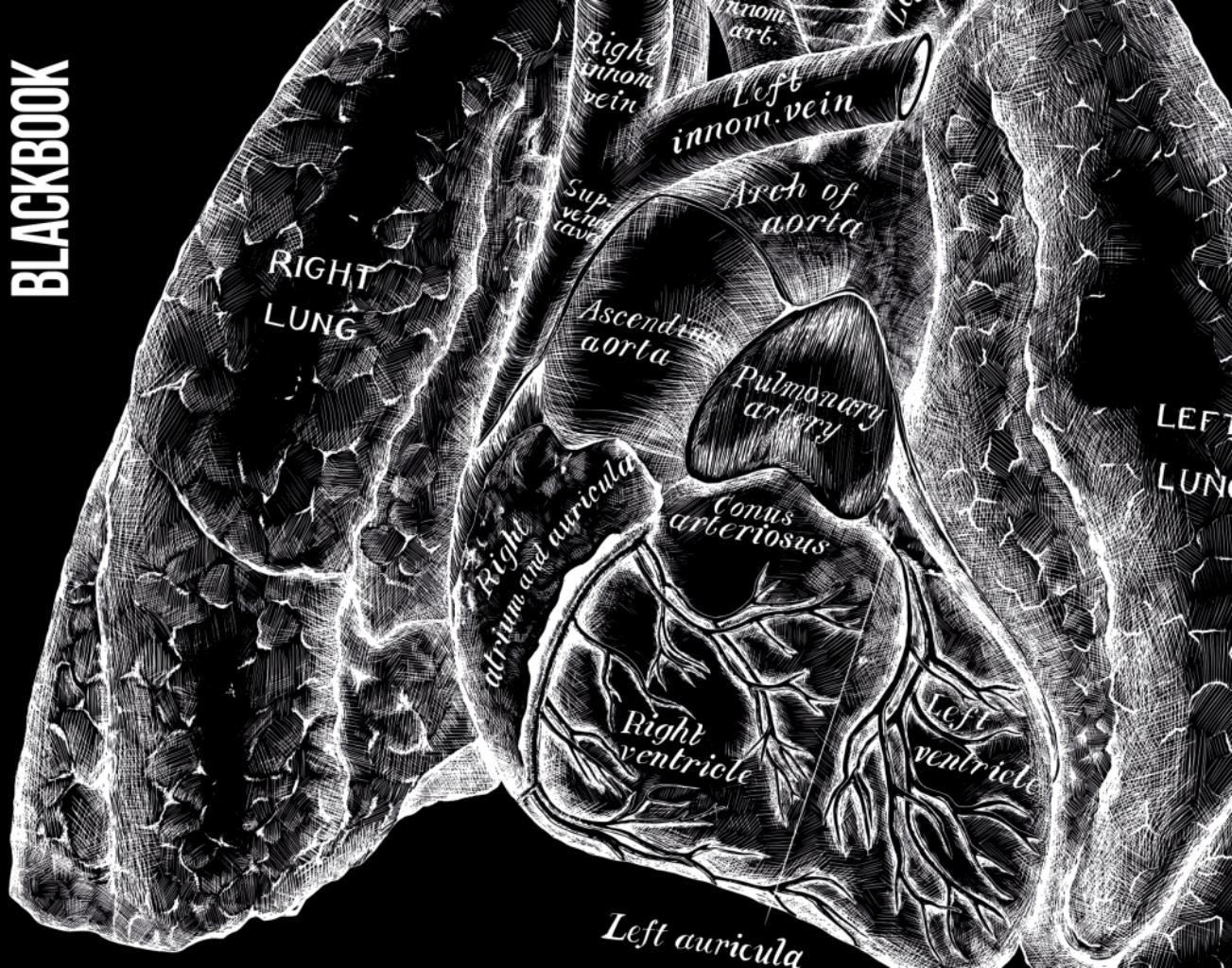


# BLACKBOOK





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# **Blackbook**

Approaches to Medical Presentations

*Produced by The Cumming School of Medicine, University of Calgary*



**UNIVERSITY OF CALGARY**  
CUMMING SCHOOL OF MEDICINE



# **Blackbook:** Approaches to Medical Presentations

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# A Message from the Editors

Welcome to the *Blackbook*, an ongoing project organizing medical presentations into schemes. The *Blackbook* is the result of the hard work and dedication of medical students and faculty at the University of Calgary, Cumming School of Medicine. We are proud that healthcare practitioners and trainees around the world find the *Blackbook* to be a useful tool in their learning.

The *Blackbook* continues to evolve with each new version. This fifteenth edition features cover artwork hand drawn by a talented medical student in our class, Fajr. You can check out more of her artwork on Instagram @artbyfajr.

As medical students, we are often asked, "What is your approach to X?". The *Blackbook* presents information that is organized into scheme-based approaches. The *Blackbook* website continues to integrate with other University of Calgary resources, the Calgary Guide and Calgary Cards, an online study aid using patient case centered multiple choice questions. These resources aim to facilitate the direct translation of scheme-oriented learning into clinical scenario practice so that students can confidently answer the question, "What is your approach to X?".

We continue to strive to make the *Blackbook* a leading study resource. Please email **[blackbk@ucalgary.ca](mailto:blackbk@ucalgary.ca)** with any feedback, corrections, or ideas for new schemes.

Thank you and happy learning!

Anya Friesen & Kamiko Bressler

# **Introduction to Schemes**

The material presented in this book is intended to assist learners in organizing their knowledge into information packets, which are more effective for the resolution of the patient problems they will encounter. There are three major factors that influence learning and the retrieval of medical knowledge from memory: meaning, encoding specificity (the context and sequence for learning), and practice on the task of remembering. Of the three, the strongest influence is the degree of meaning that can be imposed on information. To achieve success, experts organize and "chunk" information into meaningful configurations, thereby reducing the memory load.

These meaningful configurations or systematically arranged networks of connected facts are termed schemata. As new information becomes available, it is integrated into schemes already in existence, thus permitting learning to take place. Knowledge organized into schemes (basic science and clinical information integrated into meaningful networks of concepts and facts) is useful for both information storage and retrieval. To become excellent in diagnosis, it is necessary to practice retrieving from memory information necessary for problem resolution, thus facilitating an organized approach to problem solving (scheme-driven problem solving).

The domain of medicine can be broken down to 121 (+/- 5) clinical presentations, which represent a common or important way in which a patient, group of patients, community or population presents to a physician, and expects the physician to recommend a method for managing the situation. For a given clinical presentation, the number of possible diagnoses may be sufficiently large that it is not possible to consider them all at once, or even remember all the possibilities. By classifying diagnoses into schemes, for each clinical presentation, the myriad of possible diagnoses become more manageable 'groups' of diagnoses. This thus becomes a very powerful tool for both organization of knowledge memory (its primary role at the undergraduate medical education stage), as well as subsequent medical problem solving.

There is no single right way to approach any given clinical presentation. Each of the schemes provided represents one approach that proved useful and meaningful to one experienced, expert author. A modified, personalized scheme may be better than someone else's scheme, and certainly better than having no scheme at all. It is important to keep in mind, before creating a scheme, the five fundamentals of scheme creation that were used to develop this book.

If a scheme is to be useful, the answers to the next five questions should be positive:

1. Is it simple and easy to remember? (Does it reduce memory load by "chunking" information into categories and subcategories?)
2. Does it provide an organizational structure that is easy to alter?
3. Does the organizing principle of the scheme enhance the meaning of the information?
4. Does the organizing principle of the scheme mirror encoding specificity (both context and process specificity)?
5. Does the scheme aid in problem solving? (E.g. does it differentiate between large categories initially, and subsequently progressively smaller ones until a single diagnosis is reached?)

By adhering to these principles, the schemes presented in this book, or any modifications to them done by the reader, will enhance knowledge storage and long term retrieval from memory, while making the medical problem-solving task a more accurate and enjoyable endeavour.

Dr. Henry Mandin

Dr. Sylvain Coderre

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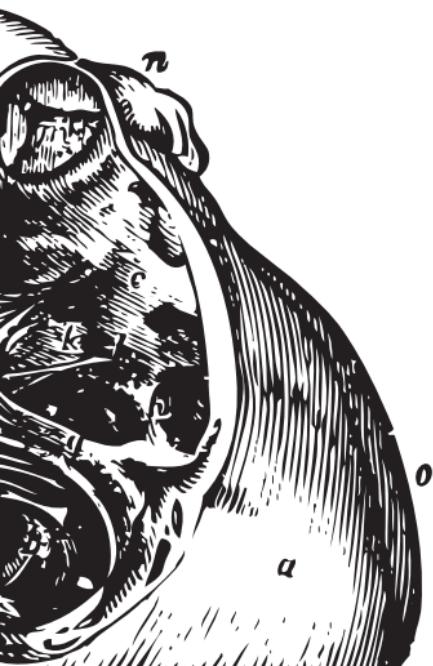


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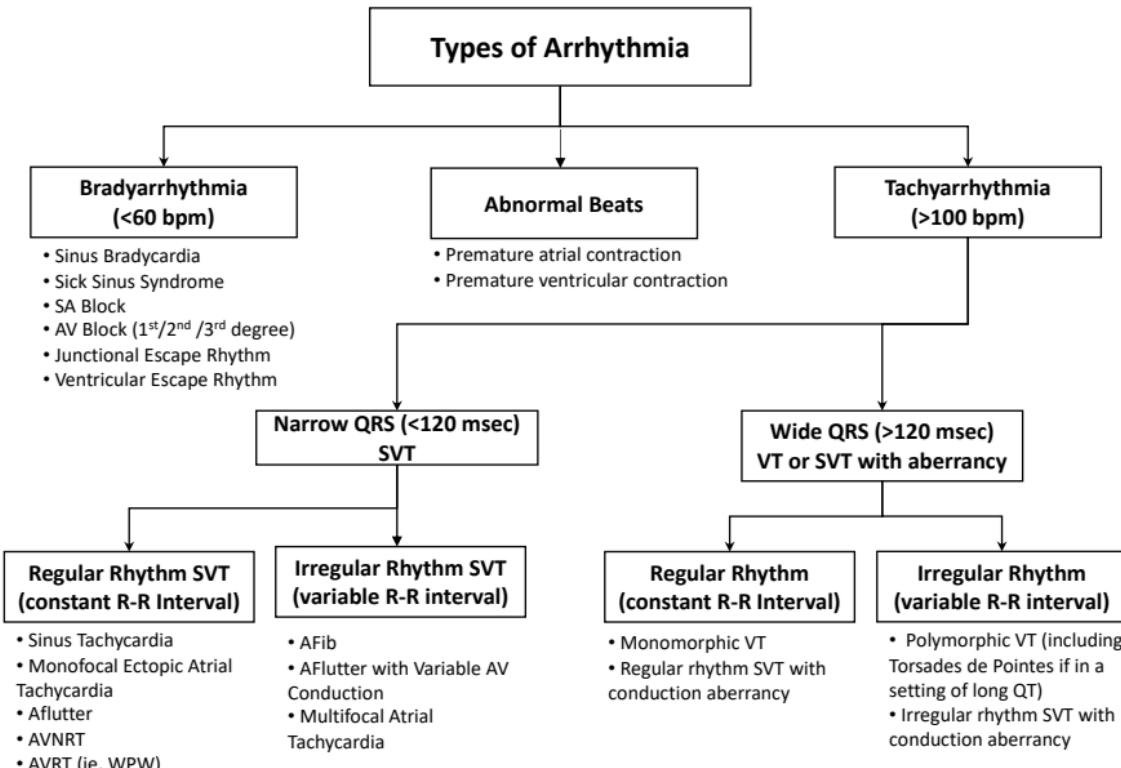
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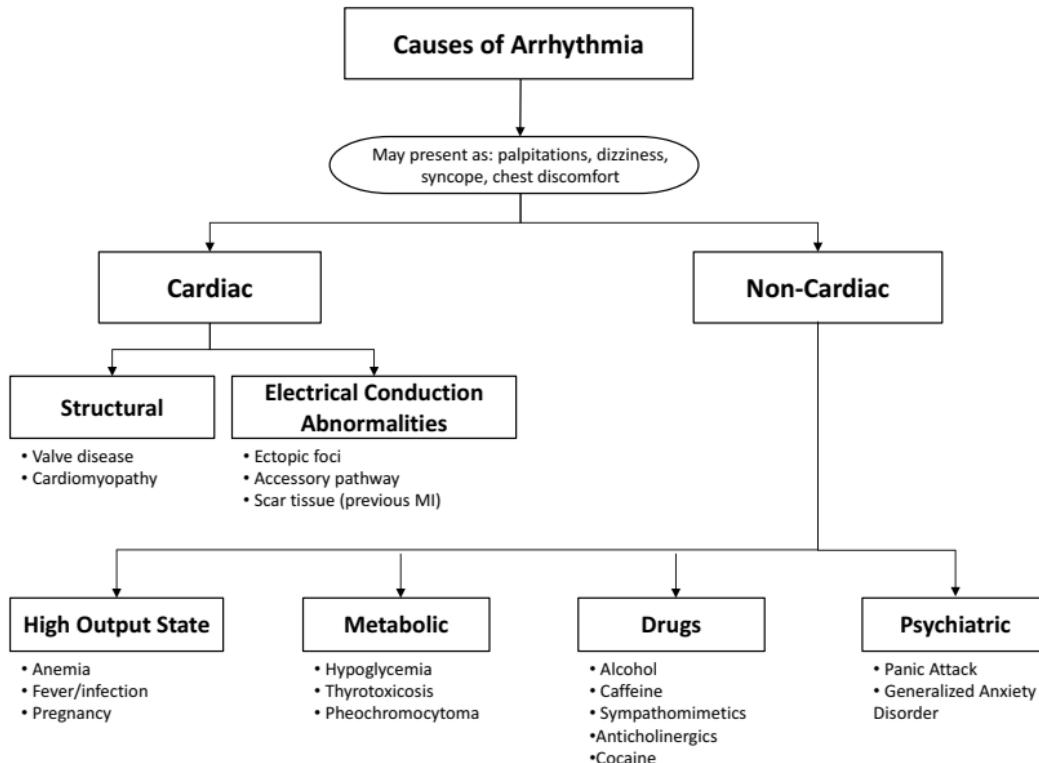
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# Abnormal Rhythm (1)

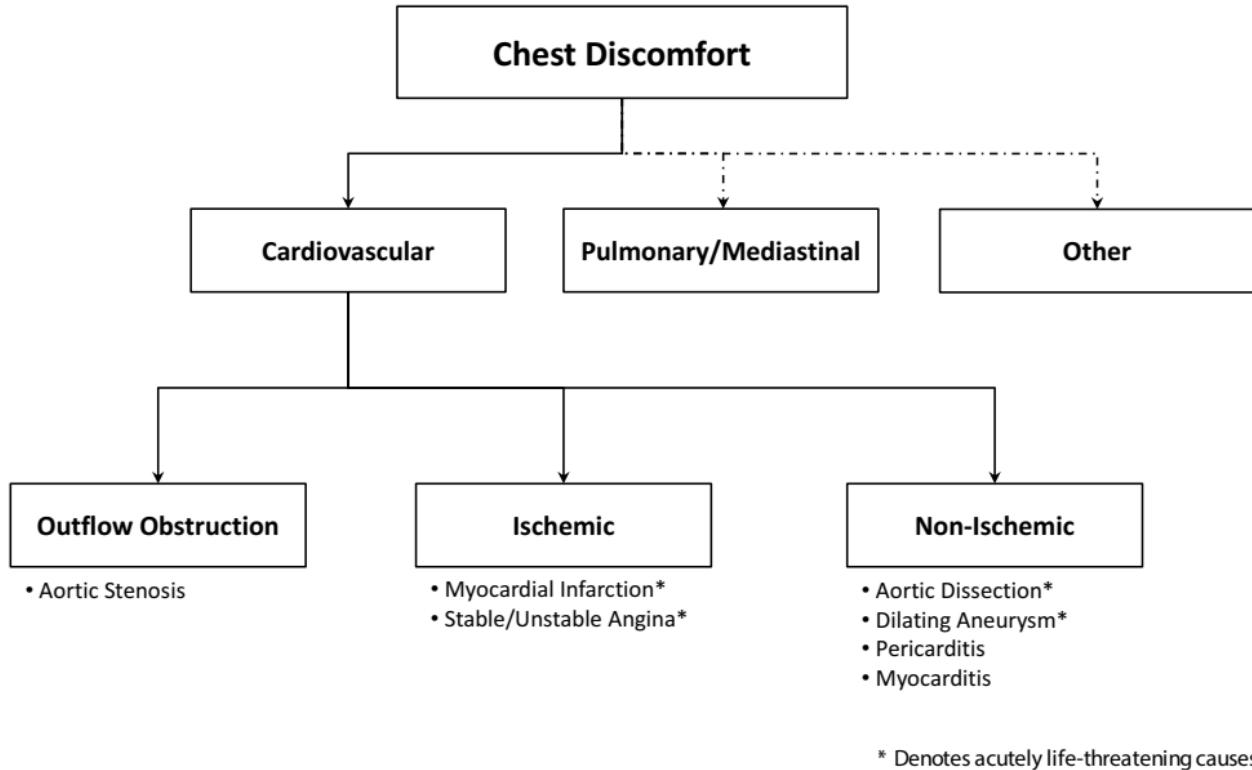


# Abnormal Rhythm (2)

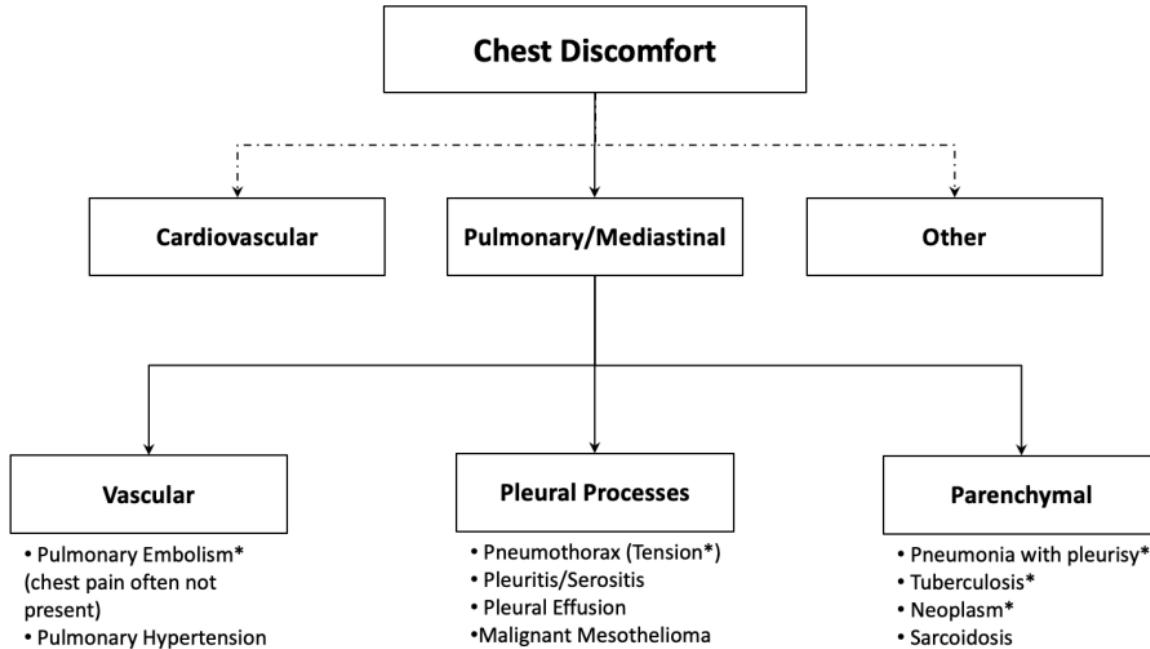


# Chest Discomfort

Cardiovascular



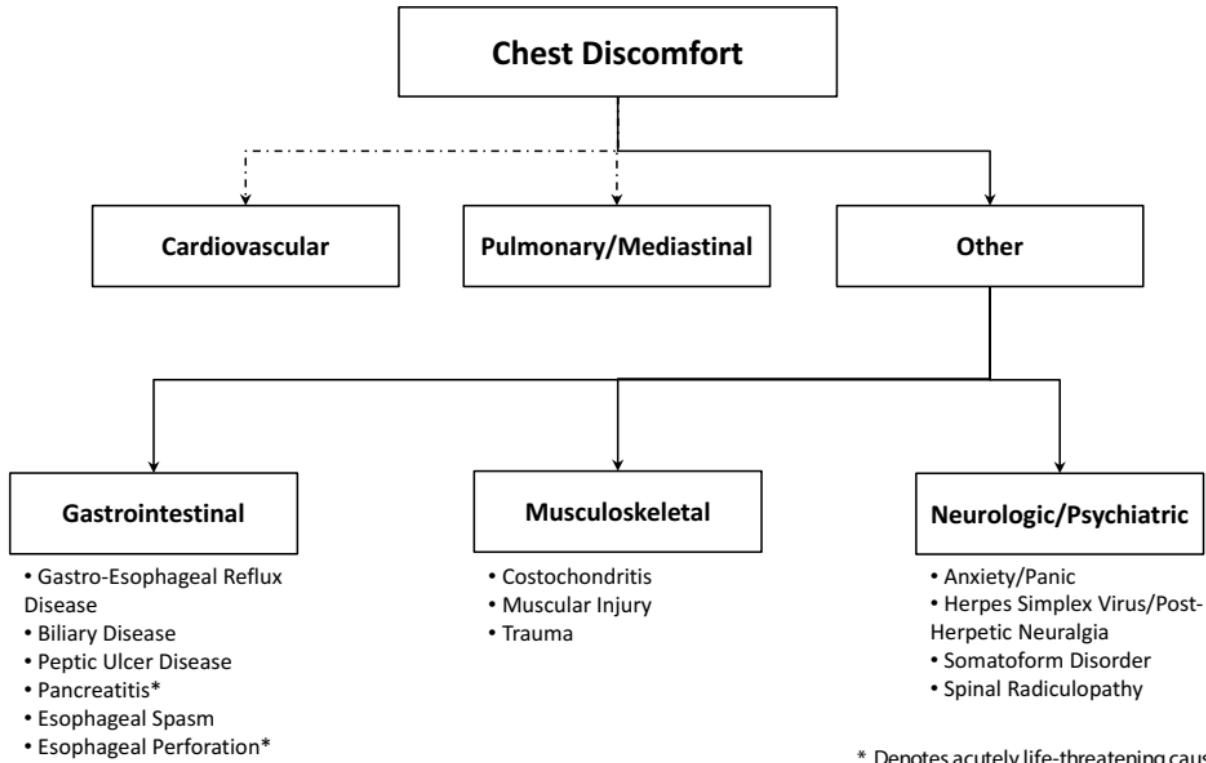
\* Denotes acutely life-threatening causes

