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Dept. of Zoology

Best Practice  
file

## **PRACTICE 1 :**

Department of Zoology conducted HEMOGLOBIN CAMP for girl students. It is conducted on 14-08-2019. Varun, Lab technician conducted tests.

Title : **IRON TABLETS DISTRIBUTION TO ANEMIC GIRL STUDENTS.**

### **1. Practice**

The practice we are doing is **IRON TABLETS DISTRIBUTION TO ANEMIC GIRL STUDENTS.**

This is done by testing the hemoglobin percentage for girl students by Sahlis Method. By this, we will be able to identify the **anemic** students, guide the students to take balanced diet to improve the hemoglobin content in their blood. We, in our **CLINICAL PATHOLOGY** lab, tested the students for their Hb content and identified many anemic cases. We advised them to take balanced diet and tested them for Hb content again after a period of three months. But shockingly what we identified is there is no change in the Hb contents in many of the students. Then, we decided to distribute Iron –folic acid tablets to all anemic students.

I approached District Medical Health Officer with due permission from our principal Sri D.Bahdraiah, to provide us Iron-Folic acid tablets for students. They responded immediately and provided us the required number of tablets.

On behalf of our college, we have invited a local gynecologist and DMO to provide awareness and information regarding anemia and related things and distributed **Iron-Folic Acid** tablets to anemic students.

As some of the girl students are very much anemic, nearly 4 grams ,the condition called as **GROSS ANEMIA** are advised for a physician's check up, which they did and now are using medicines.

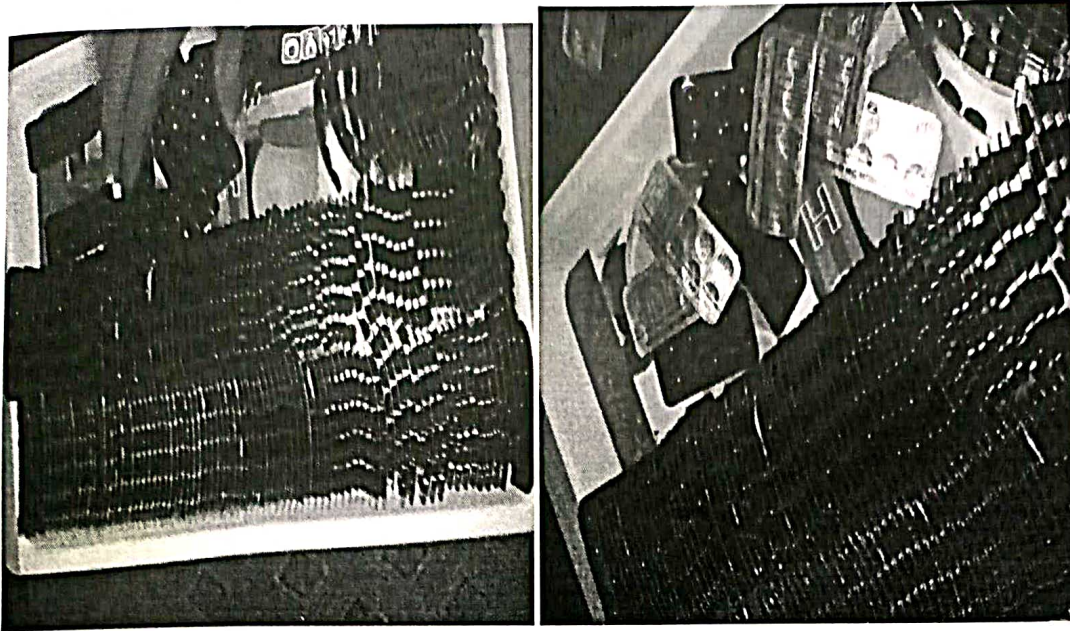
After knowing the ill effects of anemia and importance of Hemoglobin, we conducted hemoglobin percentage tests for our college girl students in our clinical pathology laboratory guided by M.sunanda & Sri A.Srinu from 2019 onwards .Hb percentage is identified for nearly 110 students. After identifying the percentages, the students with low Hb percentage are identified and are

suggested to take balanced diet. And these students are regularly monitored at regular intervals to note any change in Hb levels.

