

SNS COLLEGE OF PHARMACY AND HEALTH SCIENCES



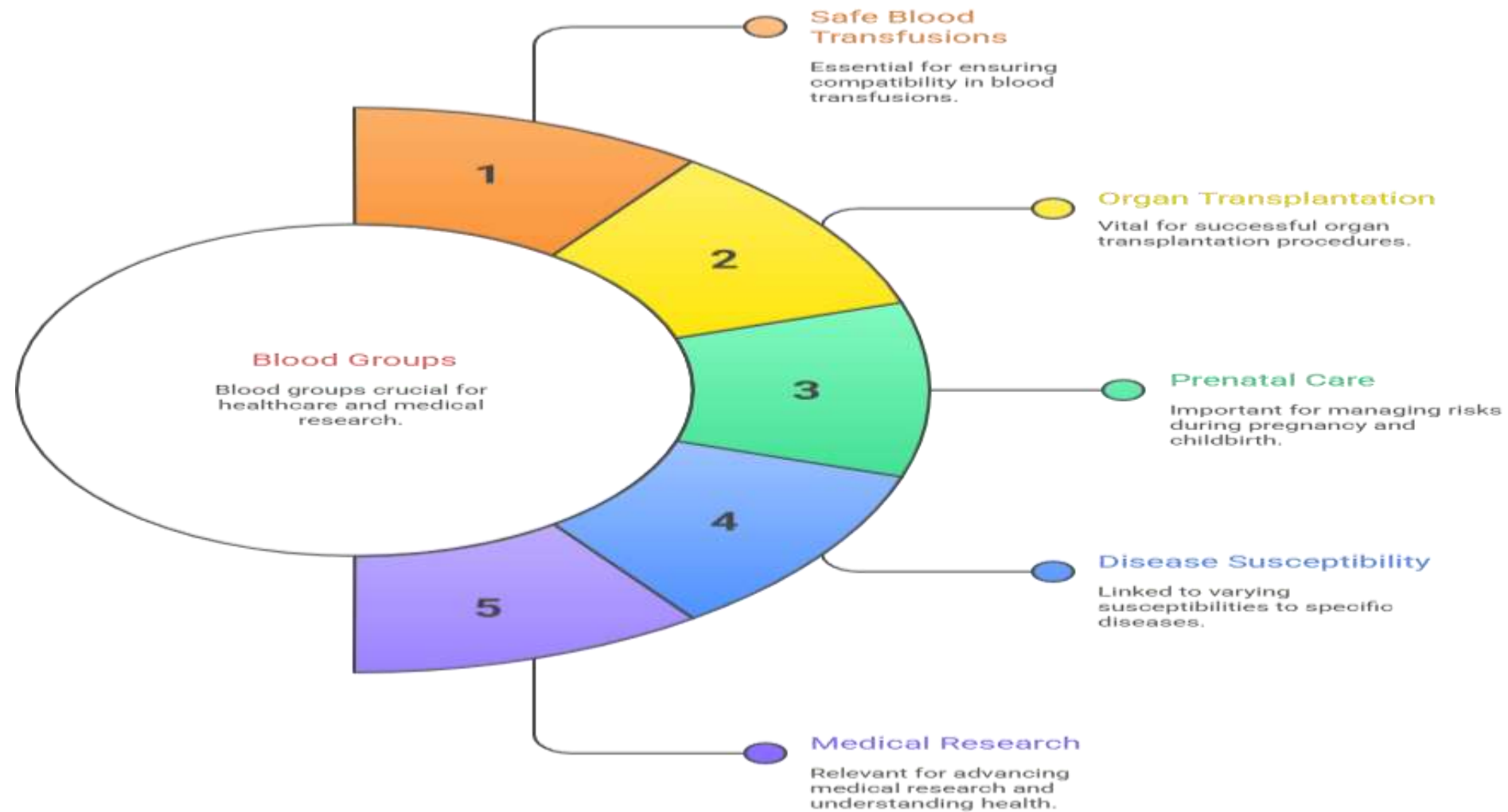
Affiliated To The Tamil Nadu Dr. MGR Medical University, Chennai
Approved by Pharmacy Council of India, New Delhi.
Coimbatore -641035

COURSE NAME: HUMAN ANATOMY AND PHYSIOLOGY (ER20-14T)

