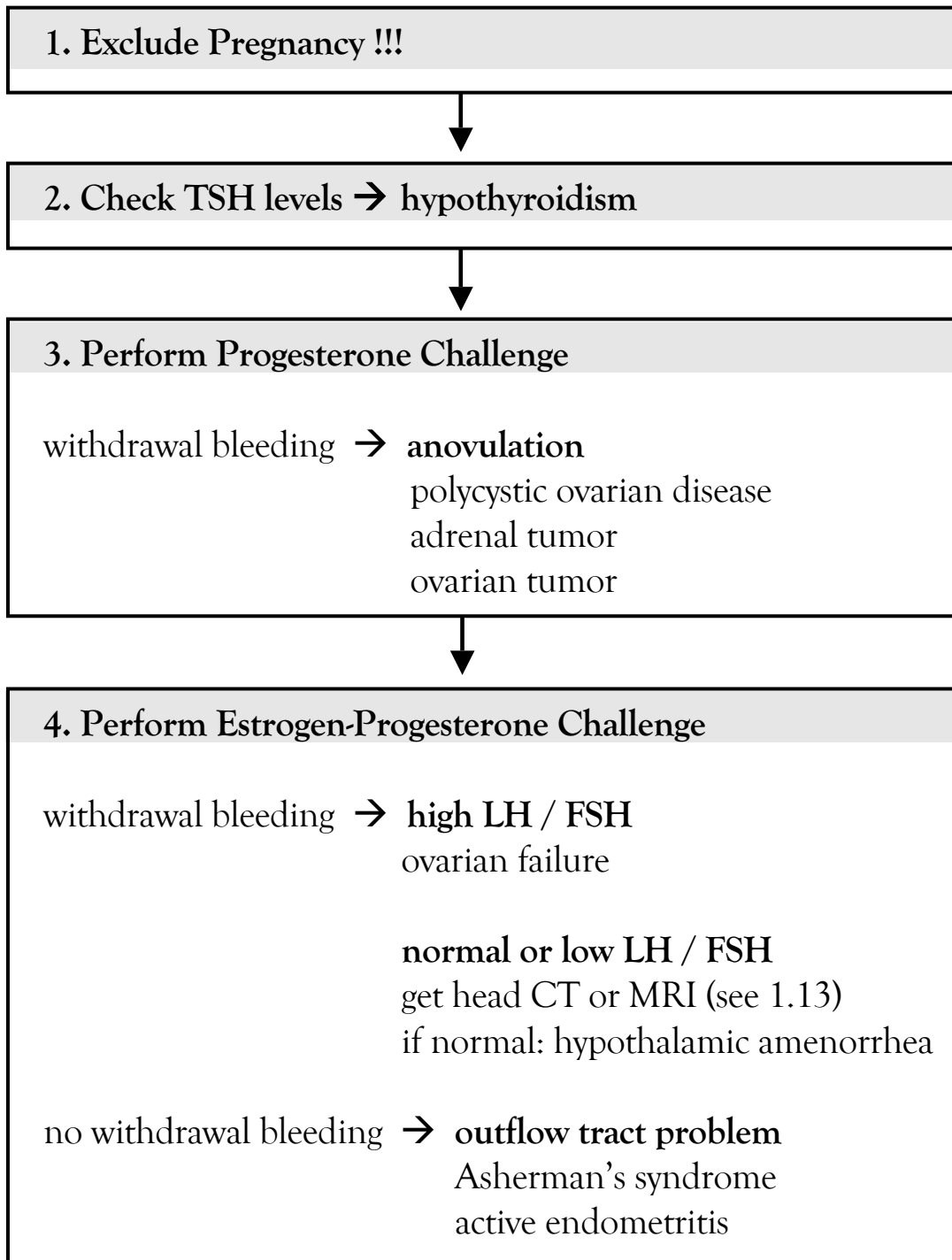


2.12.) SECONDARY AMENORRHEA

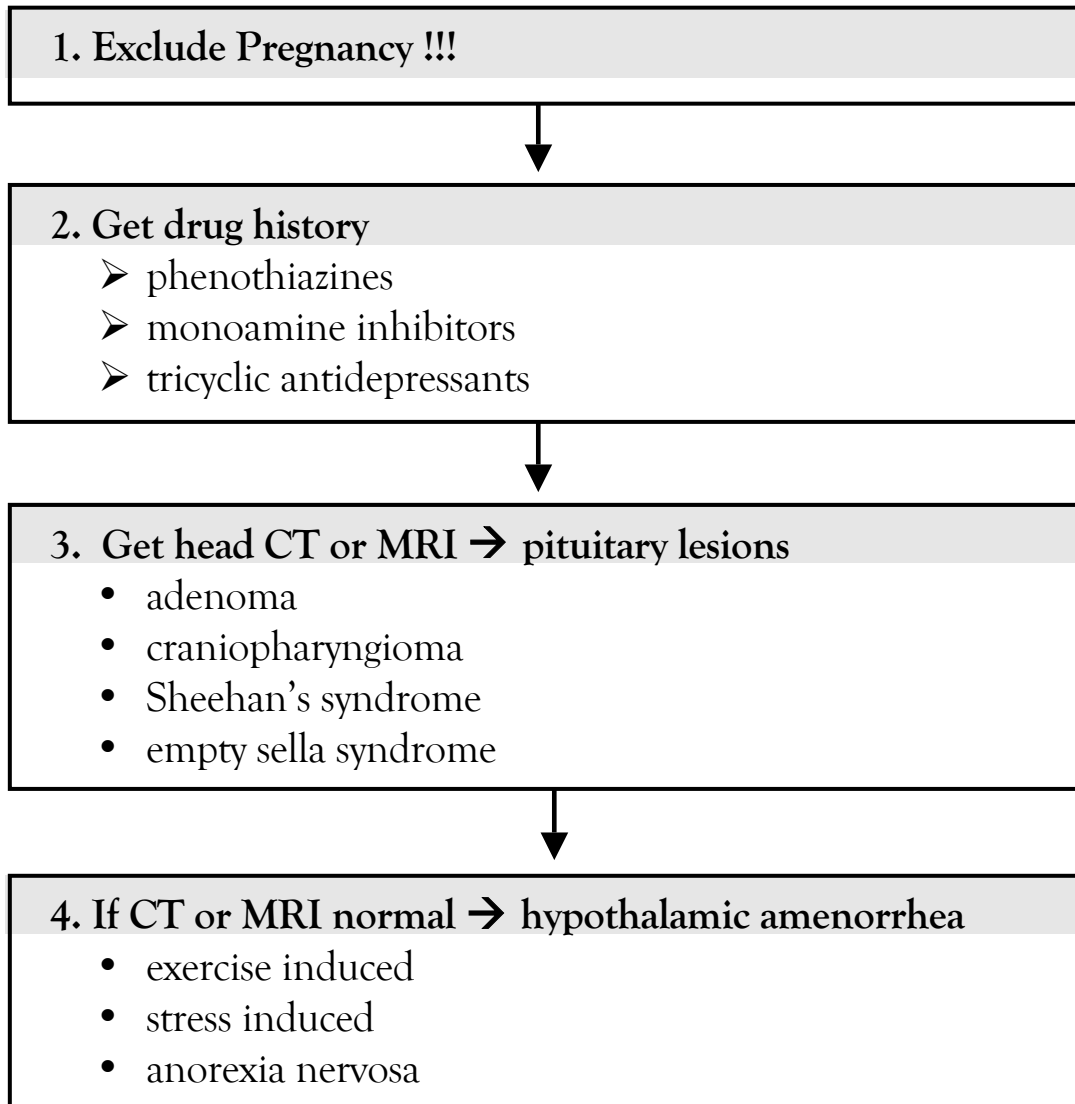
normal prolactin



Any women with primary ovarian failure or ovarian failure before age 35 ("premature menopause") should be karyotyped.

2.13.) SECONDARY AMENORRHEA

prolactin > 20 ng/mL



Hypothalamic amenorrhea is a diagnosis of exclusion. It is the most common cause of secondary amenorrhea in non-pregnant women. Prolactin levels may be normal or elevated.