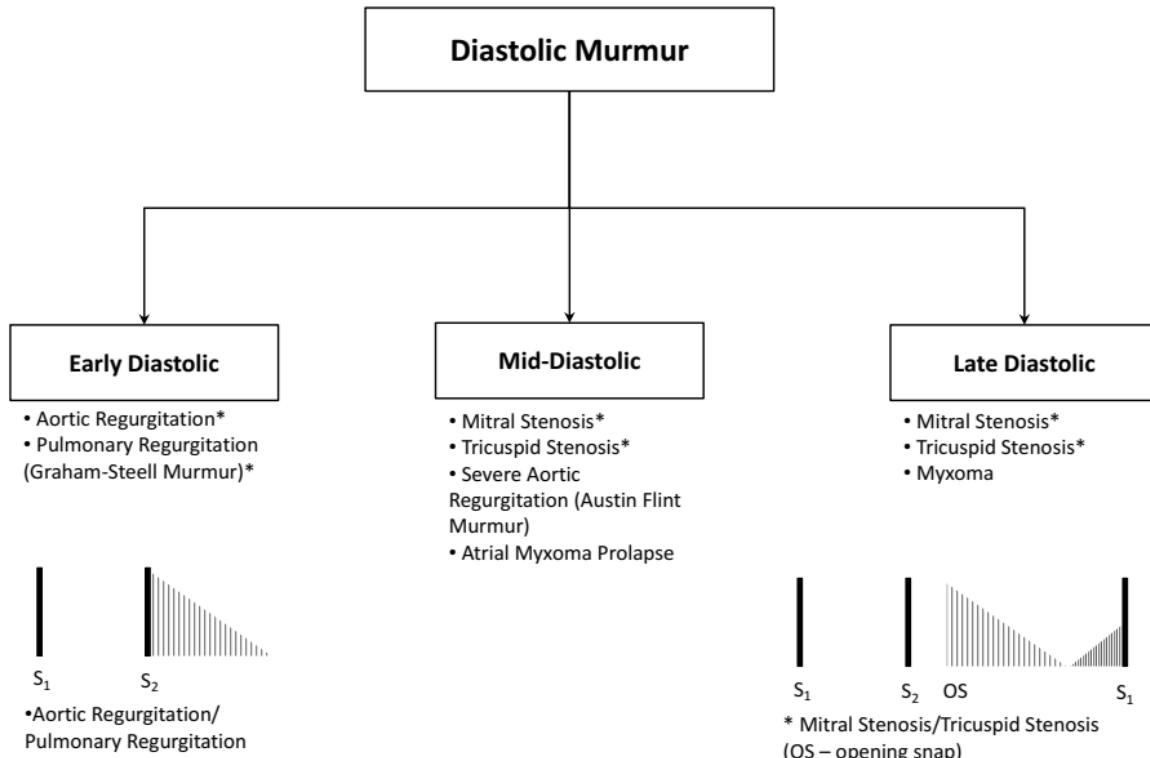


\* Denotes acutely life-threatening causes

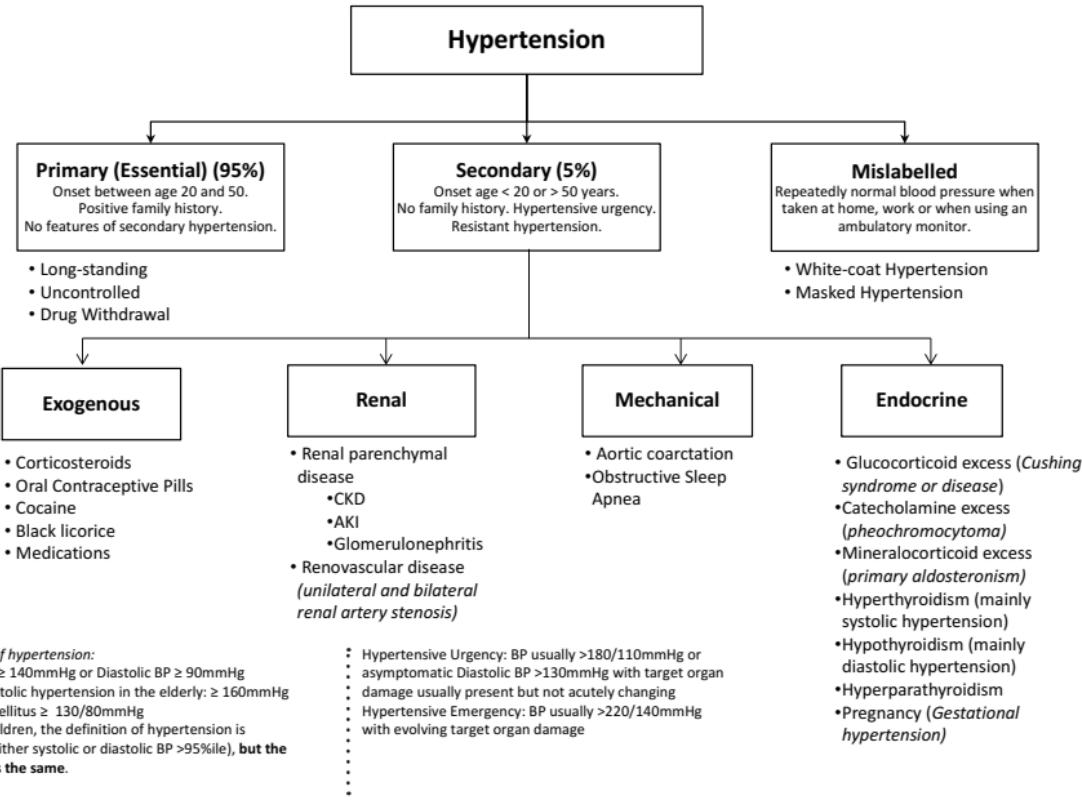
# Chest Discomfort

Other



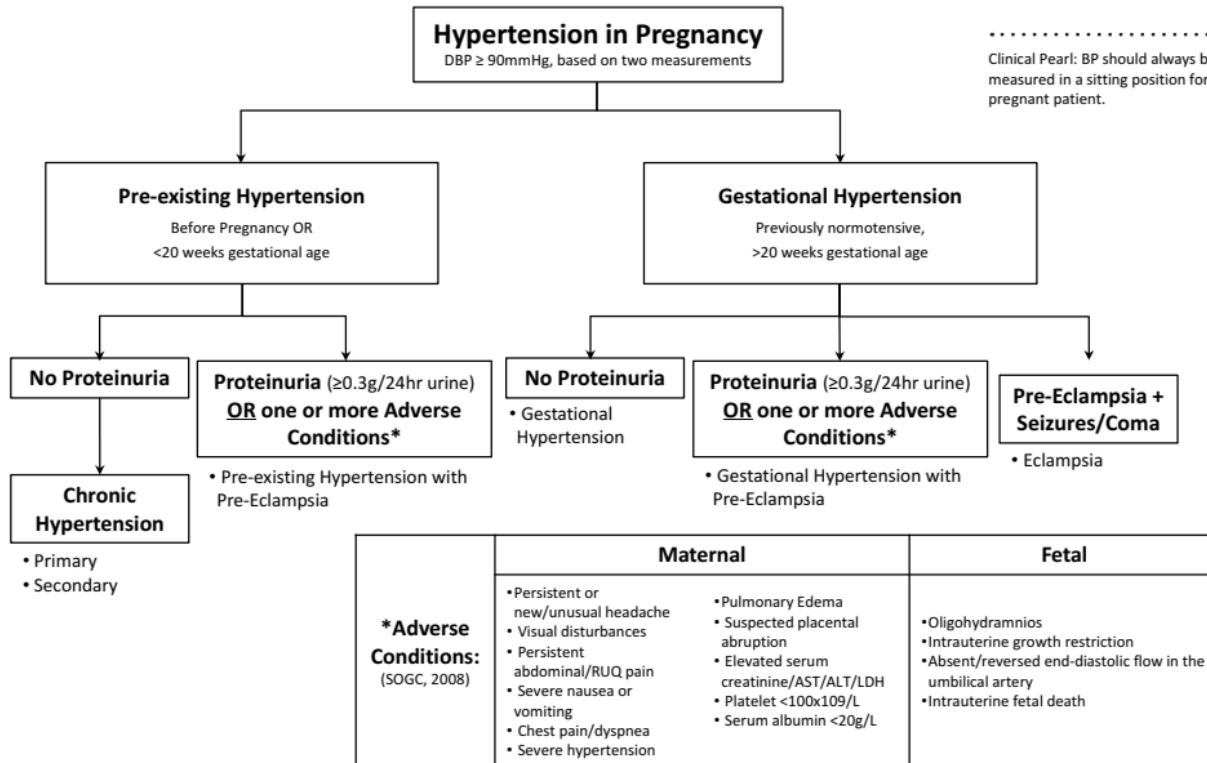


# Hypertension



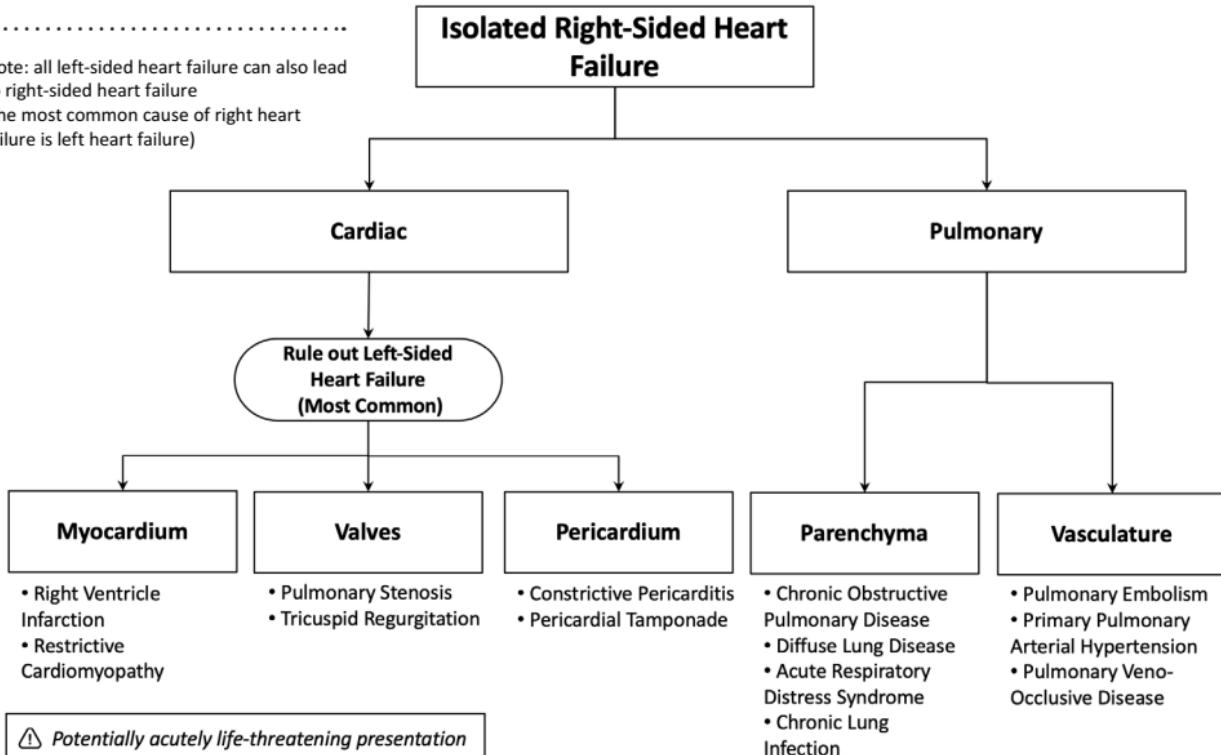
# Hypertension in Pregnancy

Clinical Pearl: BP should always be measured in a sitting position for a pregnant patient.

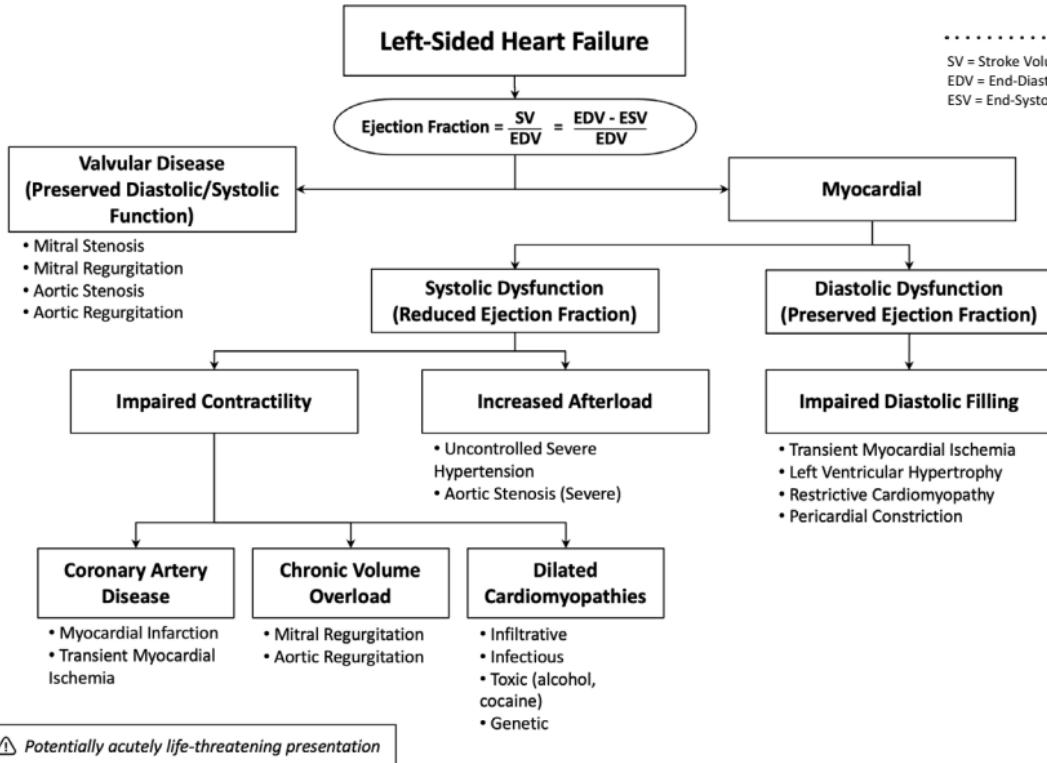


# Isolated Right-Sided Heart Failure

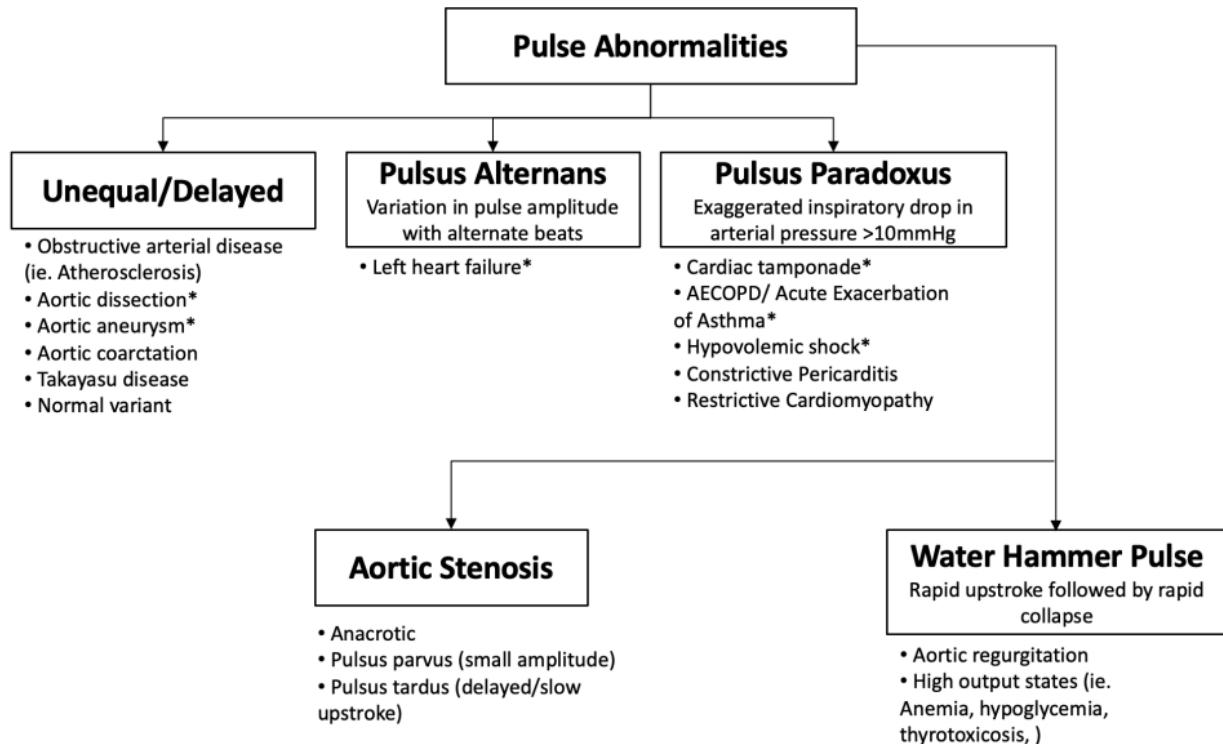
Note: all left-sided heart failure can also lead to right-sided heart failure  
(the most common cause of right heart failure is left heart failure)

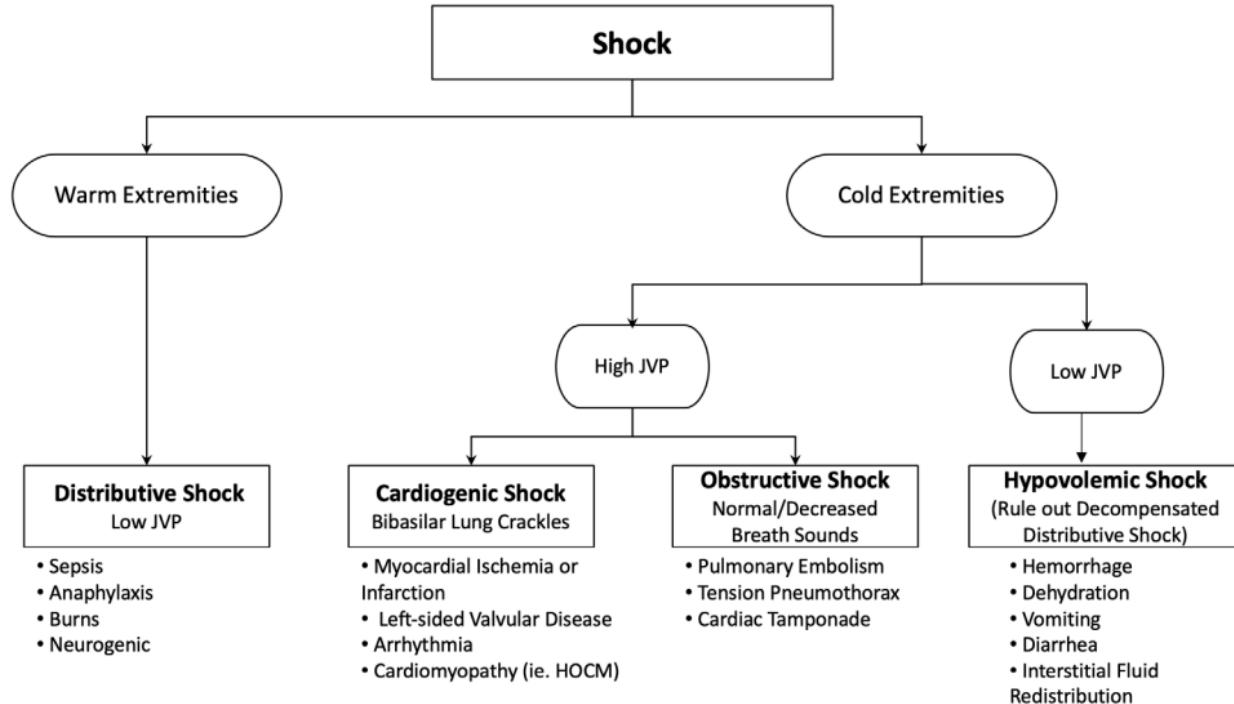


# Left-Sided Heart Failure



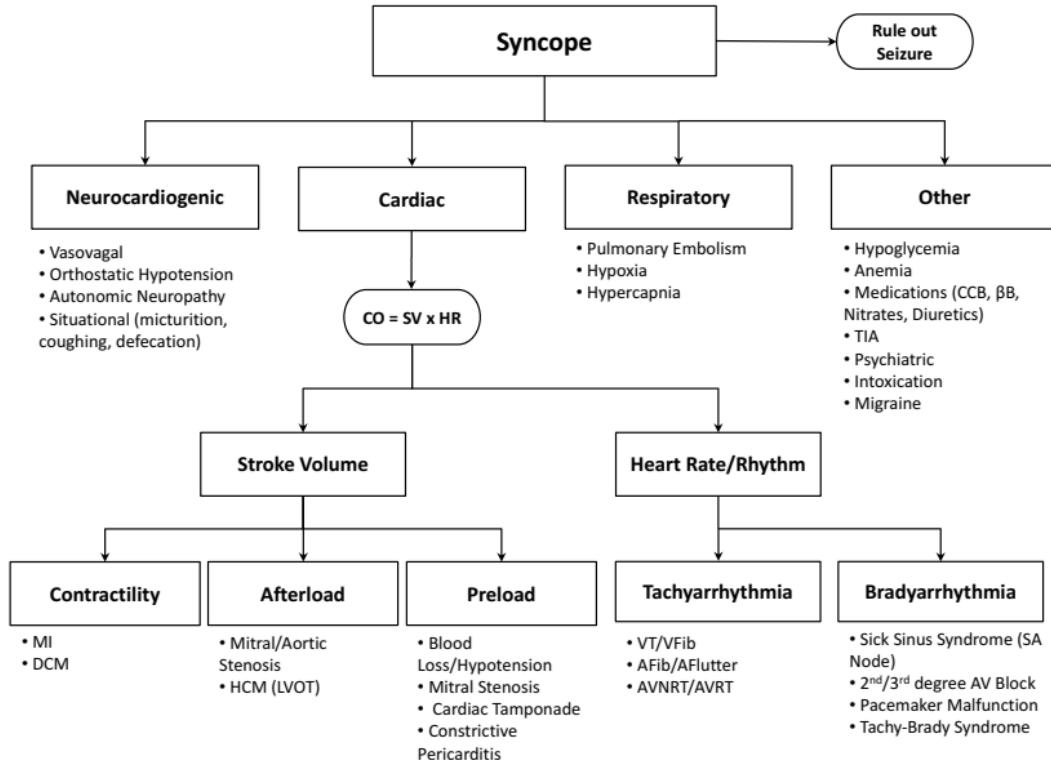
# Pulse Abnormalities





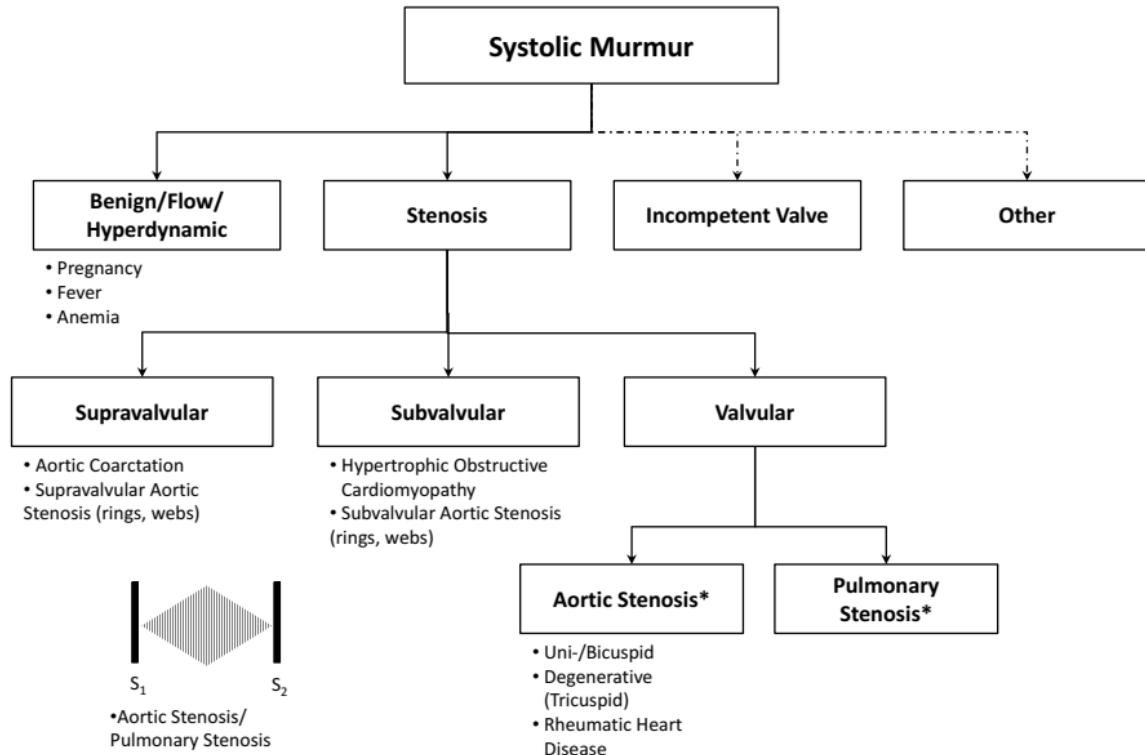
Potentially acutely life-threatening presentation

