

SNS COLLEGE OF PHARMACY AND HEALTH SCIENCES



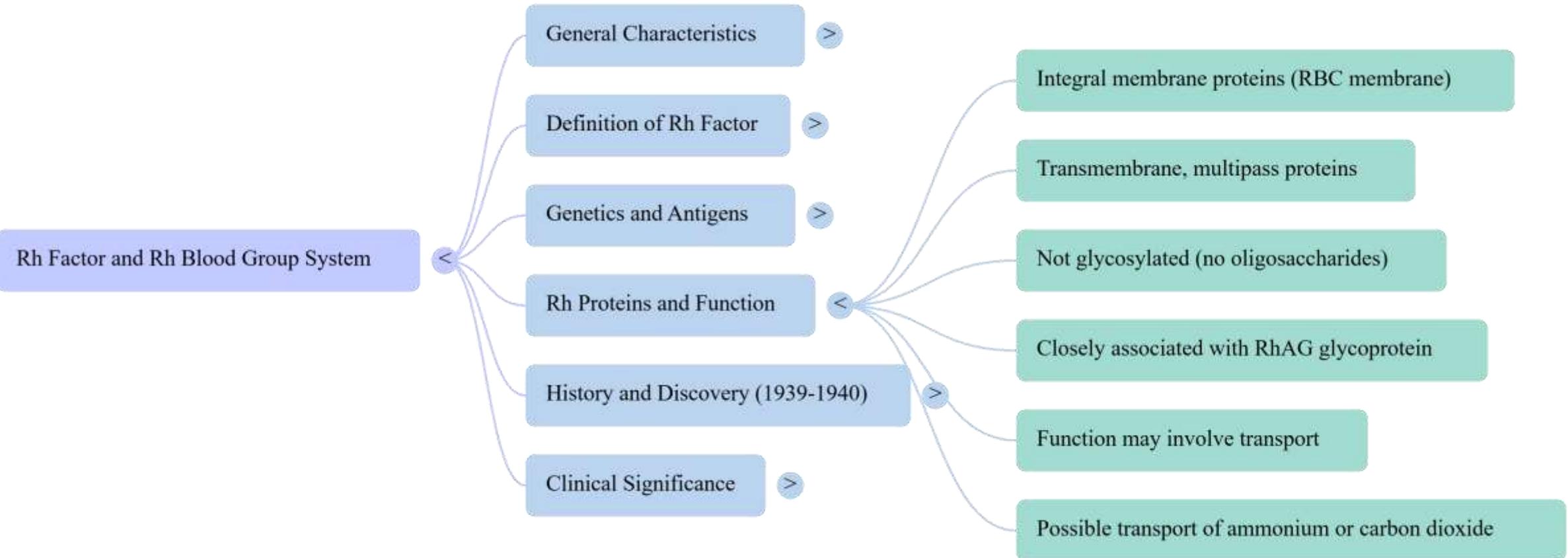
Affiliated To The Tamil Nadu Dr. MGR Medical University, Chennai
Approved by Pharmacy Council of India, New Delhi. Coimbatore -641035

COURSE NAME : HUMAN ANATOMY & PHYSIOLOGY (BP301 T)