2.18.) HEMOLYTIC ANEMIA

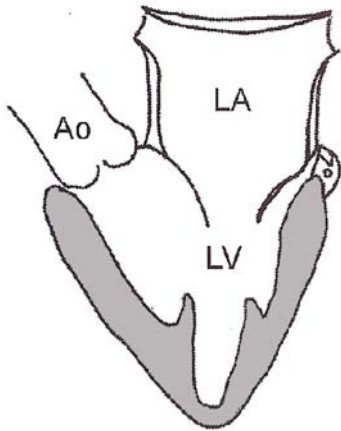
direct Coombs' test positive	<p><u>indirect Coombs' test positive:</u></p> <ul style="list-style-type: none"> • hemolytic disease of newborn • transfusion reaction <p><u>indirect Coombs' test negative:</u></p> <ul style="list-style-type: none"> • warm antibodies • cold antibodies
membrane abnormalities	<ul style="list-style-type: none"> • spherocytosis • elliptocytosis
metabolic abnormalities	<ul style="list-style-type: none"> • glucose-6-PD deficiency
hemoglobin abnormalities	<ul style="list-style-type: none"> • sickle cell anemia • thalassemia
mechanical trauma	<ul style="list-style-type: none"> • march hemoglobinuria • artificial heart valves • DIC
other	<ul style="list-style-type: none"> • burns • chemicals • hypersplenism

WARM ANTIBODIES	COLD ANTIBODIES
<ul style="list-style-type: none"> • drugs • infections • collagen vascular diseases • multiple myeloma • lymphoma 	<ul style="list-style-type: none"> • mononucleosis • mycoplasma infection • multiple myeloma • lymphoma • paroxysmal cold hemoglobinuria

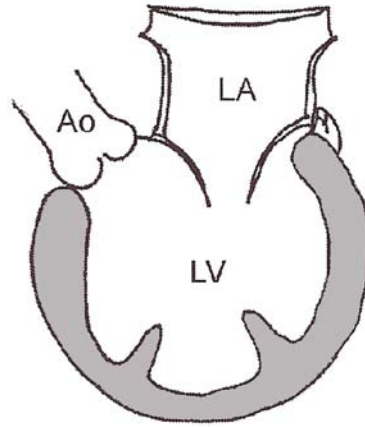
2.27.) CARDIOMEGALY

Echocardiogram:	
hypertrophy	asymmetrical <ul style="list-style-type: none">• hypertrophic cardiomyopathy symmetrical <ul style="list-style-type: none">• hypertension• coarctation of aorta• high-output state
dilation	left ventricle <ul style="list-style-type: none">• decompensation aortic stenosis <ul style="list-style-type: none">• left ventricle and aorta• aortic regurgitation left ventricle and left atrium <ul style="list-style-type: none">• mitral regurgitation left atrium and pulmonary artery <ul style="list-style-type: none">• mitral stenosis right ventricle, “pruning” of pulmonary vessels <ul style="list-style-type: none">• cor pulmonale• primary pulmonary hypertension generalized enlargement <ul style="list-style-type: none">• alcohol abuse• post viral
pericardial	<ul style="list-style-type: none">• pericardial effusion• infiltrative disease
normal	<ul style="list-style-type: none">• kyphoscoliosis• mediastinal mass• pregnancy

NORMAL

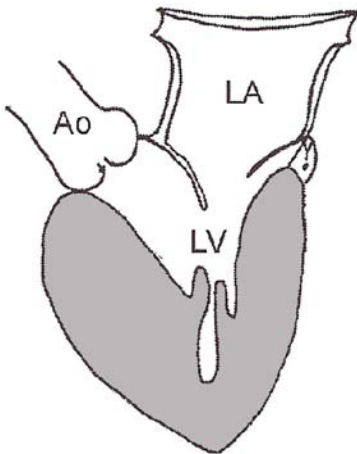


DILATED

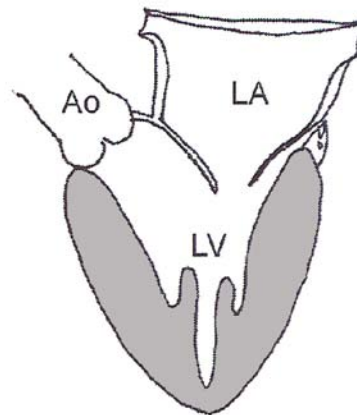


In the normal heart, the left intraventricular chamber is cone shaped, tapering at the apex. In dilated (congestive) cardiomyopathy, the LV chamber becomes dilated and nearly spherical in diastole.

HYPERTROPHIC



RESTRICTIVE



In hypertrophic cardiomyopathy, the LV cavity is very small in diastole, often asymmetric. In restrictive cardiomyopathy, the myocardium is very stiff and the LV cavity smaller than normal.