# Syncope



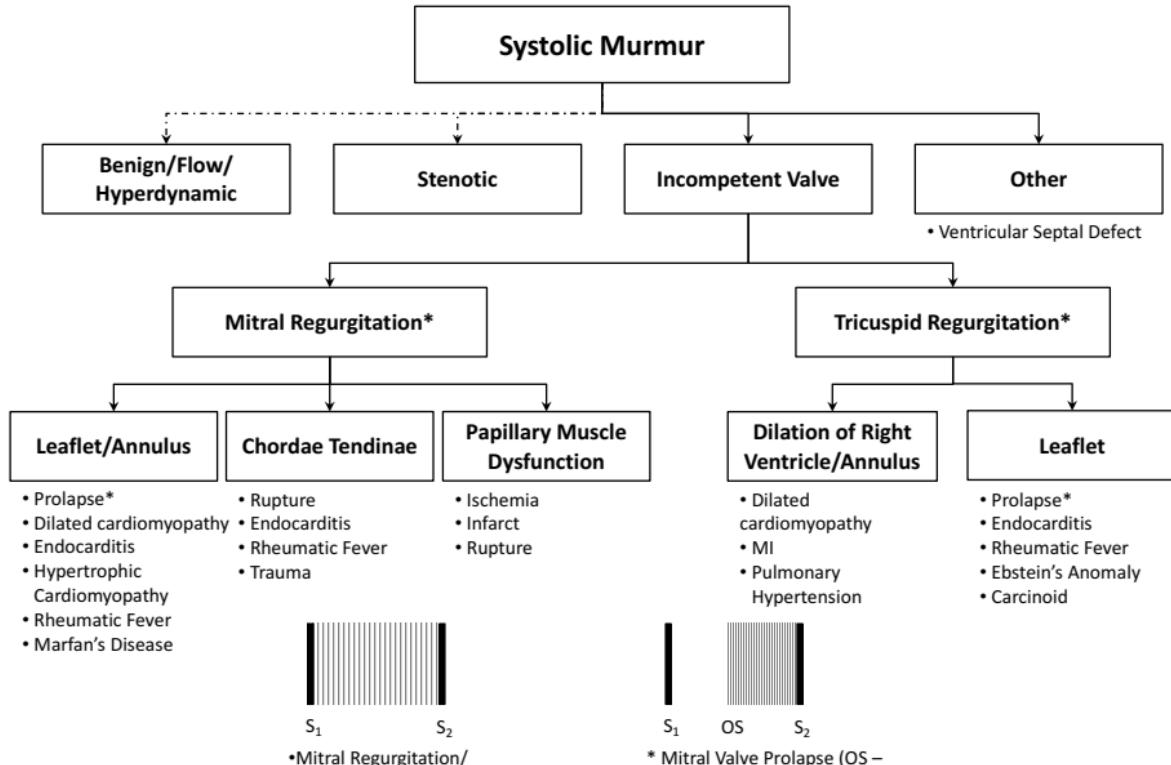
# Systolic Murmur

Benign & Stenotic



# Systolic Murmur

Valvular & Other





# Respiratory

Superior  
Cornua

Inferior  
Cornua

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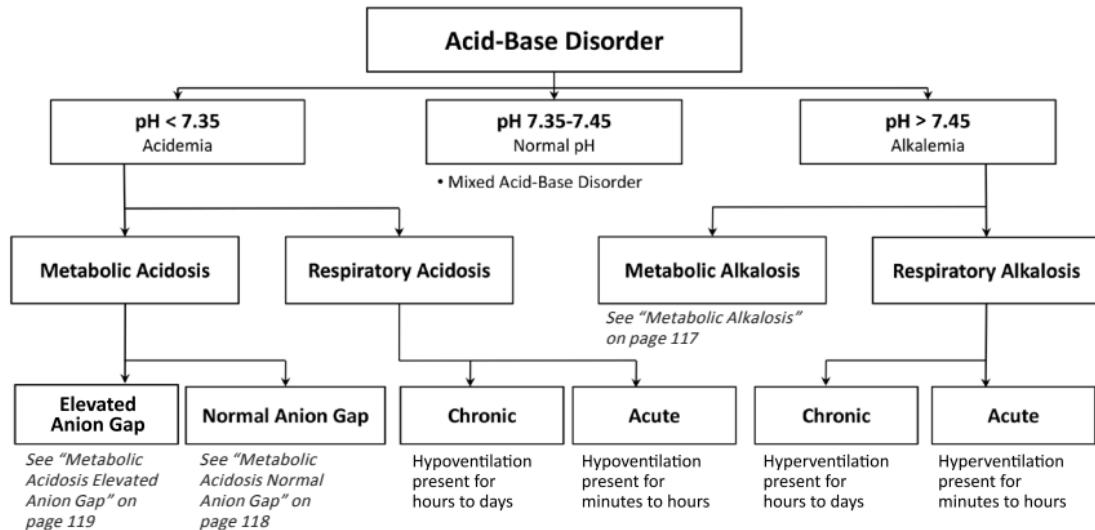
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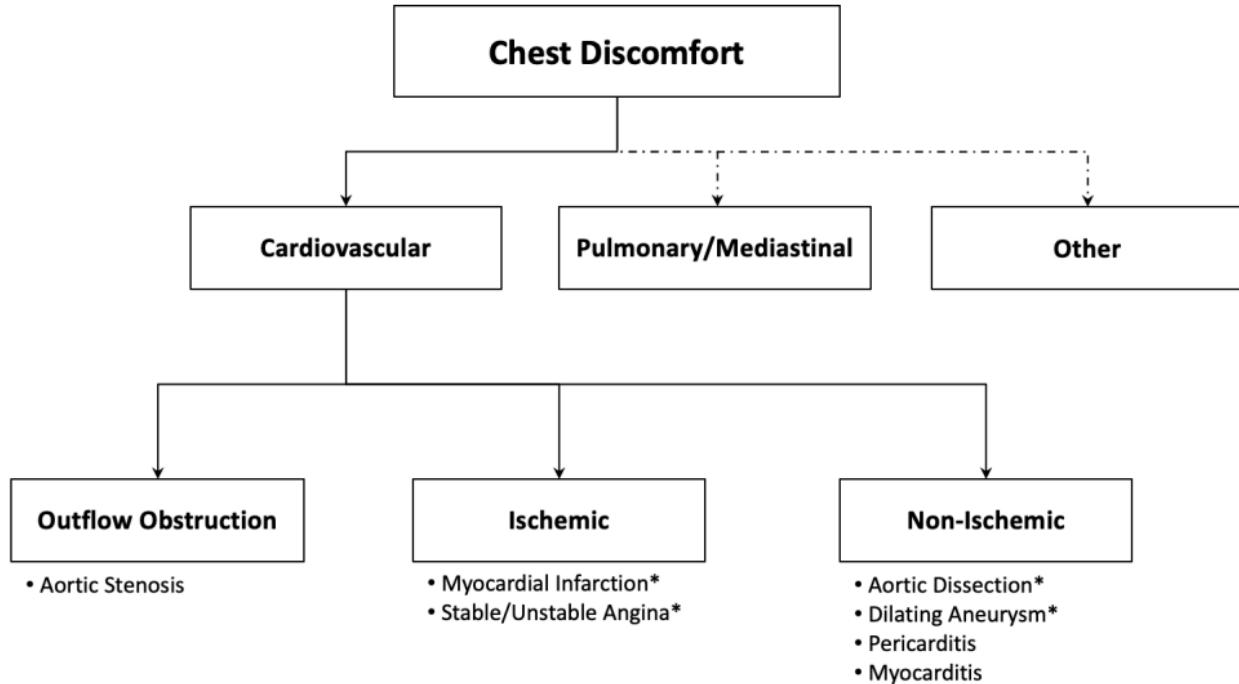
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# Acid-Base Disorder

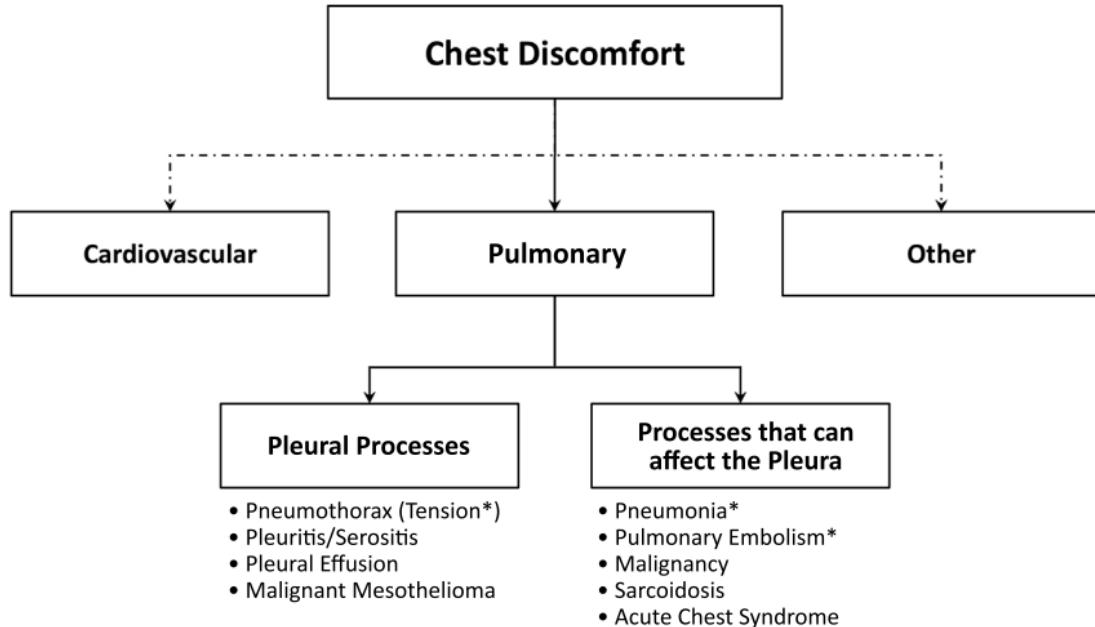


<u>Appropriate Compensation:</u>	Ratio ( $\text{CO}_2:\text{HCO}_3^-$ )
Metabolic Acidosis	12:10
Metabolic Alkalosis	7:10
Acute Respiratory Acidosis	10:1
Chronic Respiratory Acidosis	10:3
Acute Respiratory Alkalosis	10:2
Chronic Respiratory Alkalosis	10:4

