A RETROSPECTIVE STUDY ON PRESCRIBING PATTERNS OF HEMATINICS AND BLOOD TRANSFUSION THERAPY IN A TERTIARY CARE HOSPITAL

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Abstract:

The study is conducted and concerned with monitoring of haematincs and blood transfusion therapy prescribing patterns in order to to analyze the prescribing patterns of drugs used for anemia treatment, to assess blood transfusion therapy for anemic patients. The study included 63 patients, out of these patients, 31 patients was found under age category between 18 – 40 years of age (49.2%), while 18 patients were above 60 years of age (28.6%) and last 14 patients under age category between 41- 60 years of age (22.2%).

Anemic Patients who treated with blood transfusion therapy are 50 patients, whom are the majority of the study (79.36%), while remaining 13 patients were treated with hematincs oral or IV supplements (20.64%). The prescribed hematinic to anemic patients were fully insignificance, because most of these patients were readmitted for blood transfusion therapy which was the majority of the cases were treated with. The anemic patients should be given a chart of nutrition and food that containing iron, Folate and Vitamin B12 to increase the hemoglobin level alongside with the prescribed hematinics.

Key words: Retrospective Study, Haematincs, Blood Transfusion Therapy, Tertiary Care Hospital

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INTRODUCTION:

Blood items are restricted in supply and allogeneic bonding isn't without risk. Pressed red platelets (PRBC) bondings are for the most part used to treat drain and for further developing oxygen conveyance to tissues. There is banter in the clinical writing either to follow "prohibitive" limits (bonding demonstrated just when hemoglobin level is 7-8 g/dL) or "liberal" edges (bonding showed at hemoglobin level of 9-10 g/dL). Clinical preliminaries researching their utilization have recommended hanging tight up to bring down hemoglobin levels before bonding is beneficial.[1],[2],[3] Bonding of red platelets (RBCs) should be founded on the patient's clinical condition as opposed to in light of hemoglobin levels.[4] A prohibitive bonding strategy with severe bonding triggers and a mindful utilization of blood items is evidently the most useful measure in lessening bonding prerequisites considering the lack and unavoidable dangers of blood items from allogeneic givers. Decreasing the volume of blood per bonding will save a significant number of RBC units and thus in this manner diminishing the openness to allogeneic blood products.[5] The utilization of single-unit bondings keeps on being a foundation of bonding practice. Single-unit RBC bondings were treated with significant condemnation previously. It was trusted that "RBC bondings were pointless if the bonding necessities would be fulfilled by mixture of one RBC unit and that patients were not any more needing the bonding than their givers." The utilization of single-unit bondings was, consequently marked as "inefficient" and was viewed as unmerited considering the dangers related. In spite of not having a large part of the proof to help, this bonding practice keeps on being in prevalence.[5] A review study showed that bonding of 1 unit rather than 2 units brought about a 25% decrease of PRBC units bonded without movement of suggestive paleness or side effects.[5] The information on the advantage or chance of a solitary unit bonding system are scanty and majority of the proof is gotten from studies investigating perioperative single-unit RBC bondings in careful and obstetric populations.[5],[6]

The study is conducted and concerned with monitoring of haematincs and blood transfusion therapy prescribing patterns in order to to analyze the prescribing patterns of drugs used for anemia treatment, to assess blood transfusion therapy for anemic patients.

METHODOLOGY:

STUDY DESIGN: Retrospective observational study.

STUDY LOCATION: The study was carried out in a tertiary hospital, on inpatients medical recordsfrom medical ward.

SAMPLE SIZE: Sample size in this study is 63 patients who diagnosed with anemia and got treatment at the hospital.

STUDY DURATION: Six months.

INCLUSION CRIETERIA: Male and female patients. Patients received oral / IV haematincs. Patients received blood transfusion therapy.Patients over 18 years of age.

EXCLUSION CRIETERIA: Patients under 18 years of age, Pregnant patients were excluded from the study.

SOURCE OF DATA: The data was collected from patient's case reports at medical repot department (MRD).

RESULTS AND DISCUSSION:

AGE:
The study included 63 patients, out of these patients, 31 patients was found under age category between 18 – 40 years of age (49.2%), while 18 patients were above 60 years of age (28.6%) and last 14 patients under age category between 41- 60 years of age (22.2%).