I D. PHARM

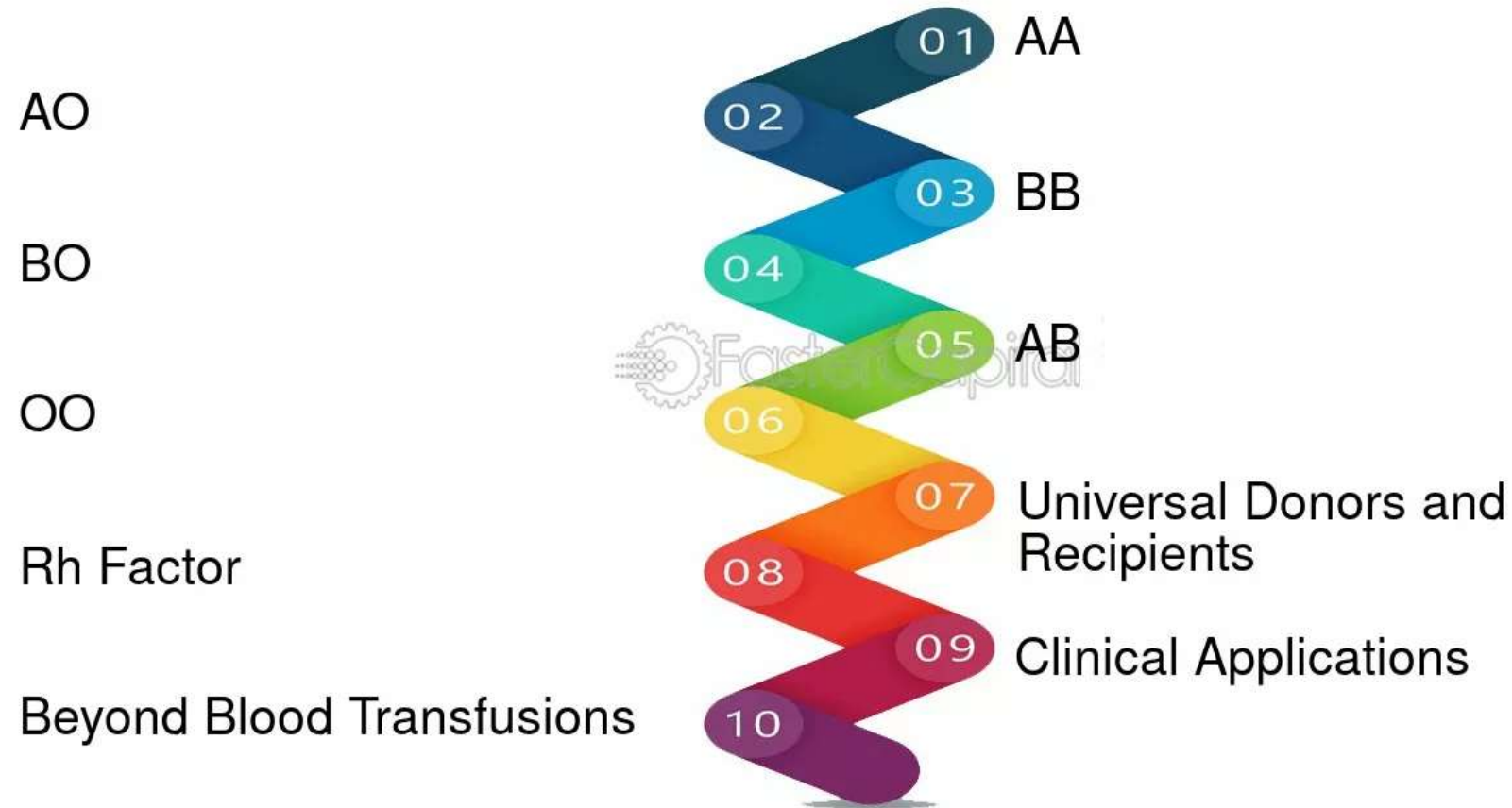
TOPIC : BLOOD GROUPING

MINDMAP



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Introduction to Blood Types



Blood Group Classification

ABO and Rh Systems

Clinically significant blood group systems

Red Blood Cells

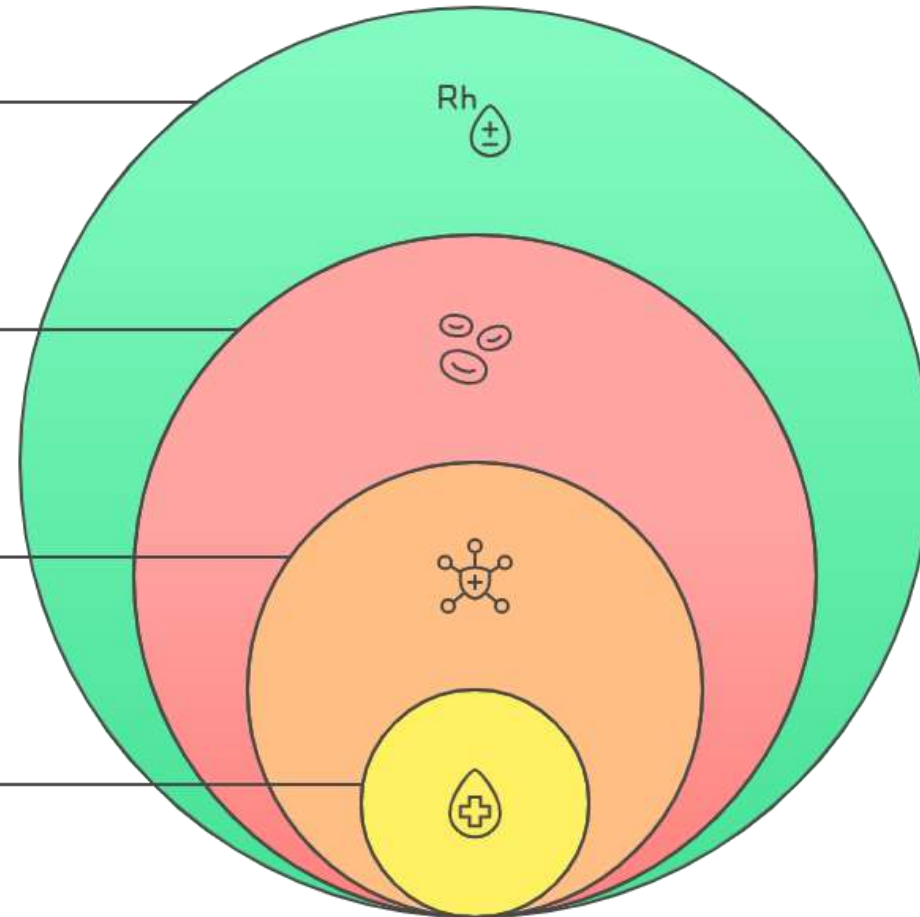