In most of the students it has been identified that there is no or little increase in Hb percentages. So it has been decided to provide Iron tablets for the anemic students

### The details of percentages obtained in our study

S.NO	Hb in grams	Hb in percentage	no. of students	Percentage of students
1.	4	28	2	1.8
2.	5	35	--	--
3.	6	42	5	4.5
4.	7	50	3	2.7
5.	8	57	21	19
6.	8.5	60	1	0.9
7.	9	64	15	13.6
8.	9.1	65	1	0.9
9.	9.5	68.5	2	1.8
10.	9.8	70	1	0.9
11.	10	71.5	17	15.4
12.	10.5	75	4	3.6
13.	11	78.5	12	10.9
14.	11.1	79.2	1	0.9
15.	11.5	82.1	2	1.8
16.	11.9	85	1	0.9
17.	12	85.7	8	7.2
18.	12.3	87.5	1	0.9
19.	12.5	90	6	5.4
20.	12.9	92	2	1.8
21.	13	92.8	2	1.8
22.	13.5	96.4	--	--
23.	14	100	1	0.9
24.	14.5	103.5	--	--
25.	14.9	106.4	1	0.9
26.	16	114	1	0.9



Iron-Folic Acid tablets for distribution

## 2.Objective

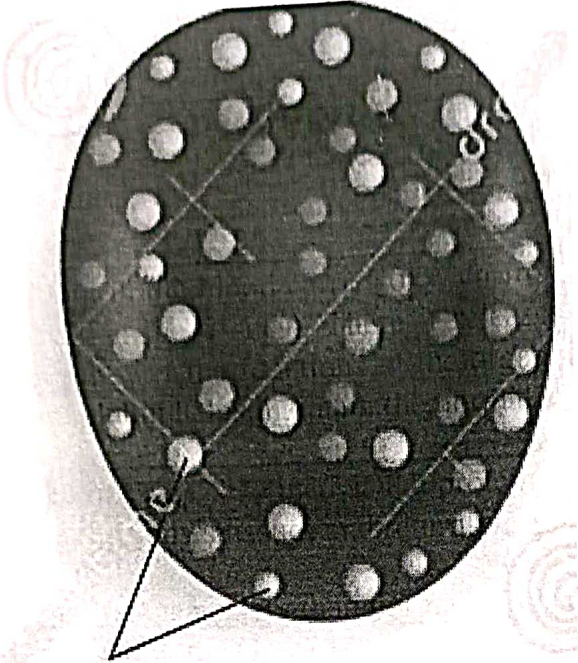
Objective of this practice is to make future women strong and healthy to provide a nation with healthy and strong next generation young ones.

Hemoglobin is an important biological structure in human life. If Hemoglobin is less, the person is called anemic and becomes weak, lethargic and loses all physical and mental strength. Though it is essential for both male and female, female are more anemic generally than male. If young and teenage girls are anemic, it will lead to many problems in future also.

As some of the girl students are very much anemic, nearly 4 grams, some are advised for a physician's check up, which they did and now are using medicines.

### 3. Context

Hemoglobin (also spelled haemoglobin - Abbreviated Hb or Hgb), is the iron-containing oxygen transport metalloprotein in the red blood cells of all vertebrates (with the exception of the fish family Channichthyidae) as well as the tissues of some invertebrates.



### Hemoglobin molecules

Hemoglobin in the blood carries oxygen from the respiratory organs (lungs or gills) to the rest of the body (i.e. the tissues). There it releases the oxygen to permit aerobic respiration to provide energy to power the functions of the organism in the process called metabolism. The molecule in hemoglobin helps maintain the normal shape of red blood cells.

**Hemoglobin (Hb or Hgb)** - Defined as the protein molecule in red blood cells that carries oxygen from the lungs to the body's tissues and returns carbon dioxide from the tissues back to the lungs.

**Anemia** - A term that means less than normal levels of red blood cells or hemoglobin in the blood. The term is derived from the Greek term *anaimia*, meaning lack of blood.