TABLE-1: AGE WISE DISTRIBUTION

Age	Frequency	Percent
18-40	31	49.2
41-60	14	22.2
60 +	18	28.6

Figure -1: Age vs Frequency
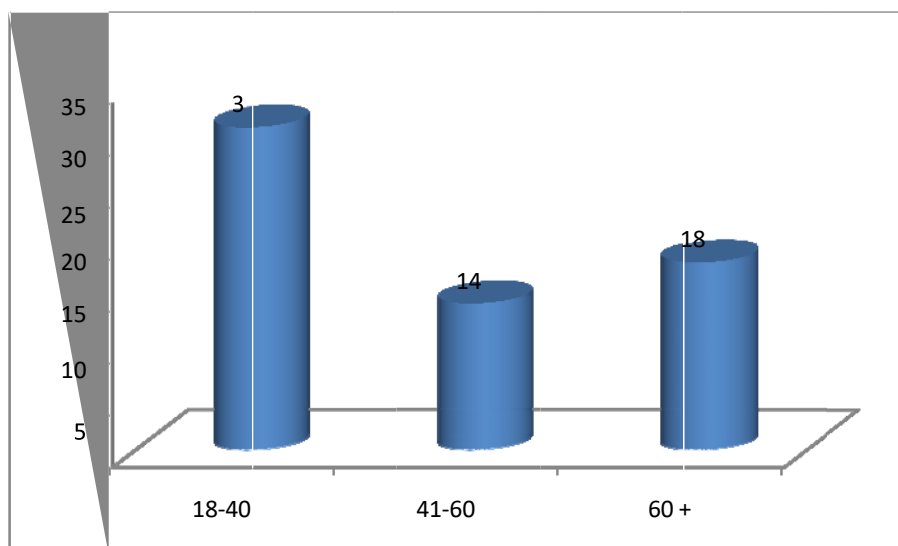
GENDER: Out of 63 patients, 43 patients were females (68.26%) while remaining 20 patients were male (31.74%). The majority of patients in this study were females.

TABLE-2: GENDER WISE DISTRIBUTION

| Gender	Frequency	Percent
Female	43	68.26
Male	20	31.74

Figure – 2: Gender vs Frequency
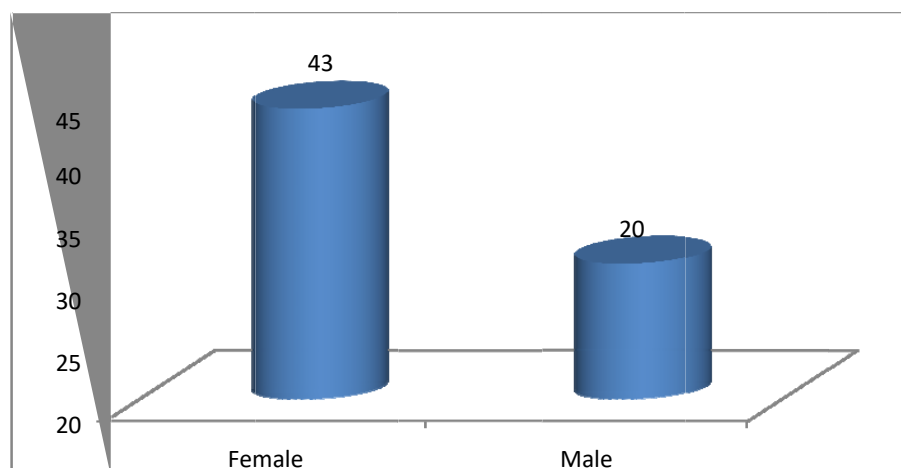
BLOOD TRANSFUSION THERAPY:
Anemic Patients who treated with blood transfusion therapy are 50 patients, whom are the majority of the study (79.36%), while remaining 13 patients were treated with hematin's oral or IV supplements (20.64%).

TABLE-3: BLOOD TRANSFUSION THERAPY

Category	Frequency	Percent
Blood transfusion therapy	50	79.36
Hematinic supplements	13	20.64

