

ABO/Rh Blood Typing Lab

Lab 8

The purpose of this lab is to perform a slide ABO/Rh blood typing procedure, discuss the clinical significance of ABO/Rh blood typing, and how antigens and antibodies relate to the blood typing procedure

Materials

- Whole Blood
- Anti-d (Rh) antiserum



- Anti-a antiserum



- Anti-b antiserum



- Plastic Pipette



- Rh View Box



- Applicator sticks



- Blood Typing slide



- Work mat
(paper towel)

- Laboratory Coat



- Disinfecting Wipes



- Biohazard Containers



If doing finger stick

- Alcohol swabs
- Band-Aid



- Lancet



- Sterile Cotton



Procedure...

1.) Mix antiserum

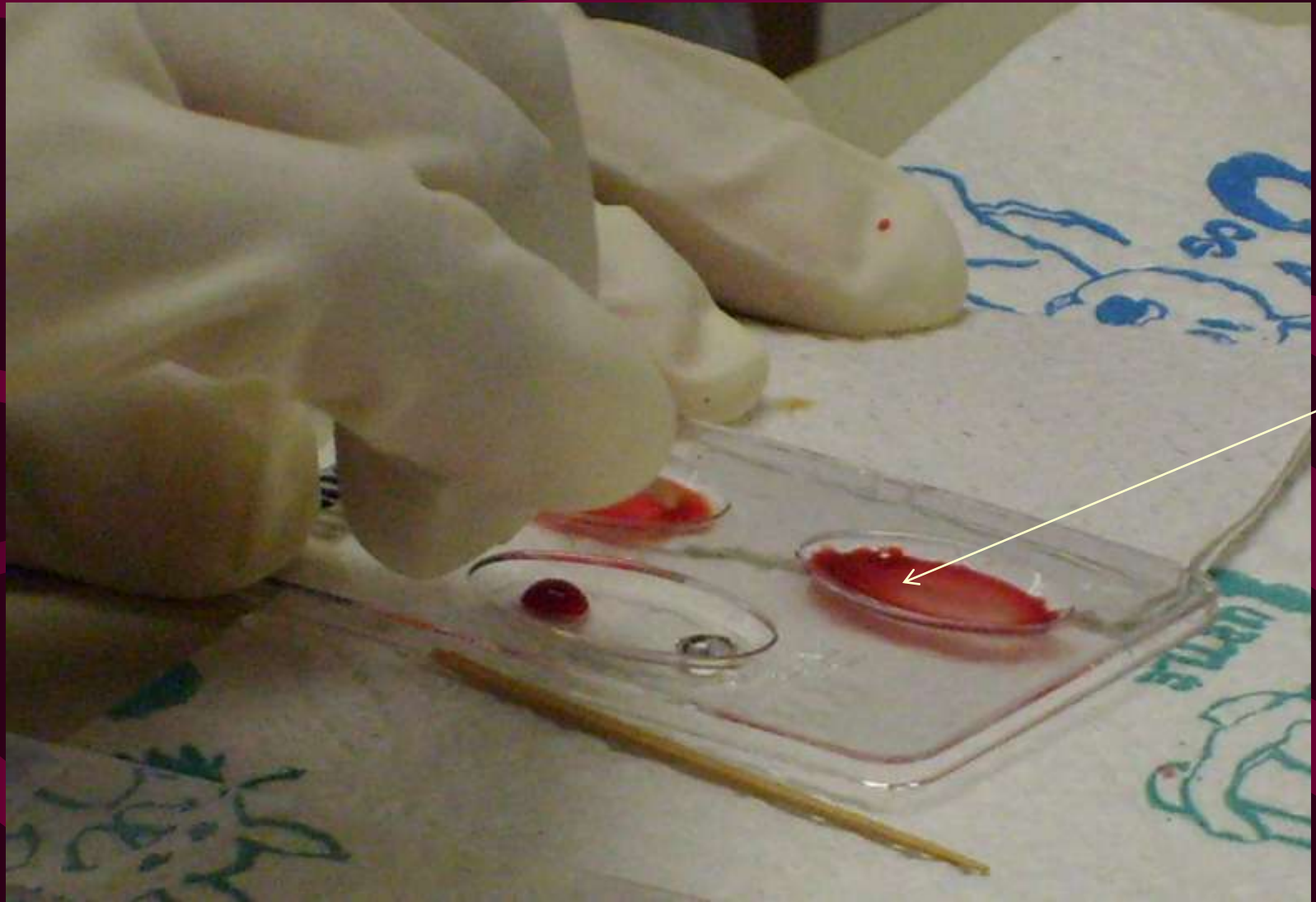
2.) Place a drop of anti- a, b, and d(Rh) in the labeled wells on the blood typing slide