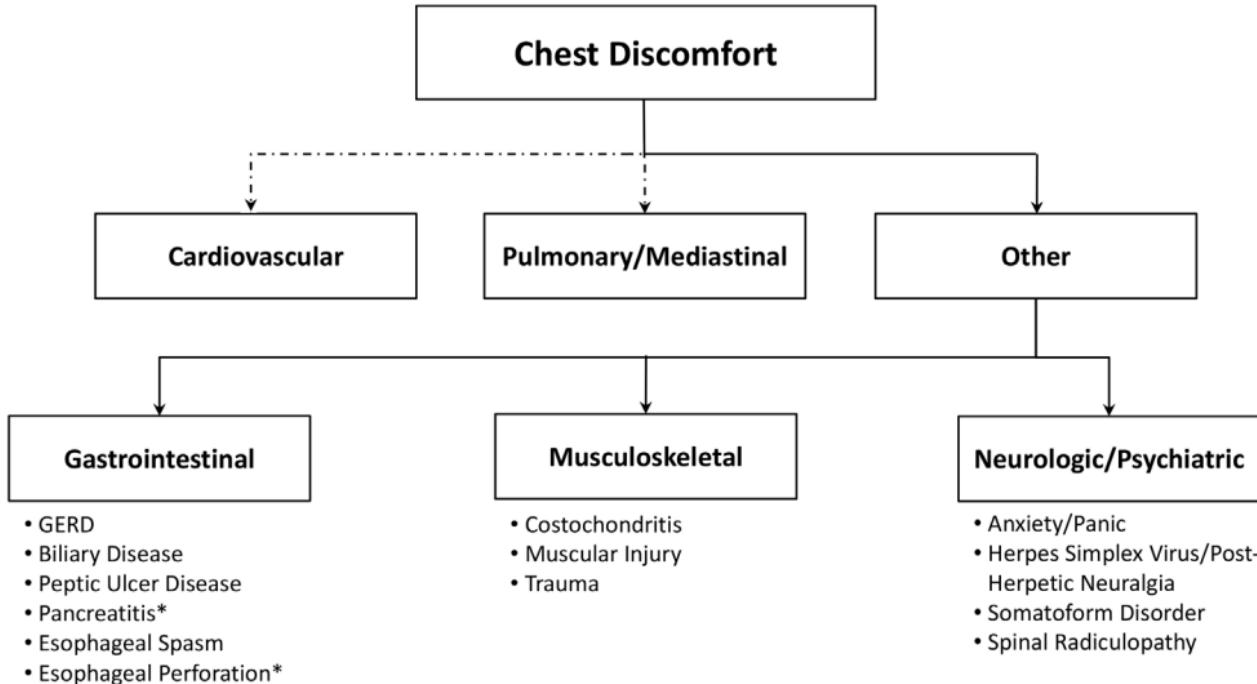


\* Denotes acutely life-threatening causes

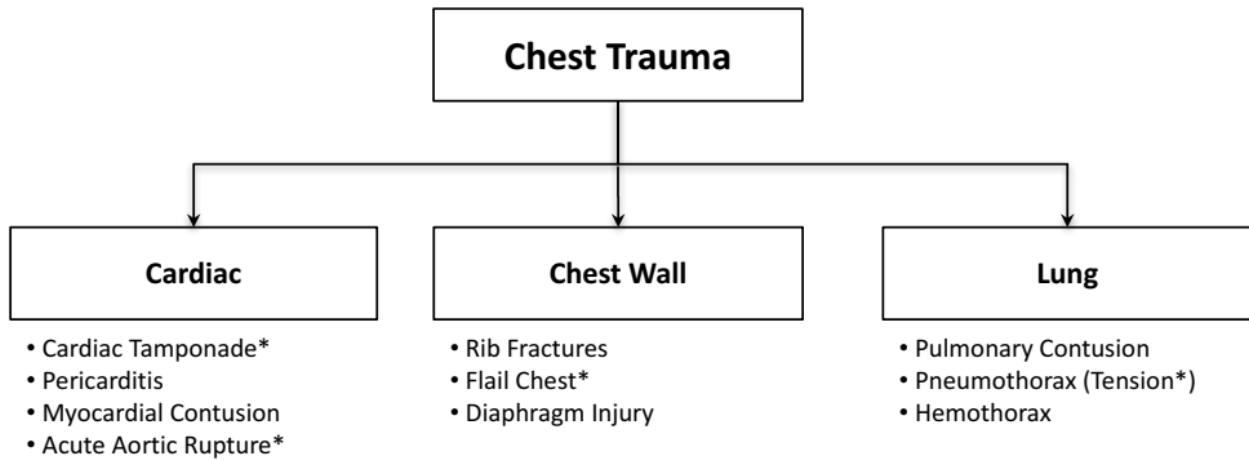
# Chest Discomfort

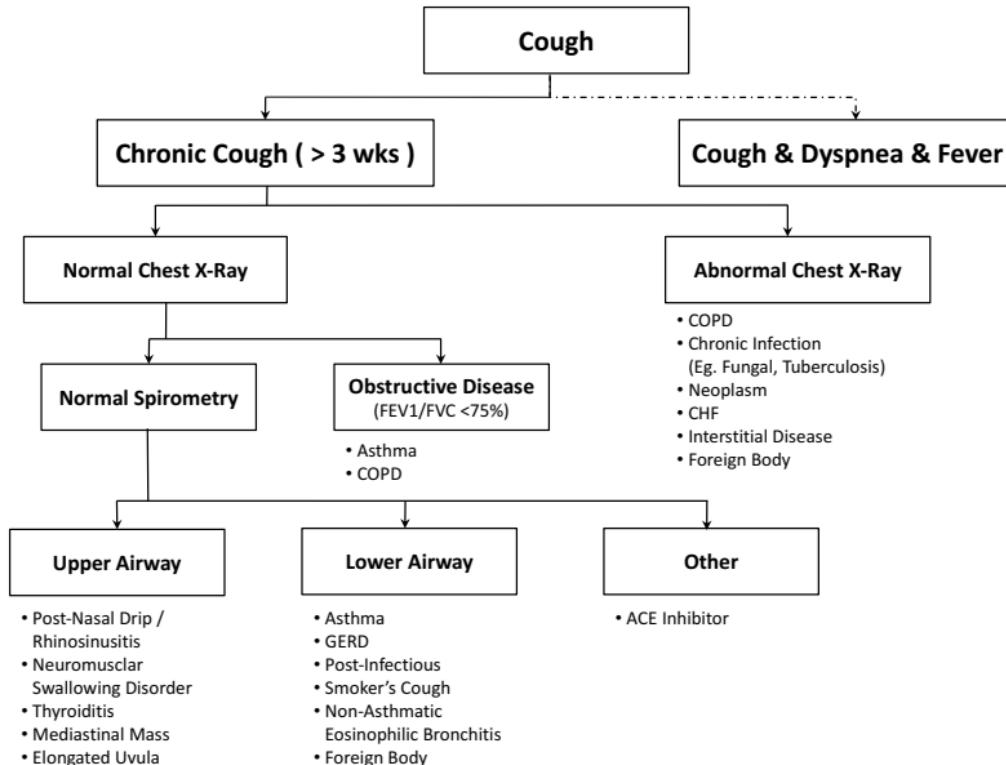


Other



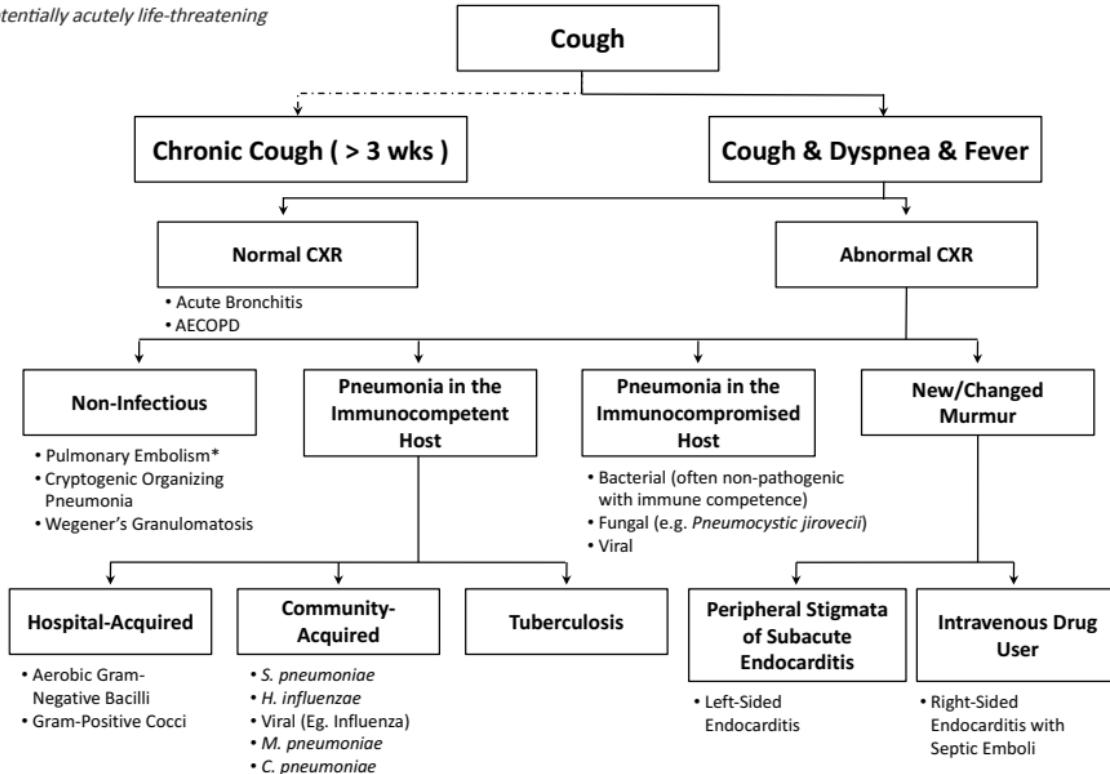
# Chest Trauma Complications

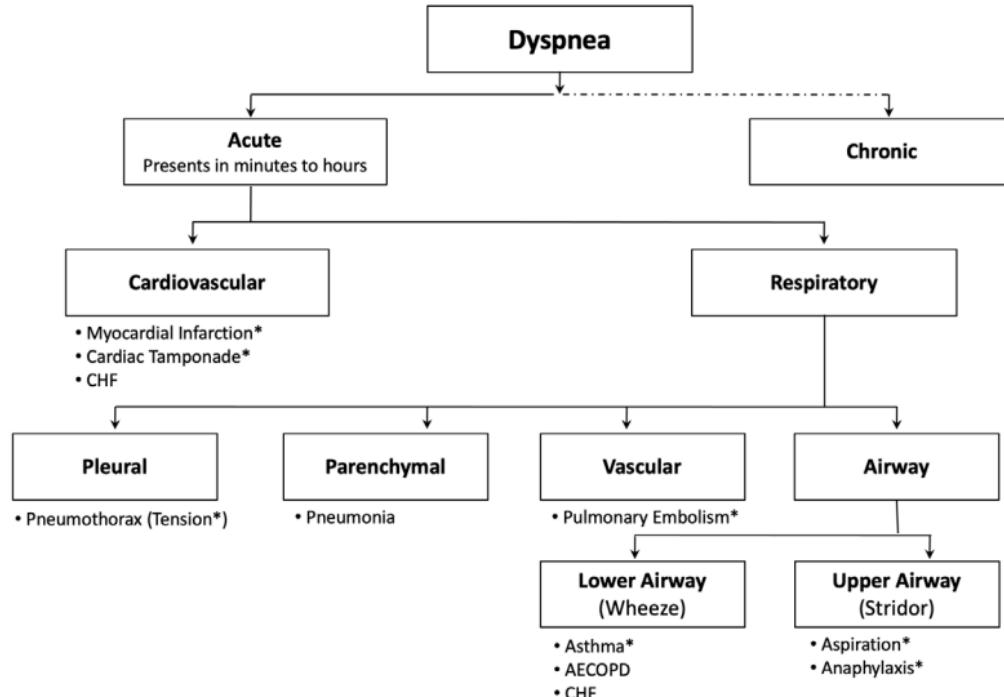




# Cough, Dyspnea & Fever

\* Potentially acutely life-threatening



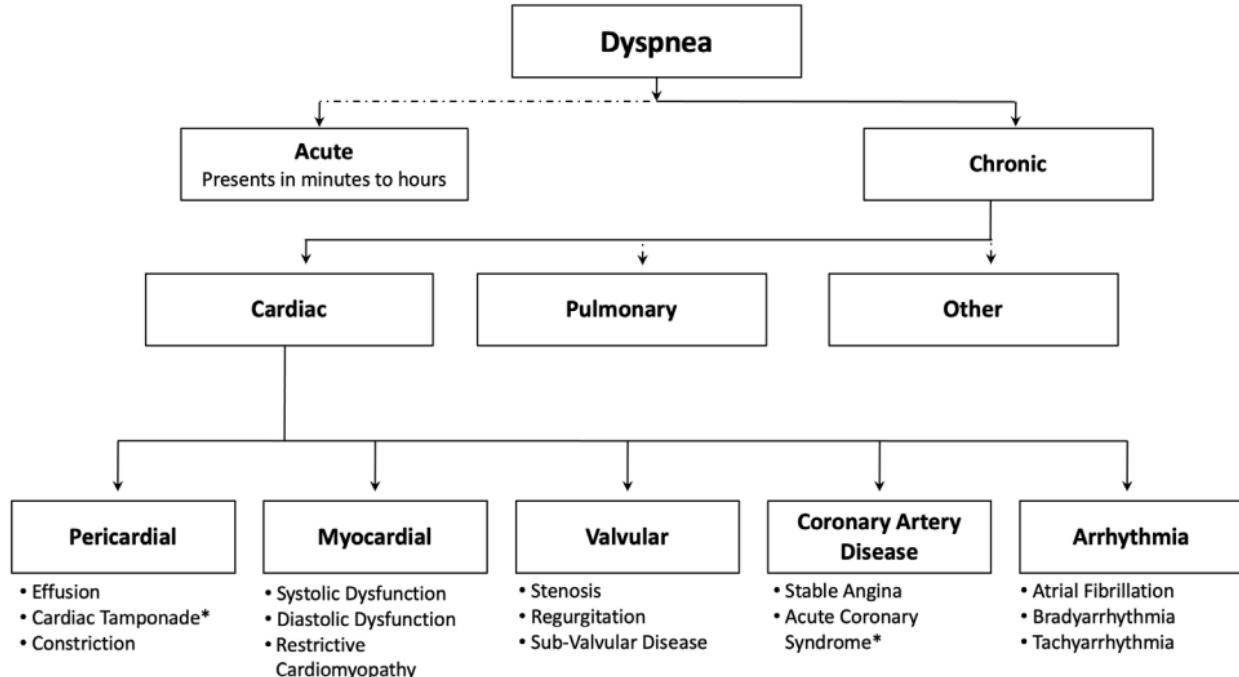


Potentially acutely life-threatening presentation

\* Denotes acutely life-threatening causes

# Dyspnea Chronic

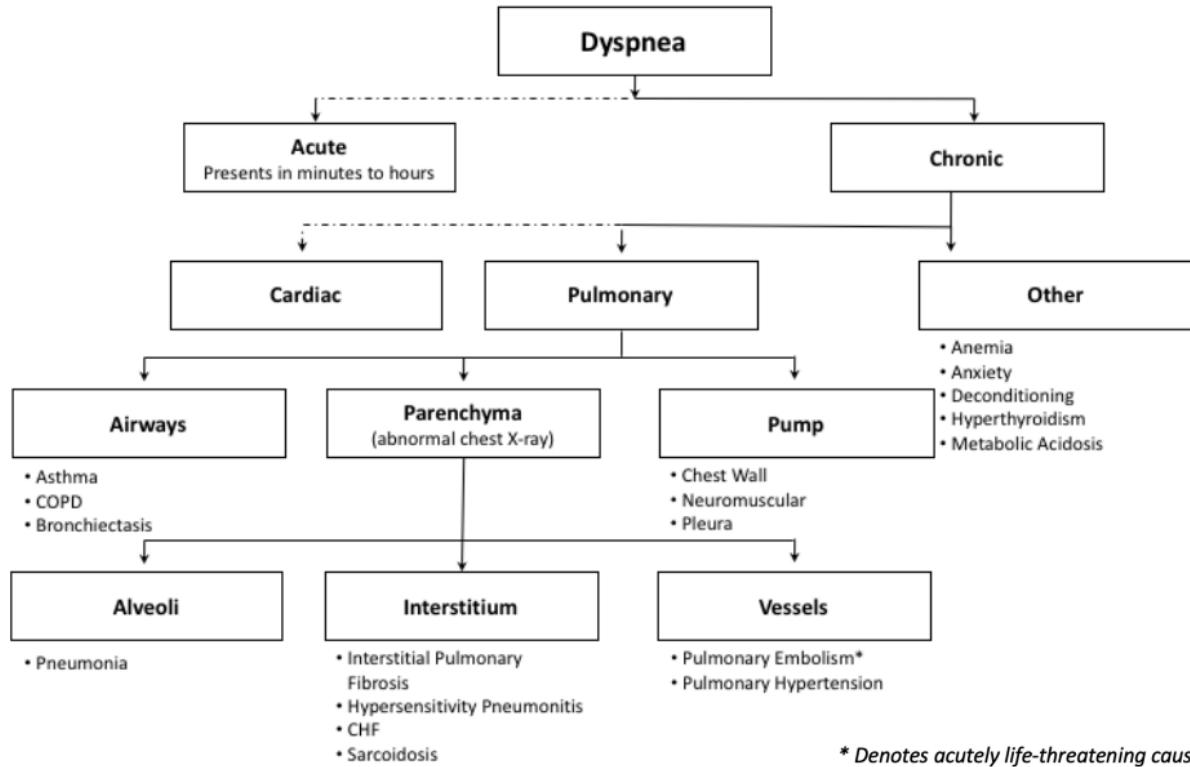
Cardiac



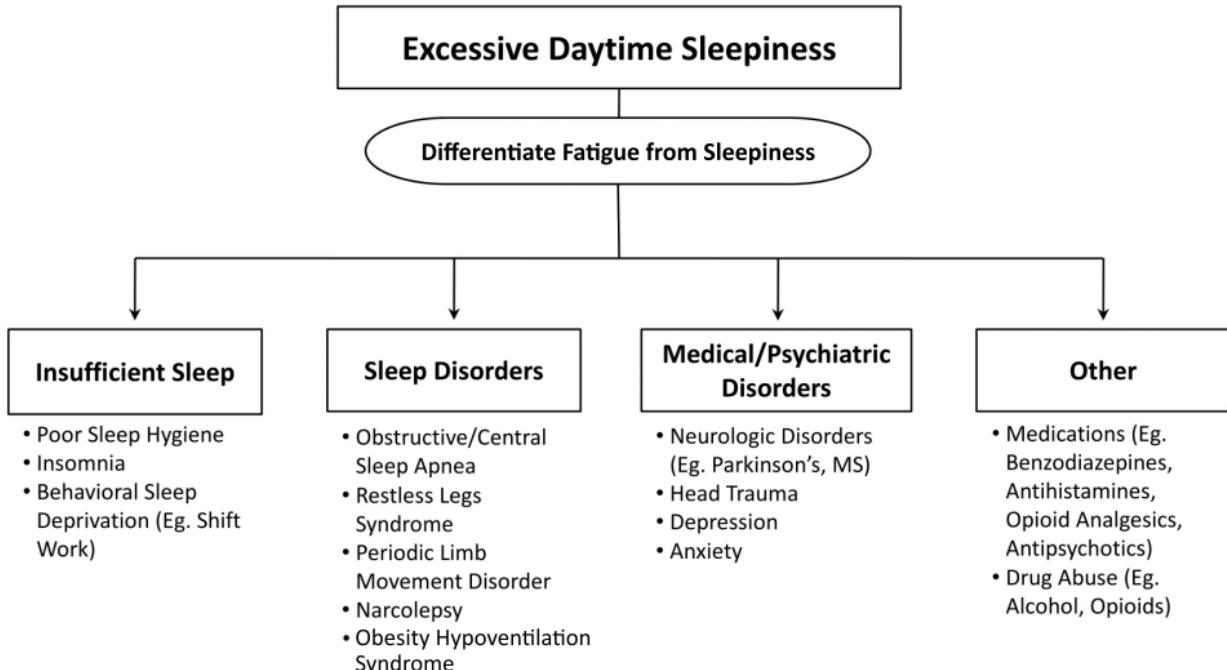
\* Denotes acutely life-threatening causes

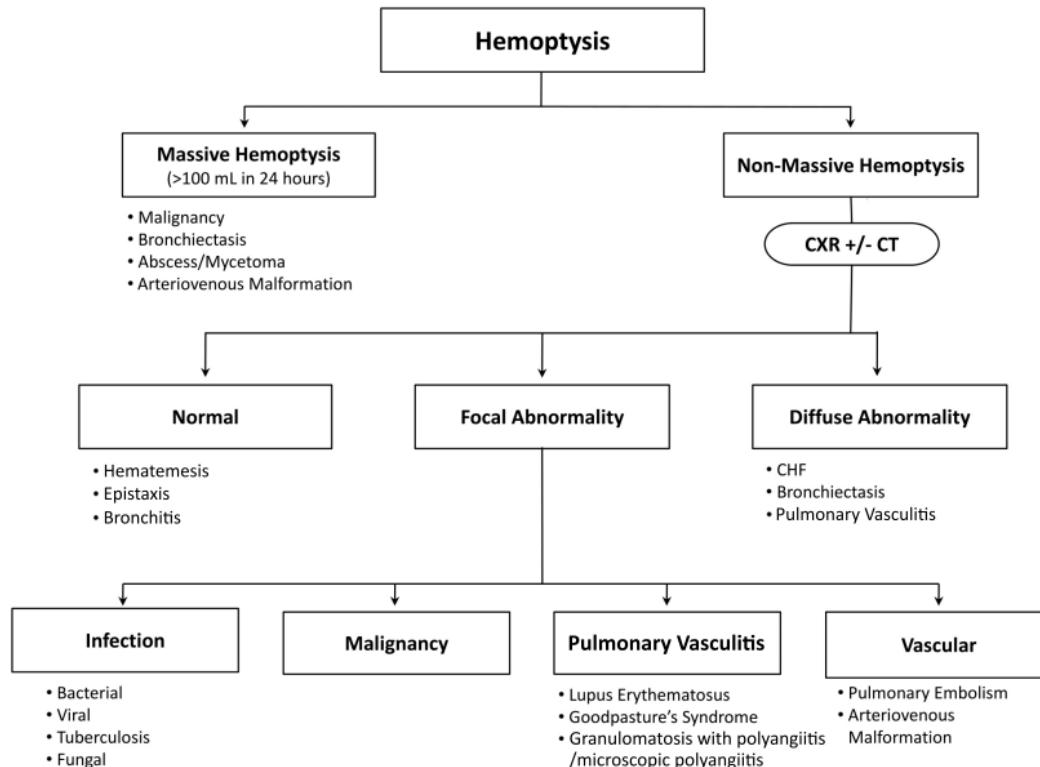
# Dyspnea Chronic

Pulmonary / Other



# Excessive Daytime Sleepiness





# Hypoxemia

$$\text{Alveolar-Arterial Gradient} = P_{AO_2} - P_{aO_2}$$
$$P_{AO_2} = F_iO_2 (P_B - PH_2O) \cdot (P_aCO_2 / 0.8)$$

\*In Calgary,  $P_B = 660\text{mmHg}$ , Sea level  $P_B = 760\text{mmHg}$

## Hypoxemia

### High AA Gradient

#### Right-to-Left Shunt

- Airway Disease (Asthma, COPD)
- Vascular (PE\*)
- Parenchymal Disease

#### Intracardiac

- Ventricular Septal Defect\*\*
- Atrial Septal Defect

#### Pulmonary

- Arteriovenous Malformation
- Severe Pneumonia
- Atelectasis

#### Diffusion Limitation

- Interstitial lung disease
- Pulmonary Arterial Hypertension

### Normal AA Gradient

Normal < (Age/4) + 4

#### Low Inspired PO<sub>2</sub>

- High Altitude

#### Central

- Drugs\*
- Coma
- Hypothyroidism

#### Hypoventilation Increased PCO<sub>2</sub>

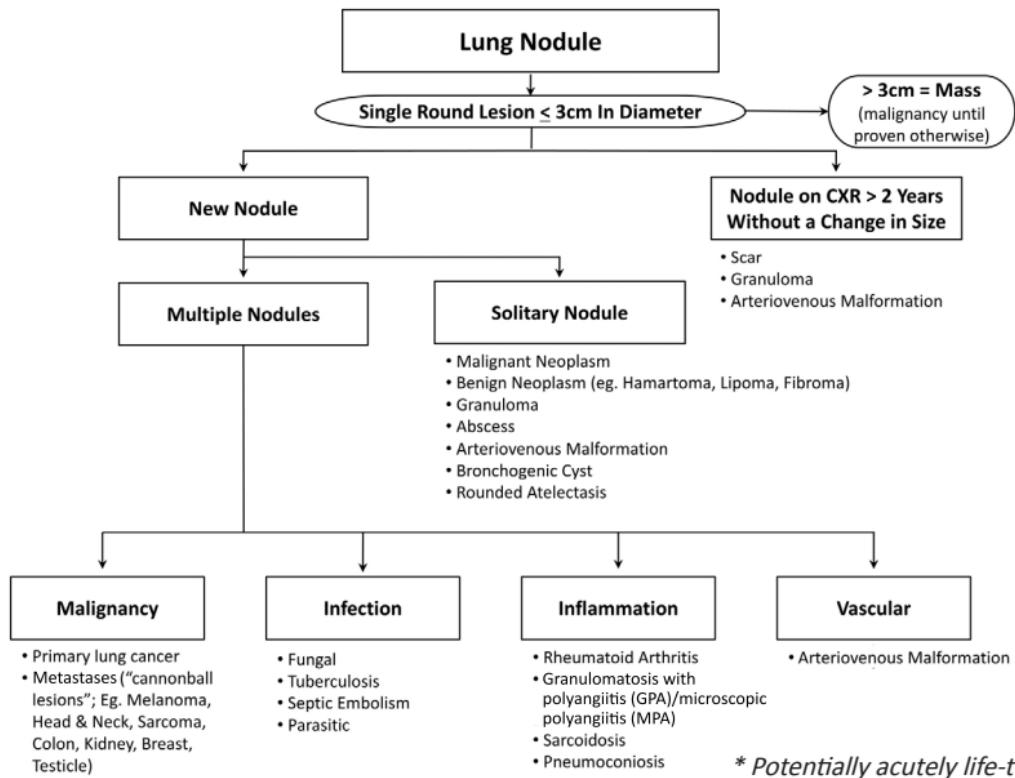
#### Peripheral

- Obesity Hypoventilation Syndrome
- Neuromuscular Weakness
- Pleural Abnormalities
- Chest Wall Abnormalities

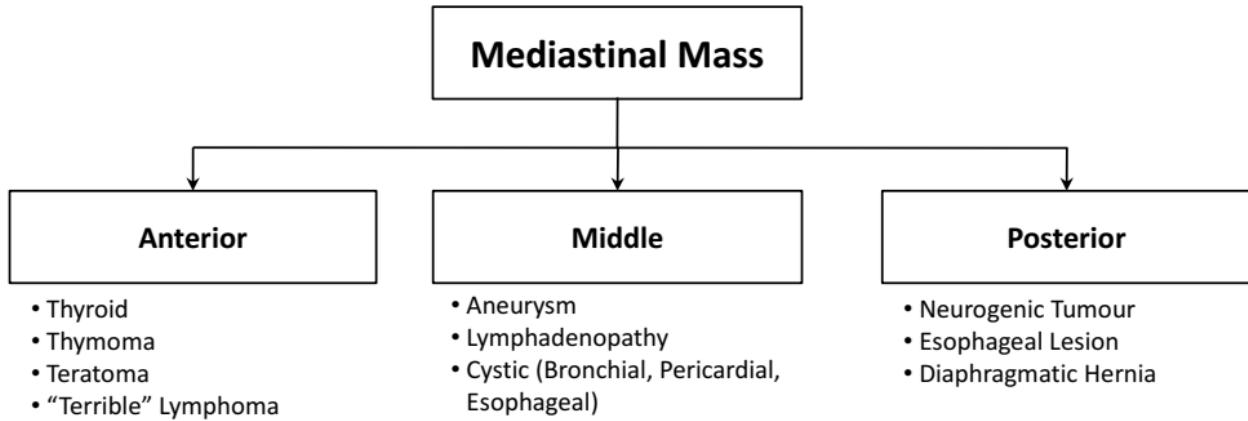
\* Potentially acutely life-threatening.

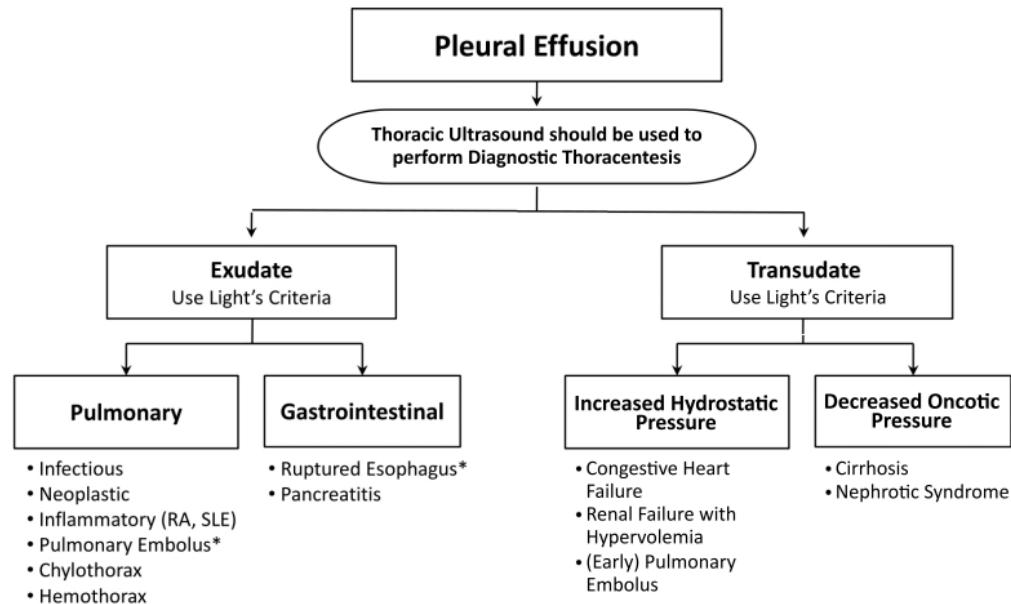
\*\* VSDs will be a Right-to-left shunt in infancy, become a Left-to-Right shunt in childhood to adulthood, and revert back to a right-to-left shunt when the left ventricle fails in severe disease, contributing to Eisenmenger's Syndrome.

# Lung Nodule



# Mediastinal Mass



**Light's Criteria**

Pleural Fluid Protein/Serum Protein &gt; 0.5

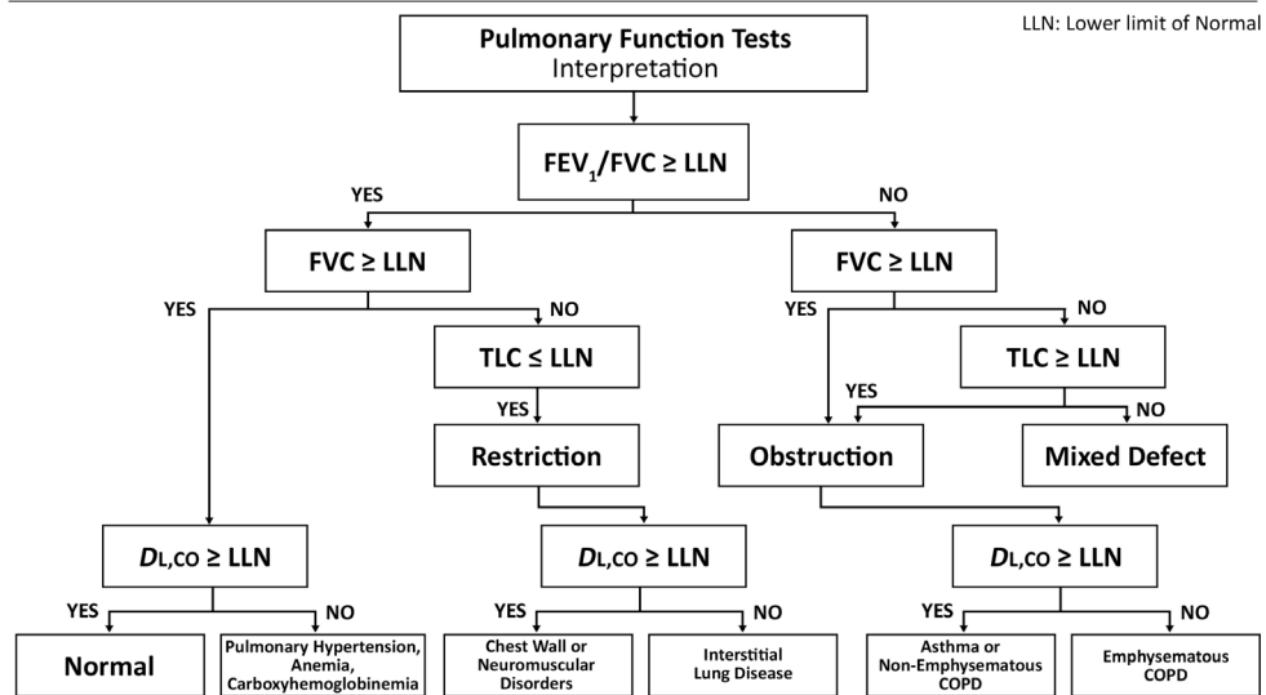
Pleural Fluid Lactate Dehydrogenase (LDH)/Serum LDH &gt; 0.6