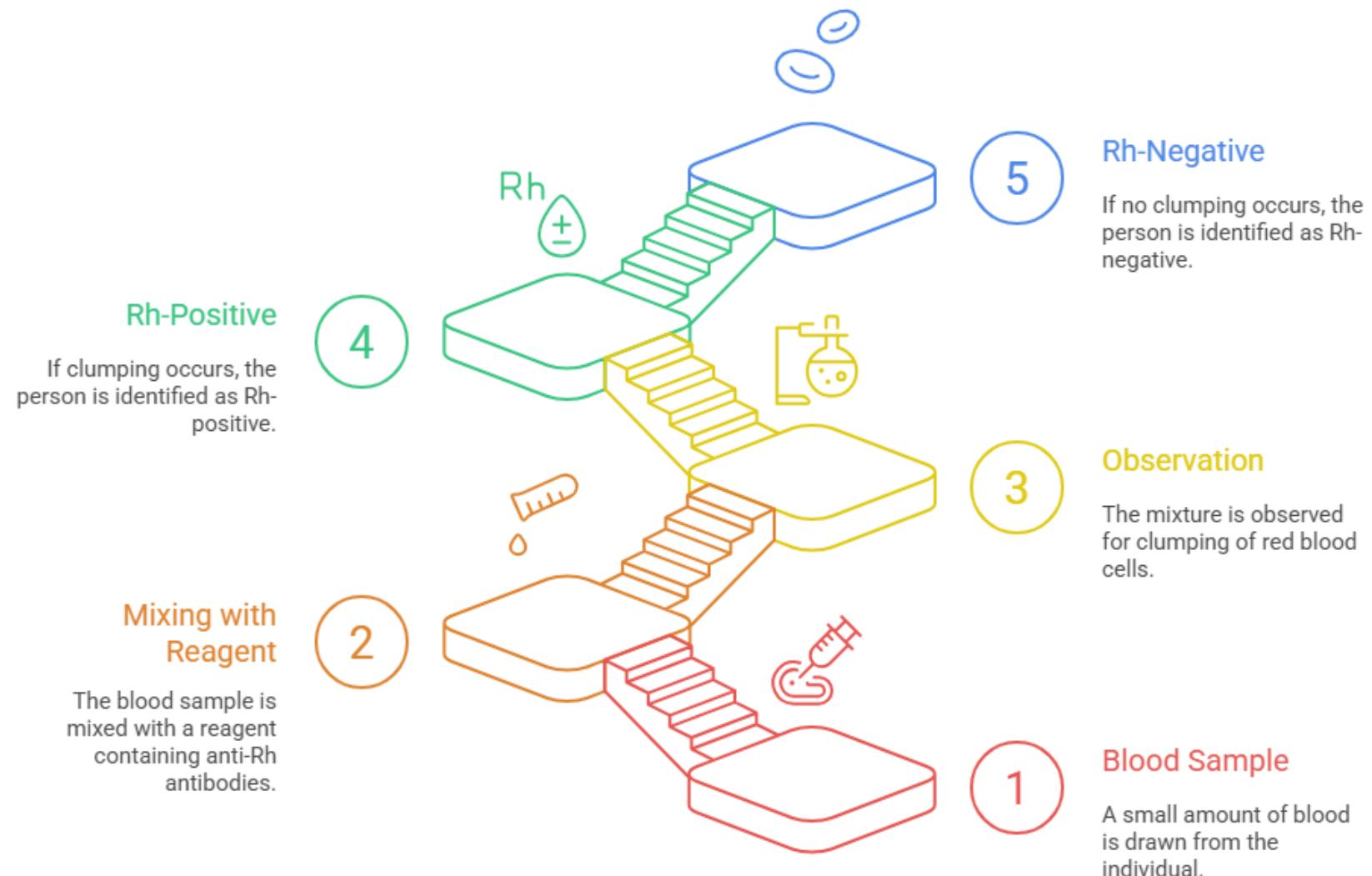
YEAR : I SEM/I YEAR

TOPIC : RH FACTOR

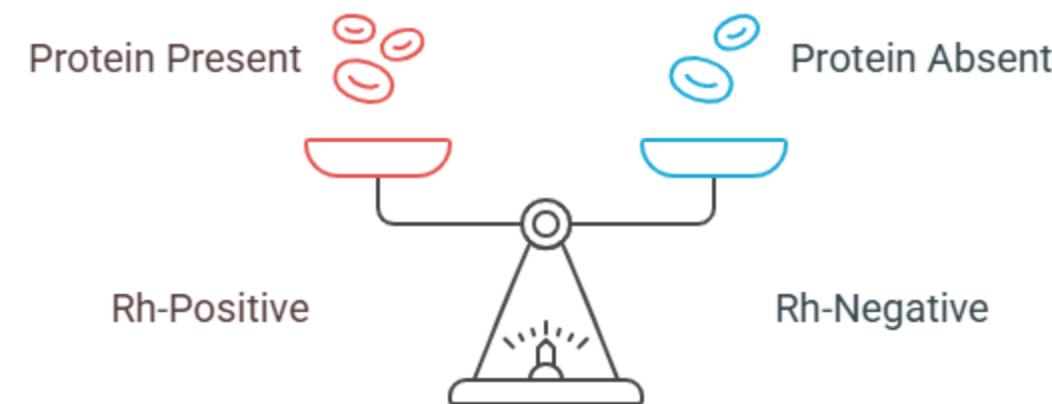
MIND MAP



Determining Rh Factor

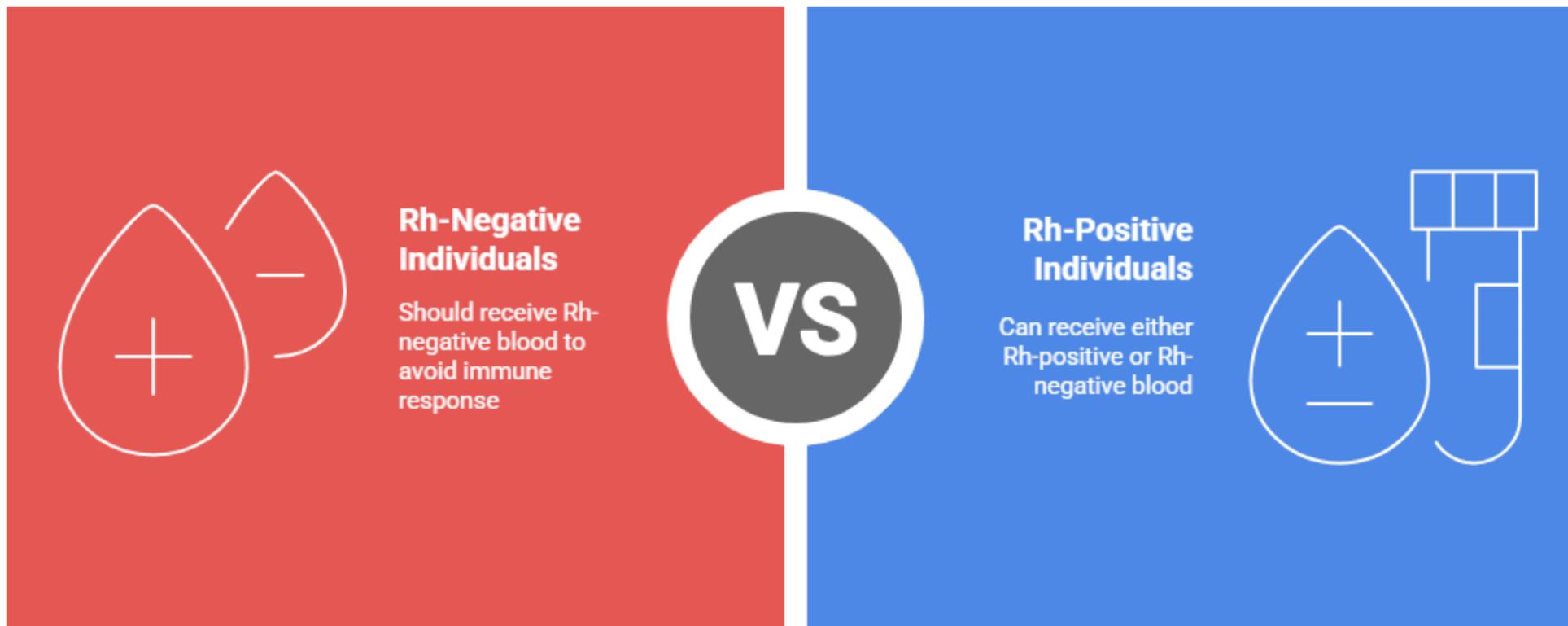


Understanding Rh Factor in Blood Types