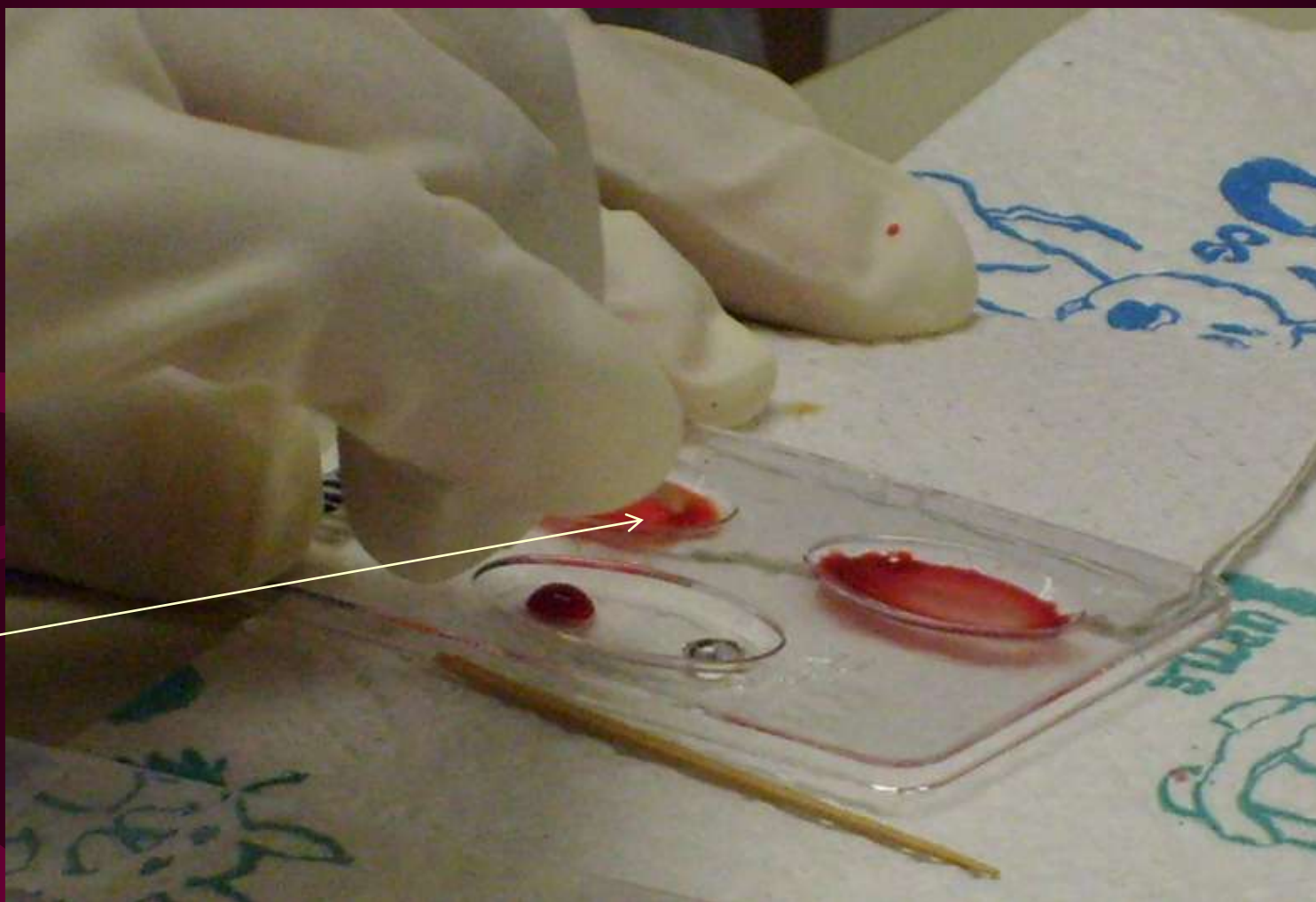
3.) Mix blood well, and place a small drop of blood in each well.



