

The Implementation of Quick Wins Blood Services Program in Efforts to Prevent Maternal Deaths Due to Hemorrhage in East Lombok Regency

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ABSTRACT

The Quick Wins Blood Service Program was launched by the Ministry of Health to accelerate the fulfillment of blood needs for pregnant women with hemorrhage complications by integrating public health centers, referral hospitals, and blood transfusion units. Maternal hemorrhage deaths could be prevented if more voluntary donors regularly donated blood. **Purpose:** This study aims to analyze the Quick Wins Blood Service Program implementation in East Lombok Regency. **Methods:** This is qualitative research with a case study design. Data were collected by interviewing 11 informants from the blood transfusion unit of the hospital, the East Lombok Red Cross, Public Health Centers, the East Lombok District Health Office, and high-risk pregnant women. **Results:** Health services for pregnant women have been adequately provided. However, some midwives do not conduct home visits and only wait for patients at the posts (polindes) in some areas or only do examinations at the integrated health services posts (Posyandu). Blood services have been good, but more blood stocks are often needed due to a lack of donor interest. Preparing prospective donors for pregnant women in the Quick Wins program is not always carried out because pregnant women and their families assume that blood is always available at referral hospitals. **Conclusion:** The Quick Wins Blood Service Program has been well implemented but needs to be more optimal.

Keywords: Blood Transfusion, Hemorrhage, Maternal Death, Pregnancy.

INTRODUCTION

Improvement of essential health services is realized through blood services ⁷. According to WHO recommendations, the minimum blood production required to meet the blood needs of a region is 2% of the population, or 5 million blood units per year ²⁰. Blood transfusions are essential for resuscitation to treat postpartum bleeding ⁷.

The Quick Wins Blood Service Program, initiated by the Ministry of Health, is one of the efforts to prepare blood needs for pregnant women with hemorrhage complications by integrating primary healthcare facilities, referral healthcare facilities, and blood transfusion units ^{13,14}.

Based on Central PMI data as of June 14, 2022, the number of blood stocks in Indonesia is 87.238 bags. Meanwhile, according to Central Statistics (BPS) data, the total population of Indonesia in 2022 was 275,773,8 million inhabitants ^{19,15}. This data proves that the availability of blood in Indonesia still needs to meet minimum blood needs.

The minimum amount of blood available in the East Lombok Regency has also fallen short, and there has been a decrease in the number of blood donors in both blood transfusion units in the East Lombok Regency from 2020 to 2022. According to the report of the Quick Wins Blood Service program of the East Lombok Regency Health Office, during 2019-2022, three pregnant women were referred. They died from not getting the blood for transfusion, namely in the working areas of the Montong Betok Health Center, Labuhan Lombok, and Sakra ^{8,12}.

Therefore, this study aims to determine the implementation of a blood service preparation program for pregnant women who will give birth in the East Lombok Regency.

METHOD

This research is qualitative research with a case study design. The researchers interviewed coordinators from institutions involved in the Quick Wins Blood Service Program and high-risk pregnant women to obtain a specific overview of the program's implementation.

RESULTS

This study interviewed 11 informants, including three high-risk pregnant women, one staff member from the Blood Service Unit of the Indonesian Red Cross (UTD PMI), three coordinating midwives from the public health center (Puskesmas), coordinators of blood services at UTD PMI and UTD hospitals, as well as coordinators of public health services and maternal health services in East Lombok.

The Quick Wins Blood Service Program consists of pregnant women's health services at the Puskesmas and blood services through the blood transfusion unit.

Maternity Health Services

Pregnant women received health services at the Posyandu and other available health facilities.

"Pregnant women's services located in Posyandu, Poskesdes, Puskesmas, and private clinics..." (NDY, Head of Family Health)

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The service aims to make efforts for screening through risk screening and 10 T procedures in pregnant women.

"The screening is also available at the Posyandu. The examination of pregnant women is 10 T procedure..." (SEF, Midwife Coordinator of Montong Betok)

The examination is carried out at least six times during pregnancy.

"...There is a term that pregnant women should check for six times..." (NDY, Head of Family Health)

Officers explain information and education about maternal and child health during the examination.

"We gave complete information about their pregnancy... As the same in the book of KIA that we have already told her..." (SA, Midwife Coordinator of Labuhan Lombok)

Health workers conduct initial visits and planning for childbirth (P4K) with high-risk pregnant women and postnatal visits.

"...There are P4K visits for high-risk pregnant women, pregnant women with chronic energy deficiency, and postnatal visits..." (SEF, Midwife Coordinator of Montong Betok)

"...There have been visits from Puskesmas or midwives here. It has been twice for seven months, maybe..." (KK, high-risk pregnant women, Seruni Mumbul Village in Labuhan Lombok)

Midwives carried out data collection from prospective donors during P4K visits.

