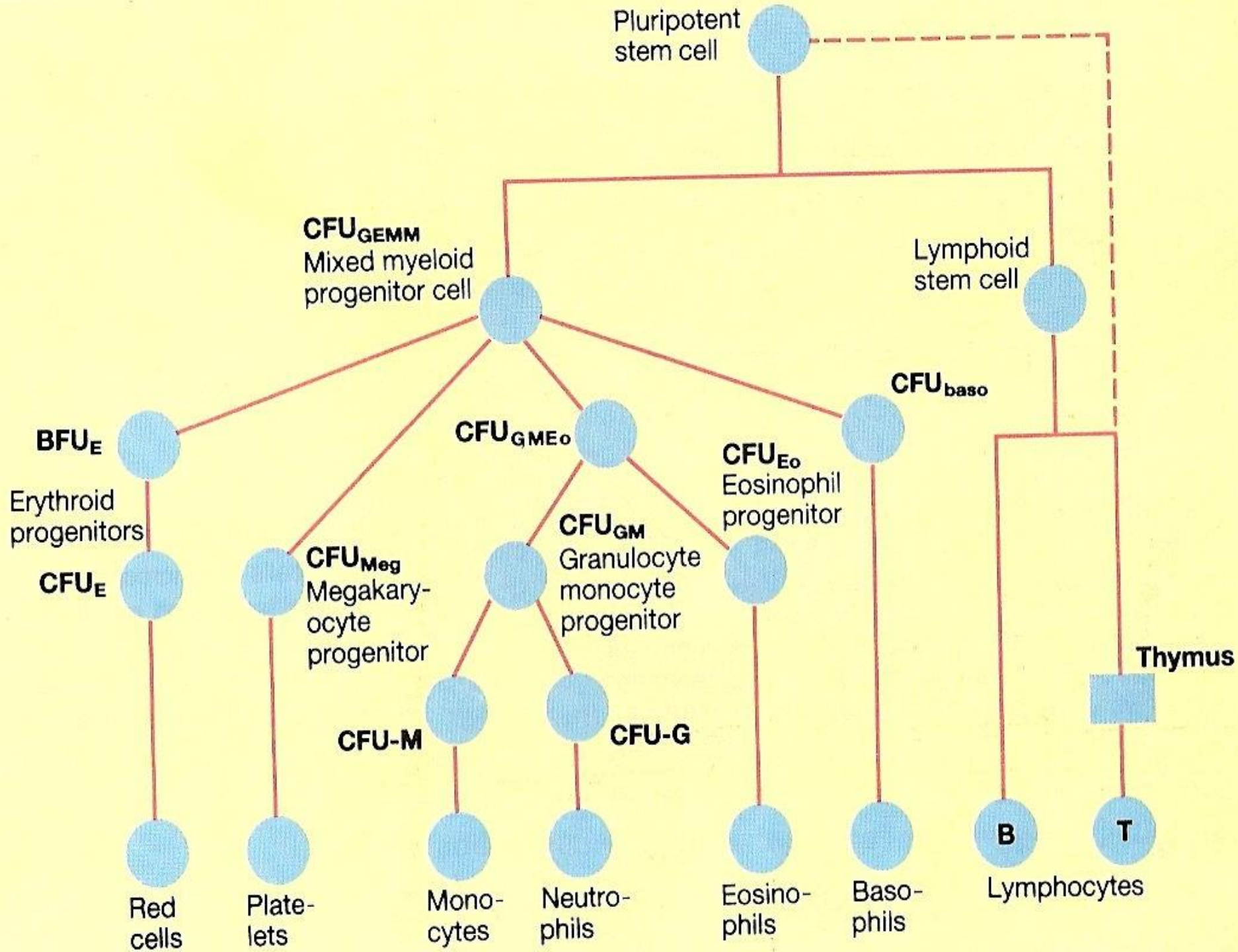


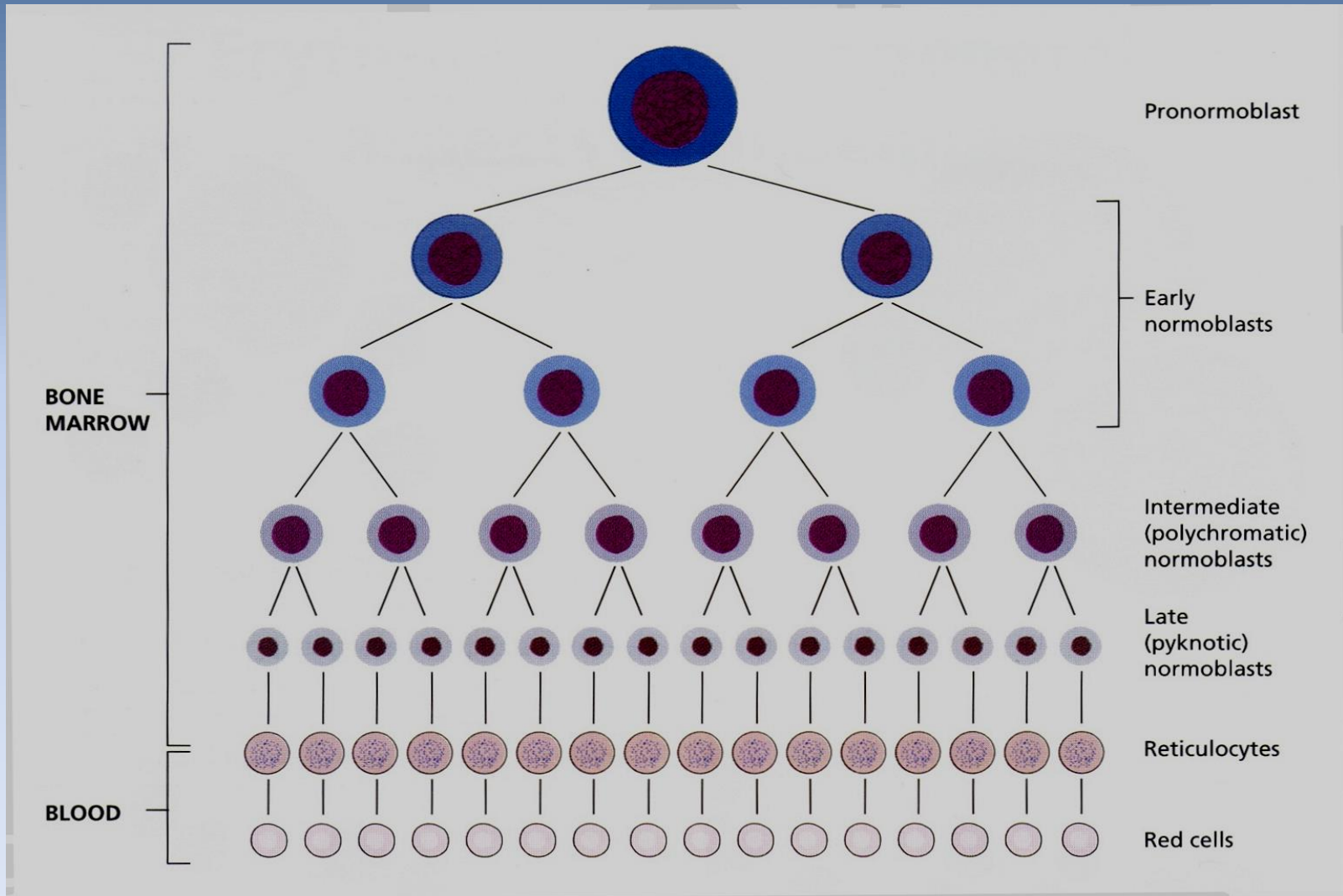
Approach to Anemia