Carriers of antigens

Antigens

Substances triggering immune response

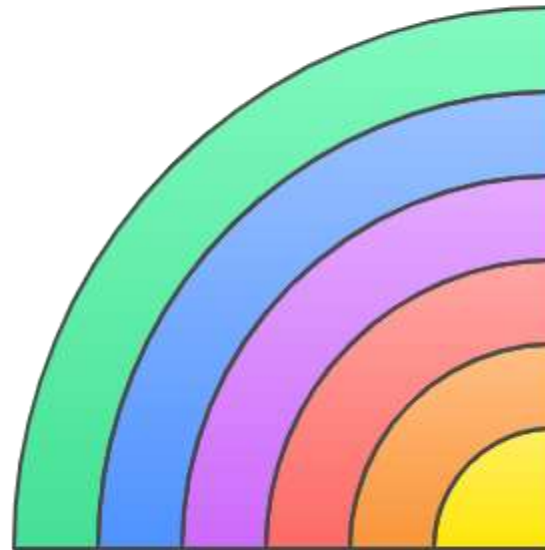
Blood Groups

Classifications based on antigens



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ABO Blood Group System



Blood Group O

Red blood cells with neither A nor B antigens

Blood Group AB

Red blood cells with both A and B antigens

Blood Group B

Red blood cells with B antigen

Blood Group A

Red blood cells with A antigen

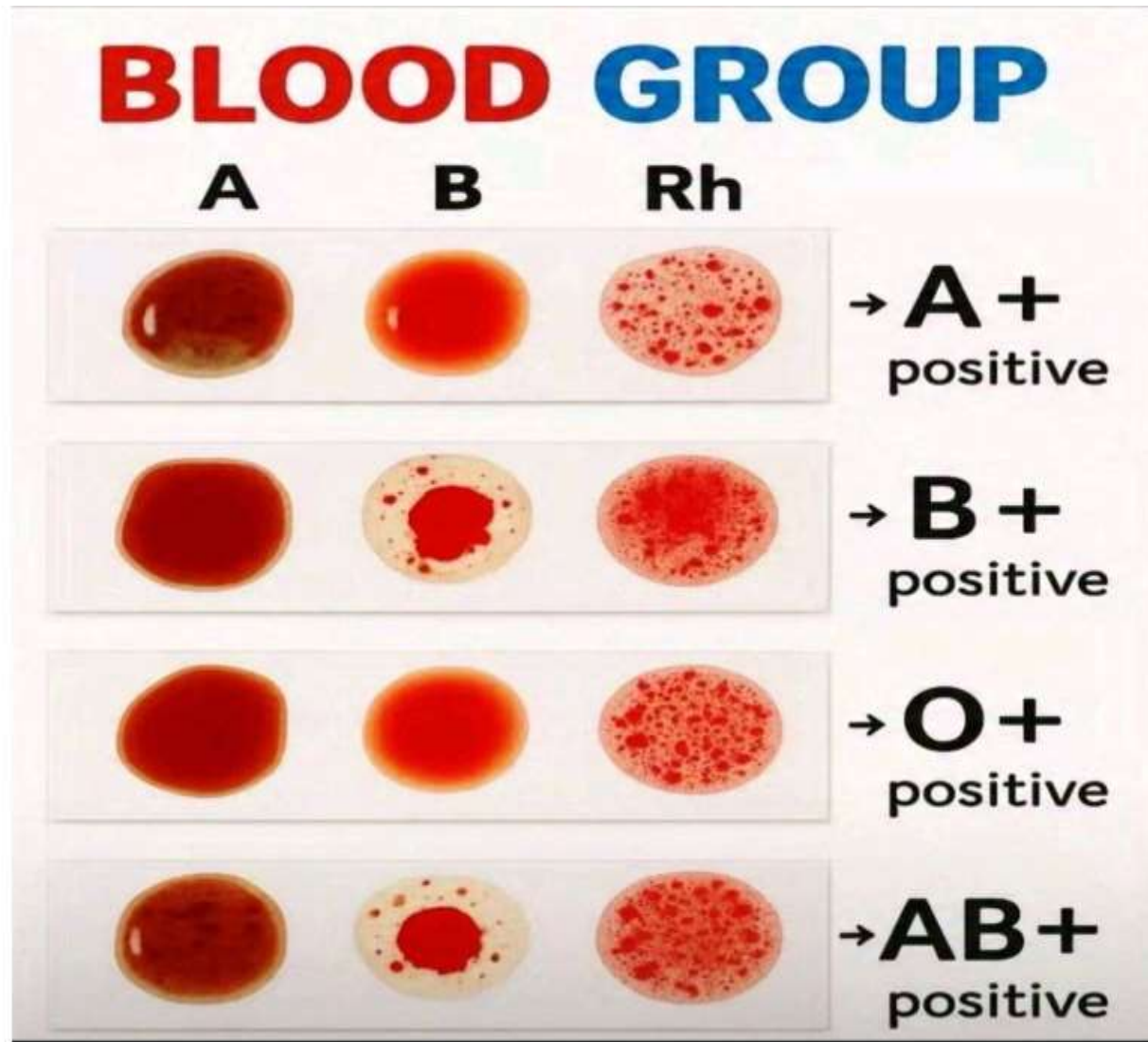
Antigens A and B

Surface markers on red blood cells

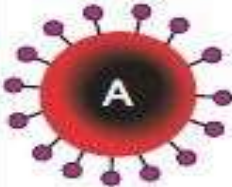
