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AVANIGADDA-521121. KRISHNA DT. (A.P).

OF ANDREW

3 08671-272261 **3** 94-94-299418

gdcjkc.avanigadda@gmail.com www.gdcavanigadda.ac.in

REPORT ON BLOOD GROUPING PROGRMME AT VEKANURU 17/7/22

Indian Red Cross Society Krishna dt, Avanigadda Sub Branch, and Government Degree College Youth Red Cross, National Service Scheme jointly organized a service camp in Vekanur village where blood grouping tests were done for young women and men. In this program Vekanur village sarpanch Mrs. Tungala Srilakshmi, Shri Vangara Seshagiri Rao, Chairman, Avanigadda Branch, Indian Red Cross Society, Blood Bank Lab TechnicianAnand, head of National Service Scheme and Youth Red Cross sections of the college, Veera Kumari and volunteersparticipated.

Blood Grouping History

Since 1900, we have known about one of the most important blood groups, the ABO blood system, discovered by Physician Karl Landsteiner. He later discovered the Rh blood group system in 1930, and with it the RhD antigen. The blood groups are defined by the presence or absence of a specific antigen on the surface of a red blood cell.

The 4 Blood Groups

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.

People that have the D antigen on their red blood cells are RhD positive, while those people that don't have the D antigen are Rh D negative. The positive and negative suffix on blood types, such as A+ and B- refers to your Rh D type, also known as your Rhesus D type.

The importance of blood grouping in transfusions

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.

For example, a patient who is blood group B has naturally occurring Anti-A antibodies in their blood plasma. If this (blood group B) patient receives blood group A red cells, the Anti-A

antibodies in the plasma of the patient will cause the blood group A red cells to clump intravenously (within the veins), which is life threatening.

Similarly, a patient who is blood group A has naturally occurring Anti-B antibodies in their blood plasma. If this (blood group A) patient receives blood group B red cells, the Anti-B antibodies in the plasma of the patient will again cause the blood group B red cells to clump intravenously which poses the same life threatening risks.

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.

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.

To complicate matters further, it's also possible for your blood type to change in some circumstances. As most red blood cells are made in the body's bone marrow, transplanted bone marrow from a donor of a different type will cause your blood type to change over time. During this transition period, monitoring blood types is again important in case of other transfusions being required.

Safe blood groups in blood and plasma transfusion

This table details which red cells and plasma can be received from which donor types. Plasma is the largest component of blood and is the clear, yellow liquid that holds the red blood cells, white blood cells, platelets and other cellular components in suspension. As plasma contains water, salts, enzymes, antibodies and other proteins, and the blood type is dictated by many of these contents, plasma also carries a type.

Patient Blood Group	Compatible Donor Red Cells	Compatible Donor Plasma	
O-	O-	O-,O+,AB-,AB+,A- ,A+B+,B-	
O+	O-,O+	O-, O+, AB-, AB+	
A-	O-,A-	O-,O+,AB-,AB+	
A+	O-,O+,A-,A+	O-,O+,AB-,AB+	
B-	O-,B-	B-,B+,AB-,AB+	
B+	O-,O+,B-,B+	B-,B+,AB-,AB+	
AB-	O-,A-,B-,AB-	AB-,AB+	

	atient Blood	Compatible Donor Red	Compatible Donor	
	Group	Cells	Plasma	
Α	AB+	O-,O+,A-,A+,B-B+,AB-,AB+	AB-,AB+	

The importance of blood grouping during pregnancy

Blood typing is particularly important for pregnant women, as blood groups are hereditary and can be passed from either the mother or father. In cases where the father of the baby has the RhD positive blood group and the mother of the baby has the RhD negative blood group, the baby may be RhD positive which can cause compatibility issues. If the baby has the RhD positive blood group, it may cause medical complications. In this case a special drug is administered to the mother to stop the mother's body producing antibodies against the baby's blood cells.

How blood grouping reagents work

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.

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.