**Figure - 3: Category vs Frequency**
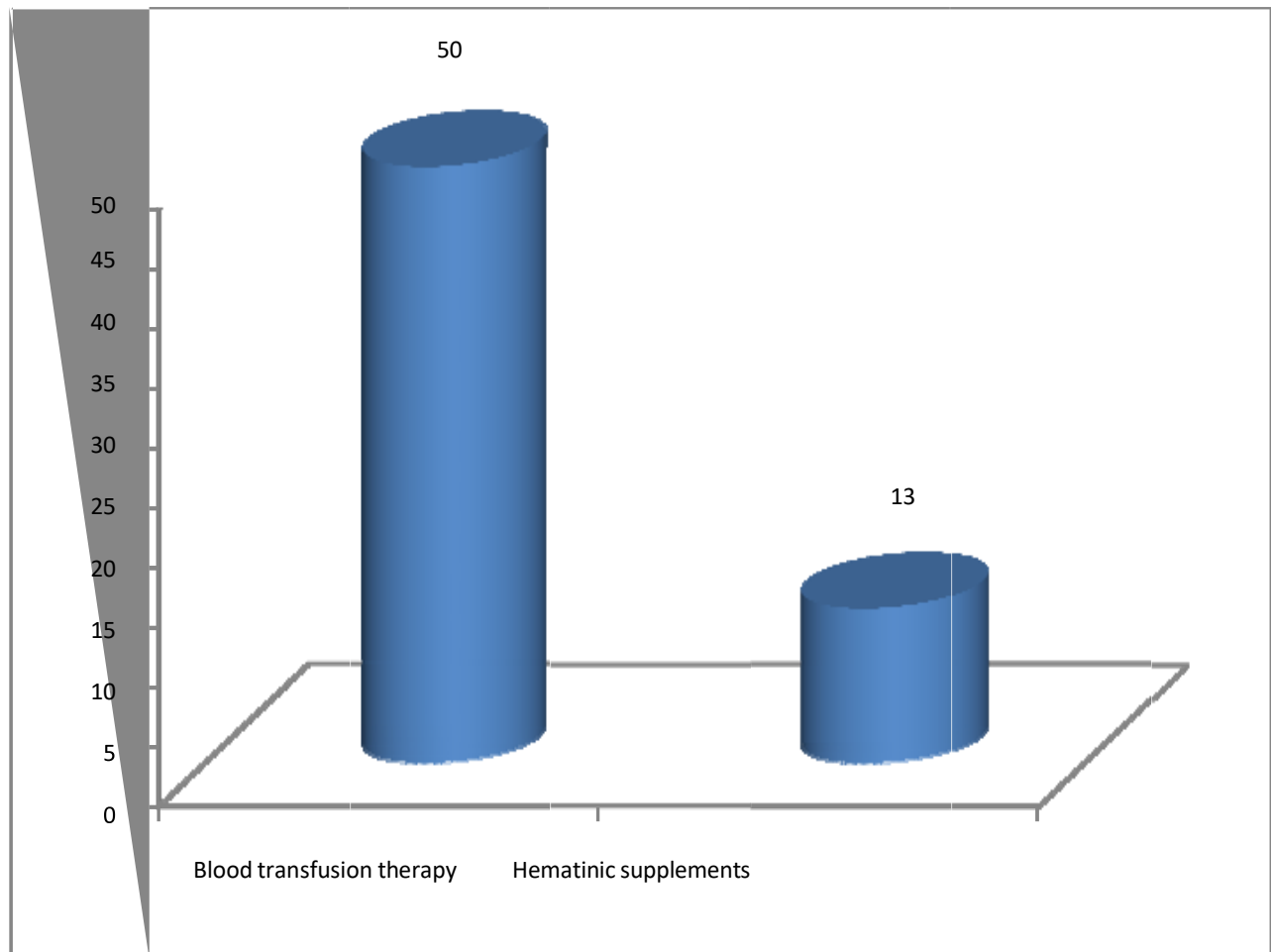
BLOOD GROUPING: Blood groups were found this study, 18 patients were identified as O in group (36%), whereas 13 were identified as group A (26%), while 14 patients were identified as B group (28%), and 5 patients were identified as AB group (10%).

