ABO Blood Typing Game

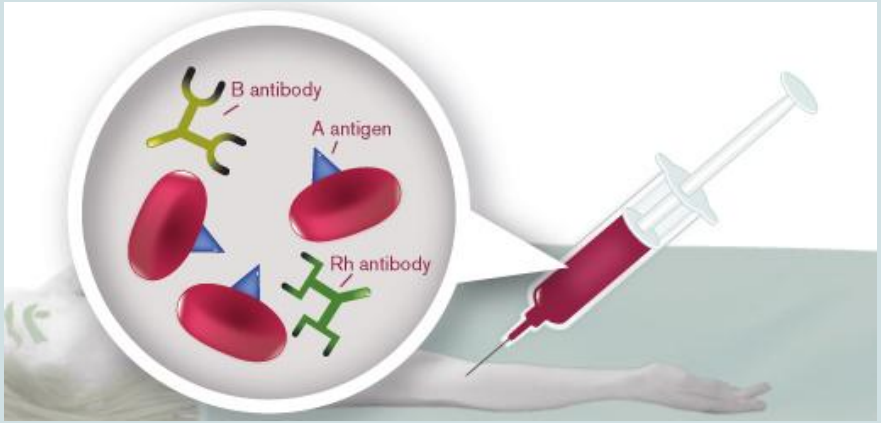
Quiz Topics

Objective of this game

Save 3 patients who have been in a car accident and need blood transfusions.

How the game is played:

1. **Syringe of blood is taken from a patient.**
2. **Syringe fills in 3 vials: A, B and Rh**
3. **Identify the ANTIGEN**



Look for agglutination

In which mixtures has clumping, or agglutination, occurred?

The agglutination indicates that the blood has reacted with a certain antibody and is therefore not compatible with blood containing that kind of antibody. B-

If the blood does not agglutinate, it indicates that the blood does not have the antigens binding the special antibody in the reagent.

How Blood Type is Identified

- Our blood types are determined by heredity.
- People belong to either of eight different blood types:

A Rh+, A Rh-

B Rh+, B Rh-

AB RH+, AB Rh-

0 Rh+, or 0 Rh-

How do Blood Types Differ?

A blood type has:

a. ***Antigens***, **on the surface of the red blood cells. The A and B antigens determine an individual's blood type.**
b. **Rh antigens are proteins. The antigens expressed in the red blood cells**
c. **in the blood plasma differs between the eight blood types, the so called *antibodies*.**

You can have A *or/and* B *or/and* Rh antigens or none of them.

You can have A *or/and* B *or/and* Rh antibodies or none of them.

Blood Type A- vs. Blood Type A+

Antigens (on the surface of the red blood cells):

1. A indicates there are A antigens.
2. (Rh- indicates there are no Rh antigens)

Antibodies (in the blood plasma):

1. B antibodies.
2. Rh antibodies

If there are A antigens but no B nor Rh antigens, the antibodies in the blood plasma are B and Rh antibodies.

Antigens (on the surface of the red blood cells):

1. A indicates there are A antigens.
2. Rh+ indicates there are Rh antigens.

Antibodies (in the blood plasma):

B antibodies

If there are A and Rh antigens but no B antigens, the antibodies in the blood plasma are B antibodies.

What to know about BLOOD TRANSFUSIONS

- Blood cells or plasma is used for
  - Blood loss
  - Anemia
- If someone receives INCOMPATIBLE blood transfusion, the agglutinated red cells can
  - clog blood vessels and stop the circulation of the blood to various parts of the body.
  - Agglutinated red blood cells can also crack open, leaking toxic contents out in the body, which can have fatal consequences for the patient.

For example, a person with blood type B Rh- has got A and Rh antibodies and cannot receive a blood transfusion with red blood cells which have A and Rh antigens like A Rh+ or AB Rh+