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How to ensure safe blood transfusions based on Rh factor?



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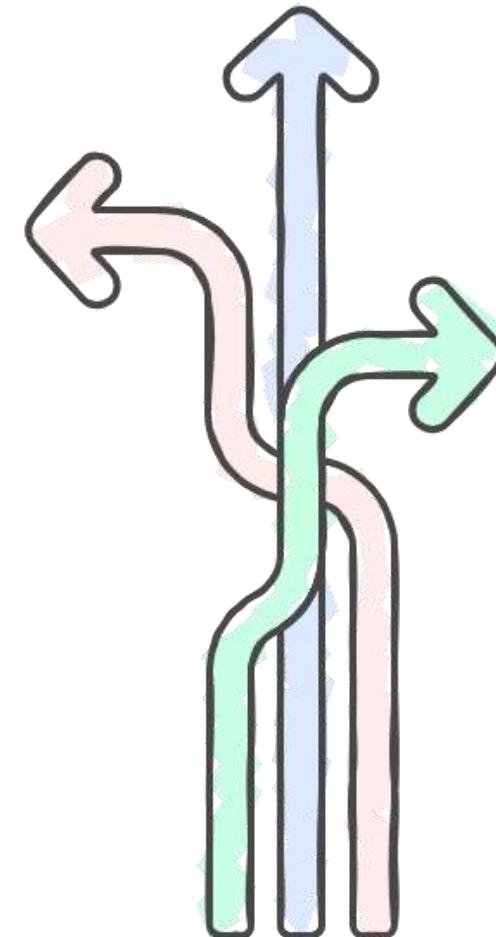
How to manage Rh incompatibility in pregnancy?