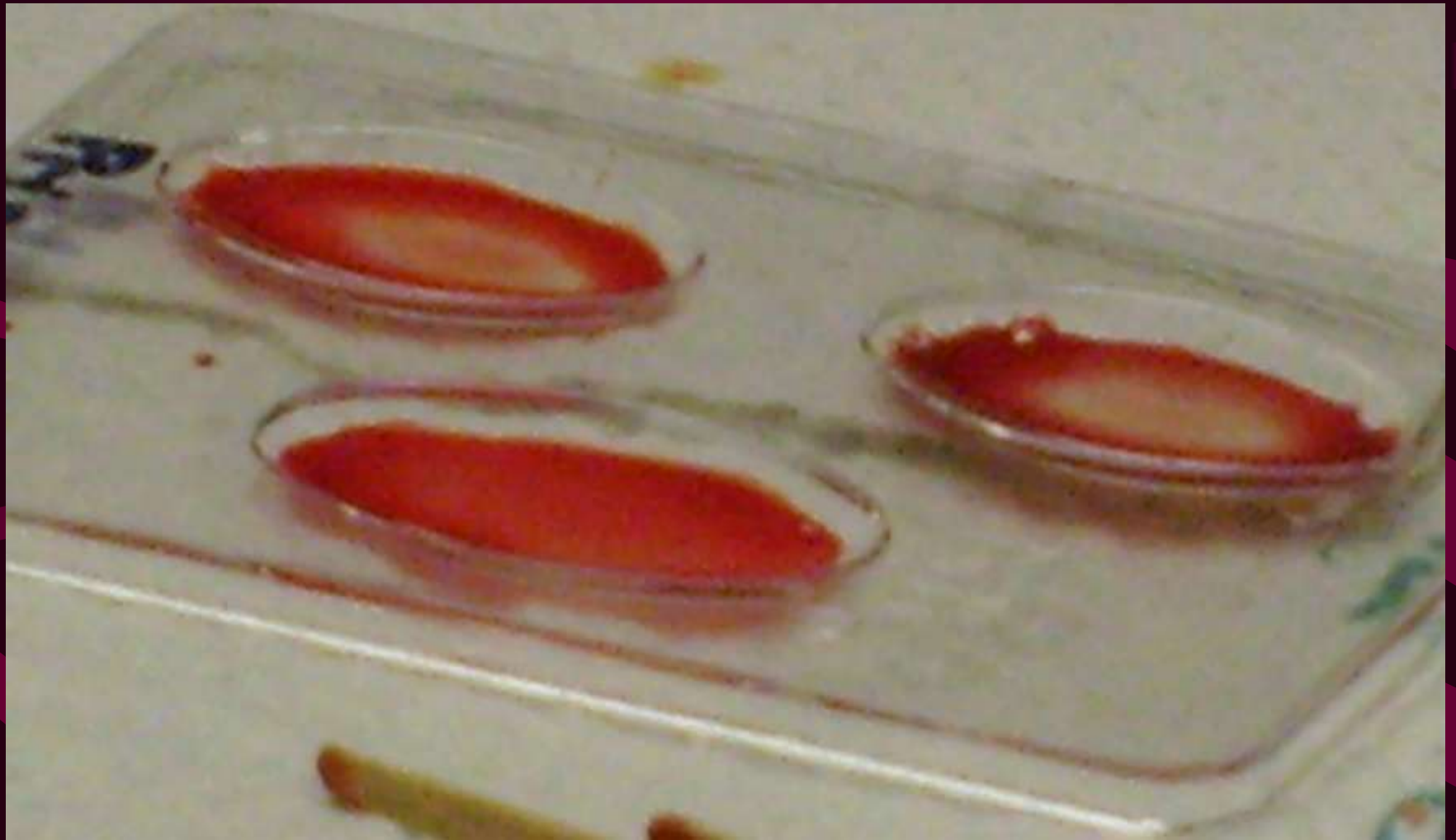
4.) Mix the "a" well with an applicator stick