Symptoms of anemia often include:

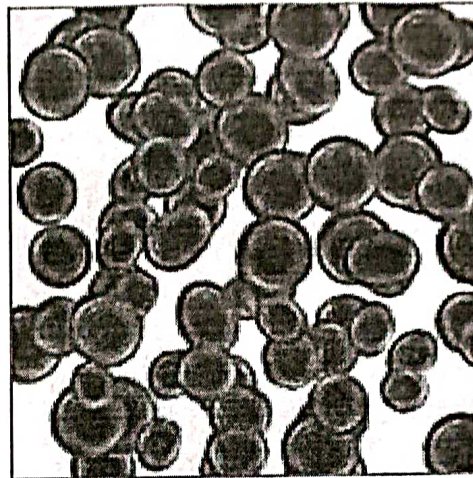
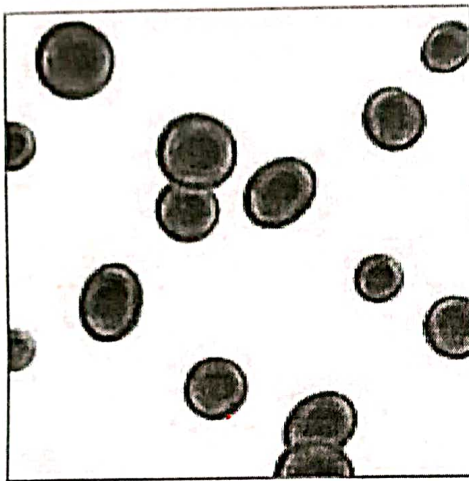
- Fainting
- Pale skin
- Weakness
- Chest pain
- Palpitations
- Shortness of breath
- Restless legs syndrome



Anemia



Normal blood



### Anemia symptoms

Lloyd Healthcare Pvt. Ltd.  
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Tiredness



Weakness



Pale skin



Irregular heartbeat



Shortness of breath



Chest pain



Dizziness



Cold hands and feet



Headache

There are **three main types of anemia**:  
that due to blood loss,  
that due to decreased red blood cell production,  
and  
that due to increased red blood cell breakdown

Causes of blood loss include trauma and gastrointestinal bleeding, among others.

Causes of decreased production include iron deficiency, a lack of vitamin B12, thalassemia and a number of neoplasms of the bone marrow among others.

Causes of increased breakdown include a number of genetic conditions such as sickle cell anemia, infections like malaria and some autoimmune diseases among others.

**Treatments:** Treatments for anemia depend on cause and severity. Vitamin supplements given orally (folic acid or vitamin B<sub>12</sub>) or intramuscularly (vitamin B<sub>12</sub>) will replace specific deficiencies.

### Oral iron

Nutritional iron deficiency is common in developing nations. An estimated two-thirds of children and of women of childbearing age in most developing nations are estimated to suffer from iron deficiency; one-third of them have the more severe form of the disorder, anemia.

### Injectable iron

In cases where oral iron has either proven ineffective, would be too slow (for example, pre-operatively) or where absorption is impeded (for example in cases of inflammation), parenteral iron can be used. The body can absorb up to 6 mg iron daily from the gastrointestinal tract. In many cases the patient has a deficit of over 1,000 mg of iron which would require several months to replace. This can be given concurrently with erythropoietin to ensure sufficient iron for increased rates of erythropoiesis.

### Blood transfusions

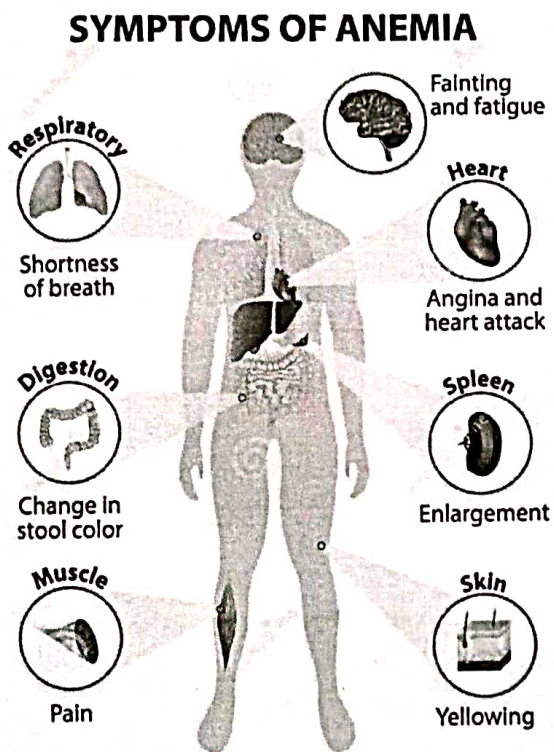
A blood transfusion in those without symptoms is not recommended until the hemoglobin is below 60 to 80 g/L (6 to 8 g/dL). In those with coronary artery disease who are not actively bleeding, transfusions are only recommended when the hemoglobin is below 70 to 80g/L (7 to 8 g/dL). Transfusing earlier does not improve survival. Transfusions otherwise should only be undertaken in cases of cardiovascular instability.