Pleural Fluid LDH &gt; 2/3 Serum LDH Upper Limit of Normal

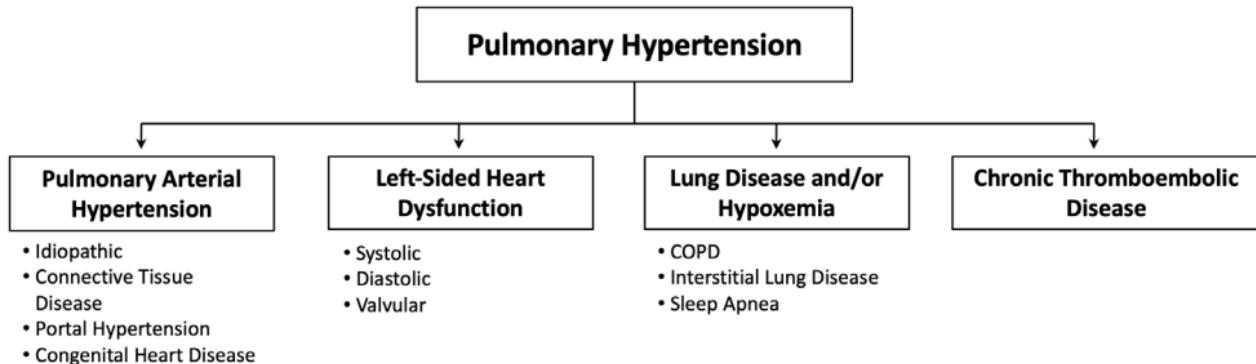
\* Potentially acutely life-threatening

# Pulmonary Function Tests

## Interpretation



# Pulmonary Hypertension



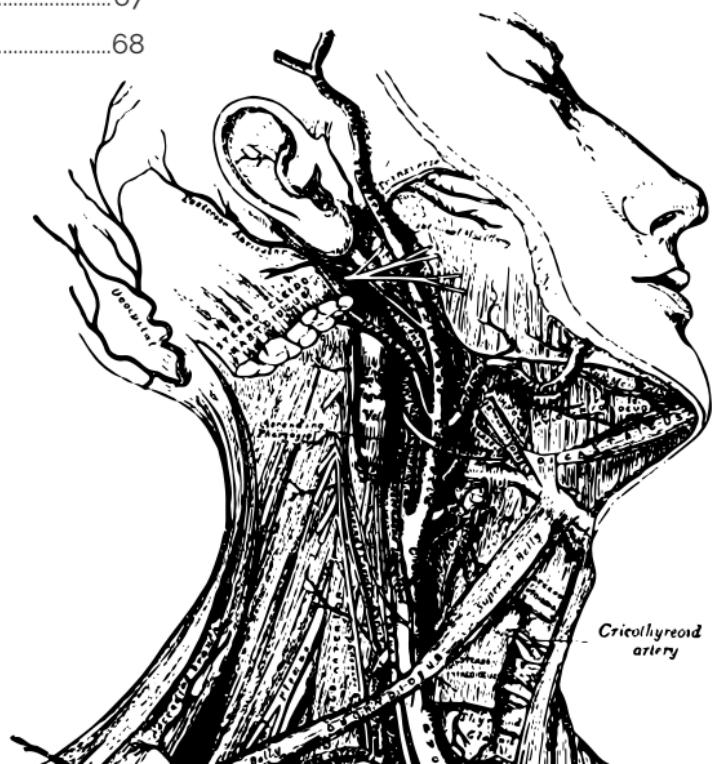
# Hematologic

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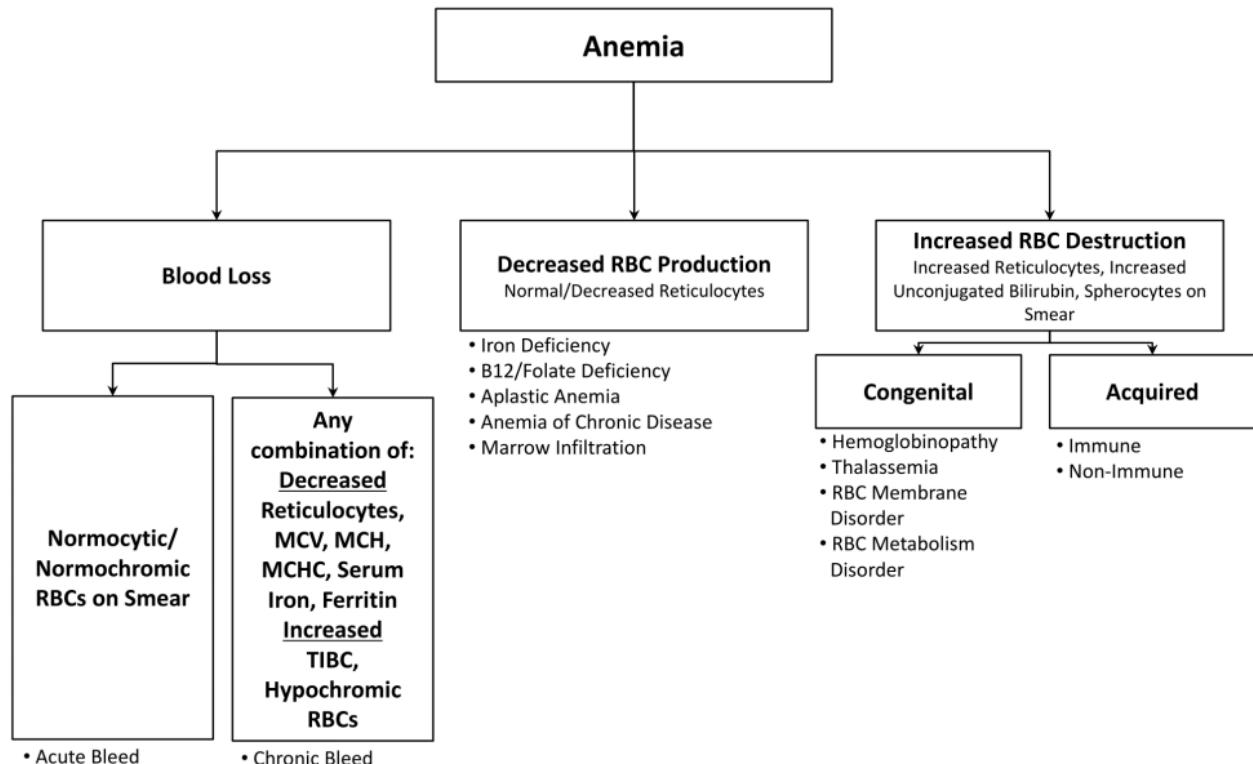


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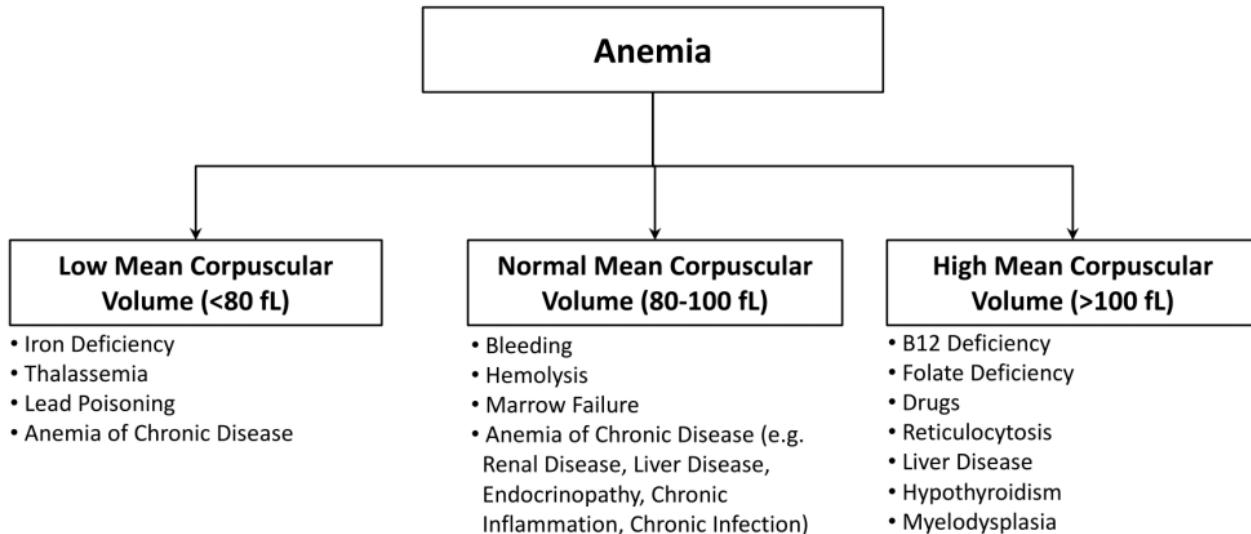