2.28.) CHEST PAIN

1. Check ECG for signs of ischemia

- cardiac enzymes elevated → myocardial infarction
- cardiac enzymes normal → angina pectoris



2. If arterial blood gases show hypoxemia:

Get ventilation-perfusion scan:

- pulmonary embolus

Get echocardiogram:

- aortic stenosis
- mitral valve prolapse
- cardiomyopathy
- pericarditis



3. Get chest X-ray

- pneumothorax
- pneumonia
- aortic aneurysm



4. Other tests to perform if chest pain persists:

Treadmill, cardiac catheter, Holter monitor:

- coronary artery disease
- arrhythmia

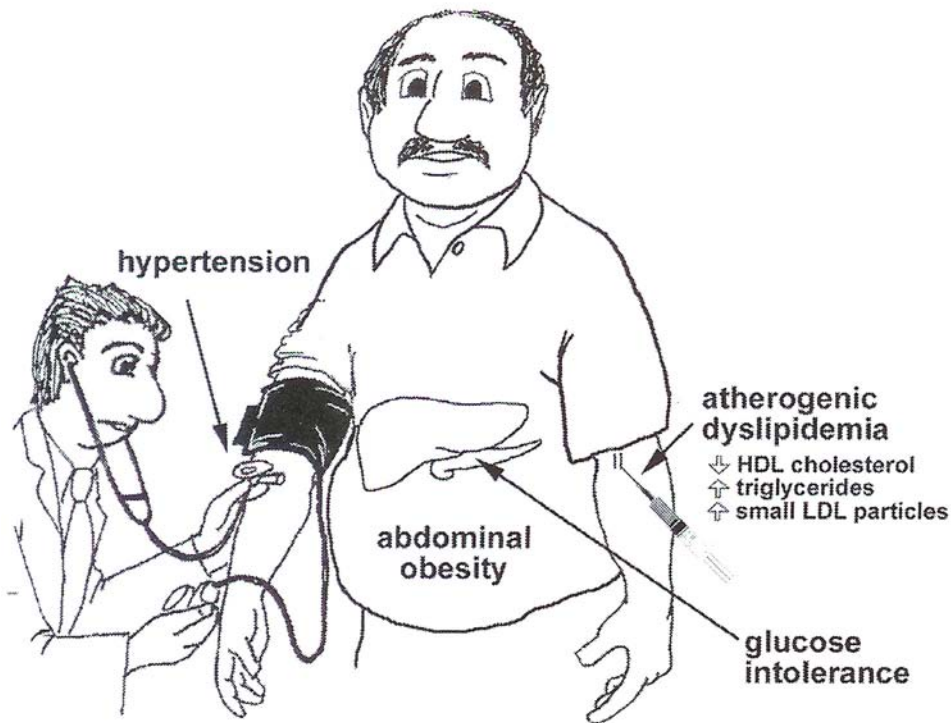
Evaluate gastrointestinal tract:

- ulcer disease
- esophageal disease
- gallbladder disease

Also consider:

- skeletal pain, psychogenic pain

2.77.) METABOLIC SYNDROME



From Chizner: *Clinical Cardiology Made Ridiculously Simple*, MedMaster, 2010

“Metabolic Syndrome”, if at least three of these are present:

- Waist circumference >40 inches (men) or >35 inches (women)
- Triglycerides >150 mg/dL
- HDL cholesterol <40mg/dL (men) or <50 mg/dL (women)
- Blood pressure >130/85 mmHg
- Fasting glucose >100 mg/dL

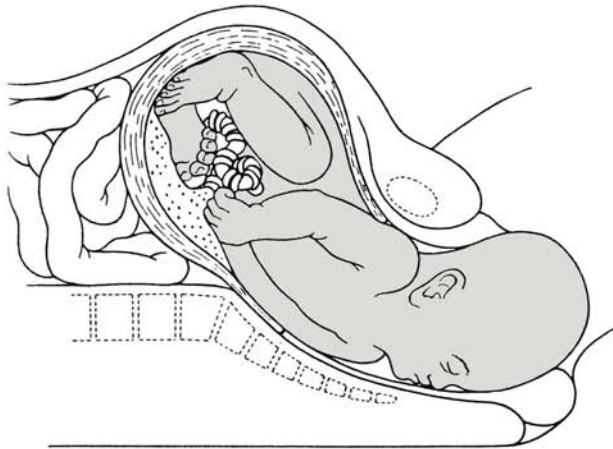


Patients with metabolic syndrome are at increased risk of coronary heart disease and diseases related to plaque buildups in artery walls and also type 2 diabetes. Probably over 50 million Americans have this!

