SNS COLLEGE OF PHARMACY AND HEALTH SCIENCES

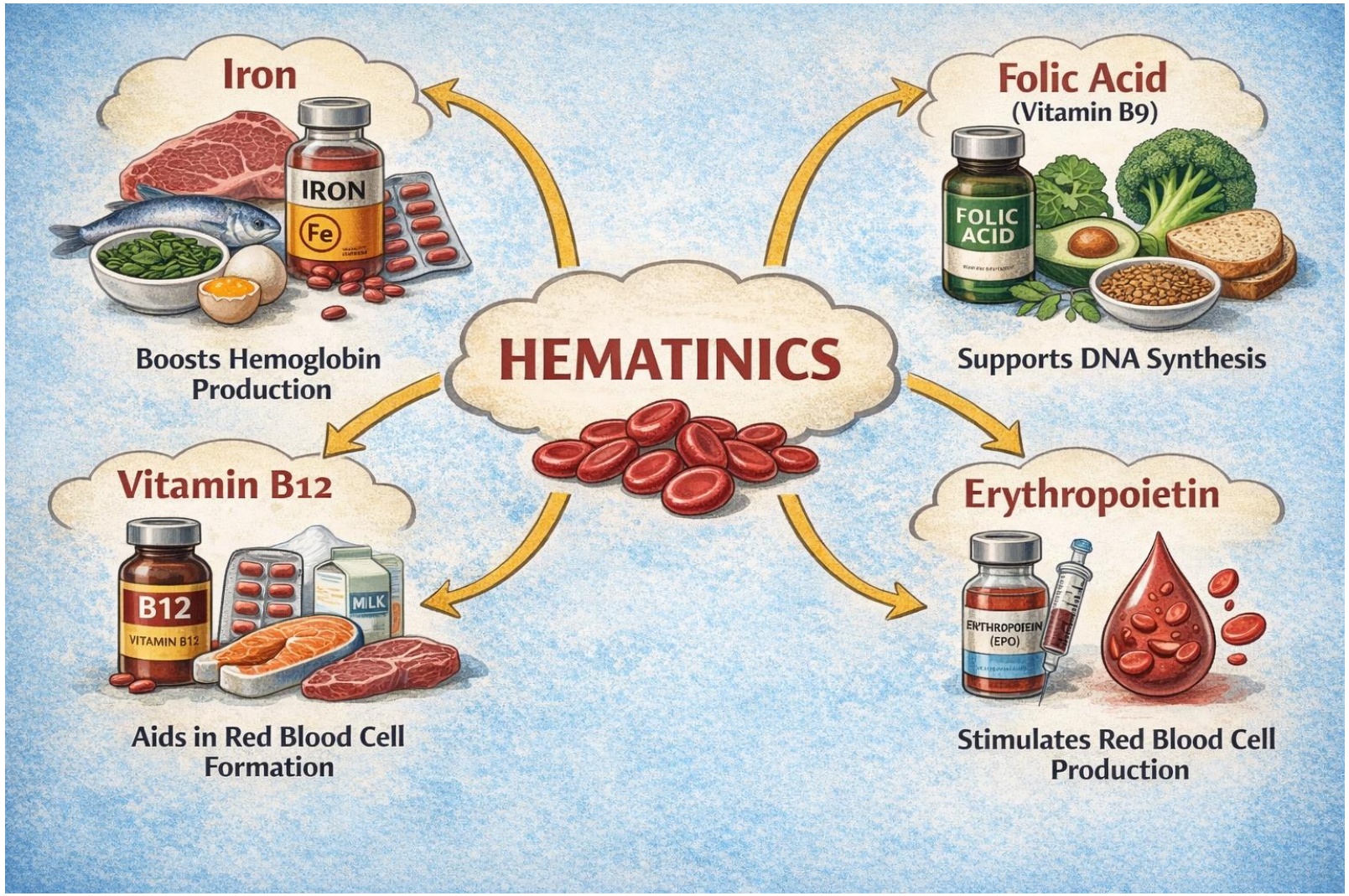
Affiliated To The Tamil Nadu Dr. MGR Medical University, Chennai
Approved by Pharmacy Council of India, New Delhi
Coimbatore-641035