Table - 4: Blood Groups Wise Distribution

Blood Group	Frequency	Percent
O	18	36
A	13	26
B	14	28
AB	5	10

Figure -4: Blood groups vs frequency

COMPONENTS AND VOLUME OF BLOOD TRANSFUSION THERAPY:
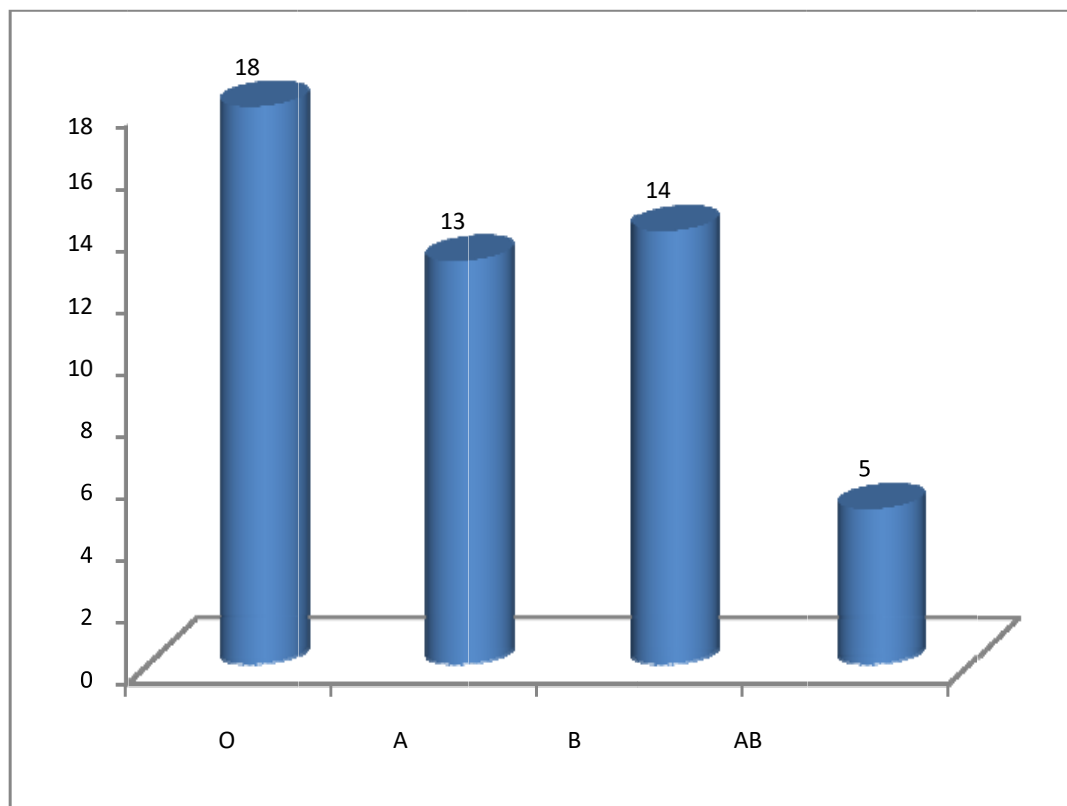
Mainly two components were used for the treatment of anemic patients using either:

A] Whole human blood IP (350ml)

B] or concentrated RBCs IP (250 – 280 ml) or both are used for treatment.

C] Out of 50 patients who were treated by blood transfusion therapy, 29 of anemic patients received a Whole human blood IP (58%) at volume of 350 ml while 15 anemic patients received concentrated RBCs IP at volume of 250 – 280 ml (30%), and 6 patients only received both components (12%) as blood transfusion therapy.

TABLE -5: Components of Blood Transfusion Therapy

Components	Frequency	Percent
Whole human blood IP [350 ml]	29	58
Conc. RBCs IP [250-280ml]	15	30
Both	6	12