The Indirect Antiglobulin Technique (NISS IAT) requires the red cells to be mixed in a test tube with a blood grouping reagent. The test tube (containing the blood grouping reagent and the red cells) is incubated at 37 °C for 15 minutes. After incubation, the red cells are washed with a saline solution. After washing 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.



BLOOD GROUPING TESTS FOR PEOPLE AT VEKANURU



ఇండియన్ రెడ్ క్రాస్ సాసైటీ కృష్ణాజిల్లా అవనిగడ్డ సబ్ బ్రాంచ్ మరియు ప్రభుత్వ డిగ్రీ కళాశాల యూత్ రెడ్ క్రాస్ సాసైటీ, జాతీయ సేవా పధకం వారు సంయుక్తంగా వేకనూరు గ్రామంలో యువతీ, యువకులకు రక్త సమూనా (బ్లడ్ గ్రూపింగ్) పరీక్షలు ఆదివారం నిర్వహించారు. ఈ కార్యక్రమములో వేకనూరు గ్రామ సర్పంచ్ తుంగల శ్రీలక్ష్మి, ఇండియన్ రెడ్ క్రాస్ సాసైటీ అవనిగడ్డ బ్రాంచ్ చైర్మన్ వంగర శేషగిరి రావు, బ్లడ్ బ్యాంకు ల్యాబ్ టెక్నీషియన్ ఆనంద్, కళాశాల జాతీయ సేవా పథకం మరియు యూత్ రెడ్ క్రాస్ సాసైటీ విభాగాల అధిపతి ఏ. పీర కుమారి మరియు విద్యార్థులు పాల్గొన్నారు.



బ్లడ్గ్రూప్ నిర్ధారణ పలీక్షలు



అవనిగడ్డ: వేకనూరులో అవనిగడ్డ రెడ్వ్ సె సాసైటీ, ప్రభుత్వ డిగ్రీ కళాశాల యూత్ రెడ్ క్రాస్, ఎన్ఎస్ఎస్ సంయుక్త ఆధ్వర్యంలో ఆది వారం బ్లడ్ గ్రూపు నిర్ధారణ పరీక్షలు చేశారు. సర్పంచ్ తుంగల లక్ష్మి కార్యక్రమాన్ని ప్రారం భించగా రెడ్క్ సొసైటీ చైర్మన్ వంగర శేష గిరిరావు పర్యవేక్షించారు. గ్రామంలోని యువతీ, యువకులకు బ్లడ్ గ్రూపు నిర్ధారణ పరీక్షలు చేశారు. కార్యక్రమంలో బ్లడ్బ్యాంకు ల్యాబ్ టెక్నీషియన్ ఆనంద్, ఎన్ఎస్ఎస్ పీవో ఎ.వీరకుమారి పాల్గొన్నారు.

ప్రతి ఒక్కరూ రక్తనమూనా పలీక్షలు చేయించుకోవాలి



బ్లెడ్ గ్రూప్ పలీక్షలు నిర్వహిస్తున్న టెక్మిషియన్

అవనిగడ్డ,జులై 17 (ప్రభ న్యూస్): ట్రతిఒక్కరు రక్త నమూనా పరీక్షను చేయించుకోవాలని ఇండియన్ రెడ్క్ సిస్పెటీ వైర్మన్ వంగర శేషగిరిరావు అన్నారు. మండల పరిదిలోని వేకనూరులో ఆదివారం ఇండియన్ రెడ్క్ సిస్పెటీ నబ్మ్ బాంచ్ అవనిగడ్డ మరియు ప్రభుత్వ డిగ్రీ కళాశాల యూత్ రెడ్క్ సెస్, జాతీయ సేవా పథకం సంయుక్తంగా నిర్వహించిన సేవా శిబిరంలో యువతి యువకులకు నమూనా(బ్లెడ్గ్ గూప్) పరీక్షలు నిర్వహించారు. ఈ శిబిరాన్ని సర్పంచ్ తుంగల శ్రీలక్ష్మీ ప్రారంభించి మాట్లాడారు. ప్రతి ఒక్కరు రక్తనమూనాలను పరీక్షించుకొని అవనా రం అయిన సమయంలో రక్తన్ని మరోకరికి అందించేందుకు సిద్ధంగా ఉండా లన్నారు. ఈ కార్యక్రమంలో అవనిగడ్డ ట్రాంచ్ రెడ్క్ సెస్పెటీ వైర్మన్ వంగర శేషగిరావు, బ్లెడ్బ్యాంక్, ల్యాబ్ టెక్నిషియన్, అనంద్, కళాశాల జాతీయ సేవా పథకం మరియు యూత్ రెడ్క్ కానఖ విబాగాల అదిపతి ఏ వీరకుమారి, విద్యార్ధులు పాల్గొన్నారు.