TOPIC : HEMATINICS

COURSE:PHARMACOLOGY II

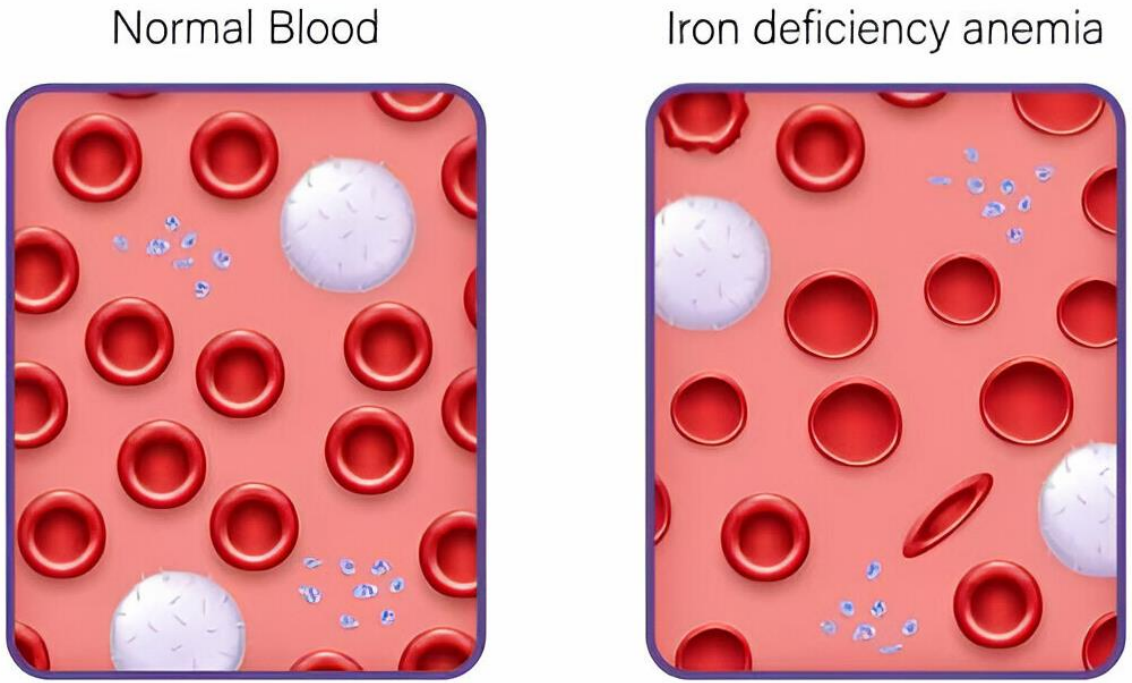
HAEMATINICS

MIND MAP :