Dr. Manoutcher Keyhani

Dr. Hasan Jalaeikhoo

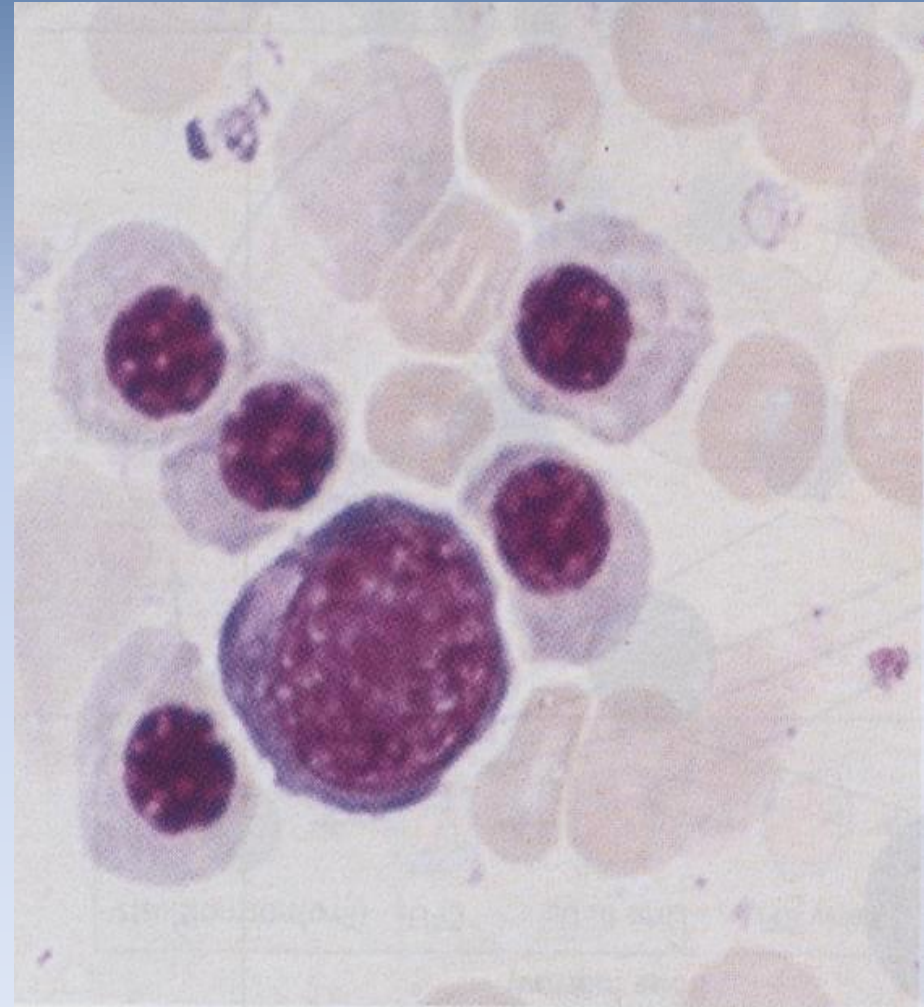