Early Delivery

Prevents further antibody damage if the fetus is mature

Intrauterine Transfusions

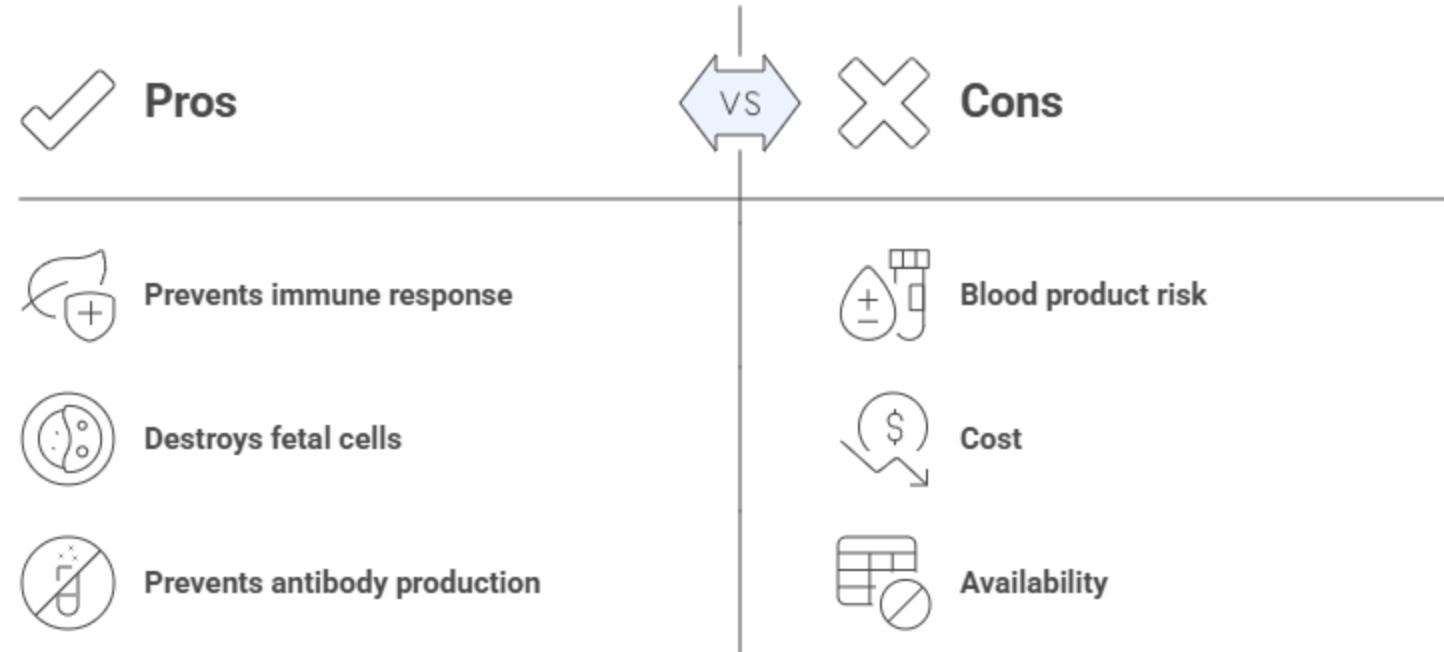
Corrects fetal anemia while in the womb



Exchange Transfusion

Removes bilirubin and antibodies after birth

RhIg Treatment



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What is the patient's blood type?