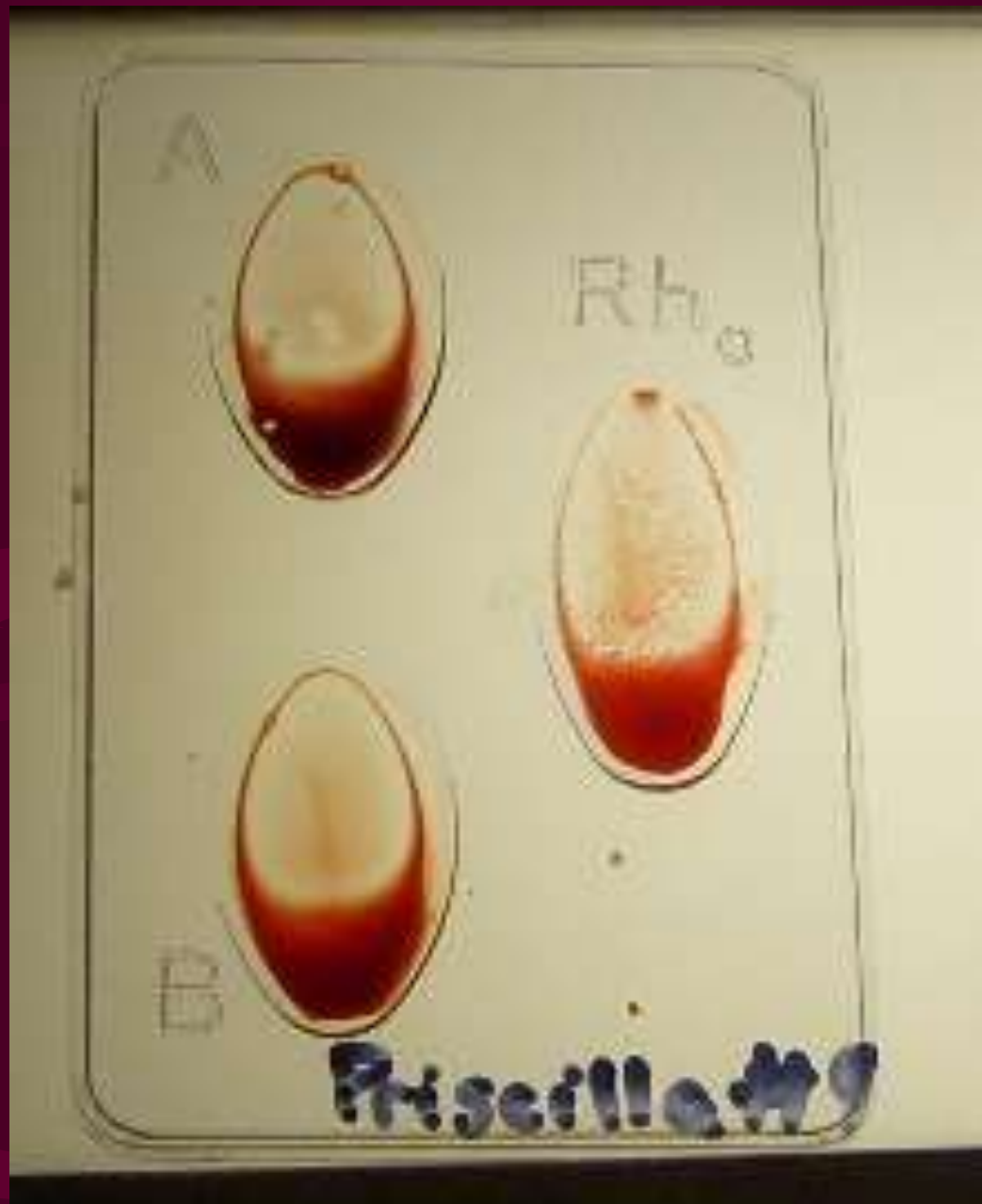
mix the "b" well with another applicator
stick.



