



TIRUMALA ENGINEERING COLLEGE

An ISO 9001:2015 Certified Institution, Accredited by NAAC & NBA

(Approved by AICTE & Affiliated to JNTU Kakinada)

Jonnalagadda, Narasaraopet Guntur - 522601, Dist. A.P. Website: tecnrt.org. E-mail: tecnrt@gmail.com

A REPORT ON BLOOD GROUPING CAMPAIGN

NSS UNIT TEC



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LOCATION: TIRUMALA ENGINEERING COLLEGE GIRLS HOSTEL

NUMBER OF STUDENTS: 500

DATE: 16-02-2021



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BLOOD GROUPING CAMPAIGN

The accurate grouping of blood is very important when it comes to having a blood transfusion. If blood is given to a patient that has a blood type that is incompatible with the blood type of the blood that the patient receives, it can cause intravenous clumping in the patient's blood which can be fatal. The patient's body can start producing antibodies that attack the antigens on the blood cells in the blood that was given to the patient, causing reaction and rejection.

The rarest blood groups amongst the population that donate blood in the UK are AB-, whereas the most common are O+. People who are blood group RhD positive, can be given either RhD positive or RhD negative blood, but people with RhD negative blood can only receive RhD negative blood. With so many possible scenarios, identifying a patient's blood group quickly and accurately and identifying the best blood or platelets to provide for the transfusion process is serious.

The blood groups are defined by the presence or absence of a specific antigen on the surface of a red blood cell. Along with red blood cells, white blood cells and platelets, blood also contains antigens, part of the body's immune system. Antigens are proteins or sugars which cover the surface of the red blood cells. Some of these antigens define which blood group you belong to.

There are four ABO blood groups: A, B, AB and O which all refer to the presence of different antigens on the red blood cells. Blood group A means you have the A antigen, while blood group B means you have the B antigen. Blood group AB has both the A and B antigens present on the surface, but blood group O has neither antigen present.

Packed blood group O red cells (that do not contain significant amounts of plasma and therefore no significant amounts of naturally occurring antibodies) can be given safely to any other blood group. Considering that a person can be either blood group A, B, AB or O and is either blood group RhD positive (also denoted as +) or RhD negative (also denoted as -), this means that a person can be one of eight ABO and RhD blood groups: A+ (A RhD positive), A- (A RhD negative), B+, B-, AB+, AB-, O+, O-. The compatibility between these groups is detailed in a table in the next section.

Blood group reagents are solutions that are used to determine blood groups. The reagents contain antibodies that will detect the presence of the appropriate antigens on the surface of red blood cells.



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The reagents can cause the agglutination (clumping) on the test red blood cells which carry the appropriate antigen. No clumping of the test red blood cells indicates the absence of the appropriate antigen. There are several techniques that can be used to detect blood groups. All techniques are based on the binding of an antibody to the appropriate antigen which is called agglutination. The agglutination can be seen macroscopically as the clumping together of the red cells.

The Direct Antiglobulin Technique (DAT) involves washing the test cells in a saline solution in a test tube. After the washing of the red cells, the saline solution is removed from the test tube and a bridging reagent (Anti-Human Globulin reagent) is added to the red cells in the test tube. The test tube is spun in a centrifuge. The test result (agglutination or no agglutination) is read macroscopically. It is clinically significant blood group system types found in humans, giving the correct blood to a patient during a transfusion is vitally important. This means making sure that the donor's blood is compatible with the patient's blood, to minimise reactions during a transfusion and avoid any catastrophic consequences.

Tirumala Engineering College habituated to organize a blood grouping camp every year for first year students. It is our responsibility to know the blood group of every individual. NSS Unit of Tirumala Engineering College initiates the camp for identification of the blood group of each and every student and records the data. Blood grouping camp will be conducted in the top floor in first year block. This usual practice will let the students to know about the correct blood group of each student.

Our dynamic principal Dr.Y.V.Narayana garu initiated the camp with his circular on 11.09.2019 to inform that all the newly joined faculty members and first year students to attend the blood grouping camp which is scheduled on 12.09.2019. nearly 450 students participated in this blood grouping camp to know their blood group correctly. The camp started at 10:00 am at AS&H department block with all the first year students. Registration started in the beginning department wise. Principal sir inaugurated the camp at 10:00 am in the morning and he visited the camp in between.

Students one by one came for registration and filled the registration form at the reception counter. After filling the registration they were allowed to blood grouping test. This process was continued till evening. The student number is more and it took the time till evening. They have collected all the blood samples and left the campus in the evening. Principal sir arranged lunch for the team who conducted the blood grouping camp.



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Principal and Faculty along with students at the event



Students participating in the blood grouping camp and registration process



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Our Principal Dr.Y.V.Narayana garu inaugurating the camp



Students at blood grouping camp



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