# Overall Approach to Anemia

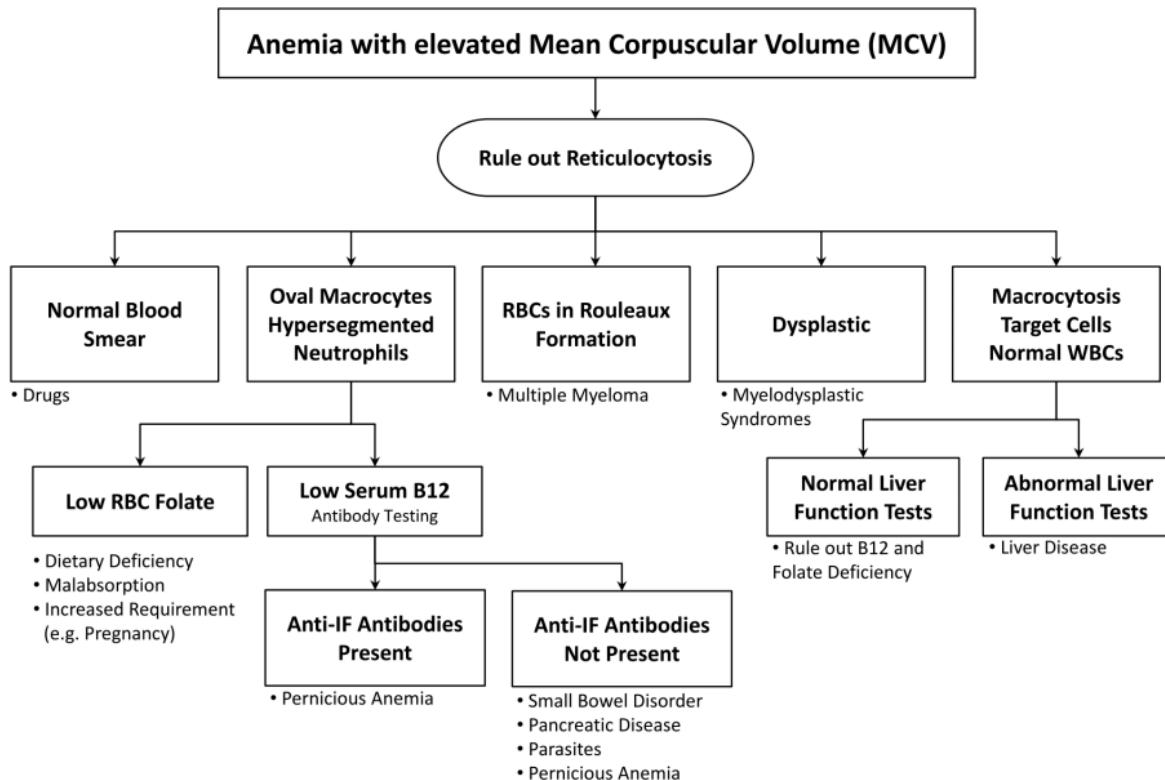


# Approach to Anemia

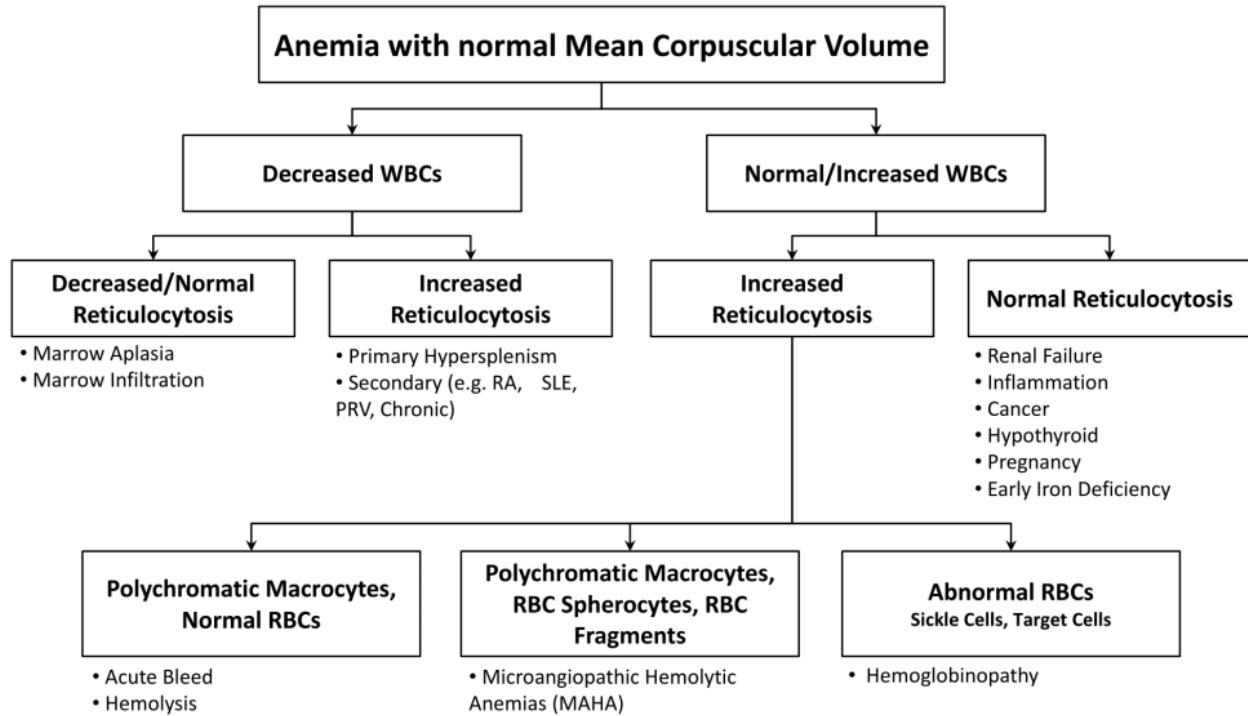
Mean Corpuscular Volume



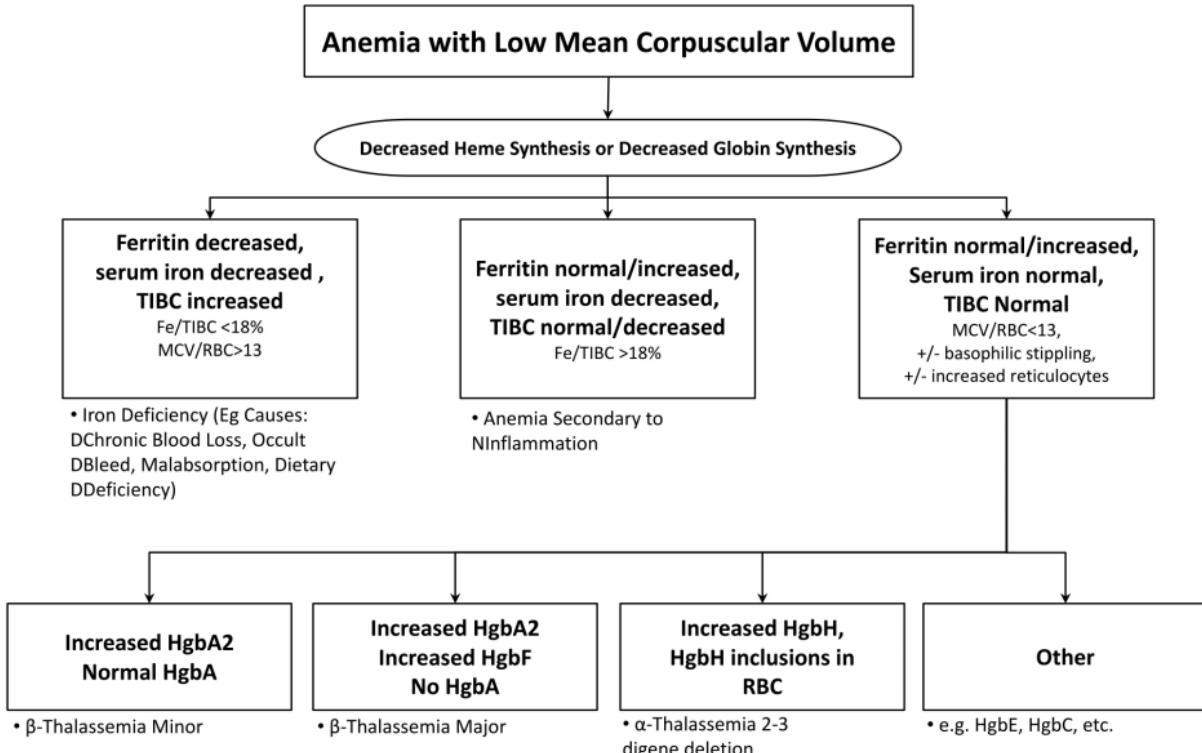
# Anemia with Elevated MCV



# Anemia with Normal MCV

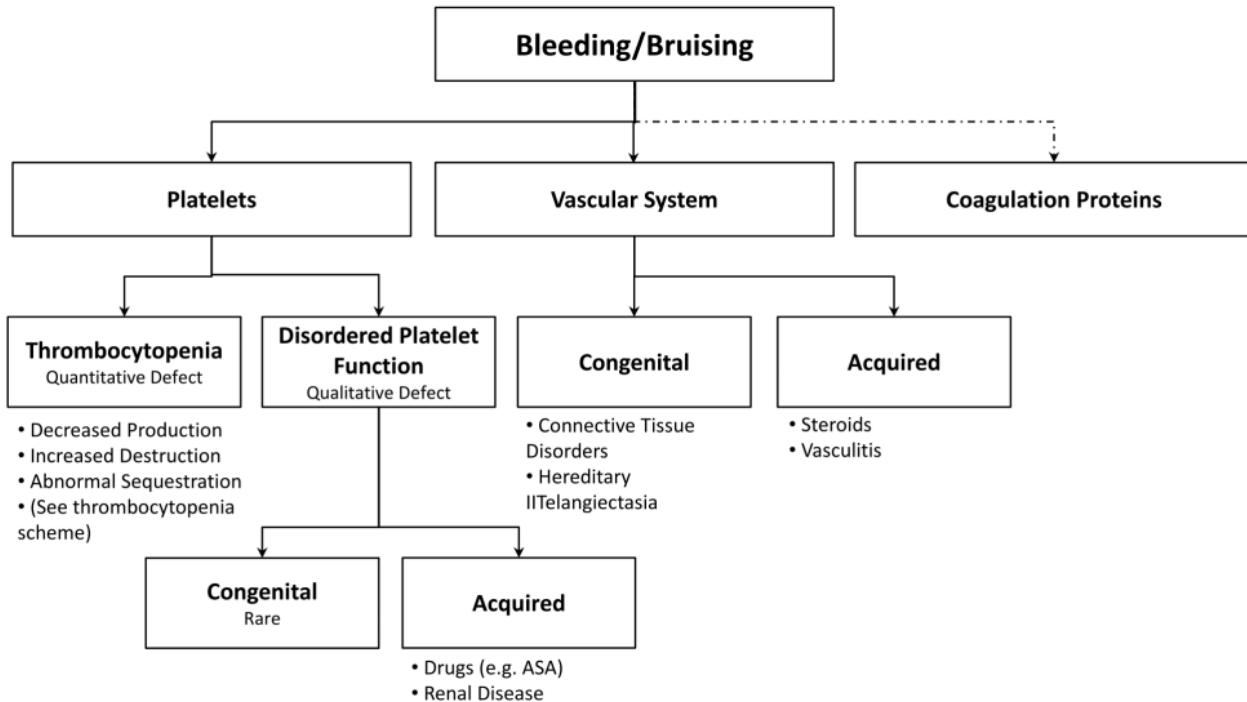


# Anemia with Low MCV



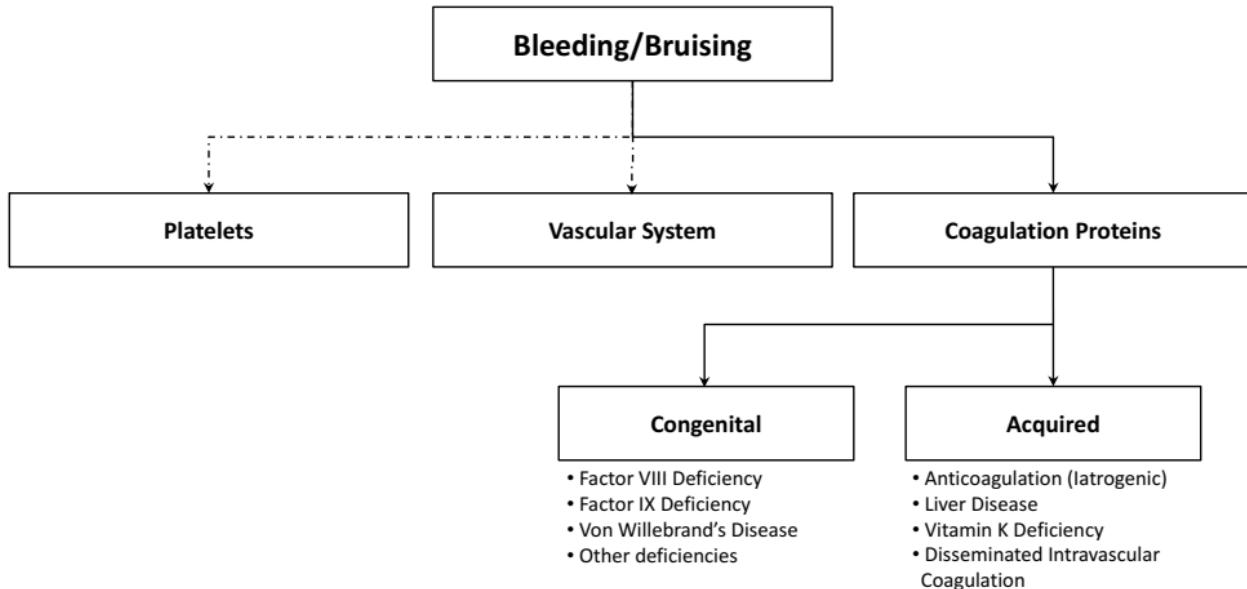
# Approach to Bleeding / Bruising

Platelets &amp; Vascular System

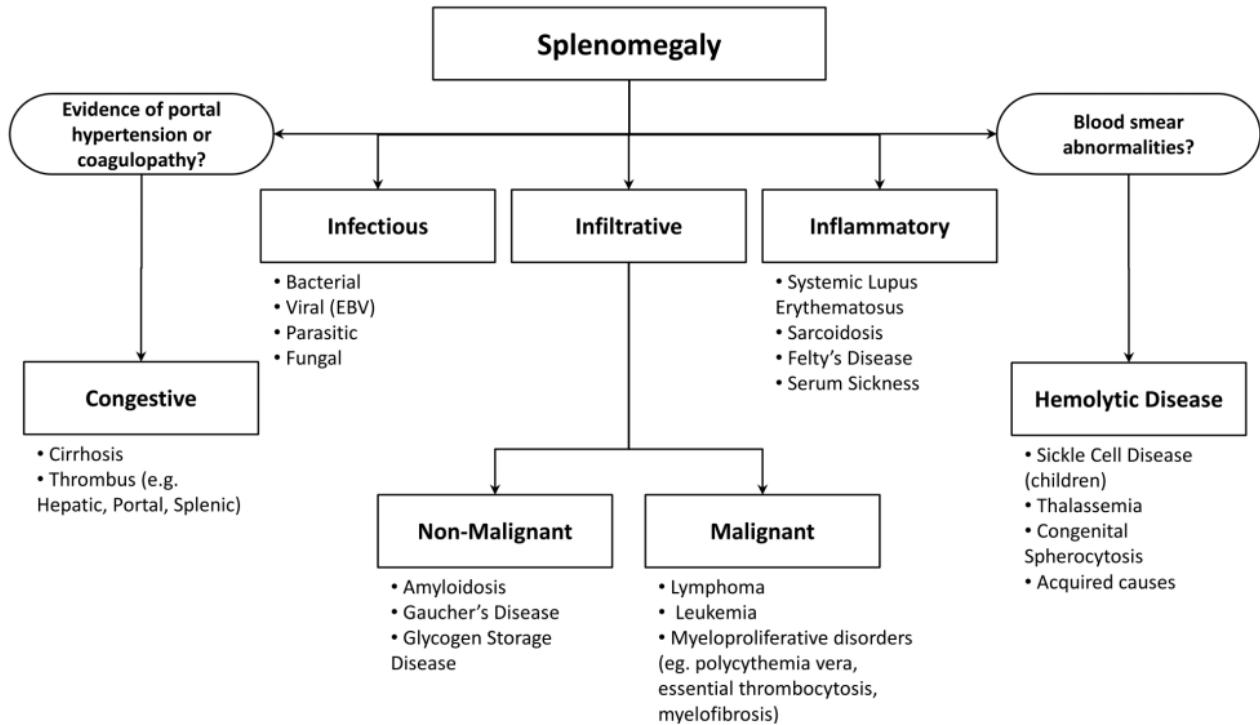


# Approach to Bleeding / Bruising

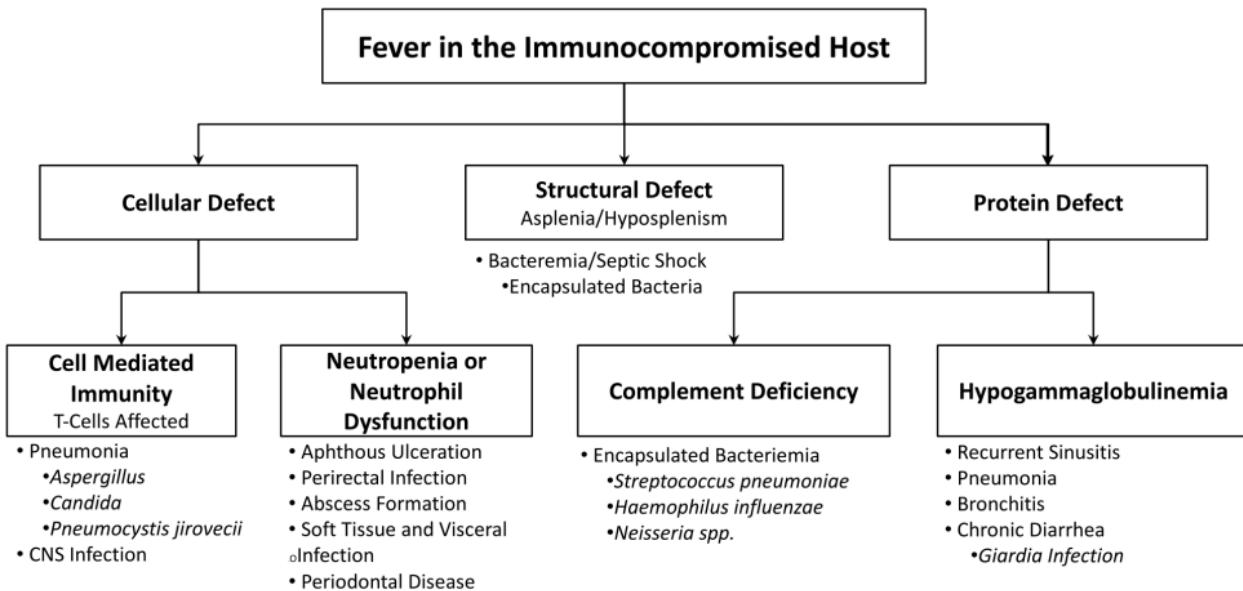
## Coagulation Proteins

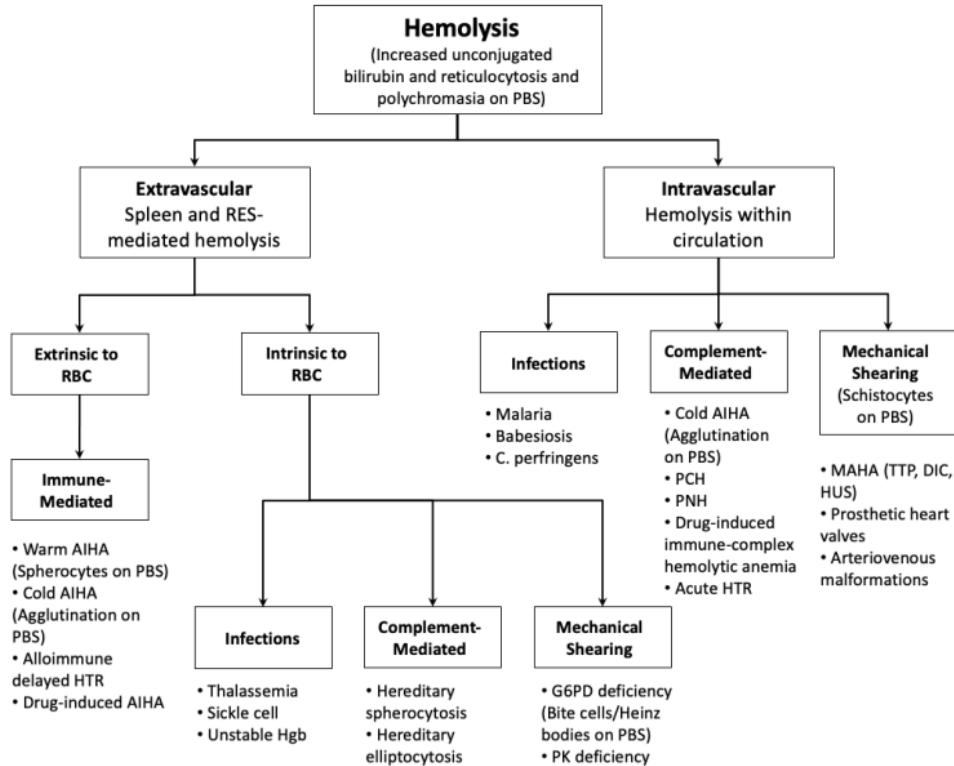


# Approach to Splenomegaly



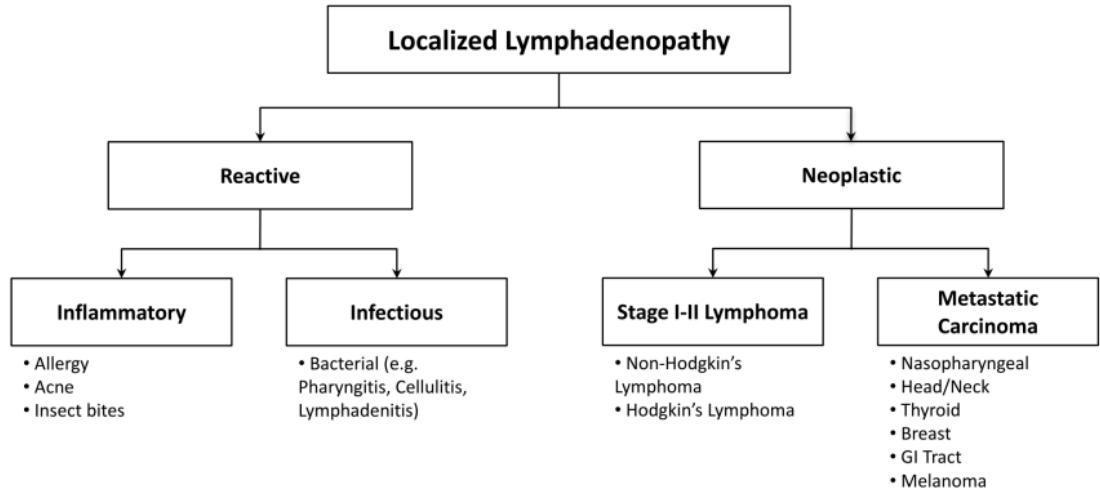
# Fever in the Immunocompromised Host





# Lymphadenopathy

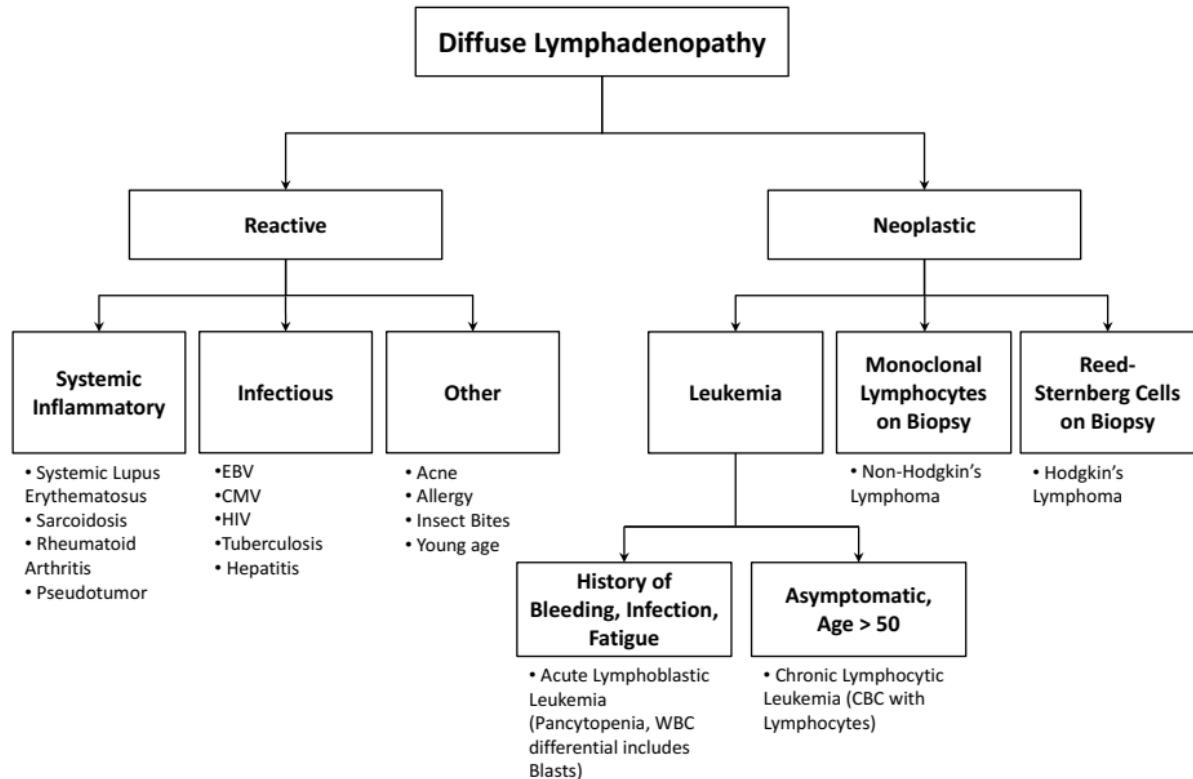
Localized



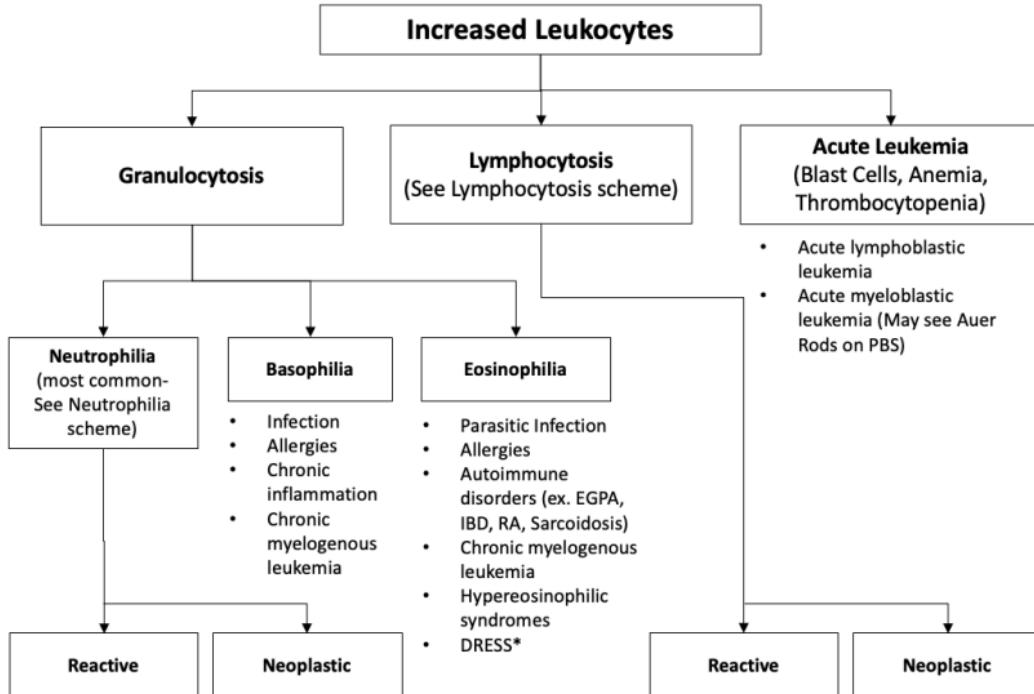
Cervical	SuprACLAVICULAR	Axillary	EPIROCHLEAR (Always pathologic)	Inguinal
<p><u>Anterior</u></p> <ul style="list-style-type: none"><li>Infection (e.g. Mononucleosis, Toxoplasmosis)</li><li>TB</li><li>Lymphoma</li><li>Kikuchi Disease</li><li>Head/Neck Malignancy</li></ul> <p><u>Posterior</u></p> <ul style="list-style-type: none"><li>Thoracic Malignancy (Breast, Mediastinum, Lungs, Esophagus)</li><li>Abdominal Malignancy (Virchow's Node)</li></ul>	<ul style="list-style-type: none"><li>Infection (Arm, Thoracic Wall, Breast)</li><li>Cancer (In absence of infection in upper extremity)</li></ul>		<ul style="list-style-type: none"><li>Infection (Forearm/Hand)</li><li>Lymphoma</li><li>Sarcoidosis</li><li>Tularemia</li><li>Secondary Syphilis</li></ul>	<ul style="list-style-type: none"><li>Leg Infection</li><li>Sexually Transmitted Infection</li><li>Cancer</li></ul>