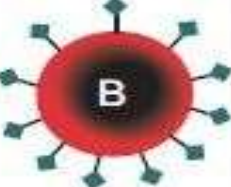
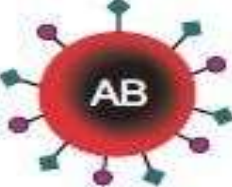
ABO Blood Group System

Foundation of blood typing

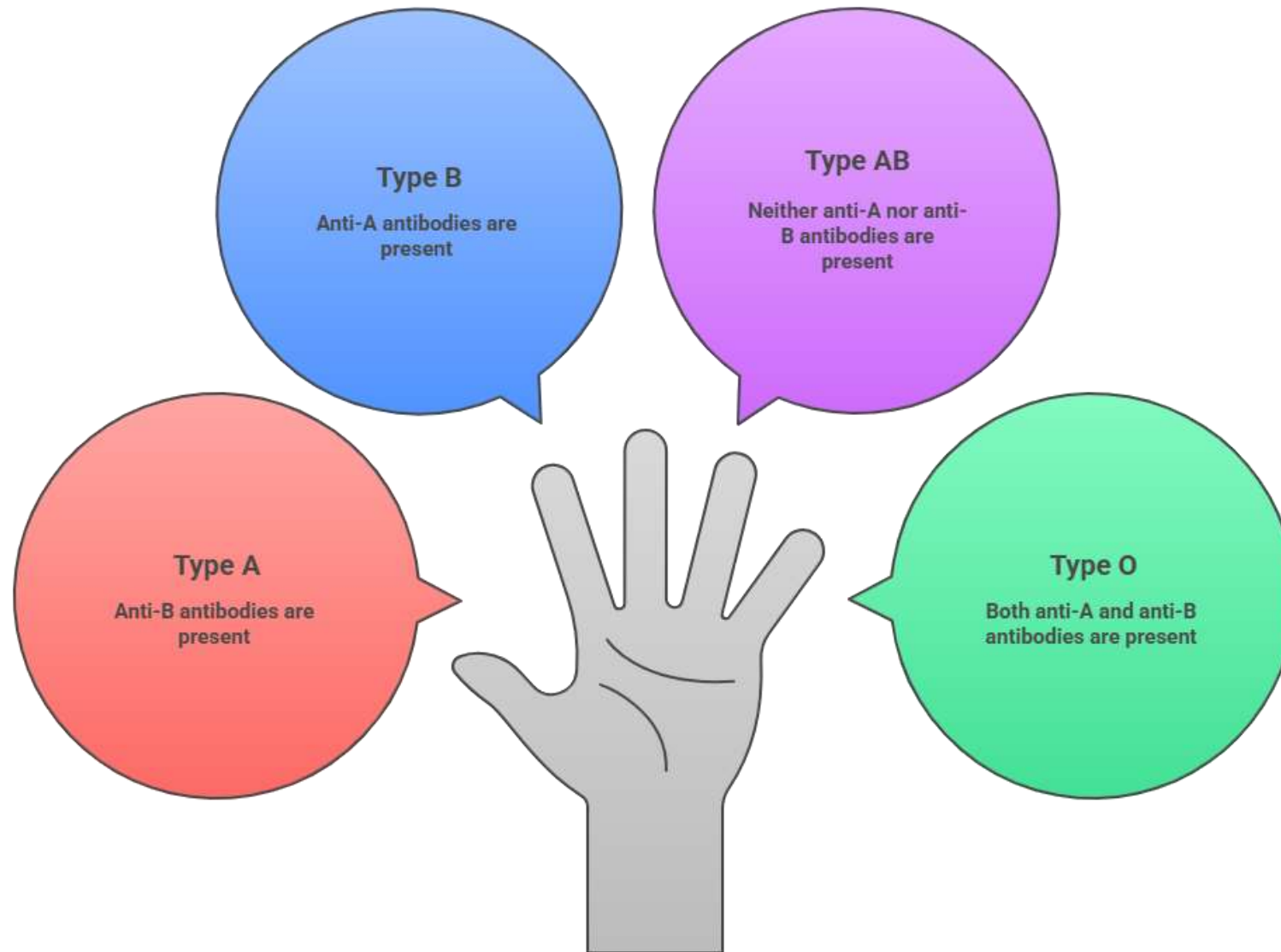
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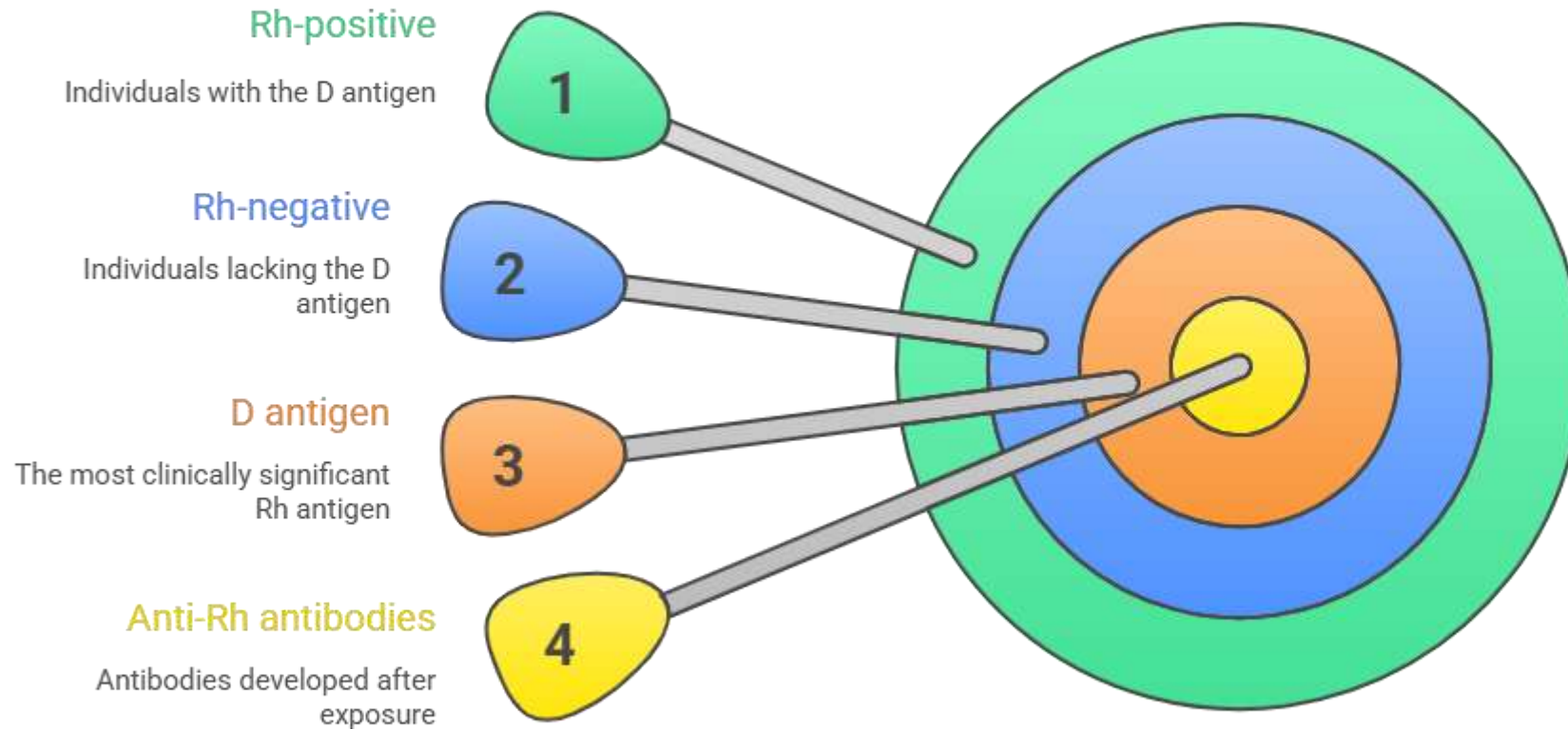
ABO blood group system

