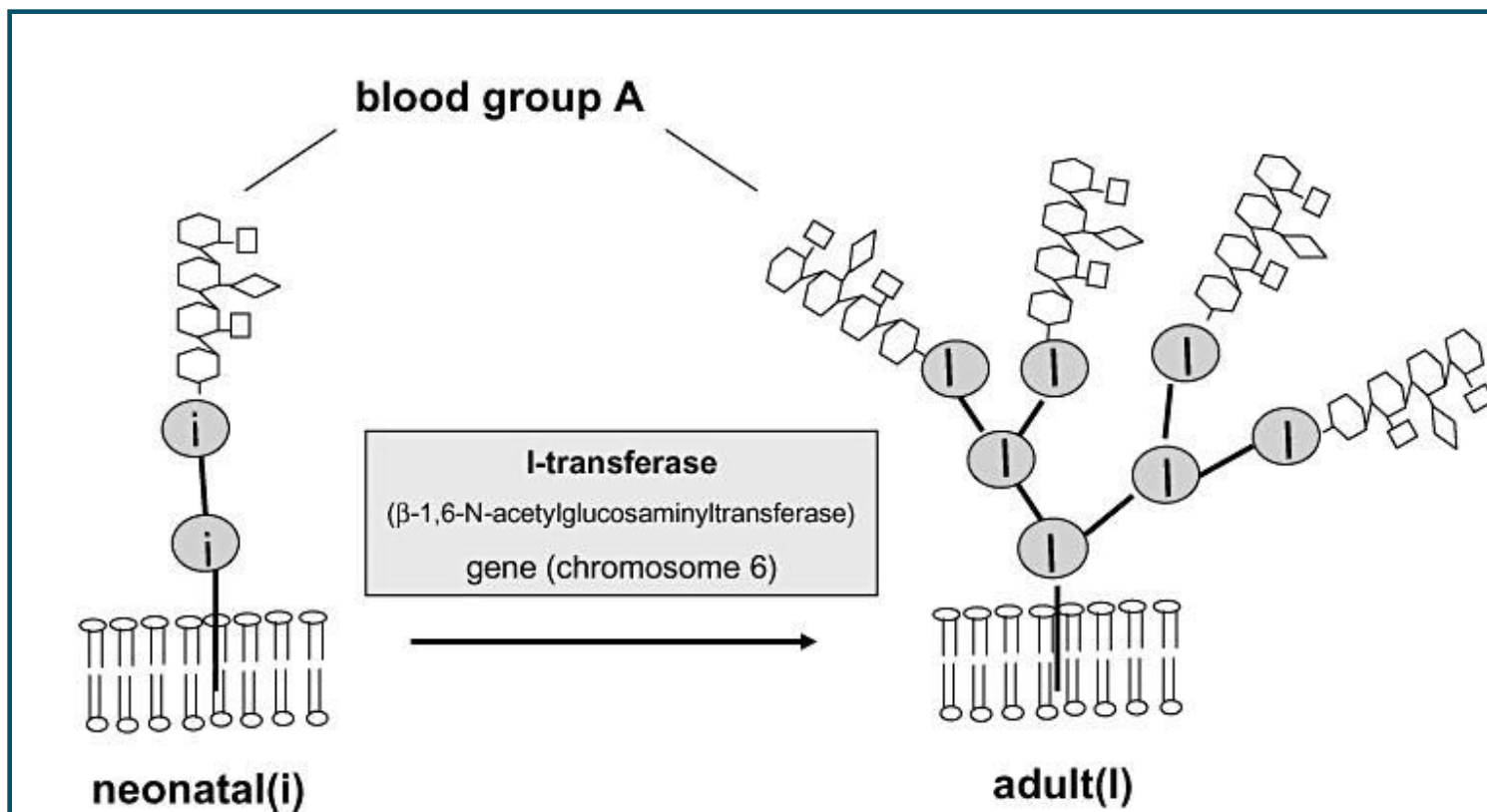
Scenario 5A

Tube Testing

	Anti-A	Anti-B	Anti-D
IS	2+ mf	0	4+
8 washes	2+ mf	0	4+
12 washes	2+ mf	0	4+

Anti-A	Anti-B	Anti-A,B	Anti-D
2+ mf	0	3+	4+

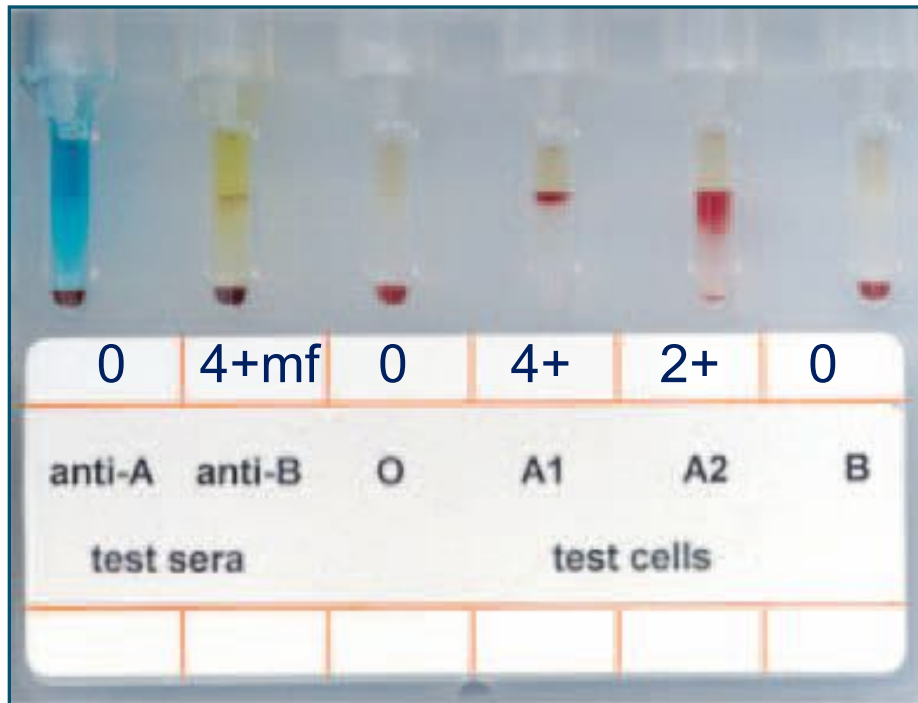
Scenario 5A



Transfusion. 2010 Jul;50(7):1571-80. doi: 10.1111/j.1537-2995