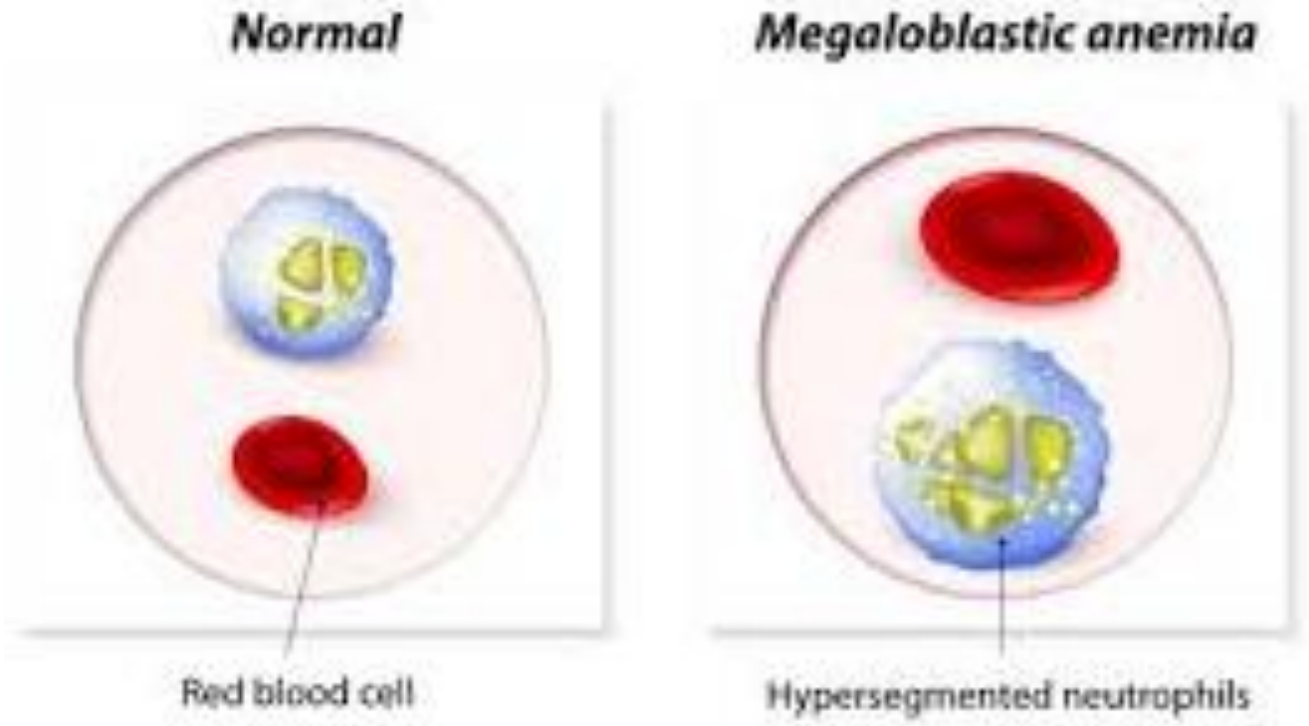

Iron
IRON
Fe
Boosts Hemoglobin Production
Folic Acid
(Vitamin B9)
FOLIC ACID
Supports DNA Synthesis
HEMATINICS
Vitamin B12
B12
VITAMIN B12
MILK
Aids in Red Blood Cell Formation
Erythropoietin
ERYTHROPOIETIN (EPO)
Stimulates Red Blood Cell Production

Types of Anemias and Corresponding Hematinics

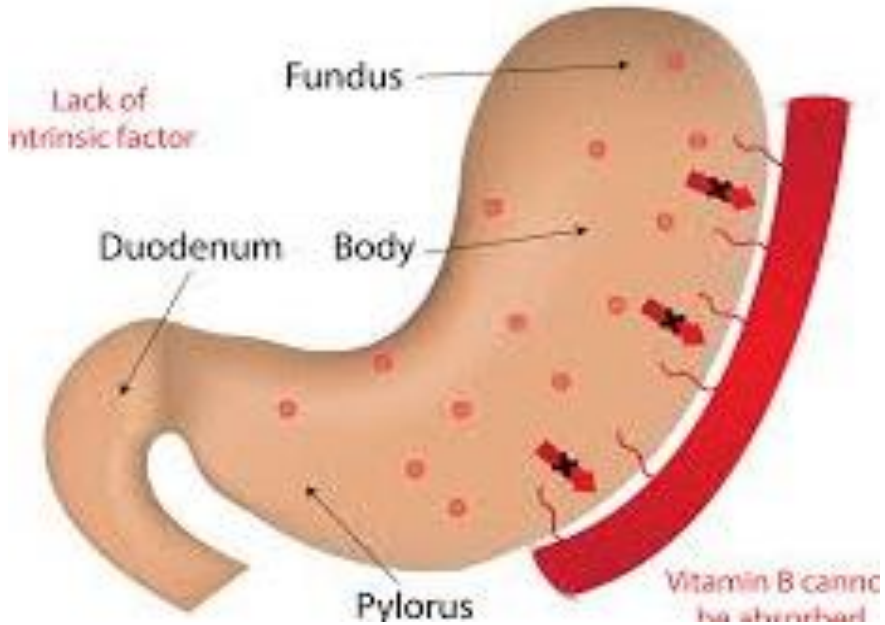
1.Iron Deficiency Anemia:

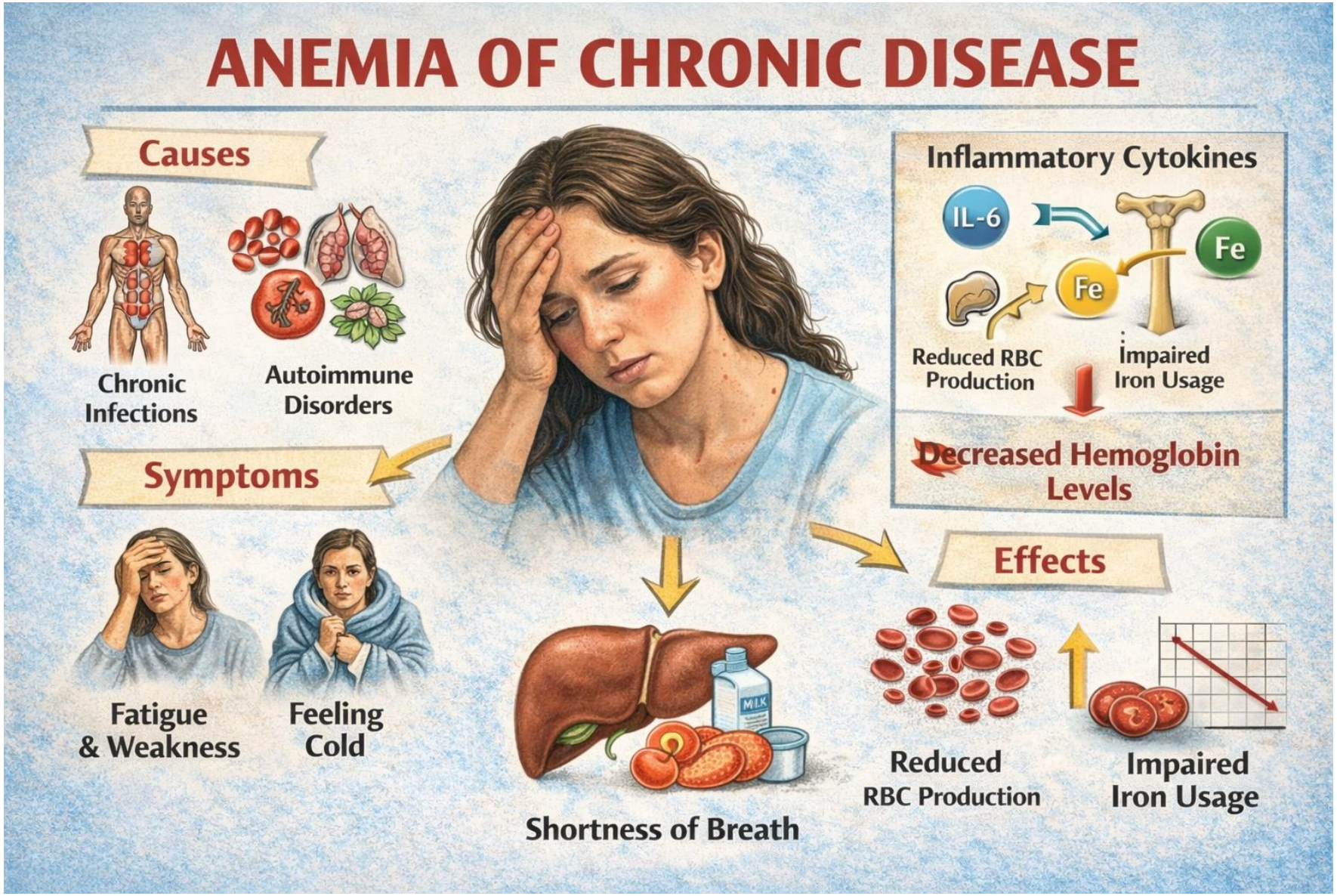


2.Megaloblastic Anemia:



3.Pernicious Anemia:




ANEMIA OF CHRONIC DISEASE
Causes
Chronic Infections
Autoimmune Disorders
Symptoms
Fatigue & Weakness
Feeling Cold
Shortness of Breath
Inflammatory Cytokines
IL-6
Fe
Fe
Reduced RBC Production
Impaired Iron Usage
Decreased Hemoglobin Levels
Effects
Reduced RBC Production
Impaired Iron Usage

HEMATINIC AGENTS :

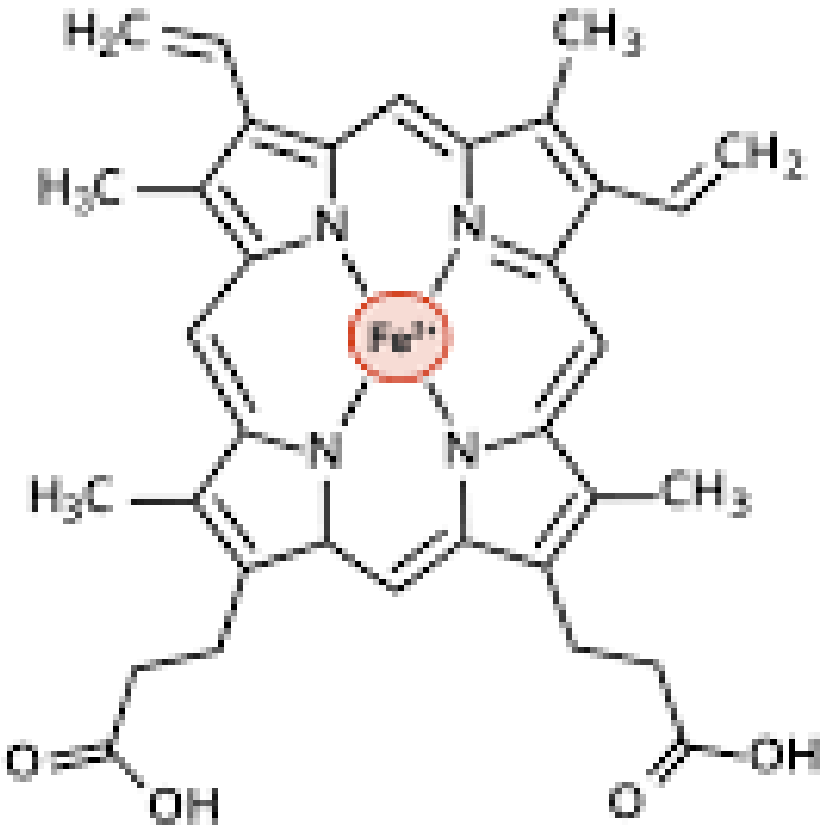
Hematinic agents are which stimulate the production of RBCs or increase the amount of heamoglobin
In the blood.
These includes:

- Iron
- Vitamin B12
- Folic acid

These are the agents are called as antianemics.They are used to treat the Various types of anemias

