Saudi Journal of Medicine

Abbreviated Key Title: Saudi J Med ISSN 2518-3389 (Print) | ISSN 2518-3397 (Online) Scholars Middle East Publishers, Dubai, United Arab Emirates Journal homepage: https://saudijournals.com/journal/sjm/home

Original Research Article

A Comparative Study about the Need of Blood in Various Departments of Government Sivagangai Medical College

Vimala Devi Vidya G1, Duraisamy K2*

¹Associate professor, Blood Bank, Government Sivagangai Medical College, Sivagangai, India

²Associate Professor, Blood Bank, Government Royapettah Hospital, Chennai, India

*Corresponding author: Duraisamy K

| **Received:** 15.01.2019 | **Accepted:** 25.01.2019 | **Published:** 11.03.2019

DOI: <u>10.36348/sjm.2019.v04i03.001</u>

Abstract

This study is analyzing about the issue of blood to various department and find out the major cause for need of blood. For that the issue of blood to various departments in Govt Sivagangai medical college in the year 2018 was collected and analysed. We found that more than 50% of our issue was to CEmON Centre (Comprehensive Emergency Obstetrics and Neonatal care). Among that the blood was mainly used for the correction of anaemia in antenatal and post-natal mothers. So correction of anaemia in early antenatal period by proper protocols will decrease the burden.

Keywords: Anaemia, pregnancy, CEmONC.

Copyright © 2019: This is an open-access article distributed under the terms of the Creative Commons Attribution license which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use (Non-Commercial, or CC-BY-NC) provided the original author and source are credited.

Introduction

Anaemia is the most common haematological abnormality in pregnant women. The main cause of anaemia in pregnancy and puerperium is the deficiency of iron. Antenatal Iron deficiency anaemia must be adequately and safely treated to avoid complication during pregnancy [3]. Normal level of haemoglobin range from 13.5-17.2 g/dl in men and 12.0-15.0 g/dl in women. Anaemia in pregnancy is as a haemoglobin level below 11g/dl defined by WHO [4].

Aim

The aim of the study is to analyse the issue of blood to various departments of Govt Sivagangai medical college and to find out the major cause so that we can reduce the need of blood. To find vigorous steps for the correction of anaemia in pregnant women and also create awareness about eating healthy foods.

MATERIALS AND METHODS

History of blood issued was collected for the year 2018 in Govt Sivagangai medical college, from these records datas regarding the issue of blood to various departments were separated and analysed .The department taken for this study is CEmONC, Surgery, Ortho, Medicine and Paediatrics.

RESULTS

The details of blood unit issued to various departments in Govt Sivagangai medical college for each and every month is provided in Table.1 and its graphical representation is given in Fig. 1

Out of 4400 of blood units, 2218 units (50.40%) were issued to CEmONC, 853 units (19.3%) were issued to medicine department for correction of anaemia cause, 624 units (14.1%) were issued to surgery and 705 units (16.0%) were issued to Ortho department.

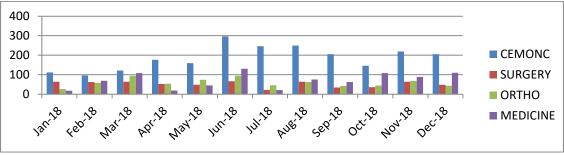


Fig-1: Graphical representation of issue of blood in various departments

Table 1: Issue of blood components to various departments

Month	CEmONC	Surgery	Ortho	Medicine &	Total
				paediatrics	
Jan 18	111	64	26	18	219
Feb 18	96	62	58	69	285
Mar 18	121	64	94	108	387
Apr 18	176	52	54	19	301
May 18	159	48	74	45	326
Jun 18	296	66	94	130	586
July 18	246	22	46	21	332
Aug 18	249	64	62	75	442
Sep 18	205	34	42	62	343
Oct 18	146	36	44	108	334
Nov 18	219	64	68	88	439
Dec 18	205	48	43	110	406
Total	2218	624	705	853	4400
Percentage (%)	50.40	14.1	16.0	19.3	

DISCUSSION

Among the total issue almost 50% of the blood was utilised by CEmONC for various causes like anaemia in antenatal, post-natal cases, postpartum haemorrhage, HELLP Syndrome (Haemolysis, Elevated liver enzymes and low platelets), Menorrhagia, Ectopic gestation surgeries and abortion cases [1]. This is similar to the study by Vidya shree N of Bangalore.

But anaemia in pregnant women is the major cause for need of blood in CEmONC. Early antenatal registration, early diagnosis of anaemia, proper usage of Oral Iron therapy, use of parentral iron therapy in appropriate cases will reduce the need of blood transfusion at tertiary level [2]. This similar study by Scholnz Rob M.D

So prevention of anaemia in pregnancy is important in avoiding unnecessary blood transfusion. WHO defines anaemia in pregnant women less than 11grams per 1 and postpartum anaemia has haemoglobin less than 10 gram per lit [5].

Conclusion

We should take vigorous steps for correction anaemia in pregnant women in first trimester itself [6]. We should also screen all the women at reproductive age group for anaemia; we should deworm them, supply iron tablets and creating awareness to take healthy food. This will decrease the anaemia burden in CEmONC centre, which in turn reduce the need of blood transfusion. This is one important factor to correct the scarcity of blood.

REFERENCES

 Vidya, S. M., Vithya, T., Shankar, P., Shobha, R. H. (2016). A Study on blood and blood components, transfusion, adverse reaction at a tertiary care teaching hospital, Bangalore. *Journal* of blood disorder and transfusion. 7(6).

- 2. Scholz, R., Young, D., Scavone, B., Hofer, J., & Siddiqui, M. (2018). Anemia in Pregnancy and Risk of Blood Transfusion [11c]. *Obstetrics & Gynecology*, *131*, 33S.
- 3. Vinogradova, M. A., Fedorova, T. A., Strelnikova, E. V., Rogachevsky, O., Shmakov, R. G., & Polushkina, E. S. (2014). Anemia during the Pregnancy: The Management and Outcomes Depending on the Etiology.124:4830.
- 4. United Nations. World Health Organization. (2001). Iron Deficiency Anaemia: Assesment, Prevention and Control: a Guide for Programme Managers. World Health Organization.
- Vanamala, V. G., Rachel, A., & Pakyanadhan, S. (2018). S. Incidence and outcome of anemia in pregnant women: a study in a tertiary care centre. Int J Reprod Contracept Obstet Gynecol, 7(2), 462.
- Kathpalia, S. K., Chawla, J., Harith, A. K., Gupta, P., & Anveshi, A. (2016). Blood transfusion practices among delivery cases: A retrospective study of two years. *Medical Journal Armed Forces India*, 72, S43-S45.