	Group A	Group B	Group AB	Group O
Red blood cell type				
Antibodies in Plasma	 Anti-B	 Anti-A	None	 Anti-A and Anti-B
Antigens in Red Blood Cell	 A antigen	 B antigen	 A and B antigens	None

What antibodies are present in a patient's plasma based on their ABO blood group?

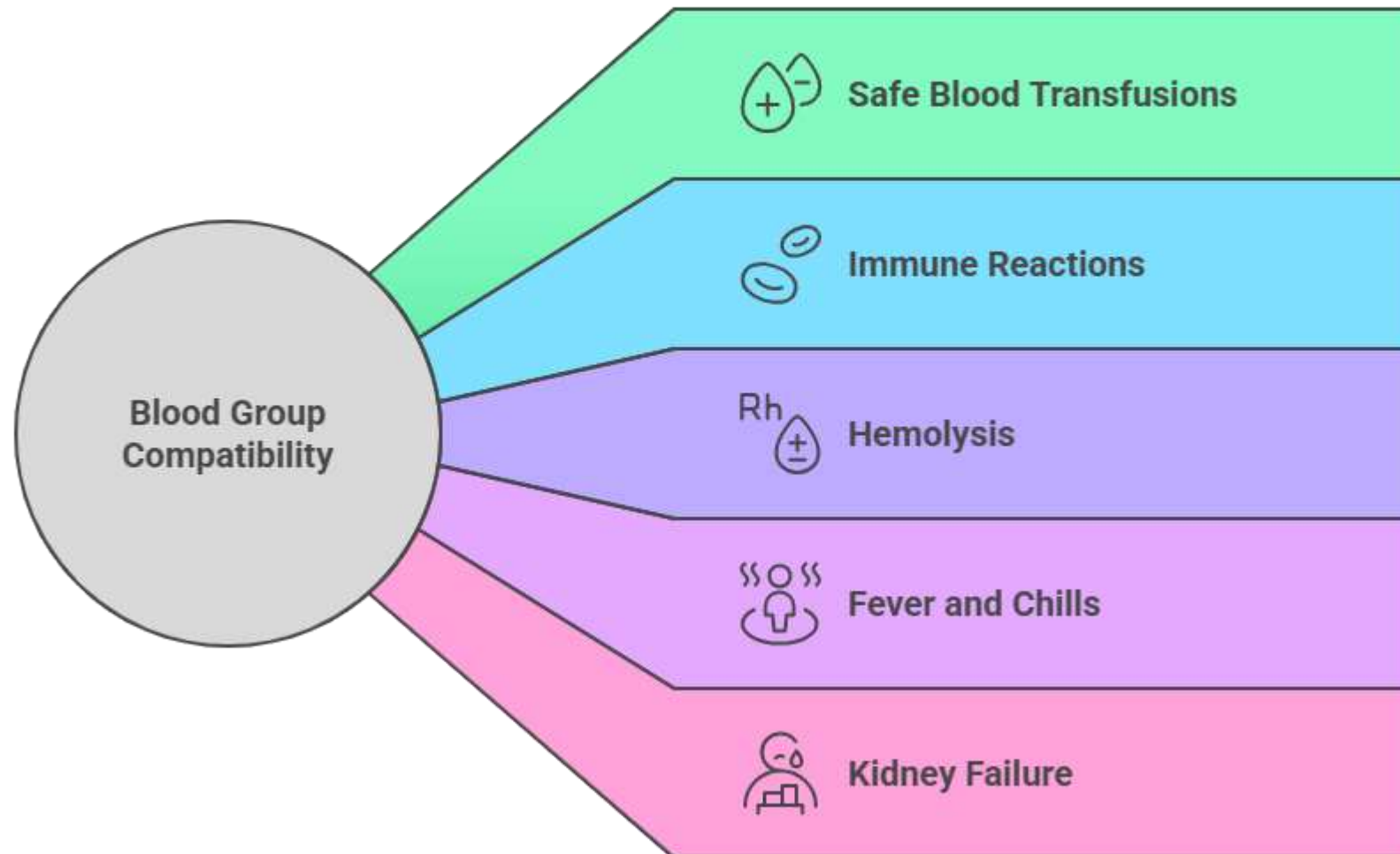


Rh Blood Group System

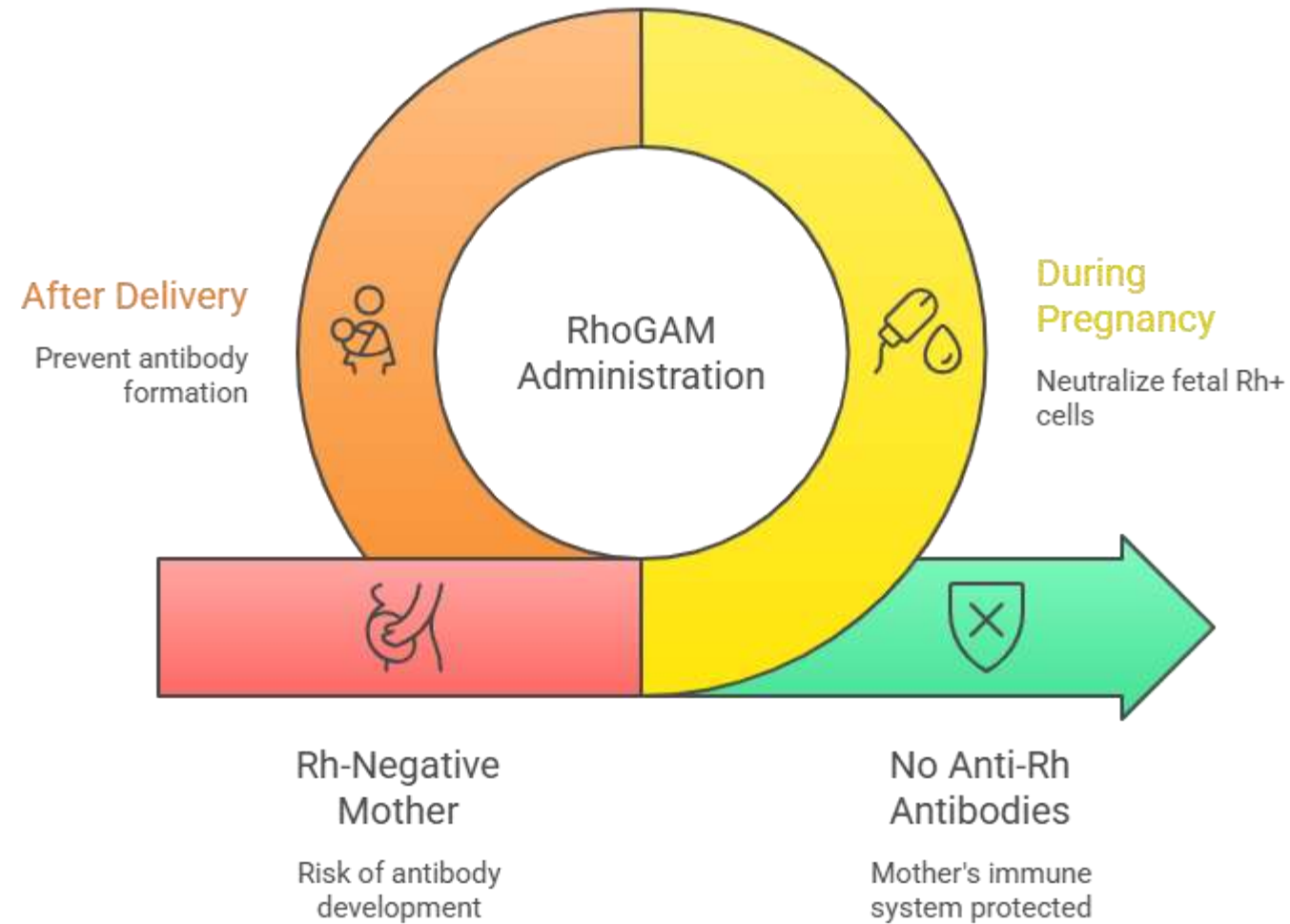