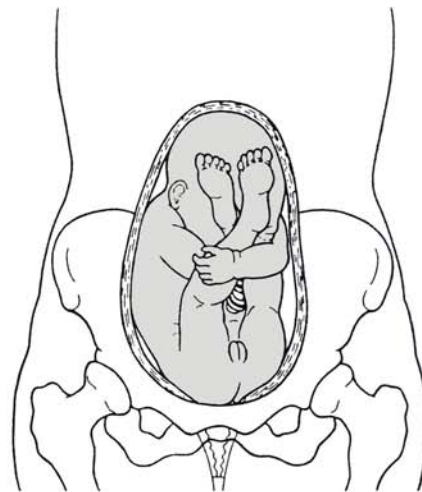
3.39.) BREECH BIRTH

Risk factors	<ul style="list-style-type: none">○ low birth weight, prematurity○ trisomy 21○ placenta previa
Management	<ul style="list-style-type: none">• external version can be attempted at 30~36 weeks

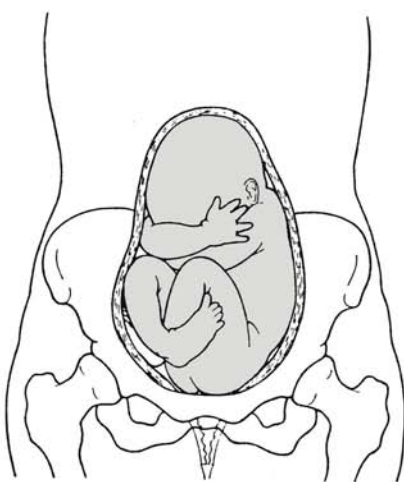
Normal position
(head first - occiput anterior)



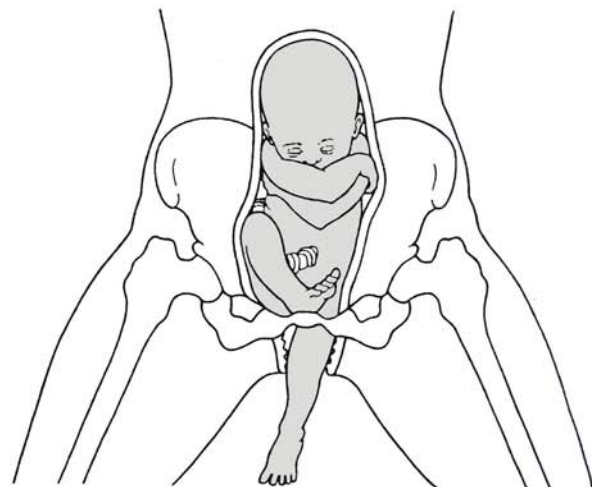
Frank Breech presentation



Full Breech presentation



Footling Breech presentation



3.66.) CROHN'S DISEASE

Risk factors	<ul style="list-style-type: none">○ Caucasians○ Jewish ancestry○ family history ○ major psychological stress = trigger
Prognosis	<ul style="list-style-type: none">- worse than ulcerative colitis- mortality increases with duration of disease