5.) Rotate typing slide for two minutes and interpret ABO blood type.



6.) Place slide vertically on the Rh view box, rock slide back and forth on the view box for one minute, then interpret Rh data.

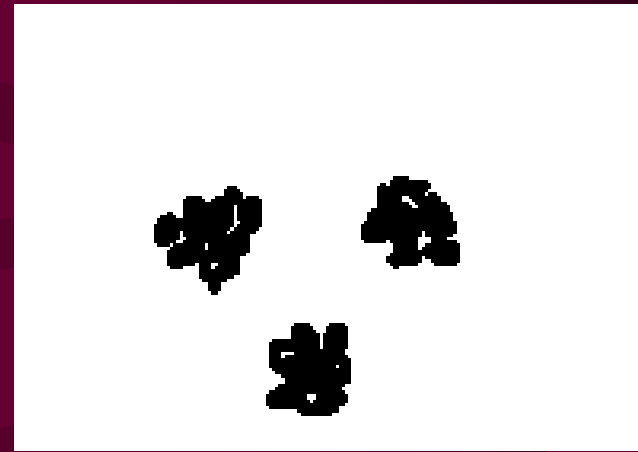


7.) Replace and dispose of all
supplies and equipment
according to instructor (also see
lab disposal book). Sheet on wall.

8.) Disinfect top and bottom work area, test tube rack, and any other item that may be contaminated with body fluids.

Raw Data/ Calculations

- Draw your slide reactions to show agglutination in each well by using the agglutination pictures.



Clumps

No Clumps



Normal Ranges:

N/A

Results:

ABO/Rh Blood type

Look at the pictures on labsheet to help interpret results.

Conclusion

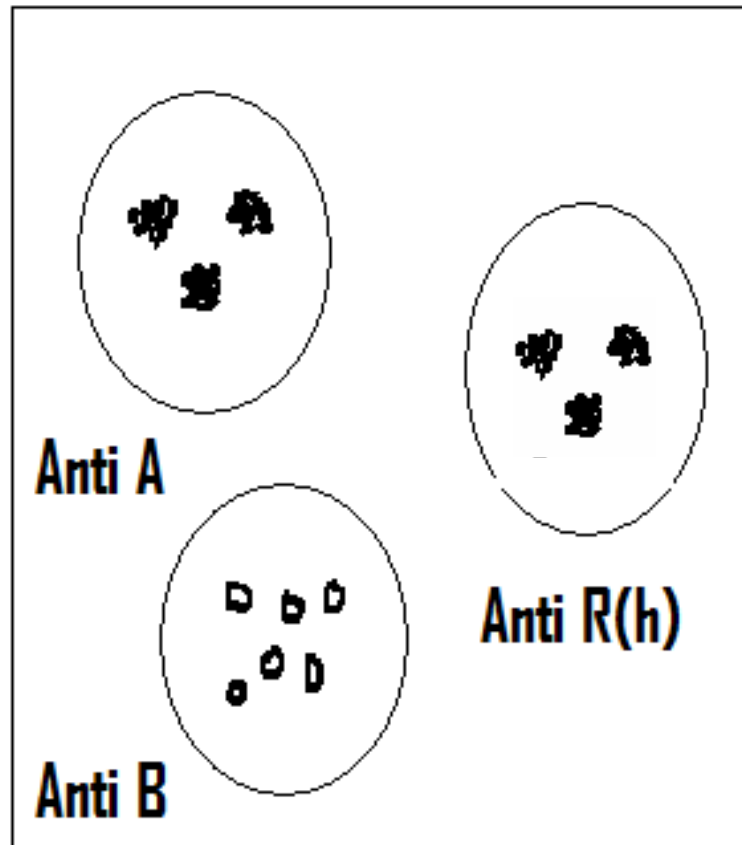
State whether your blood type is the most common, the least common or neither, from which blood type(s) you can receive blood, and to which blood type(s) you can donate blood.