Conditions associated with these causes of anemia include the following:

- Sickle cell anemia
- Iron-deficiency anemia
- Vitamin deficiency
- Bone marrow and stem cell problems
- Other health conditions

**Anemia associated with other conditions** usually occurs when there are too few hormones necessary for red blood cell production. Conditions causing this type of anemia include the following:

- Advanced kidney disease
- Hypothyroidism
- Other chronic diseases, such as cancer, infection, lupus, diabetes, and rheumatoid arthritis
- Old age



### Obstacles Faced

It is difficult to motivate the students as most of them belong to rural back ground and parents are uneducated, in the beginning it is difficult to conduct Hb tests also.

By creating awareness among the students we are able to conduct Hb tests in our laboratory itself and identified the Hb percentages.

After supplying Iron- folic acid tablets also many students are having many doubts regarding the usage and the consequences

They raised so many questions to our astonishment, but our doctors cooperated well and clarified their doubts. Now I came to know many of the students started using the tablets.



Contact details of the person implementing **IRON TABLETS DISTRIBUTION TO ANEMIC GIRL STUDENTS :**

M.SUNANDA

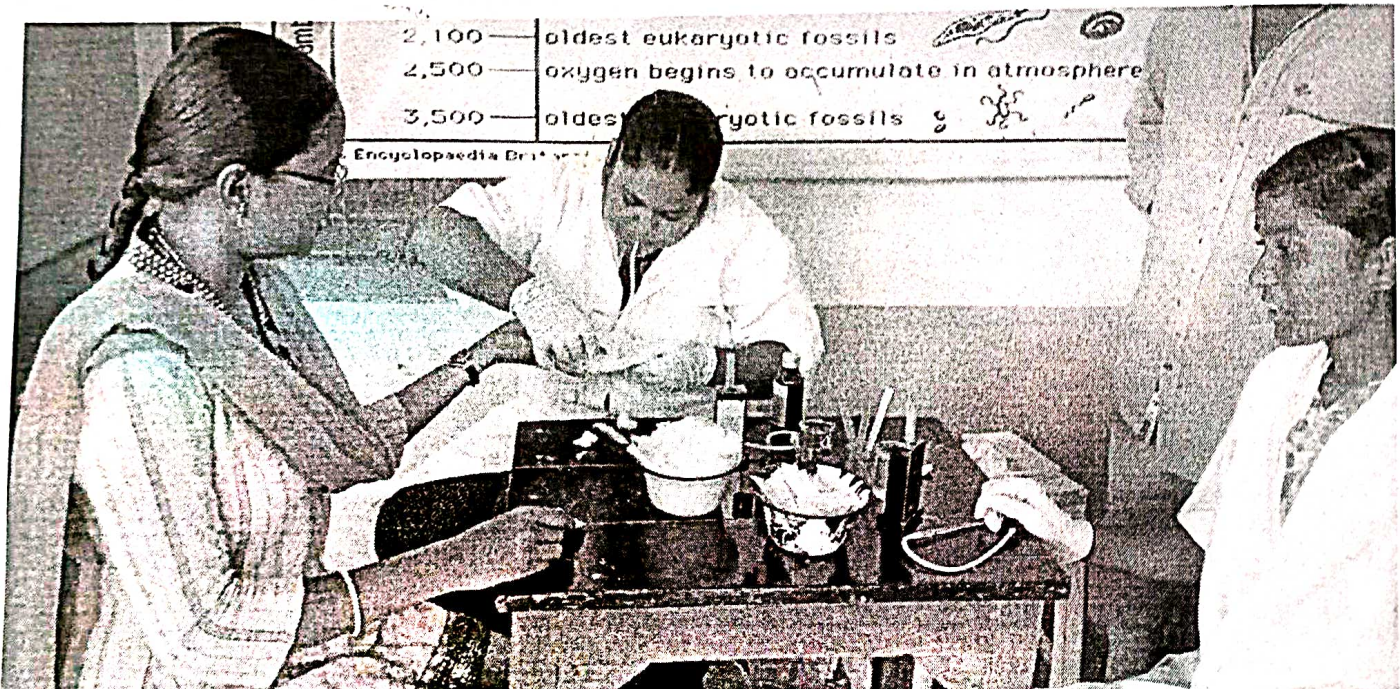
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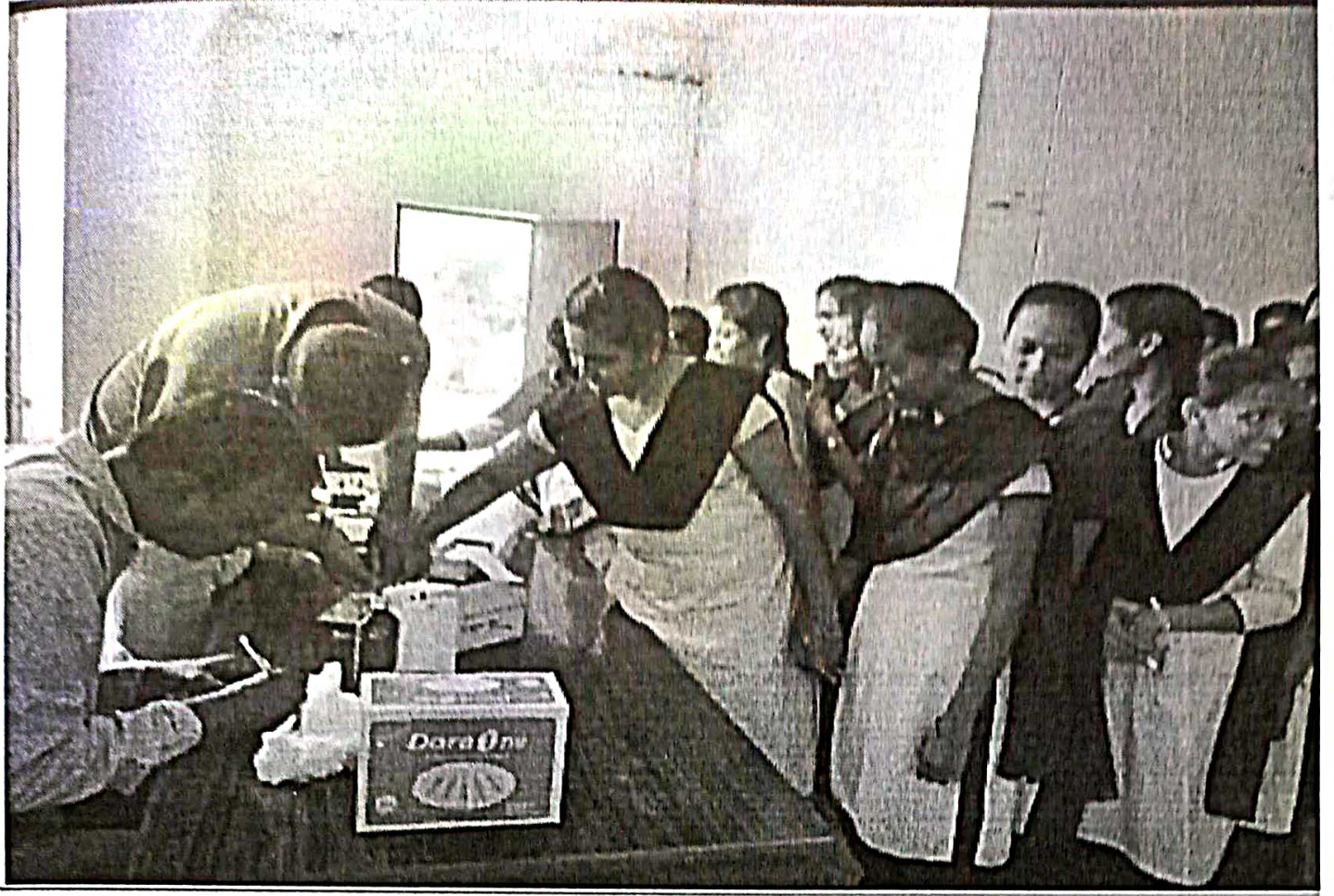
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