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Unveiling the Importance of Blood Group Compatibility

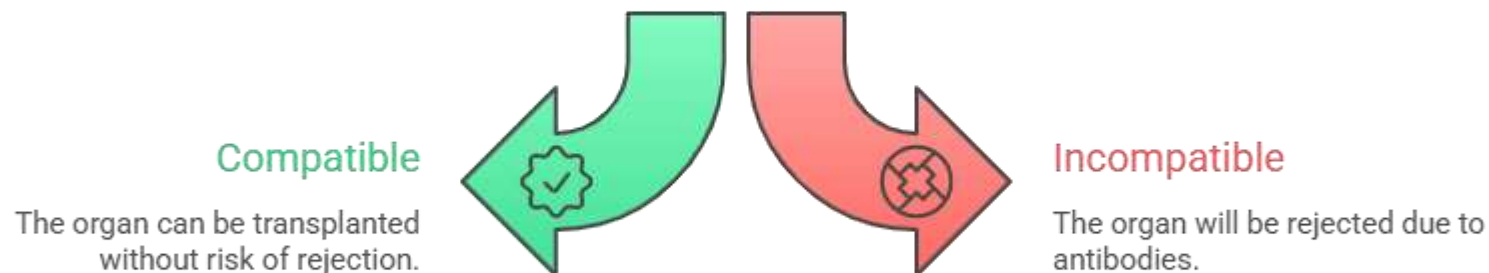


Preventing HDFN with RhoGAM



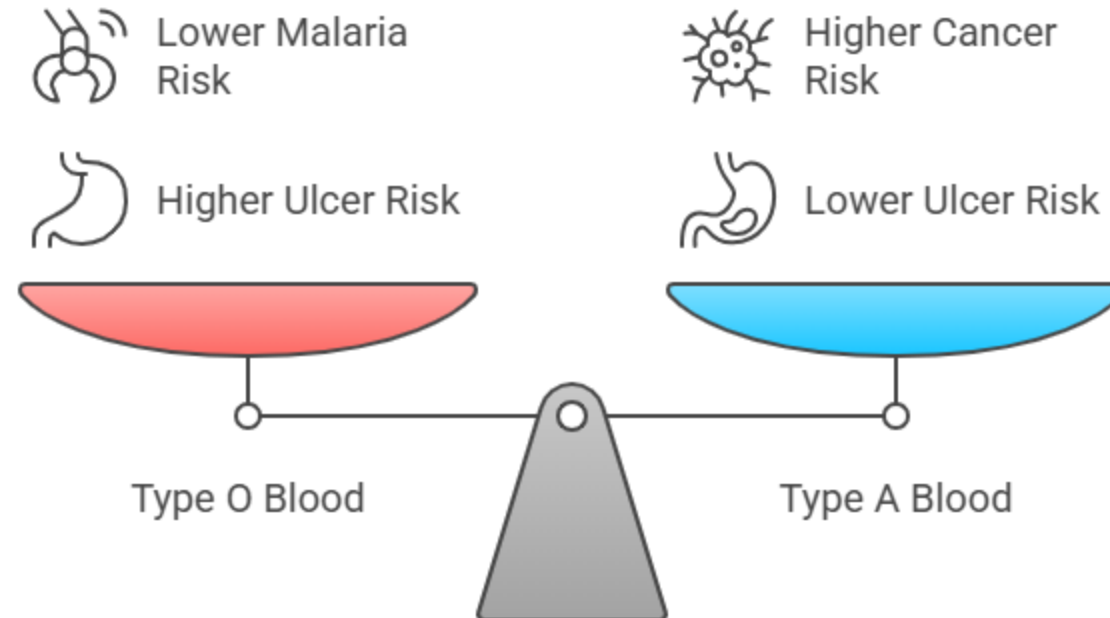
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Is the donor's blood group compatible with the recipient for organ transplantation?