"This program performed when the P4K service, we got data on the prospective donors there... we checked her blood type, and her childbirth estimation also..." (IHE, Midwife of Maternal Health in Sakra)

However, not all pregnant women have been visited by midwives. Pregnant women often come to the Posyandu or Village Maternity Clinic (Polindes) if they have pregnancy-related complaints.

"...during pregnancy, midwife never visit, come to the Posyandu or the midwife.... we will go there if we have something wrong..." (SMN, high-risk pregnant women in Pesanggrahan, Montong Betok Village)

"Posyandu is provided every month, so the officers have never been here for examination..." (SP, high-risk pregnant women at Kuang Baru Sakra Village)

In addition, several innovation programs have been implemented to increase the knowledge of pregnant women and families about pregnancy's dangers and risks.

"...there is a mother's class, there is a father's class, health counseling, once in a while we also have meals together with pregnant women" (SA, Midwife coordinator of Labuhan Lombok)

Blood Preparation for Pregnant Women

One of the efforts to prevent maternal deaths due to bleeding is by ensuring the availability of blood for women with hemorrhage complications through the Quick Wins Blood Service Program.

"Quick Wins is one of the programs which aims to prevent maternal deaths due to bleeding..." (IHE, Midwife of Maternal Health in Sakra)

Pregnant women are required to prepare four prospective donors before giving birth.

"Quick Wins is a government program for pregnant women to prepare four donors who will donate blood when this pregnant woman childbirth..." (MH, Coordinator UTD RS)

Nevertheless, not all pregnant women prepare for a potential donor before childbirth.

"There is no preparation before childbirth, and midwives are not told to me to prepare.... family also do not know her blood type, no one was prepared for that..." (SMN, high-risk pregnant women in Pesanggrahan Montong Betok Village)

"...no one told to prepare blood before childbirth..." (SP, high-risk pregnant women, Kuang Baru Sakra Village)

The patient and her family assume that blood is always available at the referral hospital and will seek a potential donor only if the pregnant woman needs a blood transfusion during childbirth.

"...For example, if there is a surgery and we lack blood, we will call the closest family members or ask for help from neighbors near the house..." (KK, high-risk pregnant women Seruni Mumbul Village in Labuan Lombok)

Prospective blood donors for pregnant women are not always available, as four people cannot meet donor requirements. Pregnant women live far from their families because most pregnant women live in the area where their husbands live after marriage.

"For Quick Wins, there are at least four donors but not all fulfilled. The obstacles are more related to donor requirements, such as tension, Hb, age, weight..." (MRS, UTD PMI Blood Service staff)

"...the pregnant woman come here to get married, if we look for her close family, there is no one, only her husband's family..." (SA, Midwife Coordinator of Labuhan Lombok)

Therefore, the officer transfused the prepared but unused blood from one of the pregnant women to meet the blood needs of the bleeding maternity.

"...Every pregnant woman brought four people for donations. Some of those donors can contribute, but others cannot do it, so patient's blood that not utilize is given to other patients..." (MN, Head of Service of UTD PMI)

In addition, there is also a database of prospective donors in each village who are ready to donate blood at any time needed.

"There is already a database for potential regular donors in each village..." (SEF, Midwife Coordinator of Montong Betok)

Blood Service

Blood Services in the Quick Wins Program collaborates with blood transfusion units, health centers, and referral hospitals to prepare blood for pregnant women who experience hemorrhage complications.

"...there are three agencies involved, there is a public health center, UTD PMI and hospital, so the blood requirements of risk pregnant women are satisfied" (MN, Head of Service of UTD PMI)

Prospective donors prepared 14 days before the childbirth estimation of the mother concerned.

"...in the Quick Wins Program, pregnant women and her families needs to the first discussion of initial screening at 14 days before she goes into labor..." (RR, Section Chief Yankes Primer)

Furthermore, 7 to 10 days before delivery, the prospective donor is asked to visit UTD for blood donation.

"...if they pass the examination, 7 to 10 days before delivery, they came to UTD to donate blood for delivery women" (RR, Section Chief of Yankes Primer)

Nevertheless, in practice, there are still some obstacles, one of which is due to the access of people who are far from the UTD building when they come to donate blood.

“...for example, they have been screened in Sembalun Village, and we tell them to go to UTD. It will not be possible for them to want to go ten days before the mother gives birth because of the long-distance...” (RR, Section Chief of Yankes Primer)

Another obstacle is the fear that potential donors' blood will change upon arrival at UTD because of the long journey.