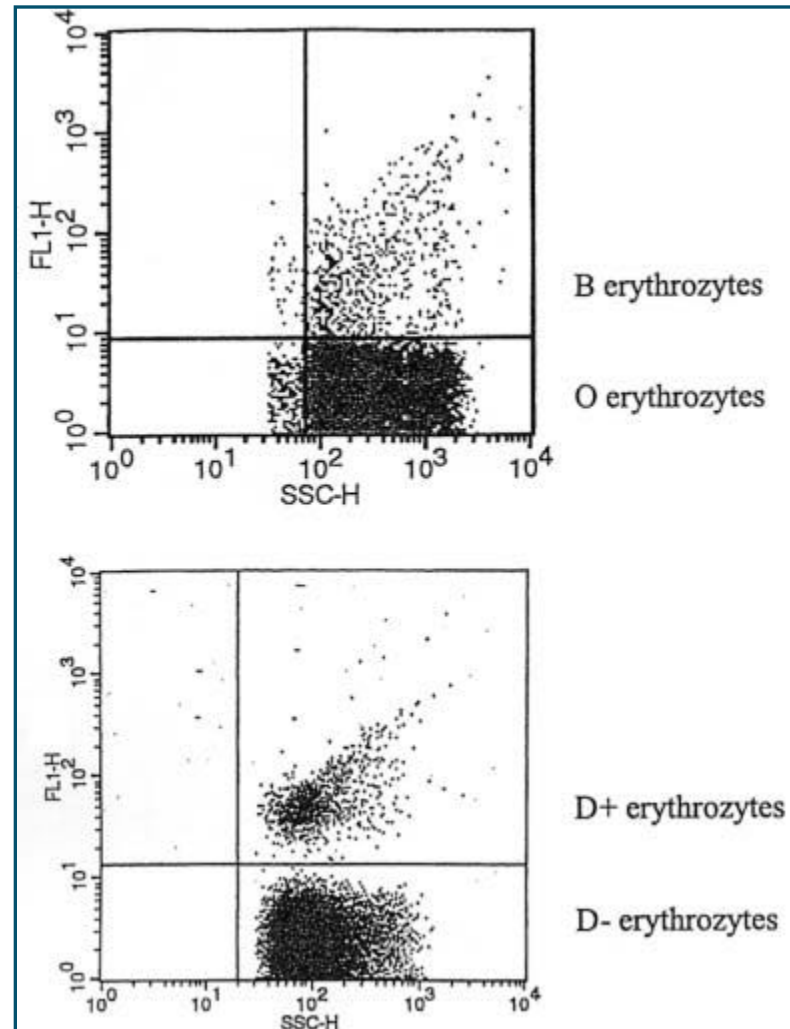
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Scenario 5B



Type O- (95%) and Type B+ (5%)

Mother B, Father O



Pruss et al. Transfusion Vol 43, October 2003

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