Most common in all ethnic groups is Type O

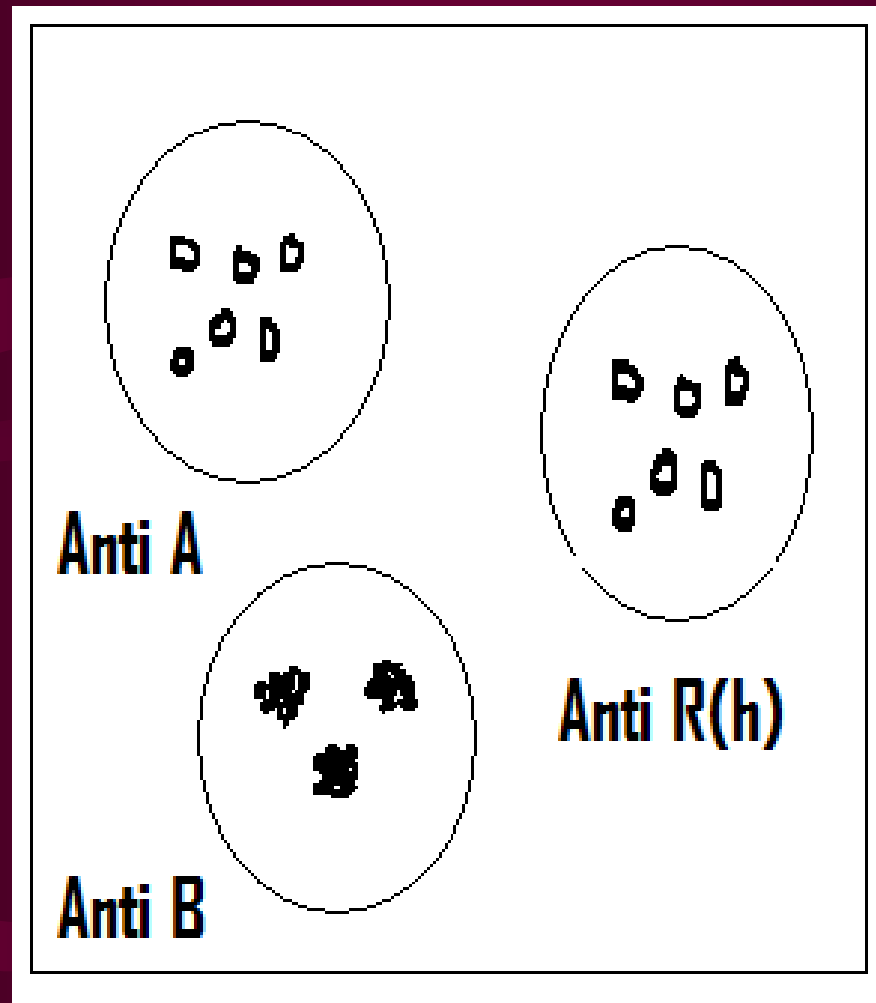
Least common type in all ethnic groups is Type AB

Types that vary due to ethnic origin are Type A and Type B.