“...for example, the trip to Selong took 30 minutes it can change their blood pressure, so when they come to the location, it could not be taken...” (MN, Head of Service, UTD PMI)

Bloodstock shortages also often occur because public interest in donating to East Lombok Regency remains low.

“...Blood shortages often occur because the awareness of the community to do the donor is still very lacking...” (MRS, UTD PMI Blood Service staff)

Most people will donate blood only if their family needs it.

“...people here are rarely donors if there is no family in need...” (MRS, UTD PMI Blood Service staff)

Some of the reasons given are fear.

“...the reason is fear of blood loss, fear of death, fear of dizziness, fear of fainting, fear of needles...” (MRS, UTD PMI Blood Service staff)

Another reason is that not all people understand the benefits of blood donation.

“...many people do not understand about blood donation...” (MRS, UTD PMI Blood Service staff)

Therefore, the service scheme is changed. The UTD officers go to each village to perform mobile services.

“...So we changed the system, we did a mobile unit service to find the donor...” (MN, Head of Service, UTD PMI)

Blood Transfusion Unit personnel visit donor communities or set up mobile units almost daily to provide services.

“...we come out to go to mobile unit service in Monday to Sunday except for Friday because it is a short time. So, we can look for voluntary donors is 95%...” (MN, Head of Service, UTD PMI)

“...Sometimes we also preserve to the donor community we have visited...” (MRS, UTD PMI Blood Service staff)

In addition, some agencies also often send requests for Blood Services when organizing certain events.

“...there are several government agencies (OPDs) that often invite, such as the Public Order Agency (Pol PP), and the fire department. When they have an event...” (RR, Section Chief Yankes Primer)

Blood Service in the Quick Wins program is also devoted to pregnant women and made flexible by recruiting donors from the general public to meet the availability of less blood.

“...So, we must recruit the community for donation. That is the only way” (RR, Section Chief Yankes Primer)

“...There is not specifically for pregnant women even though it is a Quick Wins program...” (MH, Coordinator UTD RS)

DISCUSSION

This study was carried out in three areas of East Lombok regency where there have been maternal deaths due to bleeding and not getting the blood for transfusion, namely in the working area of Sakra Health Center, Montong Betok Health Center, and Labuhan Lombok Health Center.

Health services in the Quick Wins Blood Services Program consist of health services provided for pregnant women and blood readiness for all pregnant women.

Maternity Health Services

Health services for pregnant women in the three areas studied were arranged at public health care facilities, such as Puskesmas, Poskesdes/Polindes, Posyandu, and independent clinics. Health services for pregnant women are already procedures that must be implemented and part of a government program, so the handling and services provided in each region in the East Lombok Regency are almost the same.

In this program, Puskesmas officers in the three regions play a role in screening risks to pregnant women by conducting ANC services with 10 T checks at Posyandu and Puskesmas, including the KIE or health education and promotion, home visits by midwives for preparation and planning of pregnant women's childbirth, neonatal visits, and various innovation programs to improve the knowledge of pregnant women and their families about pregnancy and its risks. Pregnant women and potential donors must ensure they have good health quality, and the donated blood is free from harmful substances, such as mercury.

Almost all women in Kenya were screened and treated during ANC visits, including tetanus vaccinations, blood pressure measurements, and deworming. One-fifth of these women received iron and folate supplements. ANC visits incorporate health education. Nevertheless, laboratory tests and other precautions are insufficient^{9,10}. Mercury can cause fetal defects if its levels in the blood are high. The concentration of anthropogenic metals in the environment is increasing rapidly in line with the growth of medium and small-scale industrialization processes²¹⁻²³.

Pregnant women's health services in the three regions studied have been well implemented. However, there are still services that still need to be performed optimally. Not all midwives in the region conducted P4K visits to monitor pregnant women. In the working area of the Sakra and Montong Betok health centers, P4K is carried out at the Posyandu together with the ANC examination.

A similar study at Puskesmas Imogiri I Yogyakarta stated that a series of 10 T examinations in the Integrated ANC program had been carried out by health workers who were directly involved in the integrated ANC program. Still, assistance and supervision from village midwives to pregnant women in their work areas were also not optimal²⁴⁻²⁶.

Blood Preparation for Pregnant Women

Blood preparation for pregnant women should be implemented when collecting data on prospective donors during P4K visits by midwives. However, of the three high-risk pregnant women interviewed, midwives at the Montong Betok public health center did not inform pregnant women to prepare four families or prospective donors with the same blood type as pregnant women. Likewise, in the working area of the Sakra public health center.