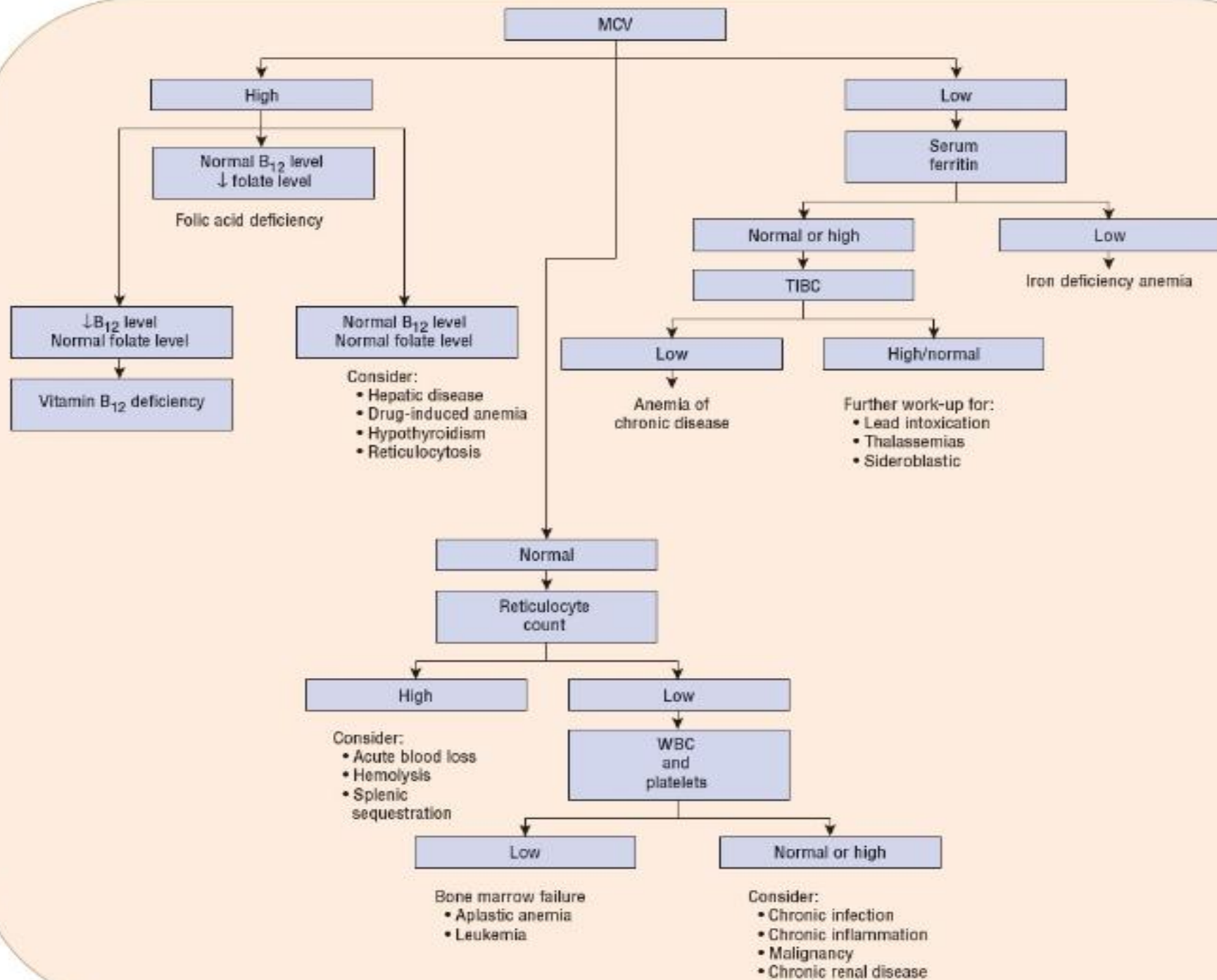
Development of mature red cells



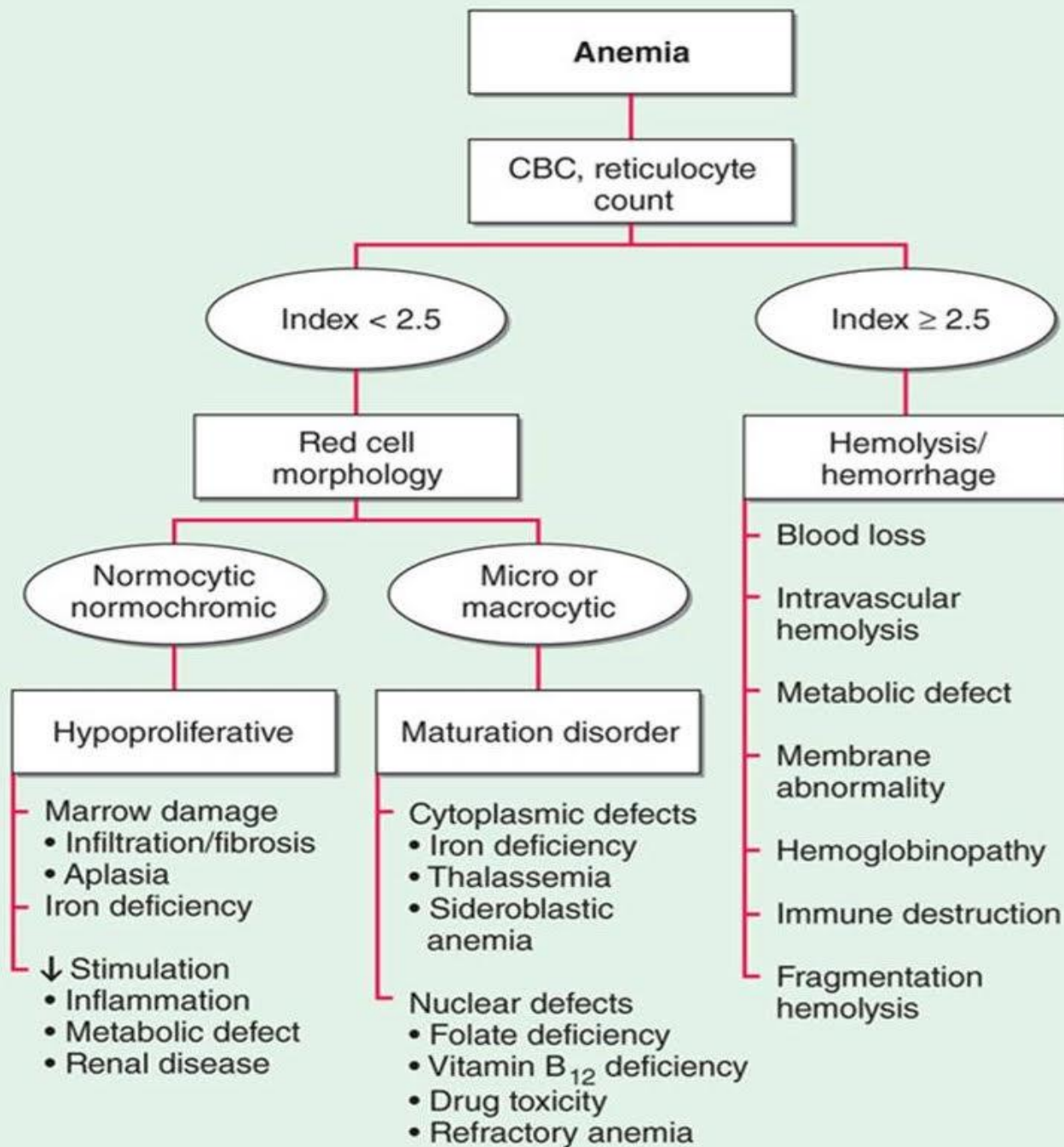
Erythropoiesis and erythrocytes

- Lifespan – 120 days
- Non nucleated
- Biconcave disc
- Production regulated by Epo
- Needs Fe, B12, folate & other elements for development