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Prom Principal GDC Avanigadda.

nyamigadda Station Date

V. Sesha Giri Rao IRCS Organization Avanigadda.

Subject: Collaboration Request for Blood sample grouping tests.

Respected sir

The NSS unit of GDC Avanigadda is interested in collaborating with the Indian Red Cross Society (IRCS) to conduct blood sample grouping tests for Vekanuru village people . We believe raising awareness about blood types and promoting a better understanding of their significance is essential. We kindly request your support in providing the necessary resources and expertise to conduct the tests at Vekanuru village . This collaboration will greatly benefit the people's health and contribute to their well-being.

We request you to consider our request and cooperate with us. We look forward to the opportunity to collaborate with the Indian Red Cross Society.

Thanking you

Accepted

INDIAN RED CROSS SOCIETY SUB BRANCH, AVANIGADDA. KRISHNA DIST. PIN: 521 121.

Yours faithfully

PRINCIPAL Derincipal = GOVT, DEGREE COLLEGE AVANIGADDA, Krishna Dt. 521121



GOVT DEGREE COLLEGE AVANIGADDA NATIONAL SERVICE SCHEME



15/07/22 Avanigadola

TO

Br.D uma Rani Principal GDC Avanigadda

Respected madam

Kindly give me permission to
conduct Blood Grouping Test & for
conduct Blood Grouping Test & for
people of Velcanuru in collaboration
with IRCS AVG Bronich
with IRCS AVG Bronich
fhanking you madam

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fours Sincerely

Bh. Ragunalin Gropp -na (T. Suldva Rao K. Subogmanyan 9912073747 BAUR Bh. Hassha ASC 18/17 Bare 9603720954 A. Srec Ram Atu 6302133361 K. Nancherapya D-Ve 7095762569 T. Srilak Shuni (Sunparch) B+1e 9542788946 M. Dillattan 0+ve 9440598972 V. Sambasiva Res 0+Ve 9959345255 M. Lamakni Dhua 0-Ve 9505636343 0+ve 9848447636 G. Dambahiva Rao B+Ve 8686847278 T. Kolesmana Rao Btve K. Hamenjaneyely ABthe T. Srinilala Roso 0+UR 9849368457 M. Srivillada Rao DAVe P. Brabhavali 13+ Ve M. Sanka Roo 13+Ve 18 T. Nogeladni 0+Ve 99 00 85 90 3334 B+Ve. 9912 552875 T. Papulsswora Kao 20 M. Radhakrishna Otre & G. Veukala Nahadimhakoo B+Ne Oppositive 7 6 60 94 2561 32 G. Srinillada Roo as G. Laxni Othe

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a Radha

G Prabhakar Rao Otve 9959439259

M. Hemla Naile Atve 8977232458

J. Samfektha

VI Aravind Otve 9666995941

Otve 70/3048166

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GOVT. DEGREE COL --AVANIGADDA, Krishna Dt.

NSS and India Red cross Society Avanigadda Branch Jointly organ his ad blood grouping camp at Velcanuru.





Vekanuru, Andhra Pradesh, India Unnamed Road, Vekanuru, Andhra Pradesh 521120, Ind Lat 15.97956° Long 80.924217° 17/07/22 11:00 AM



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