Commonly, blood preparation in the Quick Wins program requires the prospective donor that blood a maximum of 7-10 days before the mother gives birth. However, at the time of the interview, pregnant women from all three regions assumed that blood was always available at the hospital. They will look for blood only if the expectant mother requires the transfusion process.

According to research in Nigeria, most respondents know they might require blood during pregnancy or childbirth. They believed that their partners/relatives would donate blood for them if requested to do so, although one-fifth would rather wait until the need arises²⁻⁵.

In addition, as with pregnant women in the Sakra region interviewed, not all pregnant women are close to their families because they live in

the area where their husband lives, so potential donors are not always met four people for one pregnant woman.

For this reason, the officers perform transfusions for maternity mothers who need blood but do not yet have prospective donors using blood provided by other pregnant women. The blood will then be matched with a replacement donor to replenish the used bloodstock.

The results of previous studies stated that most pregnant women have not planned prospective blood donors before giving birth. The Quick Wins program is carried out quite well in the process element. The adequacy of blood comes from replacement blood donors instead of primary donors from the families of pregnant women^{11,16}.

Each interviewed village has a database of willing-to-donate blood donors if it is needed for transfusions. As mentioned in previous studies, providing blood banks in obstetric units for high-risk patients may ensure the timely availability of blood for surgical procedures without tying up stocks at blood bank centers¹.

Blood Service

UTD Regional General Hospitals (RSUD) conducts Blood Services in East Lombok and UTD PMI East Lombok Regency. Blood donation services start with donor recruitment and initial selection, blood collection and processing, and blood storage and distribution.

The availability of blood supply in both blood transfusion units (UTDs) often suffers shortages for several reasons; people only donate blood when their family members need it, there is a lack of interest in blood donation and inadequate perception and knowledge of the community regarding blood donation. Despite the efforts of personnel in both UTDs to conduct awareness campaigns, these challenges persist.

Previous research mentioned that respondents do not want to donate blood because of fear of needles and blood. At the same time, somebody said they would donate blood only if needed by one family member^{27,28}.

Blood Services at both UTDs are carried out inside the building as well as outside the building. However, service outside the building is more carried out by UTD PMI. UTD hospitals are waiting more for replacement donors from patients to meet the bloodstock because its operational has lasted only a short time. According to previous research, most hospital blood transfusion services (HBTS) perform blood collection to generate blood products for their patients, and few rely exclusively on an external supply of blood products⁶.

The technical instructions for the Quick Wins Blood Service Program state that prospective donors of pregnant women must come to UTD to donate blood before the delivery date of pregnant women¹⁴. Nevertheless, in practice, there are some obstacles, including public access away from the UTD building, so people who have been in the screening process sometimes are unwilling to come. In keeping with previous research, the main barriers for Sub-Saharan Africans to donate are accessibility issues^{17,18}.

Because of remote access, it is also feared that the blood pressure of potential donors changes upon arrival at UTD. Therefore, the implementation of this program was changed by mobile unit practice in every region in the East Lombok Regency. Because not all pregnant women have four prospective donors, the scheme of this program is also done by recruiting prospective donors from the general public. Some agencies also often hold certain events and invite UTD PMI to carry out blood donation services. Moreover, the availability of blood also comes from communities in each village that regularly donate blood²⁹.

A previous study states that the Quick Wins program at Paguyangan public health center in Brebes Regency is implemented by making the community a primary target²⁹. Other studies mention that the event

and donor awareness positively affect blood donor interest in PMI Karawang¹⁶.

CONCLUSION

Health services for pregnant women have been well implemented. However, there are still midwives in some areas who do not conduct home visits and only wait for pregnant women to visit the Polindes if they experience complaints about their pregnancy or do routine checks at the Posyandu. Several innovation programs are implemented to improve maternal and child health, as well as provide education to pregnant women and their families.

Blood preparation for pregnant women in the Quick Wins program, at least four donors for one pregnant woman. However, the average pregnant woman does not prepare prospective donors before giving birth because they think blood is always available at the referral hospital. Pregnant women and their families will only seek potential donors if the blood supply in the hospital is insufficient for transfusion or the officer will transfuse blood allocated for another patient that is not used.

Blood Service in East Lombok Regency has been well implemented. UTD RSUD of Dr. R. Soedjono Selong and UTD PMI East Lombok Regency implemented the service. There are still many obstacles related to the availability of blood for pregnant women who will give birth, one of which is that the blood stock is often empty because the interest of donors and public knowledge related to blood donation is still lacking.

Efforts to meet the blood supply needs include conducting mobile units almost every day of the week, maintaining established donor communities, and collaborating with institutions in East Lombok Regency to organize blood donations during certain events.

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