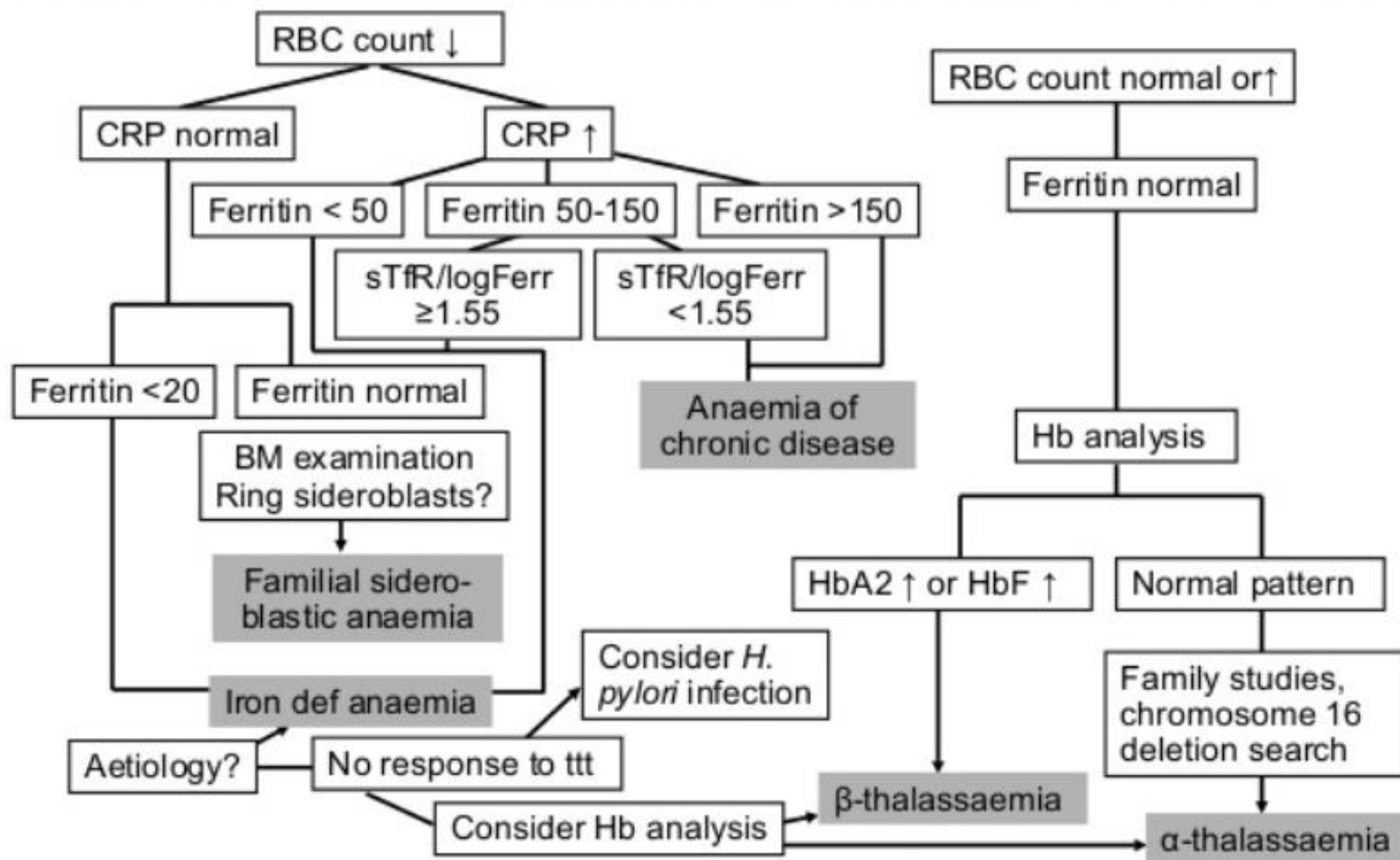




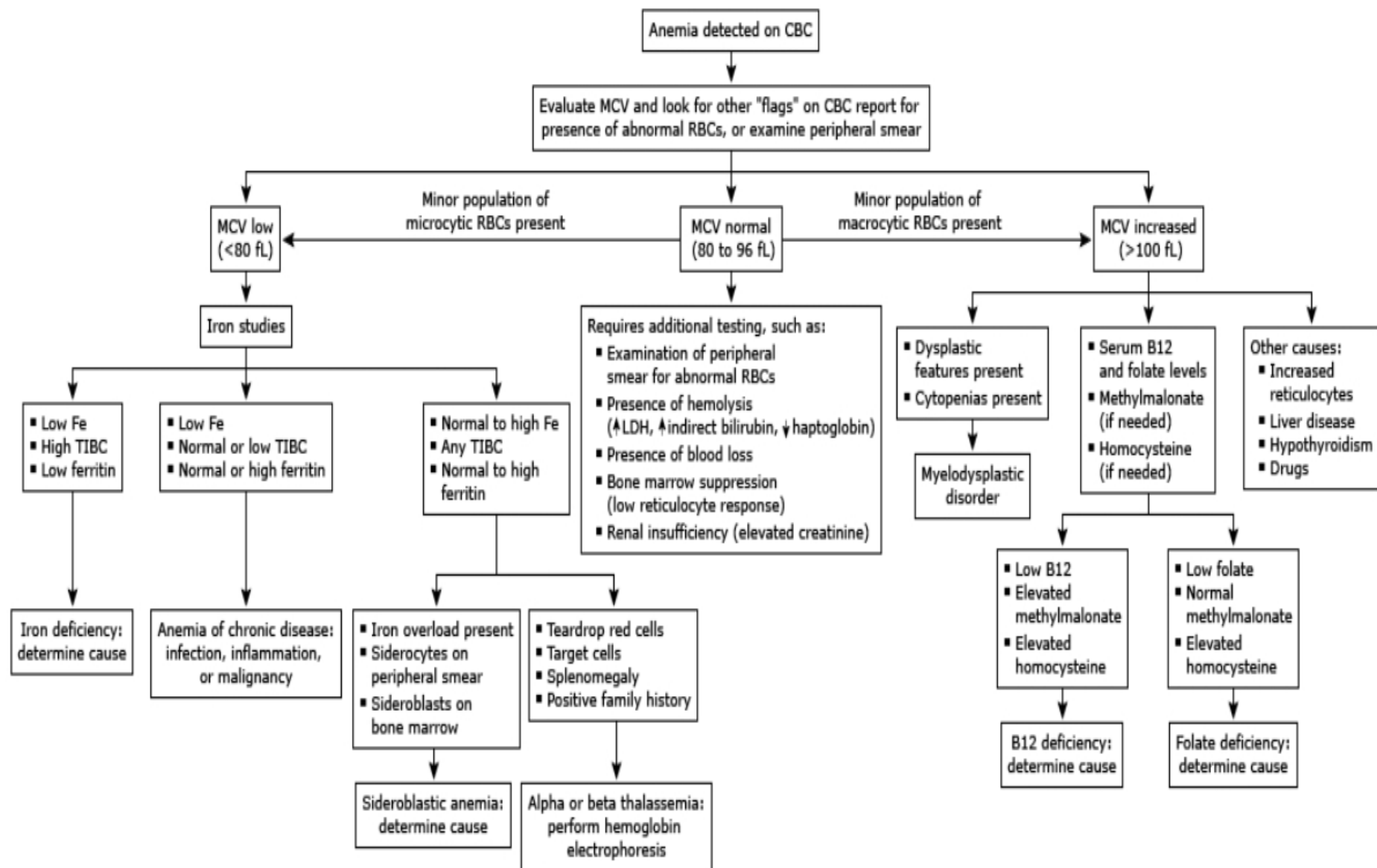
ALGORITHM OF THE PHYSIOLOGIC CLASSIFICATION OF ANEMIA



