

## Anemia

Non-pregnant Hgb <12 or Hct < 35

Pregnant Hgb <11 or Hct < 32

RDW-measures variation in size of RBC's

### MCV

#### A. Normal MCV 80-98

Causes of normal MCV anemia

- 1) Early iron deficiency
- 2) Chronic disease
- 3) Aplastic anemia
- 4) Hemolytic anemia

RDW evaluation of normal MCV anemia

RDW < 15 chronic disease or RDW > 15 hemolytic anemia: refer hematologist

#### B. Microcytic Anemia MCV <80

Causes of microcytic anemia

- 1) Iron deficiency - most common
- 2) B-thalassemia - uncommon
- 3) Chronic disease - (cancer, inflammation, arthritis-rare)
- 4) Lead Poison - rare

RDW evaluation of microcytic anemia

RDW>15 = iron deficiency: iron, TIBC, ferritin and transferrin, reticulocyte count

RDW <15 = thalassemia, chronic disease or lead poisoning: Hgb electrophoresis

#### C. Macrocytic anemia - MCV >98

Causes of macrocytic anemia

- 1) Folic acid deficiency
- 2) Vitamin B deficiency

RDW evaluation of macrocytic anemia

RDW > 15 - B12 or folic acid deficiencies: B12, homocystein and folate level

RDW < 15 - aplastic anemia, alcoholism: refer to hematologist