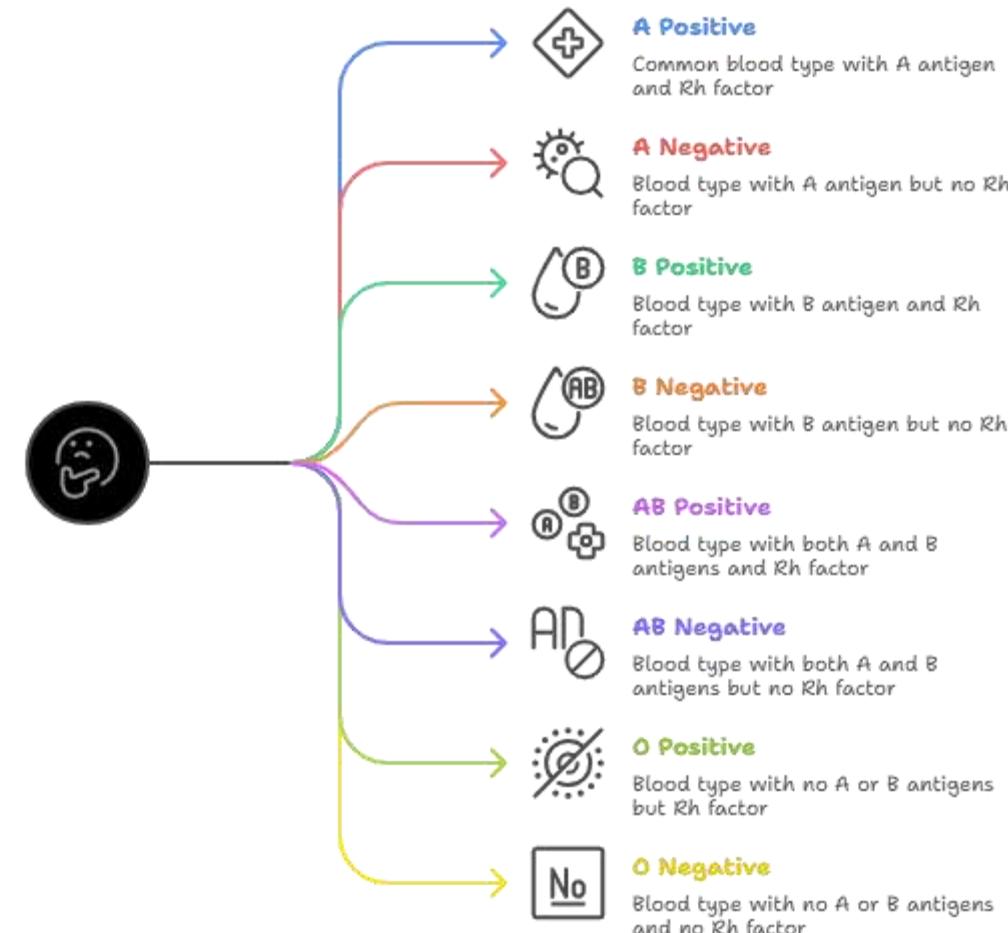


Causes of Rh Incompatibility

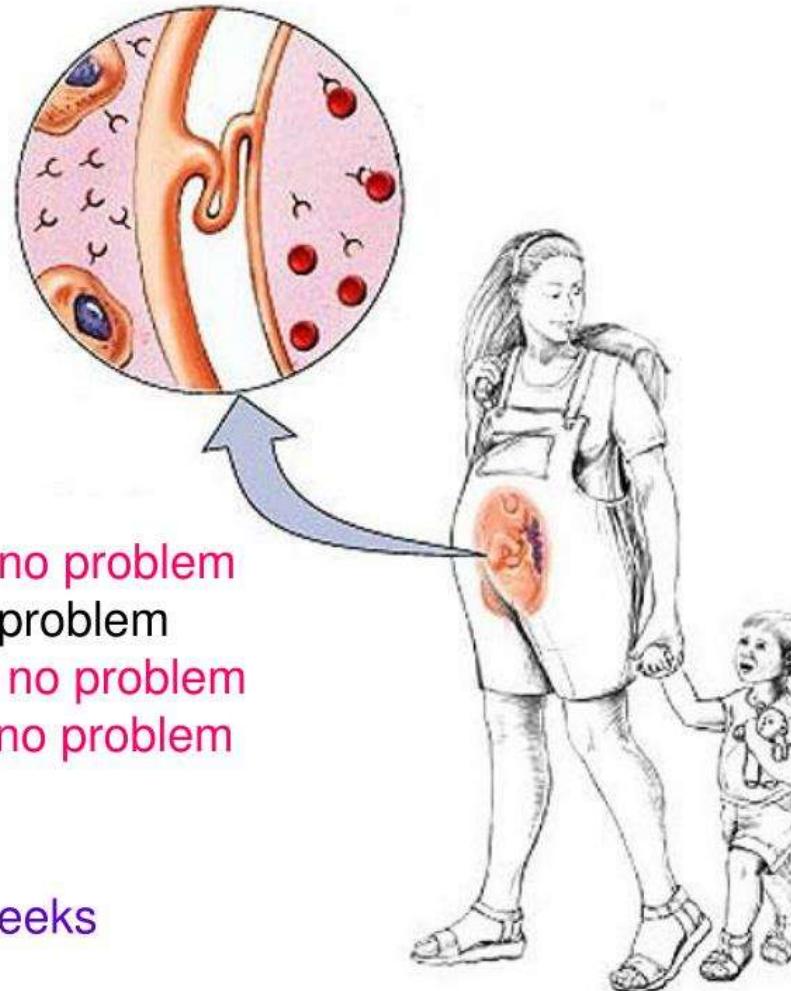


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What is the patient's blood type?



Rh Factor and Pregnancy



Rh⁺ mother w/Rh⁻ baby– no problem
Rh⁻ mother w/Rh⁺ baby– problem
Rh⁻ mother w/Rh⁻ father– no problem
Rh⁻ mother w/Rh⁻ baby-- no problem

RhoGAM used @ 28 weeks

Rh FACTOR

Rh POSITIVE	 A red circular cell with green spikes representing Rh antigens. The letter 'A' is in the center.	 A red circular cell with green spikes representing Rh antigens. The letter 'B' is in the center.	 A red circular cell with green spikes representing Rh antigens. The letters 'AB' are in the center.	 A red circular cell with green spikes representing Rh antigens. The letter 'O' is in the center.
Rh NEGATIVE	 A red circular cell with red spikes representing A antigens. The letter 'A' is in the center.	 A red circular cell with red spikes representing B antigens. The letter 'B' is in the center.	 A red circular cell with red spikes representing A and B antigens. The letters 'AB' are in the center.	 A red circular cell with red spikes representing A and B antigens. The letter 'O' is in the center.