Algorithm for Investigation of Microcytic Anaemia



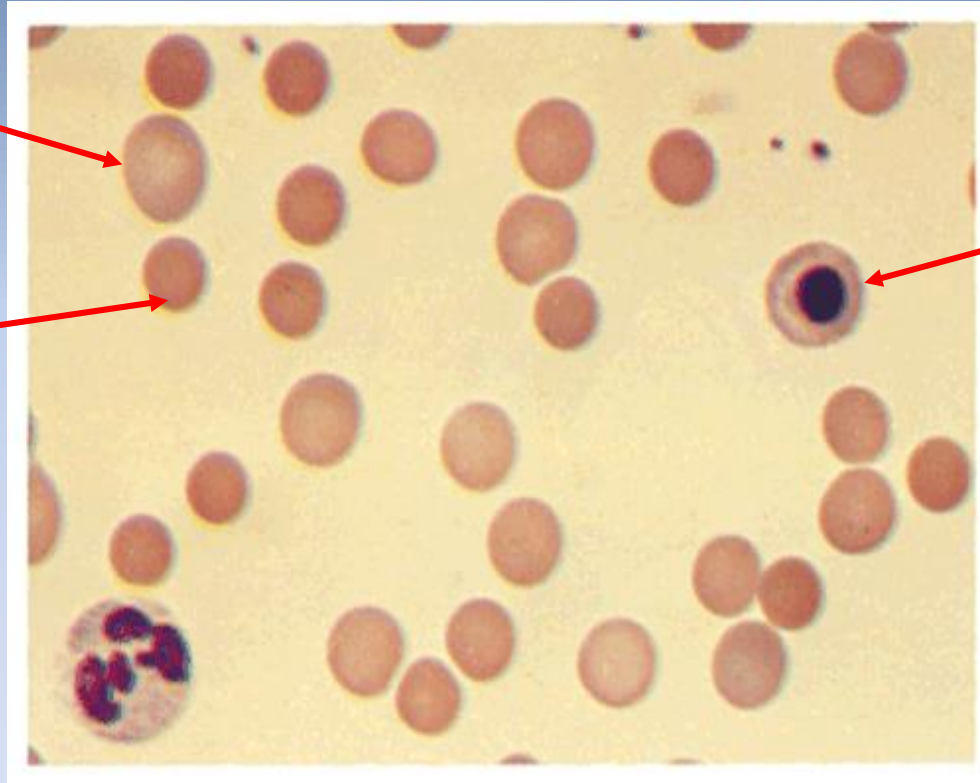
Reprinted from Lambert JF, et al. In C Beaumont, P Beris, Y Beuzard, C Brugnara, eds. *Disorders of iron homeostasis, erythrocytes, erythropoiesis*. Forum service editore, Genoa, Italy, 2006 page 73 figure 1, by permission of European School of Haematology.



Peripheral Smear

MACROCYTE

NRBC



SPHEROCYTE

Case presentation

At 89/10/18 :

WBC=39000 Hb=6.7 Plt=143000 ESR=90
Retic=16% LDH=2500 total bilirubin=7.8

direct bilirubin = 0.8 Coomb's test= Positive

Ham's Test=Negative ANA=negative

Anti DS DNA=negative

↑Prednisolone to 100mg daily + IVIG 20mg x 5day

She refused hospital admission again.

Case presentation

At 89/11/4 :

WBC=40000 Hb=5.7 Plt=145000 Retic=18%

Sent for splenectomy

At 89/12/5 :

Splenectomy was done

At 89/12/15 :

WBC=14700 Hb=9.9 Plt=537000

She was taking Folic acid 5mg daily + Prednisolone 50mg daily

At 90/1/23 :

WBC=17300 Hb=11.9 Plt=375000

She was taking Folic acid 5mg daily + Prednisolone 25mg daily

Case presentation

Patient is 30 years old female housewife referred for evaluation of severe anemia of 10 days duration at 89/10/12.

Chief complaint was dizziness, easy fatigability and palpitation

Past history: negative Drug history: negative

Physical examination: stable vital sign (PR:104)

Positive findings were: pallor and mild jaundice

WBC=27800 Hb=6.4 Plt=158000

MCV=121 Retic=14%

Patient was taking Prednisolone 60mg daily + Folic acid 5mg daily of one week duration.

She refused hospital admission.

Clinical Picture

- Anemia
- ↑ Reticulocyte
- ↑ LDH
- ↑ Indirect Hyperbilirubinemia
- ↓ Haptoglobin
- Positive Direct Antiglobulin test (coomb's test) (95% - 98%)



Peripheral Smear

