

Examination Of Blood Group and Rhesus in Banyuhurip Village, Cibeureum Village

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ABSTRACT

Knowing blood type has many benefits, including facilitating forensic identification, for transfusion purposes, as data contained in ID cards, driving licenses, and other identity cards. The conclusion of the observation stated that most of the people did not know their blood type, so a blood group check was carried out in Banyuhurip Village, Cibeureum Village. The examination was followed by 128 people with an age range of 7-65 years. The results of the examination showed that 40 people (31%) had blood type A, 24 people (19%) had blood type B, 10 people (8%) had blood type AB, and 54 participants (42%) had blood type O. All participants were rhesus positive (+) (100%). The sex distribution of the participants of the blood group test is 50 people (39%) are male and 78 people (61%) are female.

Keywords: blood type, ABO, Rhesus, Cibeureum Village, Banyuhurip Village

INTRODUCTION

Blood is the body's transport medium, the volume of human blood is around 7-10% of normal body weight and amounts to about 5 liters. Blood tissue has functions such as transporting materials (nutrients, oxygen, metabolic wastes) in the body from one organ to another or from one part to another, regulating body temperature, defending the body from attack by foreign bodies or pathogenic microorganisms and regulating balance. and the pH of fluids in the body (Citrawati, et al., 2001).

Blood group is a blood grouping system based on the type of antigen it has. Antigens can be carbohydrates and proteins (Nadia et al, 2010). Blood type is important to know, for the purposes of transfusion, the right donor and identification in forensic medical cases such as identification in several criminal cases (Azmielvita (2009) in "Determination of the ABO System Blood Group with Serum and Anti-Sera Reagents Slide Method" Ikah, et al. (2019)).

Knowing the blood type has many benefits, it has been mentioned above that it will facilitate forensic identification. Several other cases such as accidents, burns and childbirth also require blood transfusions due to the high probability of bleeding. If you don't know the blood type, it will slow down the handling of the patient which can eventually lead to death. Knowing blood type also functions as data contained in an identity card, driver's license, student identification card or student card.

Based on the results of observations with the Banyuhurip village community, Cibeureum Village, it can be concluded that most people do not know what blood type they have. This incident became the basis for community service in the form of free blood type checking.

RESEARCH METHOD

1. Goals

The target for this activity is the residents of the Banyuhurip community, Cibeureum Village.

2. Tools and Materials

Tools and materials used for blood type tests are:

- a. Serum antigens A, B, AB and Rhesus
- b. Blood type card containing name, date of birth and address.
- c. Blood lancets
- d. Lancets
- e. Alcohol swabs
- f. Handscon
- g. Toothpick
- h. Tissues
- i. Ballpoint
- j. hand sanitizers

3. Activity Method

The method of activity carried out is blood group and rhesus examination free of charge. The preparatory stage is carried out by cooperating with the local RW head and determining the location of the activity. Due to limited human resources (HR) because the researcher was conducting this Thematic KKN alone, it was decided that this blood type examination would be carried out in 4 sessions.

- a. Session 1: August 16, 2021 at DTA Al-Falah
- b. Session 2: August 19, 2021 at DTA Al-Falah
- c. Session 3: August 26, 2021 conducted door to door
- d. Session 4: September 6, 2021 at the KKN post (RT.16 RW.06 No.54 Dusun Cibeureum (Banyuhurip) Cibeureum Village, Sukamantri District)

The implementation stage is taking blood with an automatic lancet, which is then dripped onto the blood group card, then drops of anti-A, anti-B, anti-AB and anti-D reagents.

RESULT AND DISCUSSION

The Alternative Thematic KKN Program at Muhammadiyah University of Tasikmalaya group 17 on behalf of Gelfira Dewi Regina, one of its work programs is to hold a free blood type test. After cooperating with the head of the local RW and determining the location of the activity, it was decided that this blood type examination would be carried out in 4 sessions. The following are the results of the session 1 blood type test, as well as the characteristics of the participants based on gender and age.

Table 1 Session 1 Blood Group Test Results

| Blood Type | Result |
|------------|--------|
| A | 11 |
| B | 5 |
| AB | 1 |

| | |
|-------|----|
| O | 20 |
| Total | 37 |

Table 2 Gender of Blood Group Test Participants Session 1

| Gender | Result |
|--------|--------|
| Man | 18 |
| Women | 19 |
| Total | 37 |

Table 3 Age Characteristics of Session 1 Blood Group Test Participants

| Age Characteristics | Result |
|---------------------|--------|
| 5-11 years old | 4 |
| 12-25 years old | 18 |
| 26-45 years old | 12 |
| 46-65 years old | 3 |
| Total | 37 |

Table 4, table 5, and table 6 are the results of the session 2 blood group test, as well as the characteristics of blood group test participants based on gender and age.

Table 4 Session 2 Blood Group Test Results

| Blood Type | Result |
|------------|--------|
| A | 9 |
| B | 9 |
| AB | 3 |
| O | 5 |
| Total | 26 |

Table 5 Gender of Blood Group Test Participants Session 2

| Gender | Result |
|--------|--------|
| Man | 8 |
| Women | 18 |
| Total | 26 |

Table 6 Age Characteristics of Session 2 Blood Group Test Participants

| Age Characteristics | Result |
|---------------------|--------|
| 5-11 years old | 6 |
| 12-25 years old | 2 |
| 26-45 years old | 13 |
| 46-65 years old | 5 |
| Total | 26 |

The following are the results of the session 3 blood group test, as well as the distribution of participants based on gender and age.