Rh ANTIGEN



A ANTIGEN



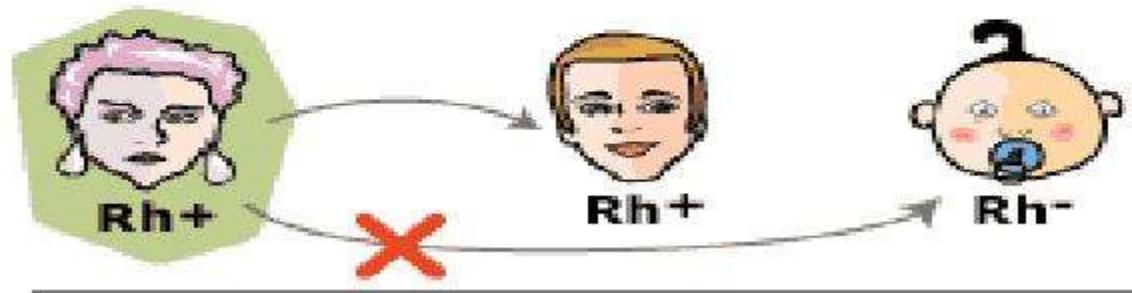
B ANTIGEN

RH FACTOR

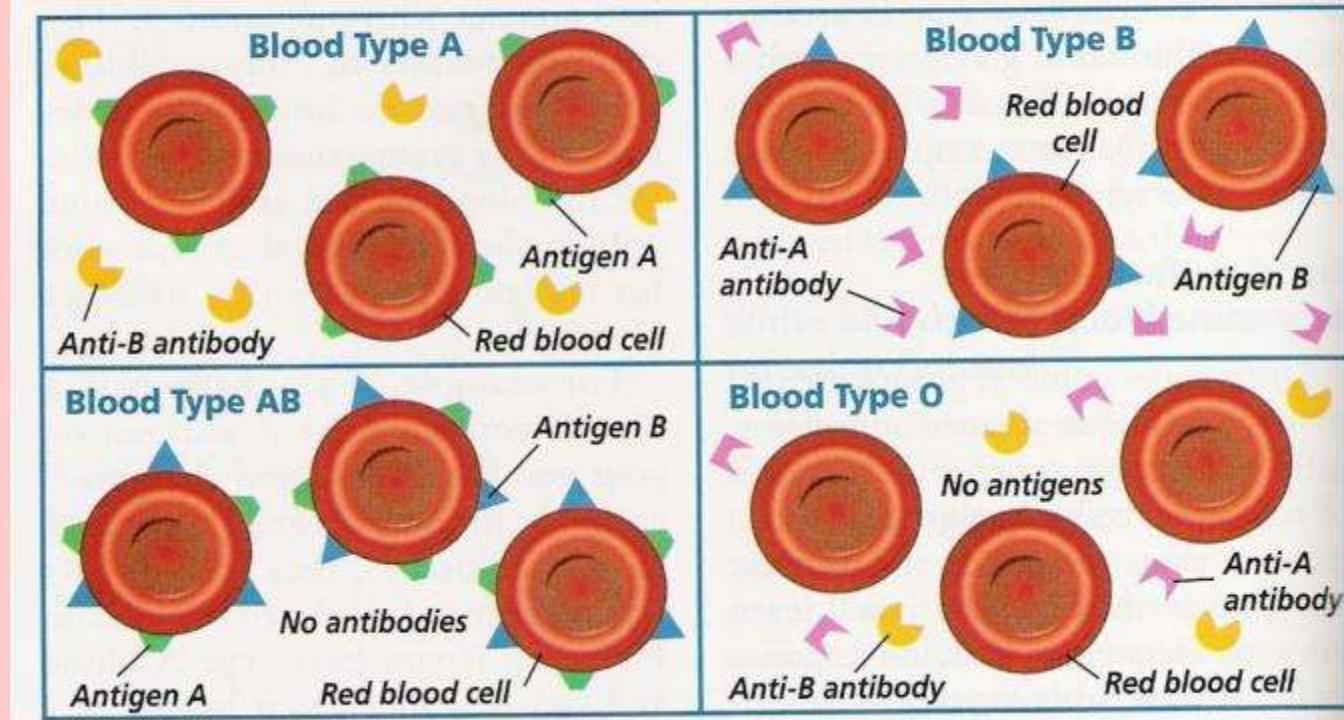
- A person with Rh- blood can *develop* Rh antibodies in the blood plasma if he or she receives blood from a person with Rh+ blood, whose Rh antigens can trigger the production of Rh antibodies.



- A person with Rh+ blood can receive blood from a person with Rh- blood without any problems.



Laboratory Examination – ABO and Rh system



Factor Rh

Blood Type (genotype)	Rh (+)	Rh (-)
Red Blood Cell Surface Proteins (phenotype)	 Rh AGLUTINÓGENO	 NO AGLUTINÓGENO



CLASS ASSESSMENTS

IDENTIFY THE BLOOD GROUP?

**Without
antibodies**



**With
Anti-A**



**With
Anti-B**



**With
Anti-A and Anti-B**





CLASS ASSESSMENTS

IDENTIFY THE BLOOD GROUP?

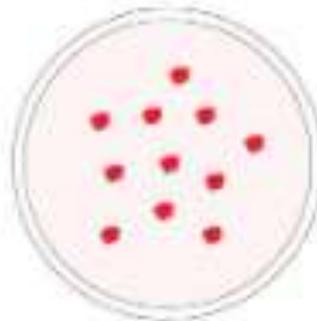
Without
antibodies



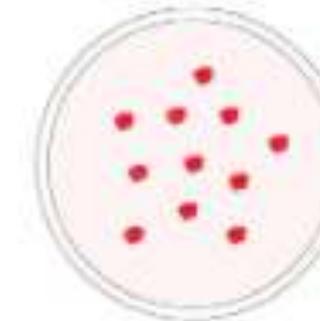
With
Anti-A



With
Anti-B



With
Anti-A and Anti-B





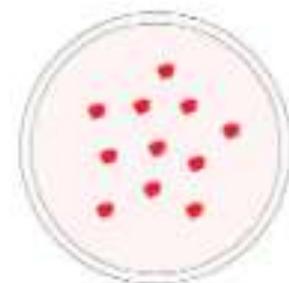
CLASS ASSESSMENTS

IDENTIFY THE BLOOD GROUP?