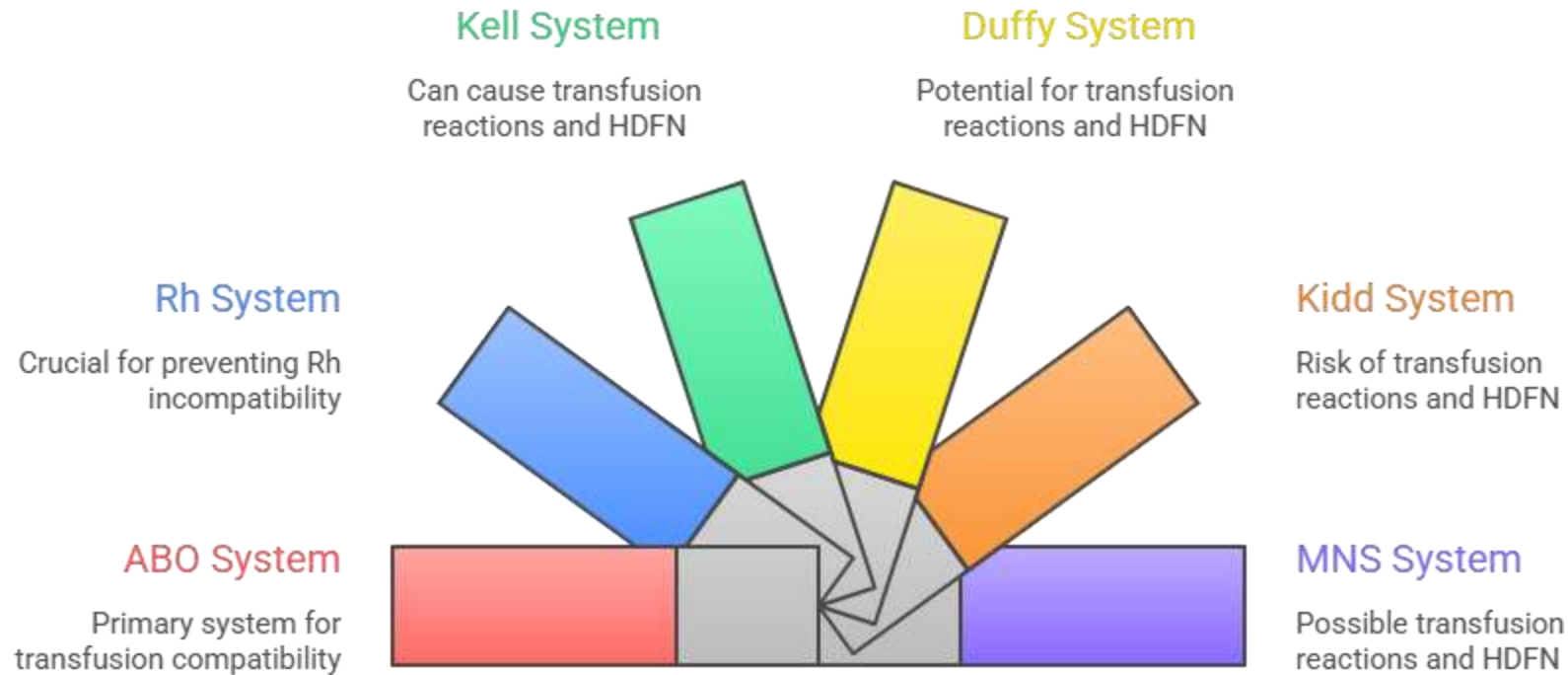
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Blood Type and Disease Risk



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Which blood group system should be considered for transfusion and HDFN risk?



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SUMMARY

Blood Group	Antigen in Cells	Antibodies in plasma	Transfuse with group
A	A	Anti-B	A or O
B	B	Anti-A	B or O
AB	A and B	none	AB, A, B or O
O	None	Anti-A & B	O

CLASS ASSESSMENTS



1. How many types of blood groups are present?

- a) 1
- b) 2
- c) 3
- d) 4

1 2
3 4



2. Which of the following blood group is considered a universal donor?

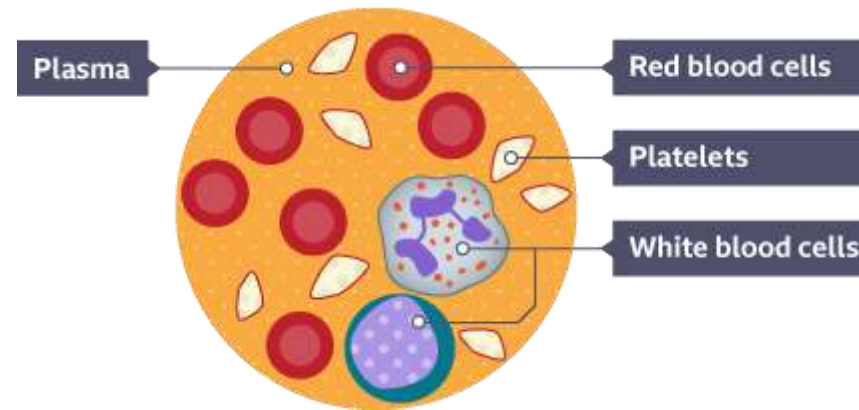
- a) A
- b) B
- c) AB
- d) O





3. The antigens for ABO and Rh blood groups are present on

- a) plasma
- b) white blood cells
- c) red blood cells
- d) platelets



REFERENCES

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*Thank
you!*