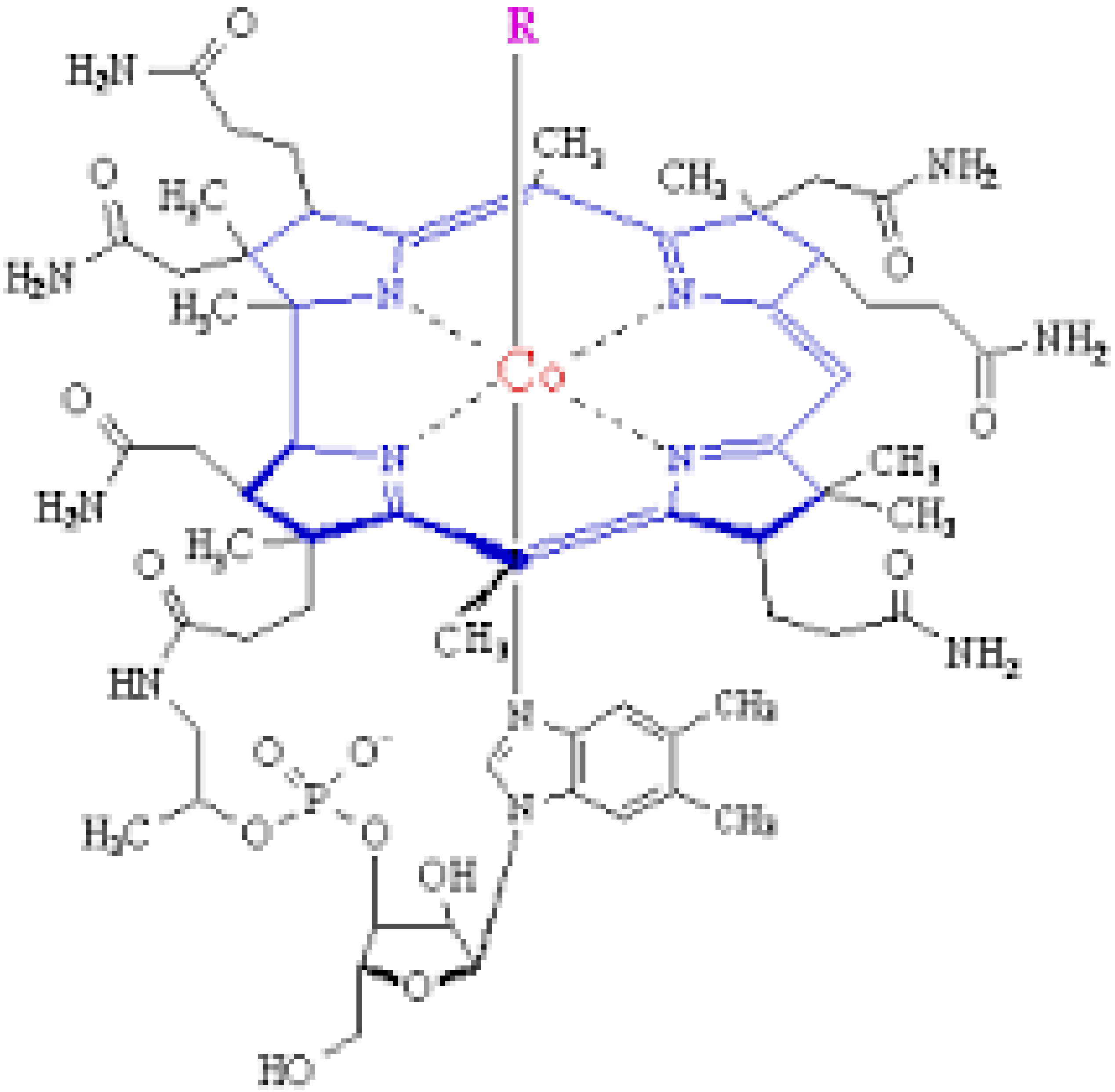
HEMATINIC AGENTS :

Iron




www.puritan.com
Puritan's Pride
IRON
(325 mg Ferrous Sulfate)
65mg
100 tablets
Iron
18 mg
Iron
Iron
IRON