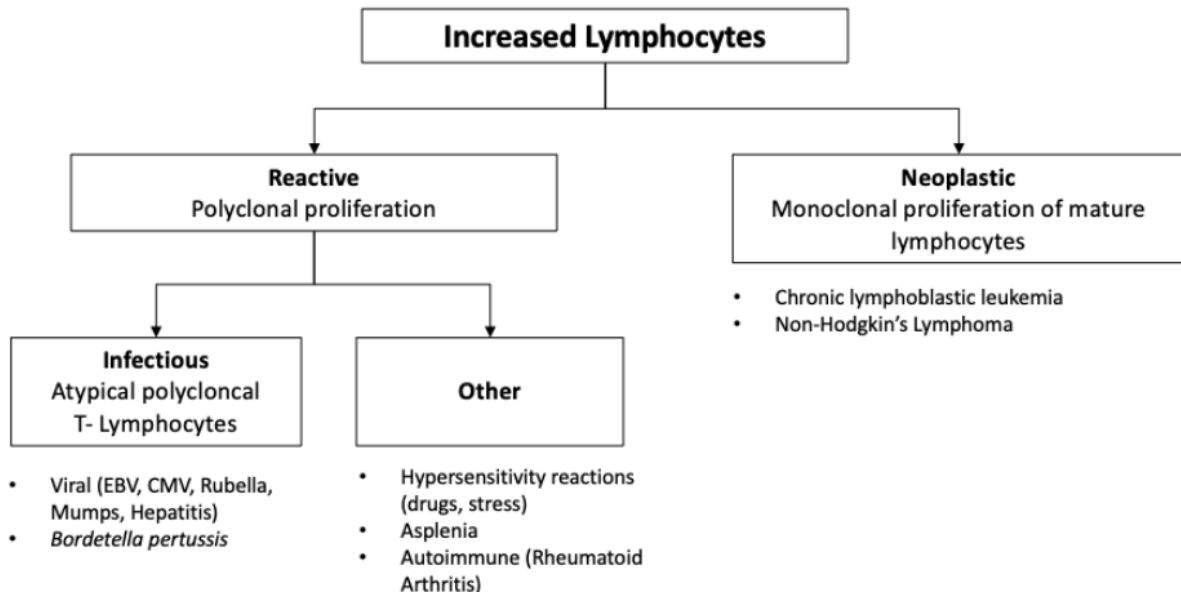
# Lymphadenopathy

Diffuse

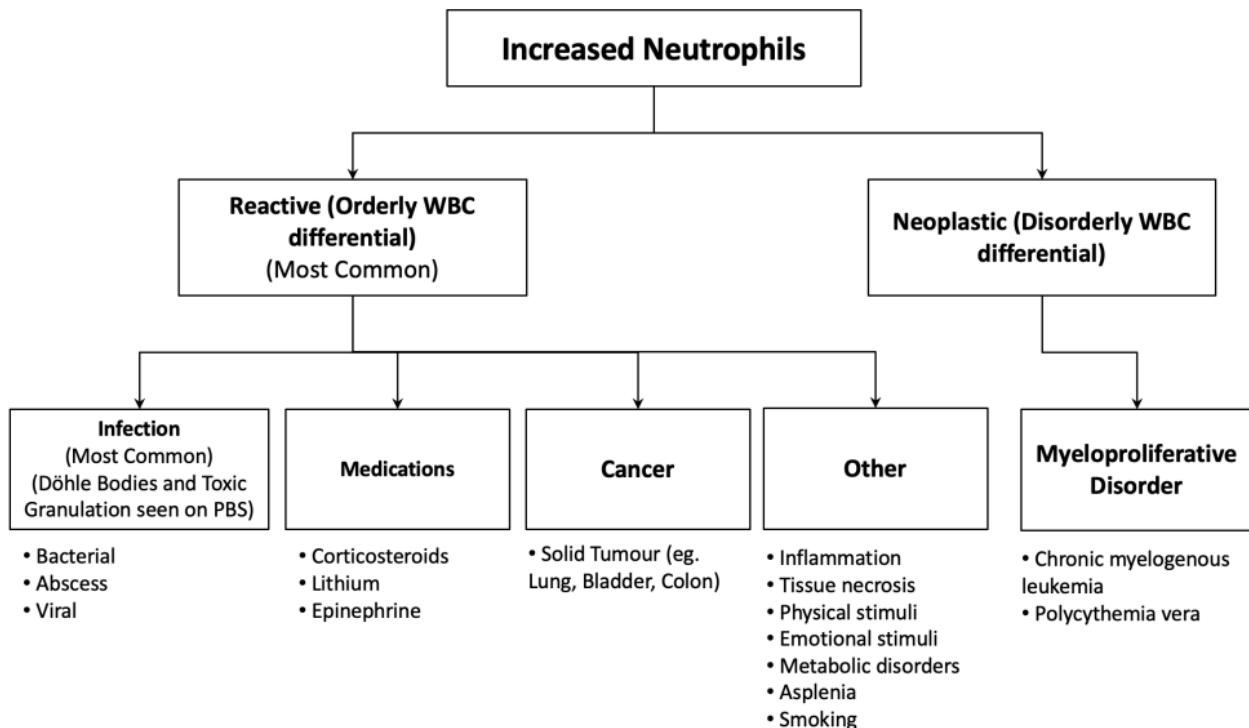


# Approach to Leukocytosis



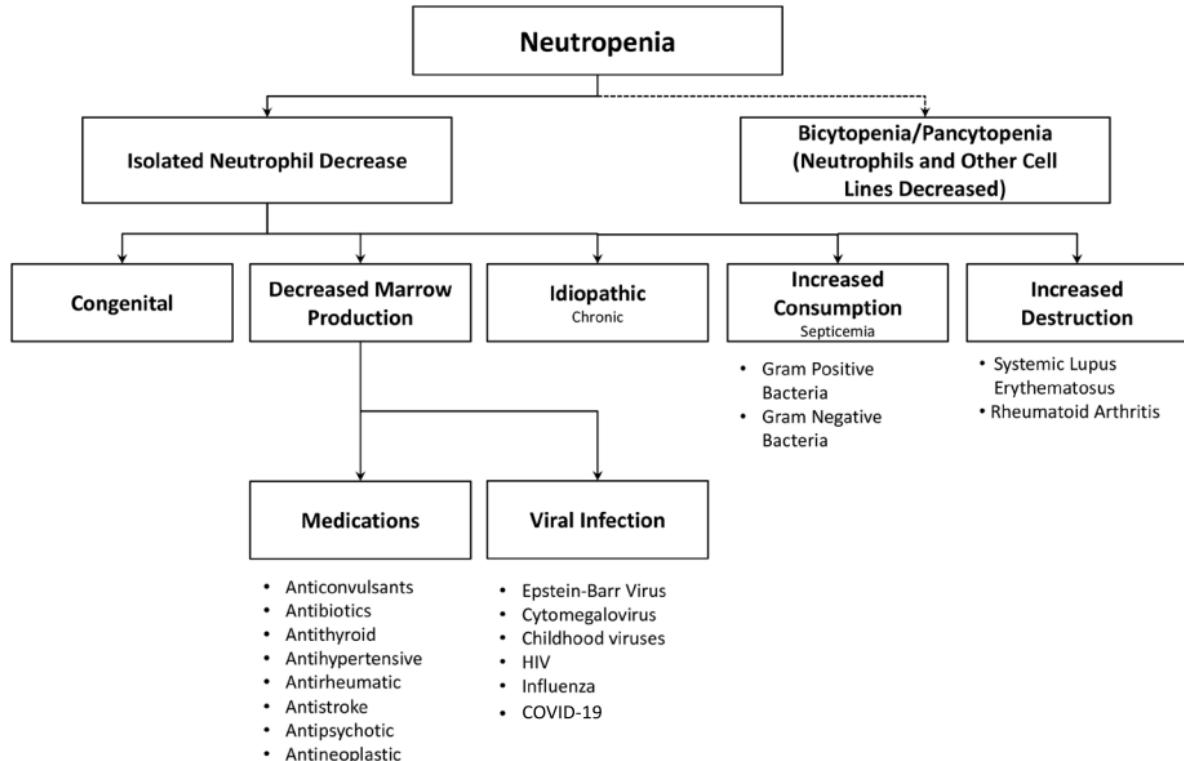


# Neutrophilia



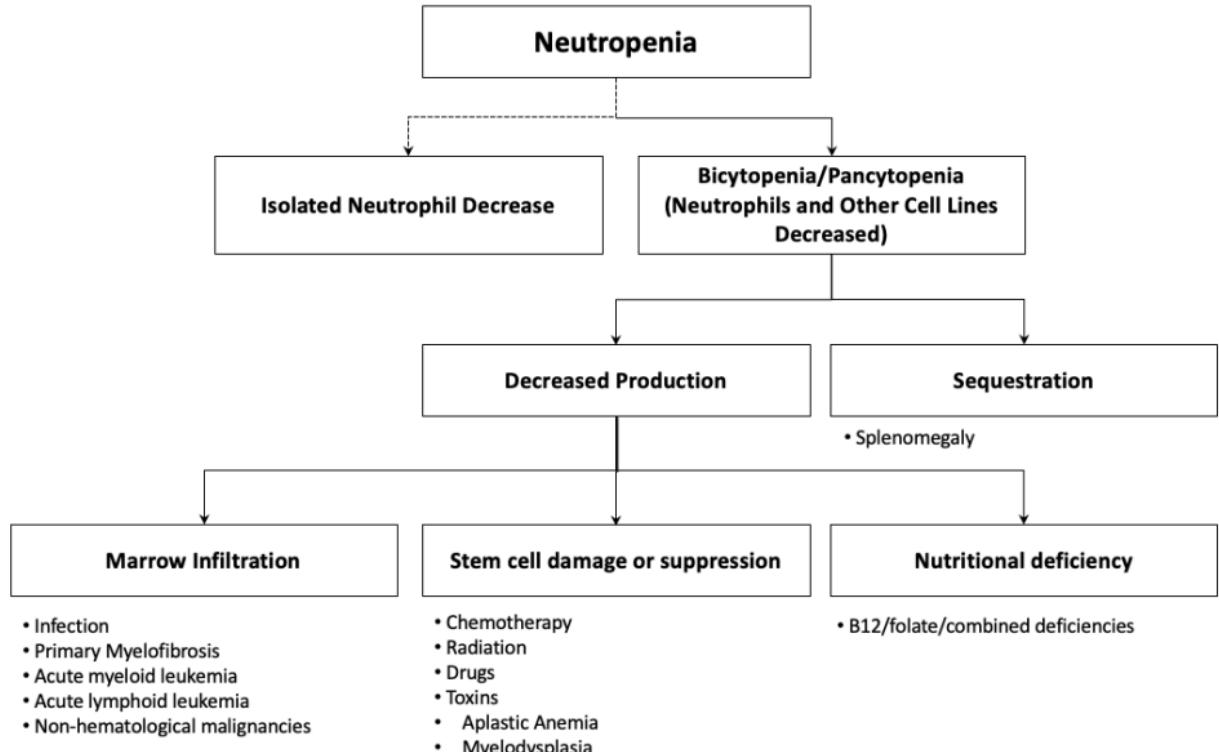
# Neutropenia

Decreased Neutrophils Only

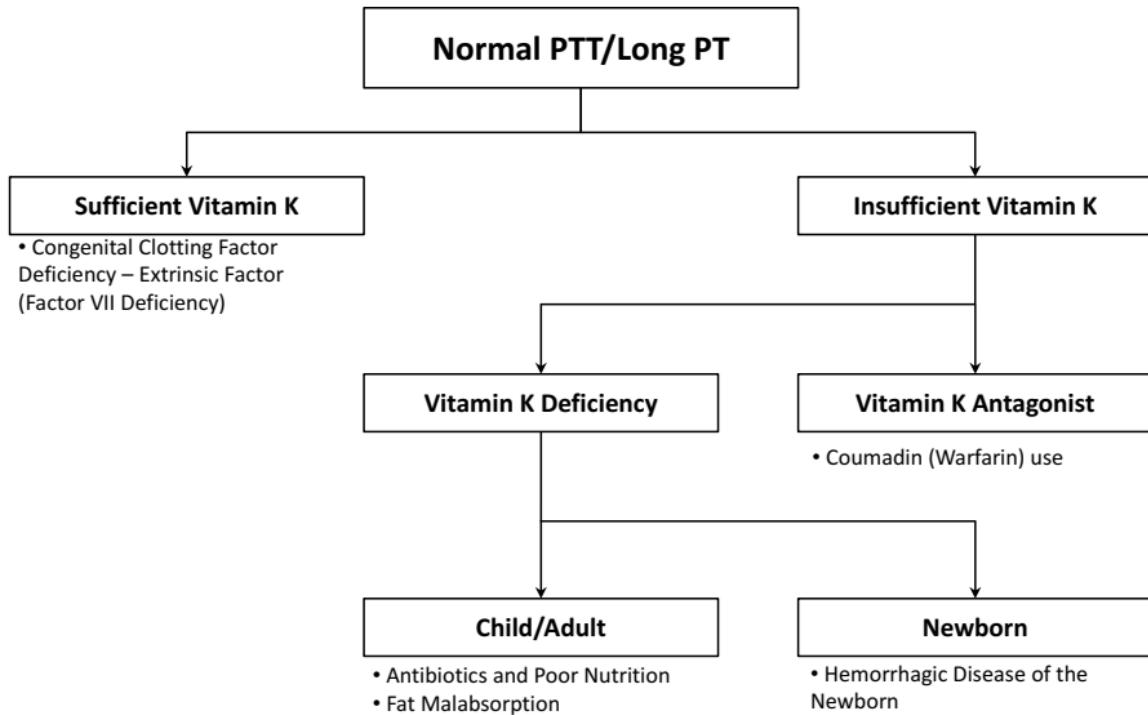


# Neutropenia

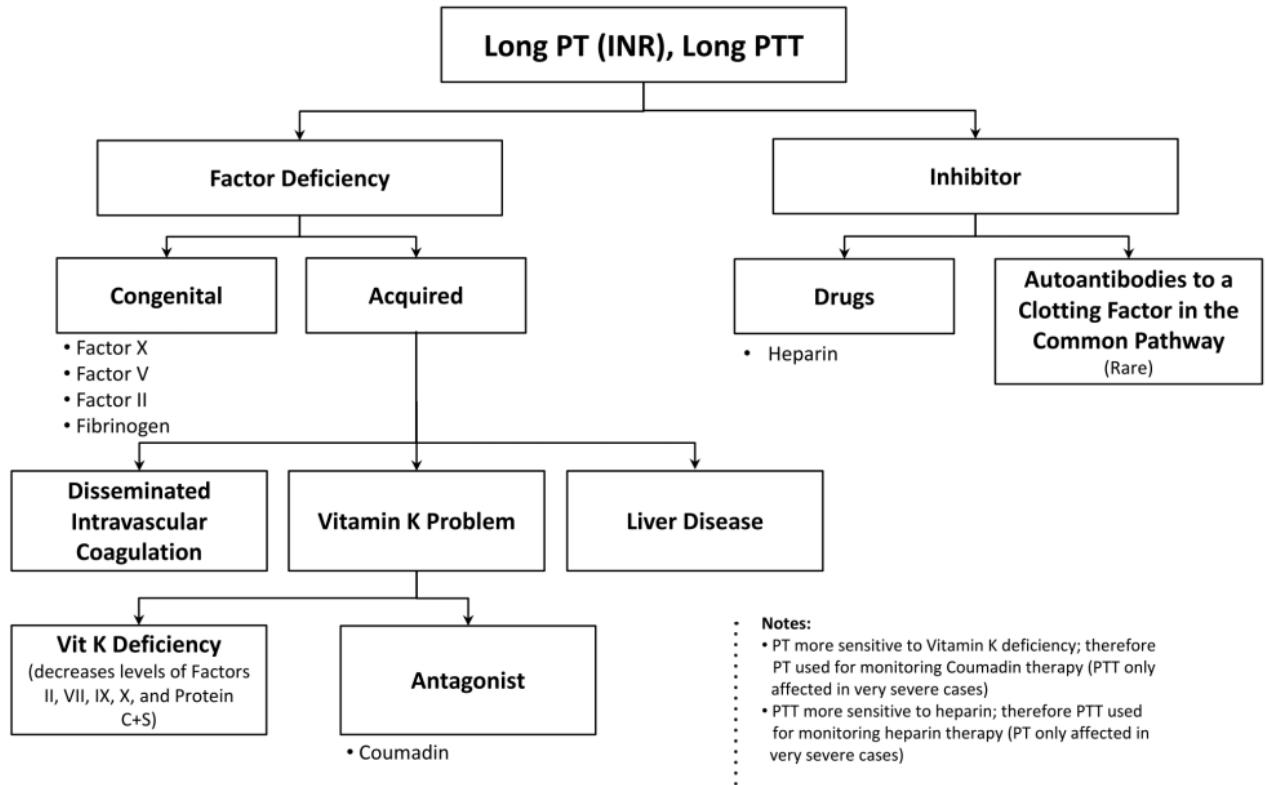
Bicytopenia / Pancytopenia



# Prolonged PT (INR), Normal PTT

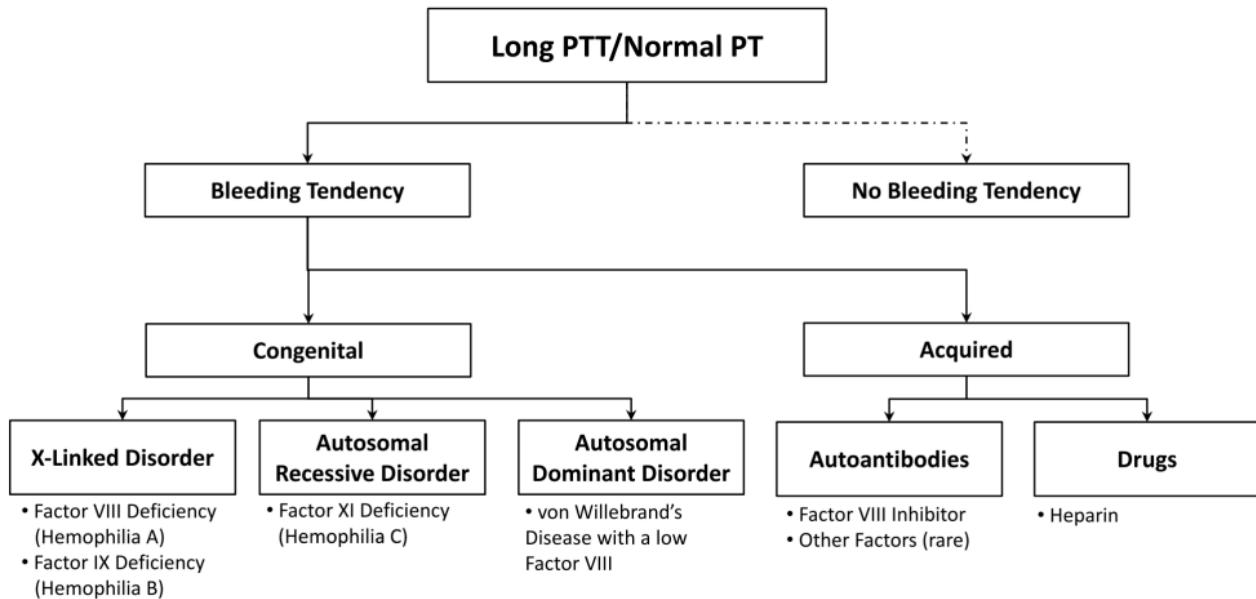


# Approach to Prolonged PT (INR), Prolonged PTT



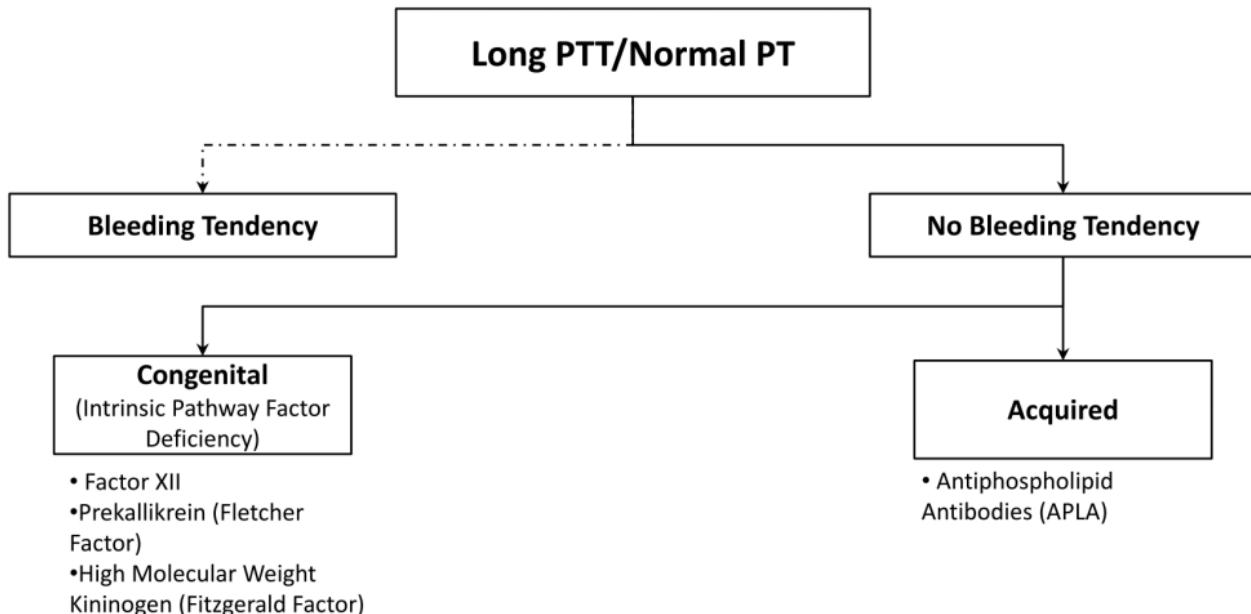
# Prolonged PTT, Normal PT (INR)

Bleeding Tendency

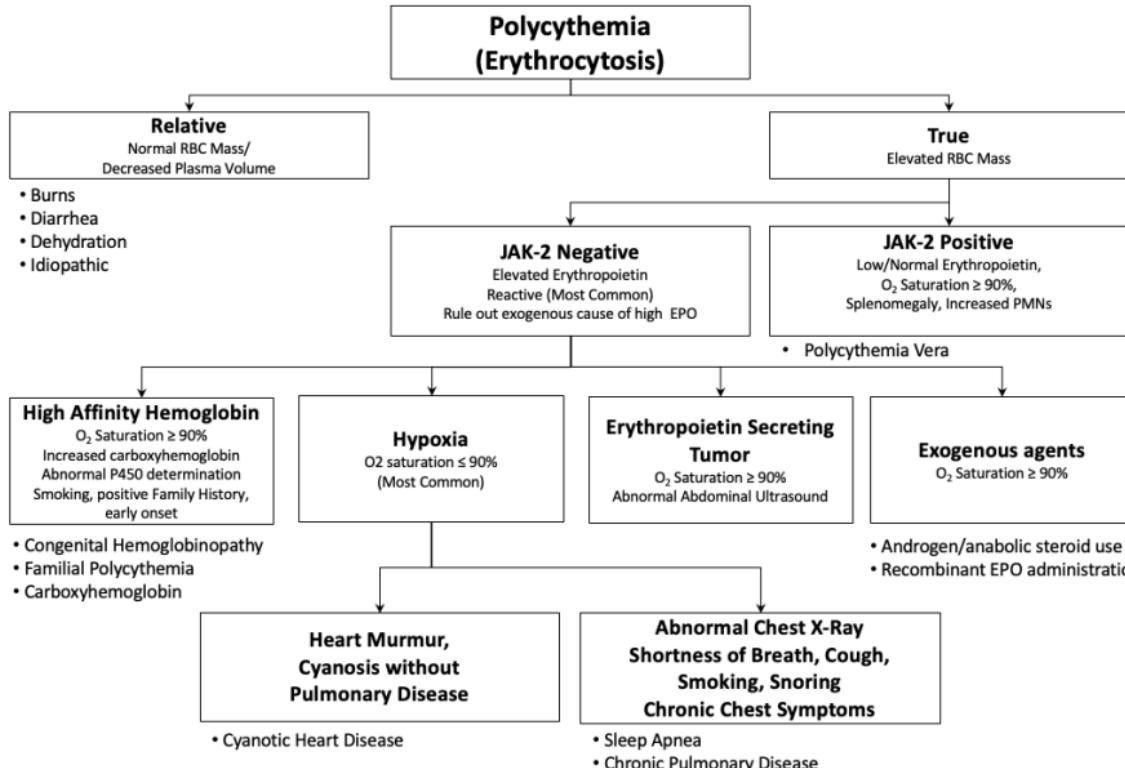


# Prolonged PTT, Normal PT (INR)

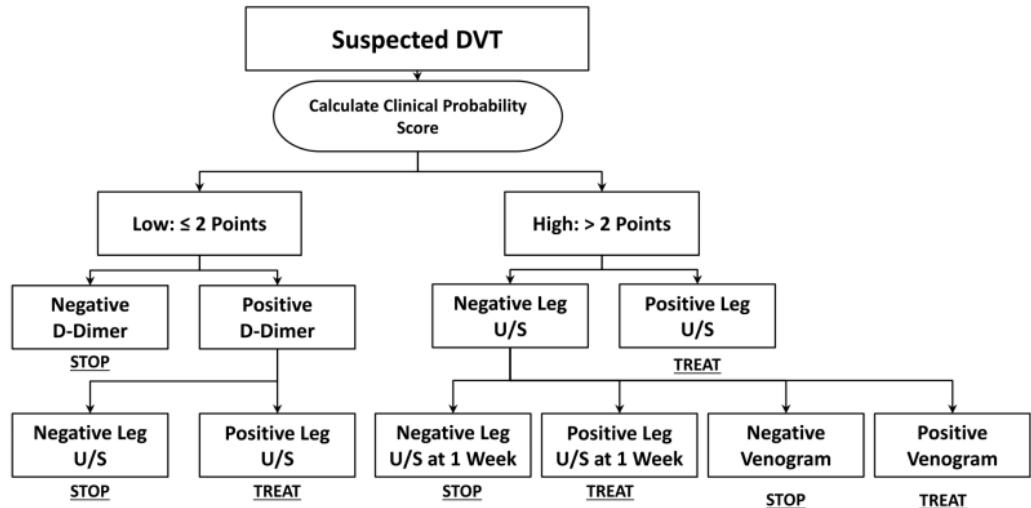
No Bleeding Tendency



# Polycythemia



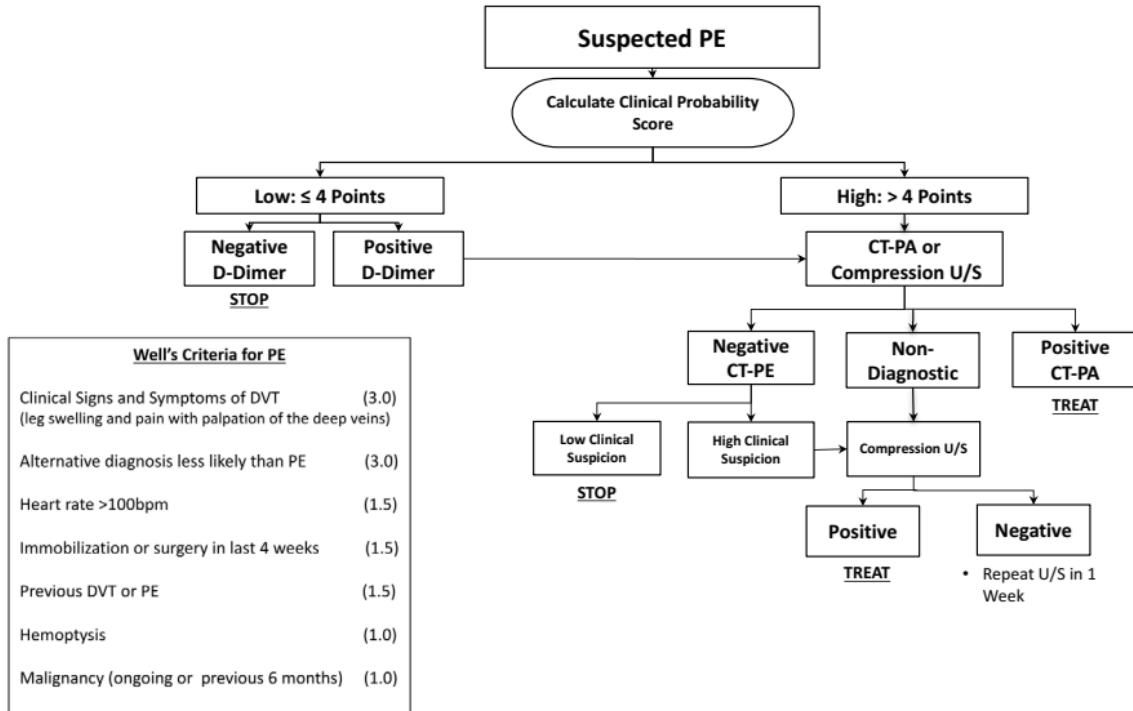
# Suspected Deep Vein Thrombosis (DVT)



## Well's Criteria for DVT

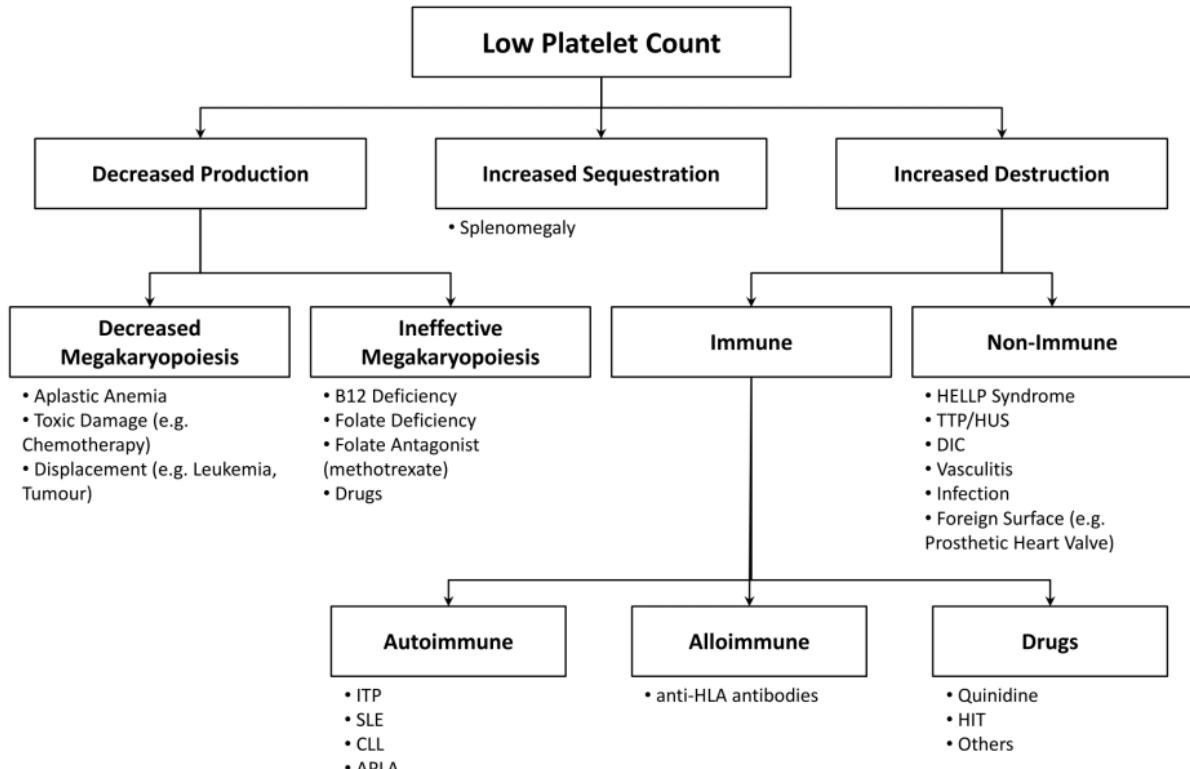
Active Cancer	(1)
Paralysis, paresis, recent immobilization of lower extremity	(1)
Recently bedridden for >3days, or major surgery in last 4 weeks	(1)
Localized tenderness along distribution of the deep venous system	(1)
Entire leg swollen	(1)
Calf swelling by >3cm compared to asymptomatic leg	(1)
Pitting edema (greater in symptomatic leg)	(1)
Collateral, nonvaricose superficial veins	(1)
Alternative diagnosis as or more likely than DVT	(-2)

# Suspected Pulmonary Embolism (PE)

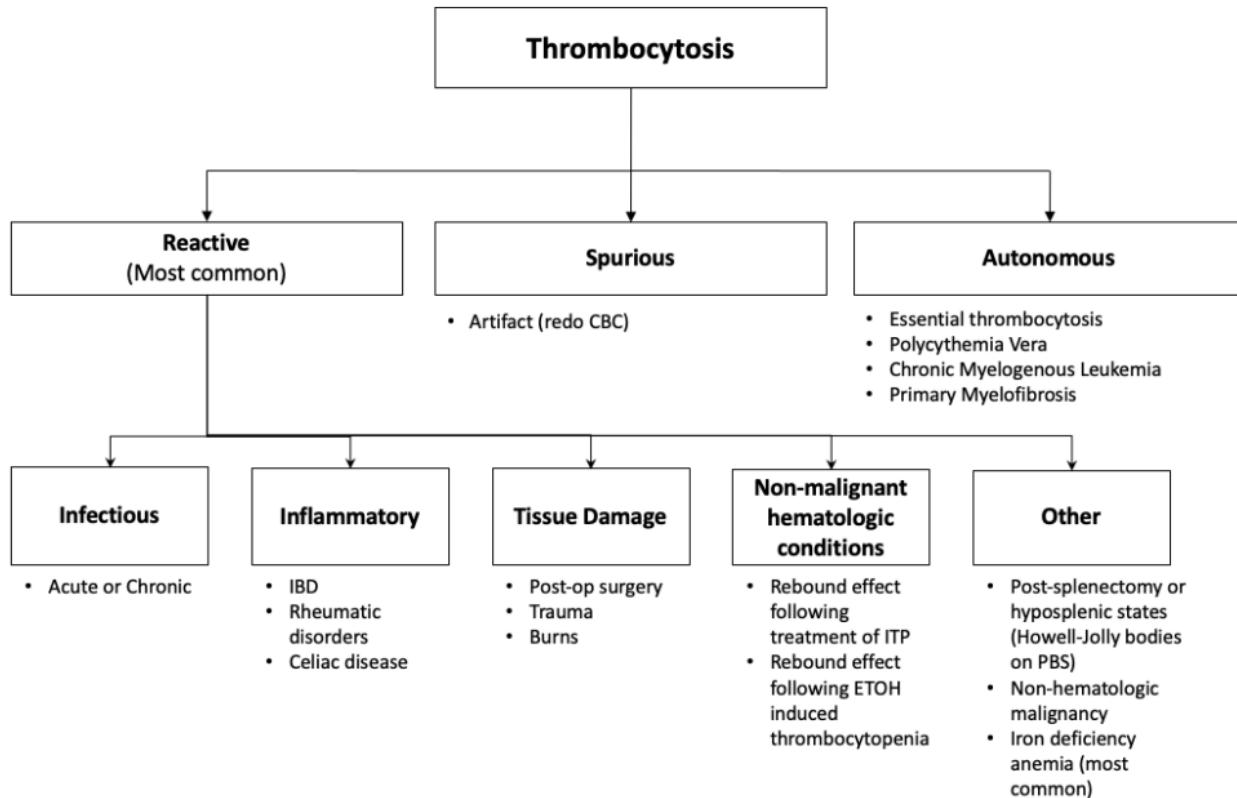


Wells P.S. et al. (2000). Derivation of a simple clinical model to categorize patients probability of pulmonary embolism: increasing the models utility with the SimpliRED D-dimer. *Thromb Haemost* 2003; 83: 416-20.  
 Writing Group for the Christopher Study Investigators. (2006). Effectiveness of managing suspected pulmonary embolism using an algorithm combining clinical probability, D-Dimer testing, and computer tomography. *JAMA*;295: 172-179.