Table 7 Session 3 Blood Group Test Results

| Blood Type | Result |
|------------|--------|
| A | 9 |
| B | 2 |
| AB | 3 |
| O | 5 |
| Total | 19 |

Table 8 Gender of Blood Group Test Participants Session 3

| Gender | Result |
|--------|--------|
| Man | 11 |
| Women | 8 |
| Total | 19 |

Table 9 Age Characteristics of Session 3 Blood Group Test Participants

| Age Characteristics | Result |
|---------------------|--------|
| 5-11 years old | 0 |
| 12-25 years old | 0 |
| 26-45 years old | 2 |
| 46-65 years old | 17 |
| Total | 19 |

The following are the results of the session 4 blood group test, as well as the distribution of participants based on gender and age.

Table 10 Session 4 Blood Group Test Results

| Blood Type | Result |
|------------|--------|
| A | 11 |
| B | 8 |
| AB | 3 |
| O | 24 |
| Total | 46 |

Table 11 Gender of Blood Group Test Participants Session 4

| Gender | Result |
|--------|--------|
| Man | 13 |
| Women | 33 |
| Total | 46 |

Table 12 Age Characteristics of Session 4 Blood Group Test Participants

| Age Characteristics | Result |
|---------------------|--------|
| 5-11 years old | 12 |
| 12-25 years old | 16 |
| 26-45 years old | 7 |
| 46-65 years old | 11 |
| Total | 46 |

The overall results of the 4 sessions were obtained by 128 people from a target of 190 people. The rhesus results from session 1 to session 4 were 100% rhesus positive (+). The following is an explanation based on blood type, age and gender characteristics

Table 13 Session 1-4 Blood Group Test Results

| Blood Type | Result | Persentase (%) |
|------------|--------|----------------|
| A | 40 | 31 |
| B | 24 | 19 |
| AB | 10 | 8 |
| O | 54 | 42 |
| Total | 128 | 100 |

Table 14 Gender of Blood Group Test Participants Session 1-4

| Gender | Result | Persentase (%) |
|--------|--------|----------------|
| Man | 50 | 39 |
| Women | 78 | 61 |
| Total | 128 | 100 |

Table 15 Age Characteristics of Session 1-4 Blood Group Test Participants

| Age Characteristics | Result | Persentase (%) |
|---------------------|--------|----------------|
| 5-11 years old | 22 | 17 |
| 12-25 years old | 36 | 28 |
| 26-45 years old | 34 | 27 |
| 46-65 years old | 36 | 28 |
| Total | 128 | 100 |

Blood type is a special characteristic of the blood of an individual because of the different types of carbohydrates and proteins on the surface of the red blood cell membrane. Blood type is determined by the type of antigen contained in red blood cells. The two most important blood types are the A-B-O and Rhesus (Rh factor) classifications.

The blood group system according to A, B, O can be divided into 4 types, namely:

1. Blood type A, if the red blood cells contain antigen A. The presence of this antigen is controlled by the IA gene.
2. Blood type B, if the red blood cells contain B antigens. The presence of these antigens is controlled by

the IB gene.

3. AB blood type, if the red blood cells contain A and B antigens, the appearance of which is controlled by the IA and IB genes respectively.
4. Blood type O, if the red blood cells do not contain A and / B antigens. This condition arises because it is controlled by the IO gene which is recessive to both IA and IB antigens.

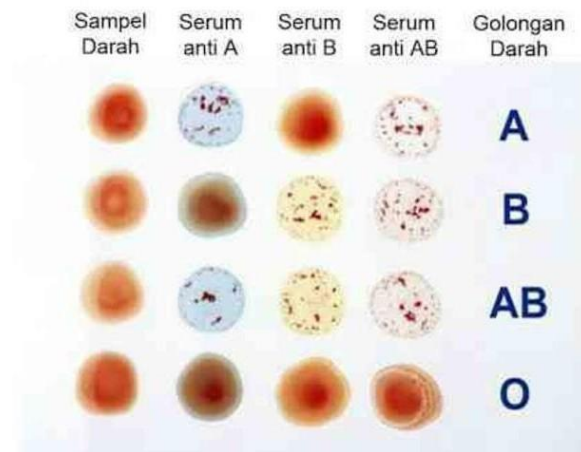


Figure 1.1 Overview of Blood Group Examination Results. Positive results are indicated by the presence of agglutination / clumping



Figure 2 Implementation of the Free Blood Group Test in Banyuhurip Village, Cibeureum Village

CONCLUSION AND SUGGESTION

Examination of blood group and rhesus was carried out for 4 sessions.

- Session 1: August 16, 2021 at DTA Al-Falah
- Session 2: August 19, 2021 at DTA Al-Falah
- Session 3: August 26, 2021 conducted door to door
- Session 4: 06 September 2021 at the KKN post (RT.16 RW.06 No. 54 Dusun Cibeureum (Banyuhurip) Cibeureum Village, Sukamantri District)

The examination was attended by 128 people with an age range of 7-65 years. The examination results showed that 40 people (31%) participants had blood type A, 24 people (19%) participants had blood type B, 10 people (8%) participants had blood type AB, and 54 participants (42%) had blood type O. All participants were rhesus positive (+) (100%). The gender distribution of blood group test participants was 50 people (39%) male and 78 people (61%) female.

For future research, before the examination is carried out, it is hoped that health education will be carried out about the importance of blood type examination.

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