**Without
antibodies**



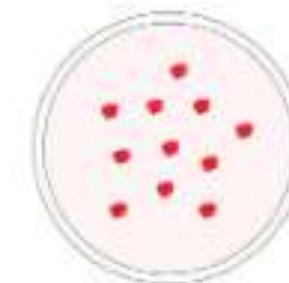
**With
Anti-A**



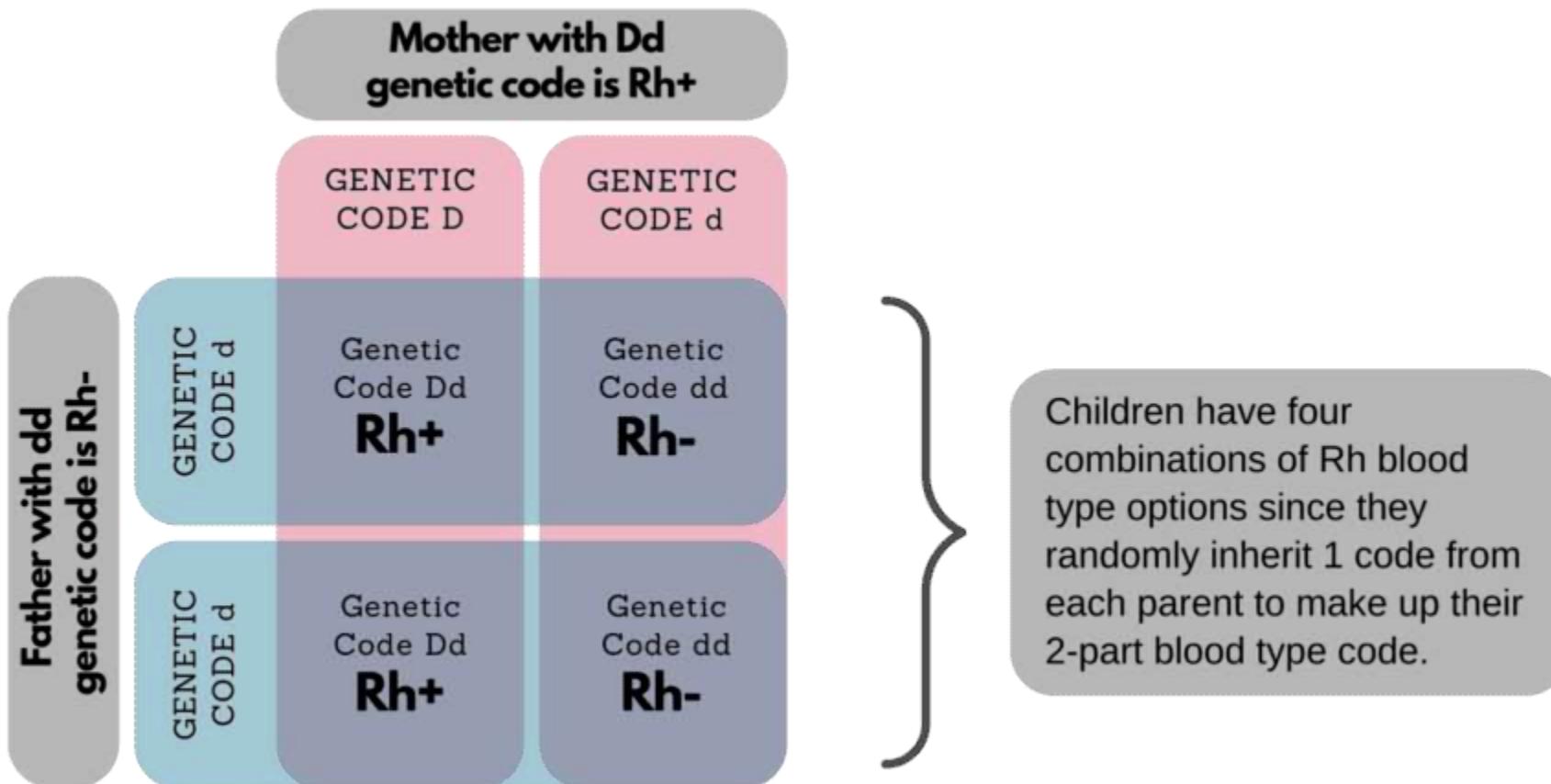
**With
Anti-B**



**With
Anti-A and Anti-B**



SUMMARY



REFERENCE

- ✓ Essentials of Medical Physiology, K. Sembulingam & P. Sembulingam (Jaypee Brothers Medical Publishers)
- ✓ A Textbook of Human Anatomy and Physiology-I, SIA Publishers
- ✓ Human Anatomy & Physiology Gerard J. Tortora & Bryan H. Derrickson (Wiley)
- ✓ Ross and wilson anatomy and physiology in health and illness, Anne Waugh &Allison Grant.