**Figure 5: Components of Blood Transfusion vs Frequency**
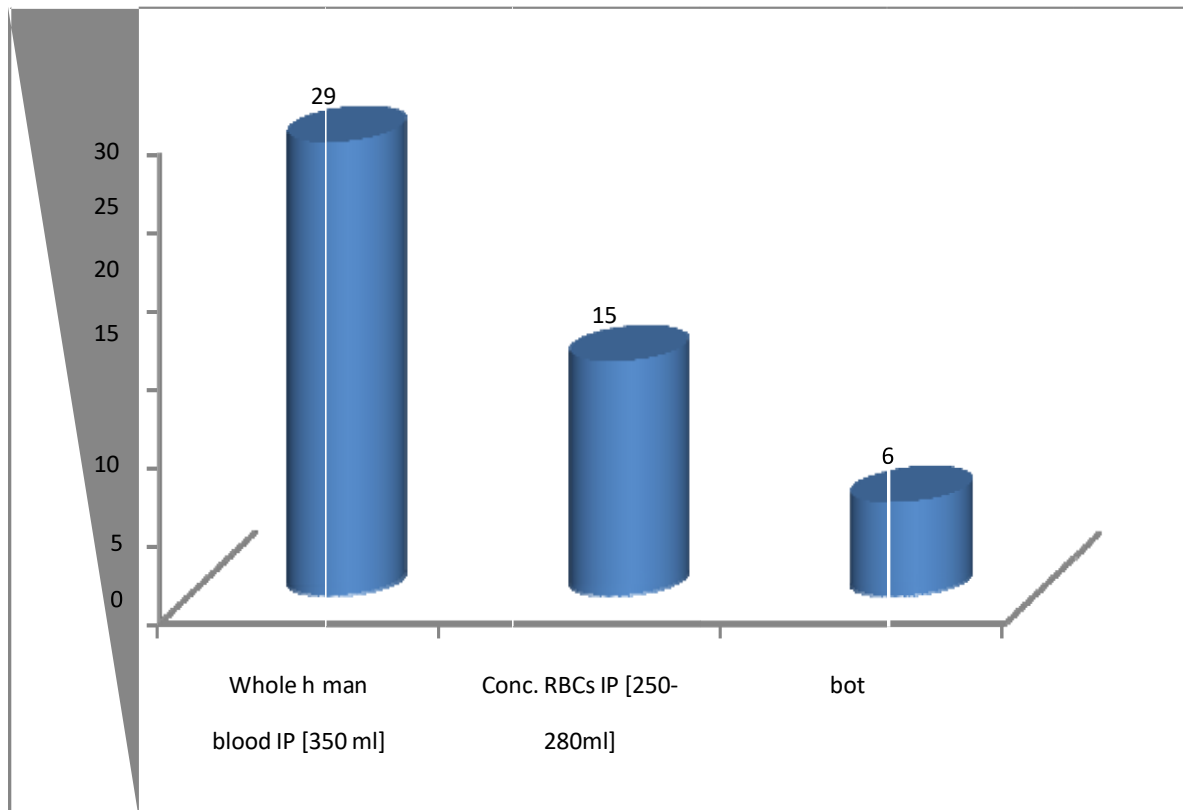
SEVERITY OF ANEMIA BASED ON HB LEVEL:

Out of the 63 patients, 36 anemic patients were identified as severe anemia (57.15%), while 19 anemic patients were observed as moderate anemia (30.15) and 8 patients were identified as mild anemia (12.70%). majority of patients were severely anemic patients.

Table -6: Severity level

Severity level	Frequency	Percent
Mild	8	12.7
Moderate	19	30.15
Sever	36	57.15

Figure - 6: Severity level vs frequency

BODY MASS INDEX (BMI):
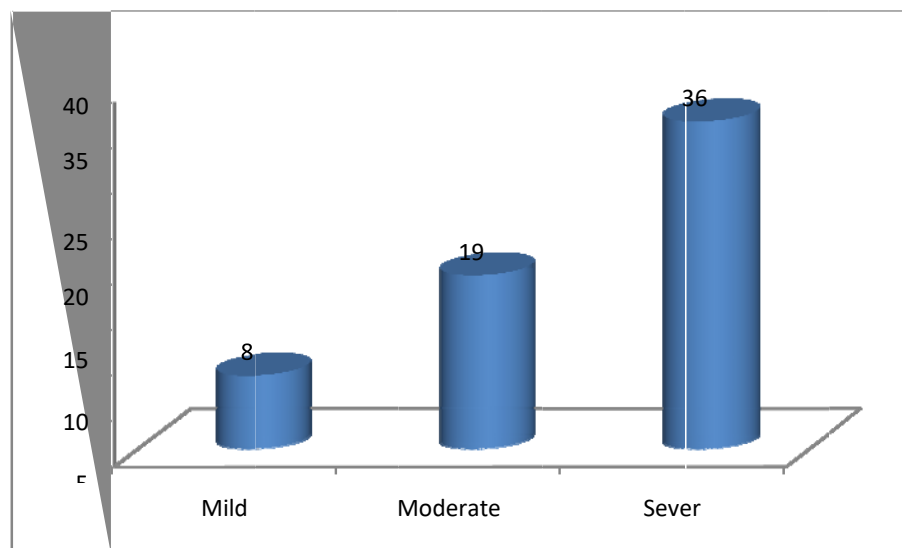
Out of 63 anemic Patients, 45 of patient's body mass index were found to be Normal weight (71.4%), whereas 9 patients were identified to be over weighted patients (14.2%) , then 6 patients were found to be under the normal weight (9.5%) and 3 patients were found to be obese patients (4.9%).