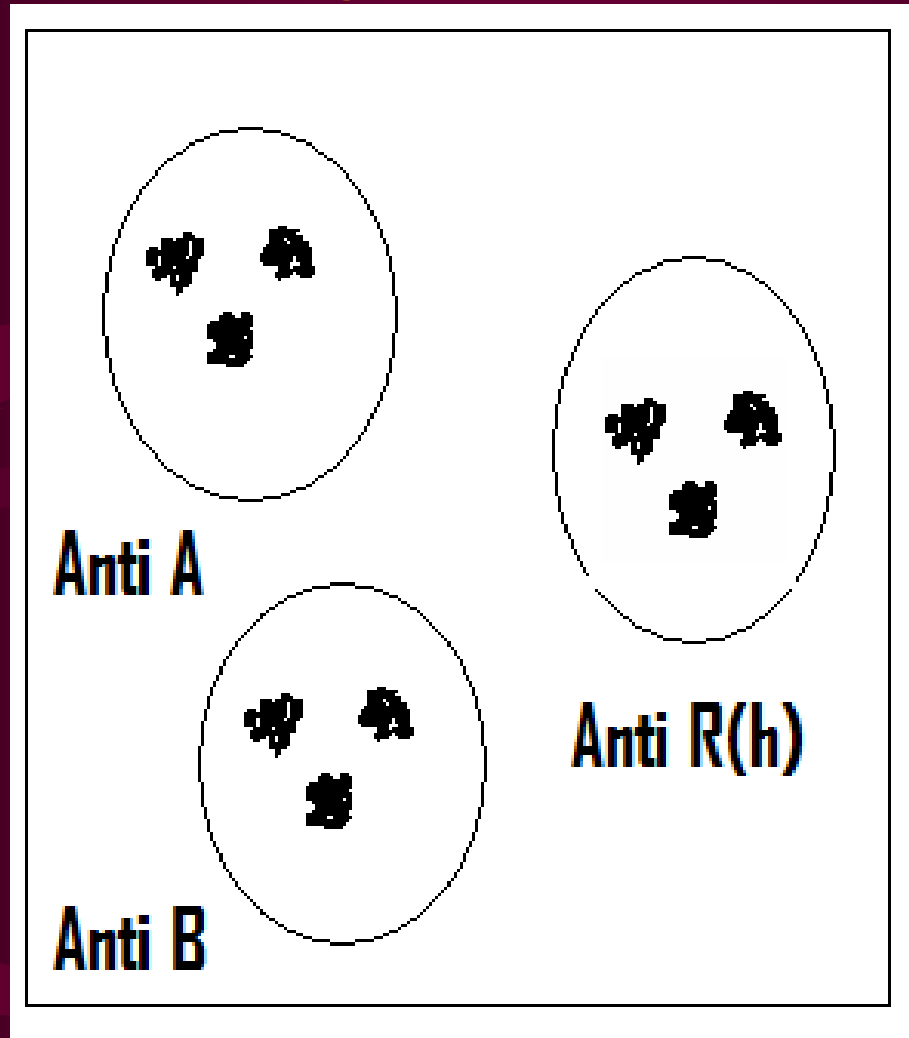
Blood type A / Rh+ :