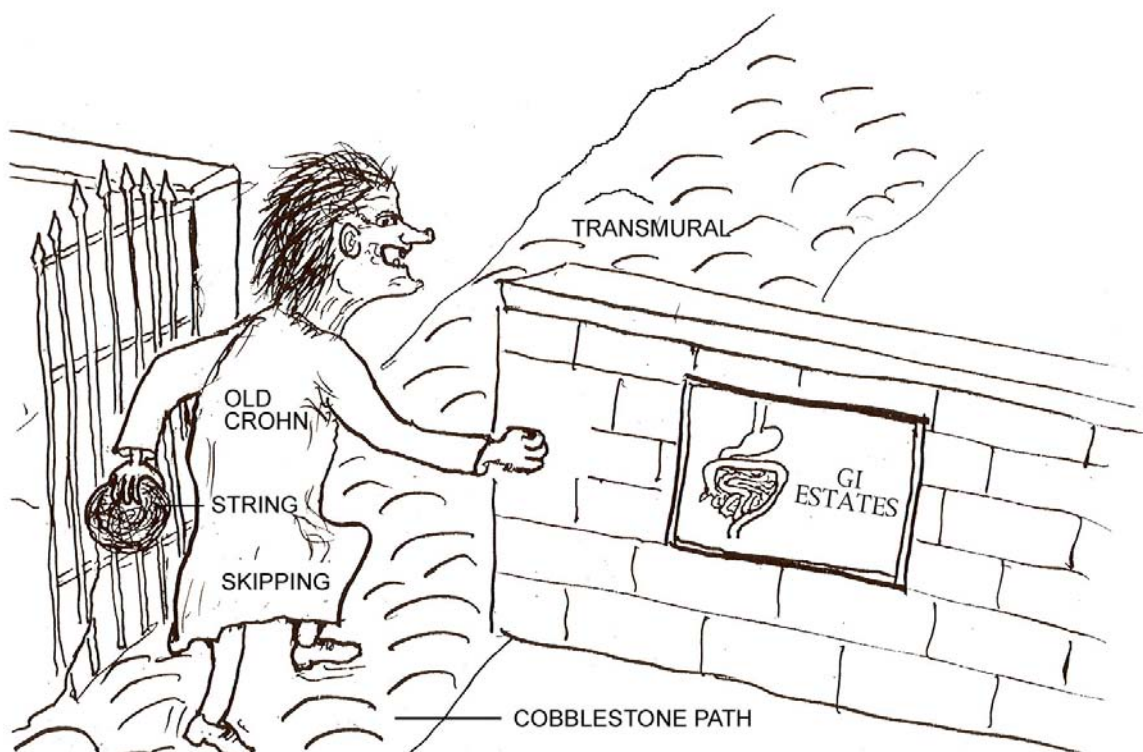
1. Mild to moderate disease

- sulfasalazine (more effective for colon than small bowels)
- antibiotics



2. Severe disease

- Acute attack: glucocorticoids (should be tapered as soon as remission occurs)
- mercaptopurine or azathioprine to sustain remission
- experimental: antibodies to tumor necrosis factor!
- unresponsive, or obstructions → surgery



3.74.) DIABETES MELLITUS TYPE 1 IDDM

Risk factors

- HLA-DR3
- HLA-DR4
- monozygotic twin concordance only 50%

1. Insulin

- morning dose before breakfast
- evening dose before dinner
- mix intermediate (NPH) with short acting (regular) insulins



2. Family education is extremely important!

- carbohydrate counting, regular meal times
- physical exercise: reduce insulin or provide extra snack



3. Follow-up

- quarterly physical exam, including HBA_{1C}



Honeymoon effect: Initial treatment with insulin restores some β -cell function \rightarrow risk of hypoglycemia due to increased endogenous insulin.



Dawn phenomenon: Early morning rise in glucose due to circadian changes in GH and cortisol.



Somogyi effect: Exaggerated dawn phenomenon. Nocturnal hypoglycemia results in overshooting morning hyperglycemia. Manage by decreasing evening insulin.

3.154.) LEUKEMIA, CHRONIC

Background	CLL is the most common form of leukemia overall
Risk factors	<ul style="list-style-type: none">○ age, male○ Philadelphia chromosome (t9:22) in CML
Prognosis	<p>CML: often converts to AML within 2 years with poor prognosis</p> <p>CLL: indolent for many years</p>

CML

- **Imatinib** specifically inhibits tyrosinkinase activity of the bcr/abl oncogene
- assess molecular response: **bcr/abl/abl-ratio** by PCR is the “gold-standard”
- consider allogenic bone marrow transplant for patients > 50y.
- blast phase: treat like AML

CLL

- **usually indolent:** early treatment does NOT improve survival
- chemotherapy if anemia or neutropenia or other signs of disease progression develop:
 - fludarabine
 - monoclonal antibodies

3.227.) REYE'S SYNDROME

= fatty liver plus encephalopathy

Risk factors	<ul style="list-style-type: none">○ Influenza B○ viral infections➤ aspirin, salicylates in children and teens
Management	<ol style="list-style-type: none">1. supportive2. mannitol to reduce cerebral edema

3.228.) RHEUMATOID ARTHRITIS

Risk factors	<ul style="list-style-type: none">○ female○ Native Americans○ HLA-DR4
Management	<p>Anti-inflammatory</p> <ul style="list-style-type: none">➤ NSAIDs➤ glucocorticoids <p>Disease-modifying drugs</p> <ul style="list-style-type: none">➤ methotrexate (low-dose)➤ sulfasalazine➤ rituximab (monoclonal antibody against B cells)➤ TNF inhibitors



Disease-modifying drugs should be given early to slow the irreversible joint destruction! Don't expect beneficial effects until 2~6 months after initiating therapy.