Table-7: BMI Wise Distribution

| BMI	Frequency	Percent
Under normal weight	6	9.5
Normal weight	45	71.4
Over weight	9	14.2
Obese	3	4.9

Figure - 6: BMI VS Frequency
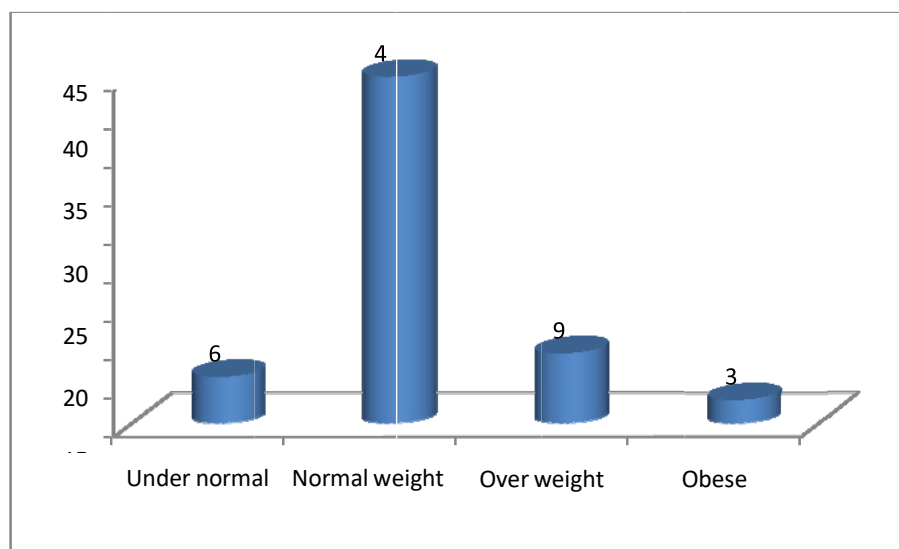
DURATION: Among 63 anemic patients 26 patients received the treatment within 1 day only (41.27%), followed by the duration of 2 days treatment with 11 patients (17.46%), duration of 3 days 9 patients (14.30%), duration of 4 days 5 patients were treated (7.93%), duration of 5 days were treated 4 patients (6.34%), duration of 7 days [a week] 4 patients (6.34%) were treated and finally in 10 days duration of time also 4 patients (6.35%) were treated at the hospital

TABLE-8: DURATION

Duration (in days)	Frequency	Percent
1	26	41.27
2	11	17.46
3	9	14.30
4	5	7.93
5	4	6.34
7	4	6.34
10	4	6.35

Figure - 7: Duration VS Frequency
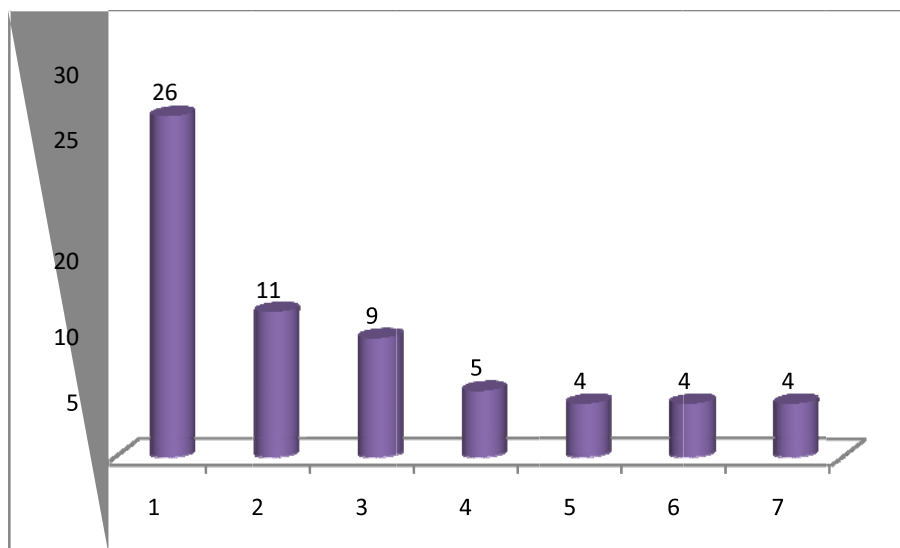
CONCLUSION:

The study is used to assess age group and the gender of the respondent involved in the study, Majority of anemic patients were females and in the age between 18 to 40 years. The prescribed hematinic to anemic patients were fully insignificance, because most of these patients were readmitted for blood transfusion therapy which was the majority of the cases were treated with. The anemic patients should be given a chart of nutrition and food that containing iron, Folate and Vitamin B12 to increase the hemoglobin level alongside with the prescribed hematinics.

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