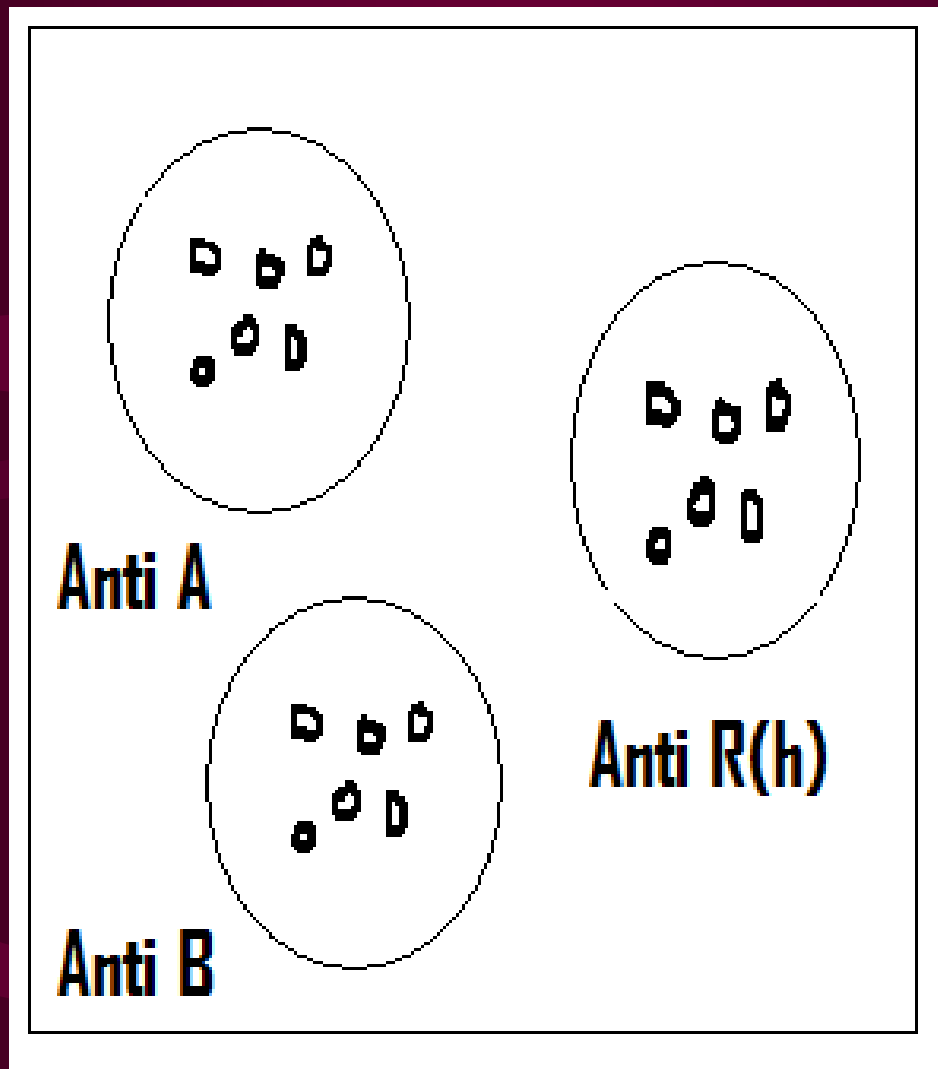
Blood type B / Rh-:



Blood type AB / Rh+:



Blood type O / Rh-:



Clinical Significance

People can receive transfusions of only certain blood types, depending on the type of blood they have. If incompatible blood types are mixed, erythrocyte destruction, agglutination and other problems can occur. By using the ABO/Rh blood typing, one can find their blood type and compatibility.

Additionally, the ABO blood groups and other inherited antigen characteristics of red blood cells are often used in medico-legal situations involving identification of disputed paternity.

Questions...

Answer using your notes and
text books.

1. What happens if the patient receives the wrong type of blood?
2. Determine the ABO blood type the donor must have to give red cells to each of the following recipients?

Recipient blood type

A

B

AB

O

Donor

- 3.) Who is the Universal Donor?
- 4.) Who is the universal recipient?
- 5.) Determine the Rh factor of the offspring resulting from each marriage.

<u>Marriage</u>	<u>Possible Genotypes</u>	<u>Phenotype and Percentages</u>
--and++	_____	_____
++and--	_____	_____
--and+-	_____	_____
+-and+-	_____	_____

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Class of 2009