Vitamin B12 (Cobalamin)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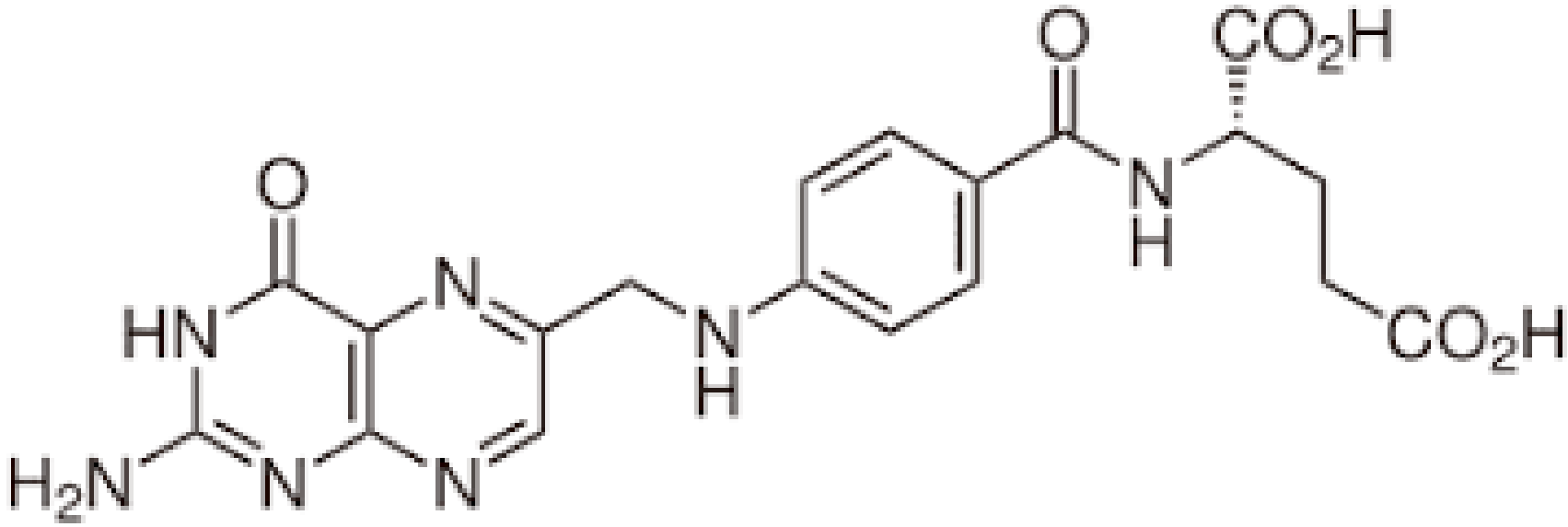
NH2
NH2
NH2
O
HN
P
O-
OH
HO

Folic Acid (Vitamin B9)


O
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N
H
HN
N
N
H
CO2H
H2N
N
N

Multiple Choice Questions (MCQs):

1.Which of the following is the most common cause of iron deficiency anemia?
a) Vitamin B12 deficiency
b) Folic acid deficiency
c) Insufficient iron intake or increased iron loss
d) Genetic factors

2.Which of the following hematinics is primarily administered via intramuscular injection in cases of pernicious anemia?
a) Ferrous sulfate
b) Folic acid
c) Vitamin B12
d) Ferric ammonium citrate

3.Which of the following enhances the absorption of iron?
a) Antacids
b) Tetracyclines
c) Vitamin C
d) Tea and coffee

4.Megaloblastic anemia is most commonly caused by a deficiency of:
a) Iron
b) Vitamin C
c) Vitamin B12 or Folic Acid
d) Vitamin A

5. A patient presents with fatigue, pallor, and shortness of breath. Lab results show low hemoglobin and microcytic, hypochromic red blood cells. Which hematinic is most likely to be prescribed?
   a) Folic acid
   b) Vitamin B12
   c) Iron
   d) Erythropoietin

References:

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2. Rang, H. P., Dale, M. M., Ritter, J. M., & Flower, R. J. (2020). *Rang and Dale's Pharmacology* (9th ed.). Churchill Livingstone.
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THANK YOU !