# Thrombocytopenia



# Thrombocytosis



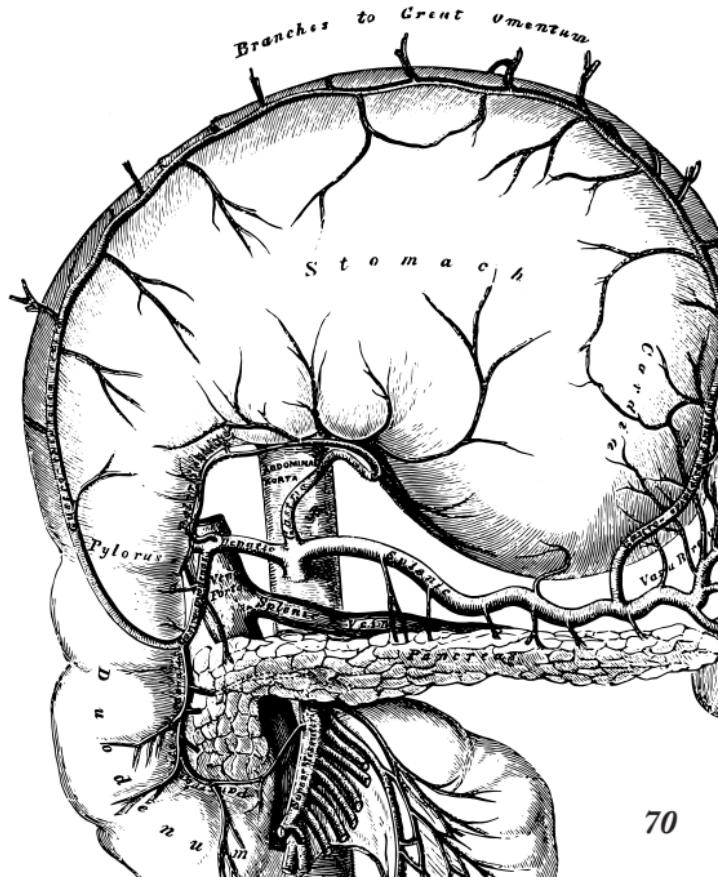
# Gastrointestinal

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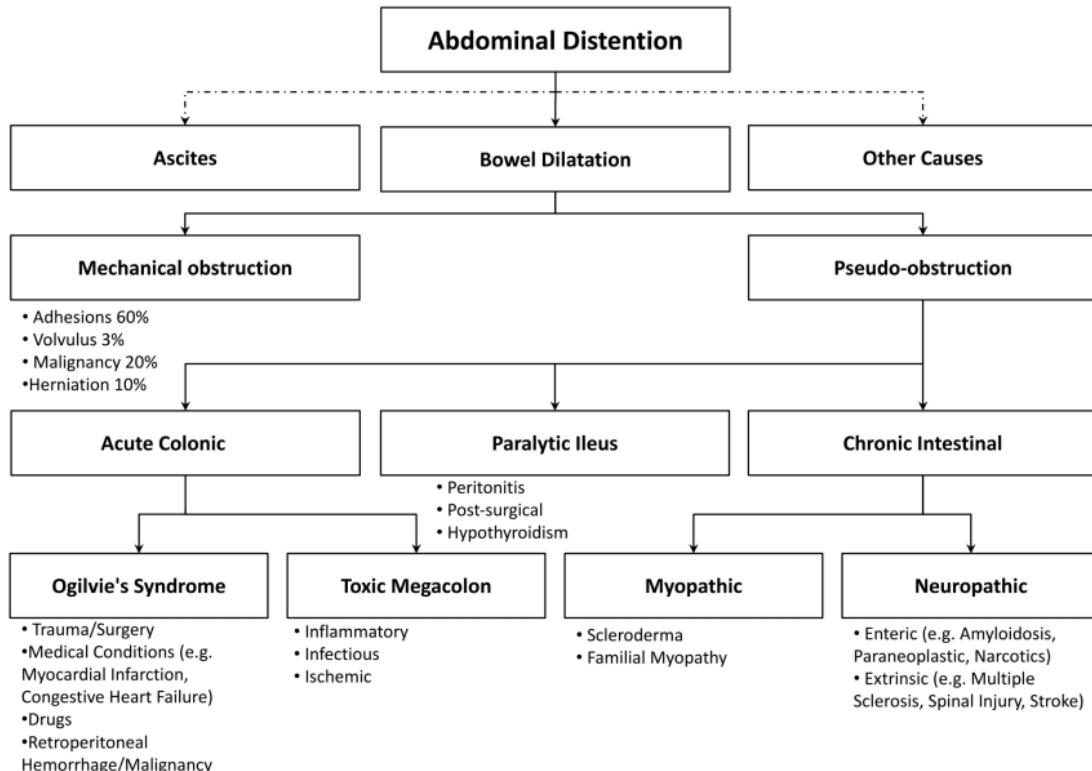
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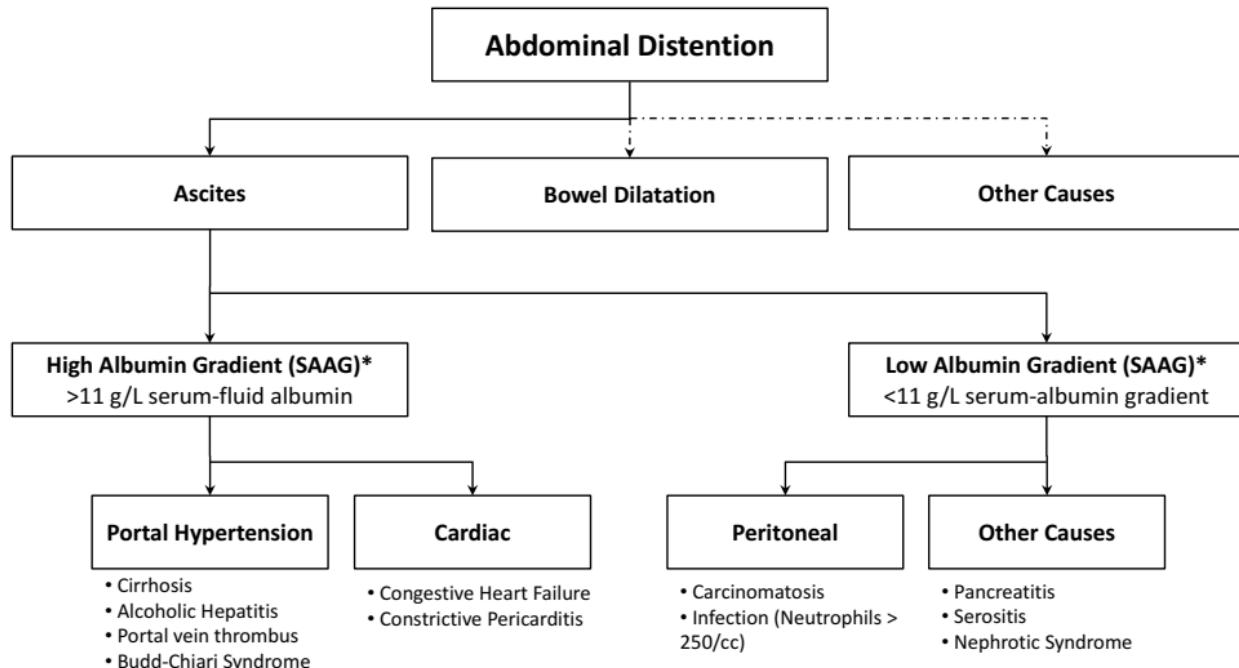


# Abdominal Distention



# Abdominal Distention

Ascites

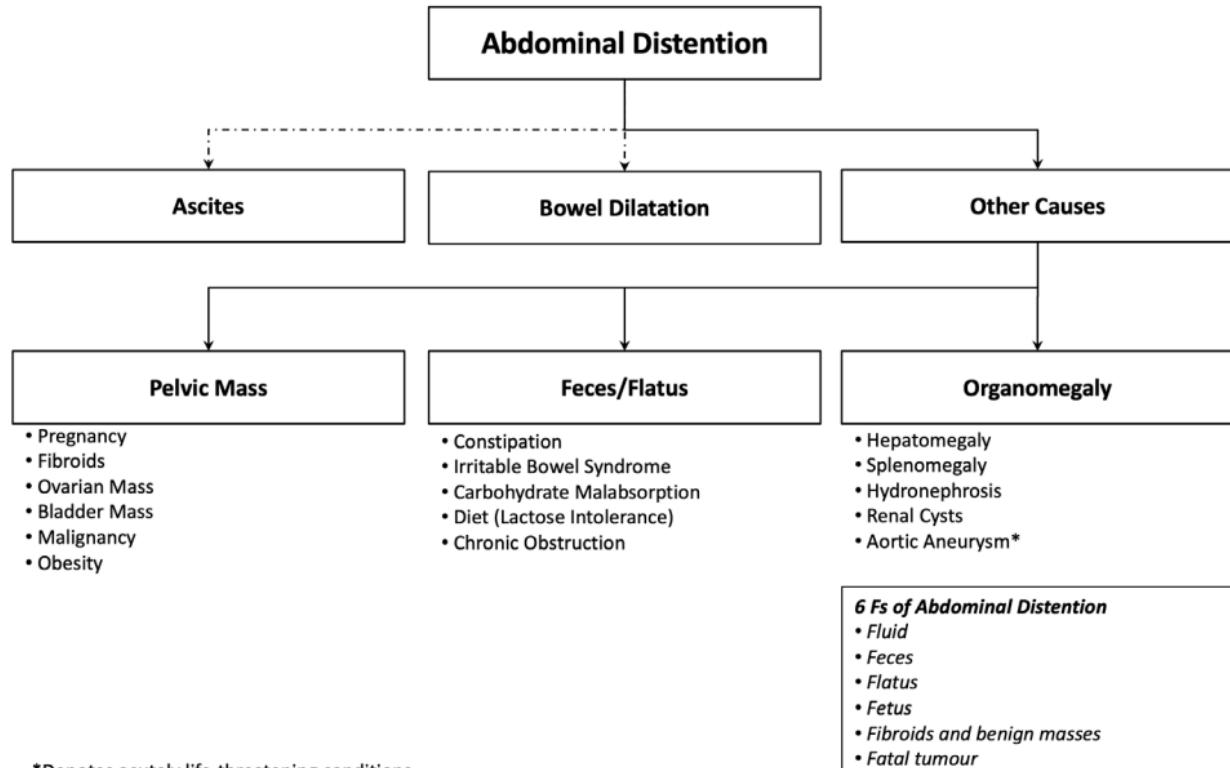


Clinical pearl: "rule of 97": SAAG 97% accurate. If high SAAG, 97% of time it is cirrhosis/portal hypertension. If low SAAG, 97% time carcinomatosis (and cytology 97% sensitive)

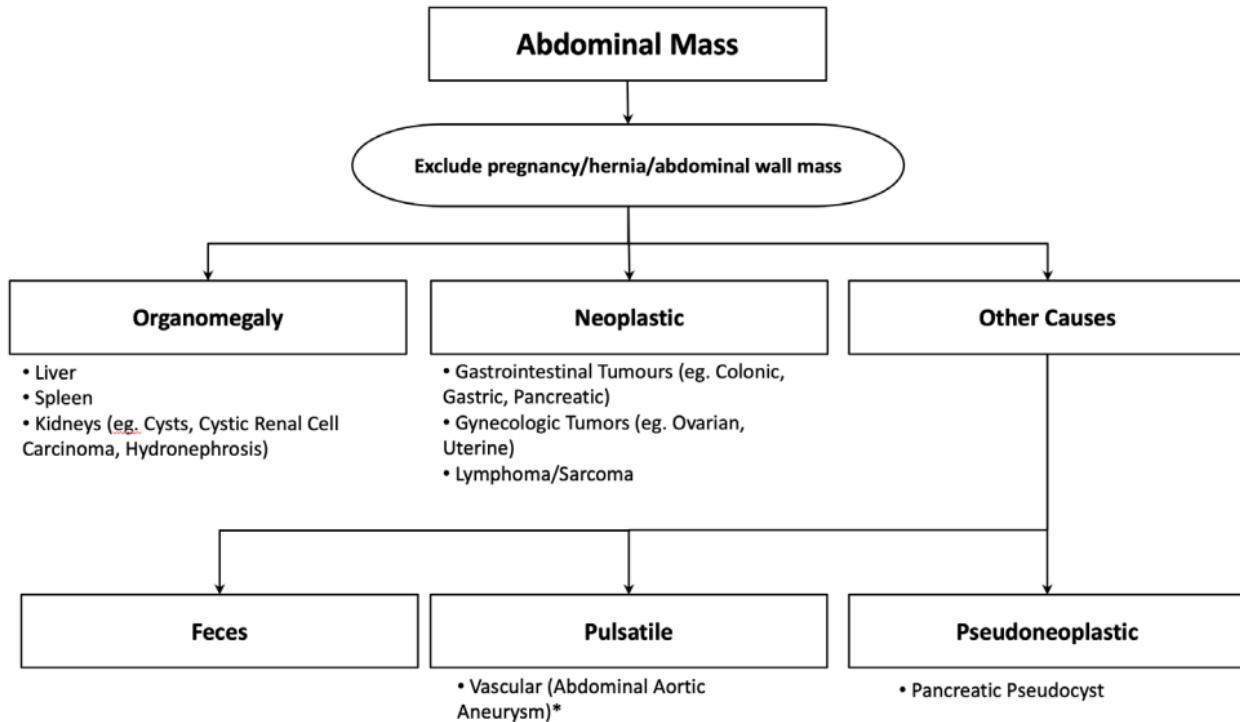
\*Serum Ascites Albumin Gradient (SAAG) = [Serum albumin] - [Peritoneal fluid albumin]

# Abdominal Distention

## Other Causes



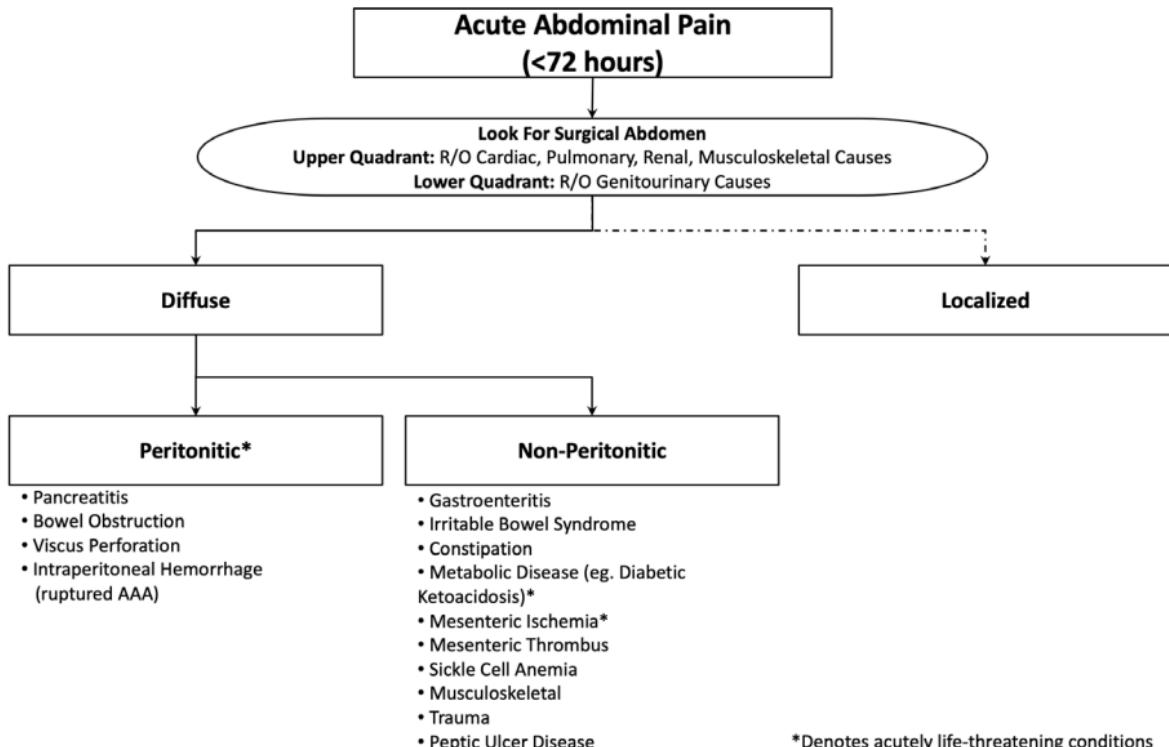
# Abdominal Mass



\*Denotes acutely life-threatening conditions

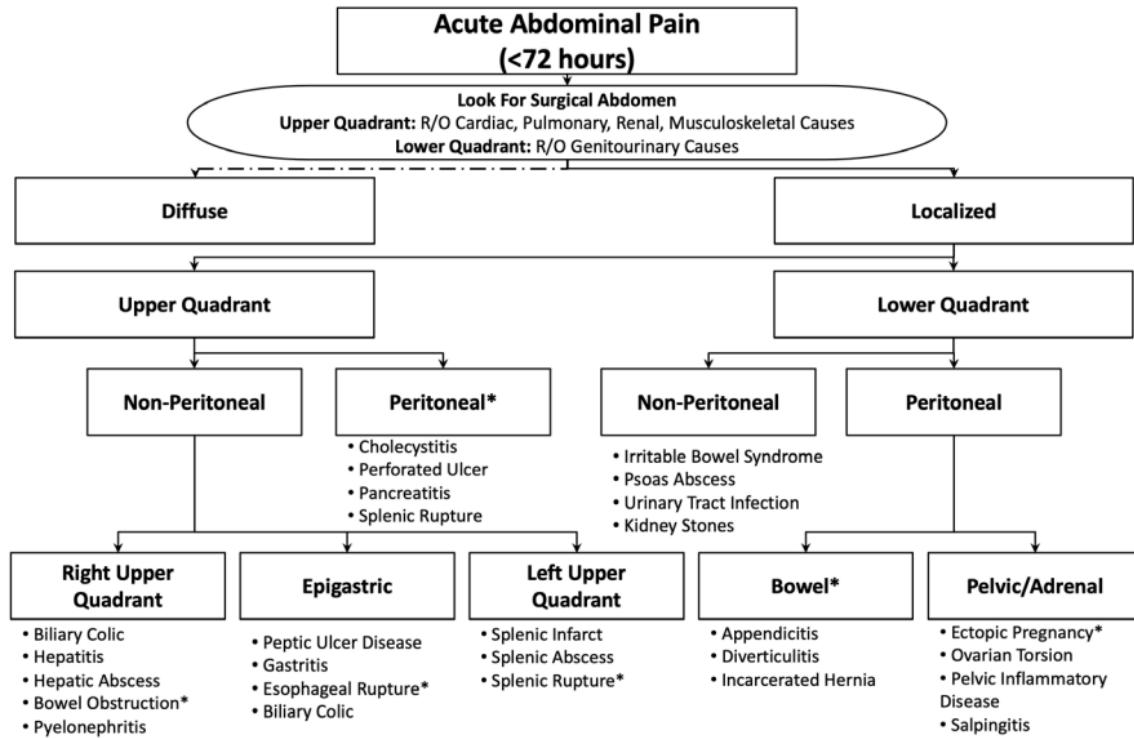
# Abdominal Pain (Adult)

Acute - Diffuse



# Abdominal Pain (Adult)

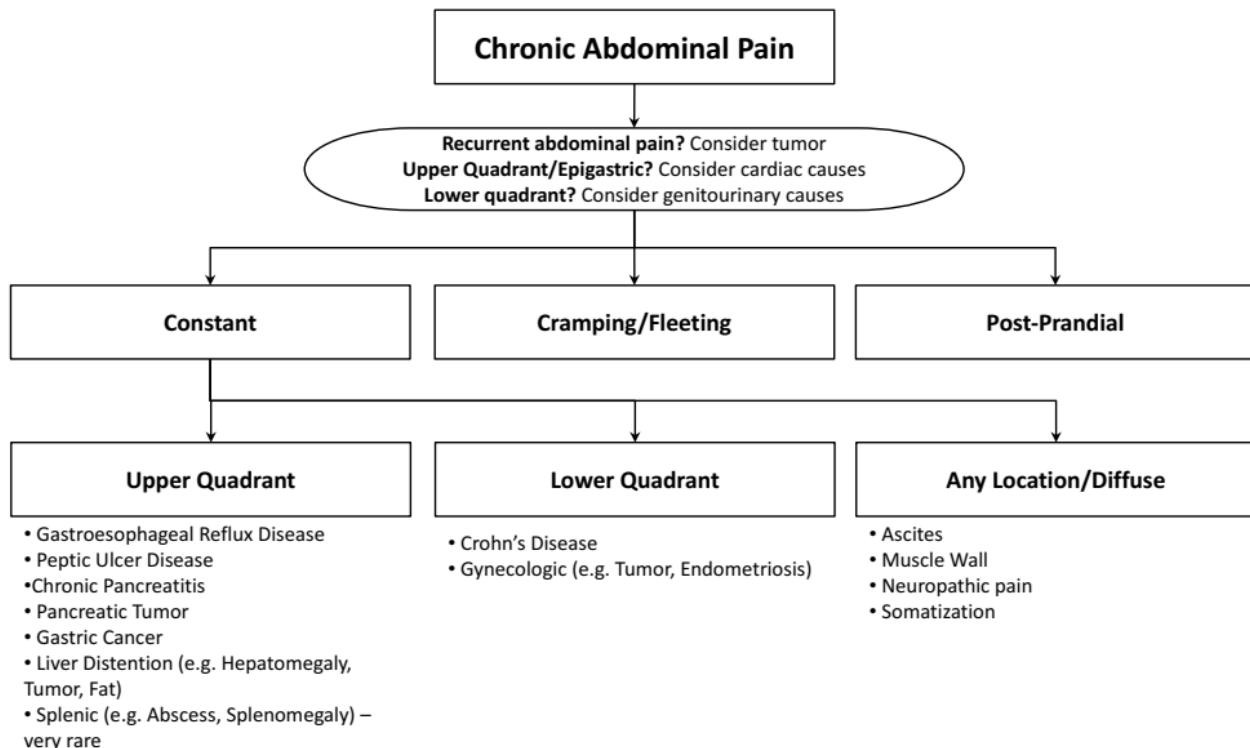
Acute - Localized



\*Denotes acutely life-threatening conditions

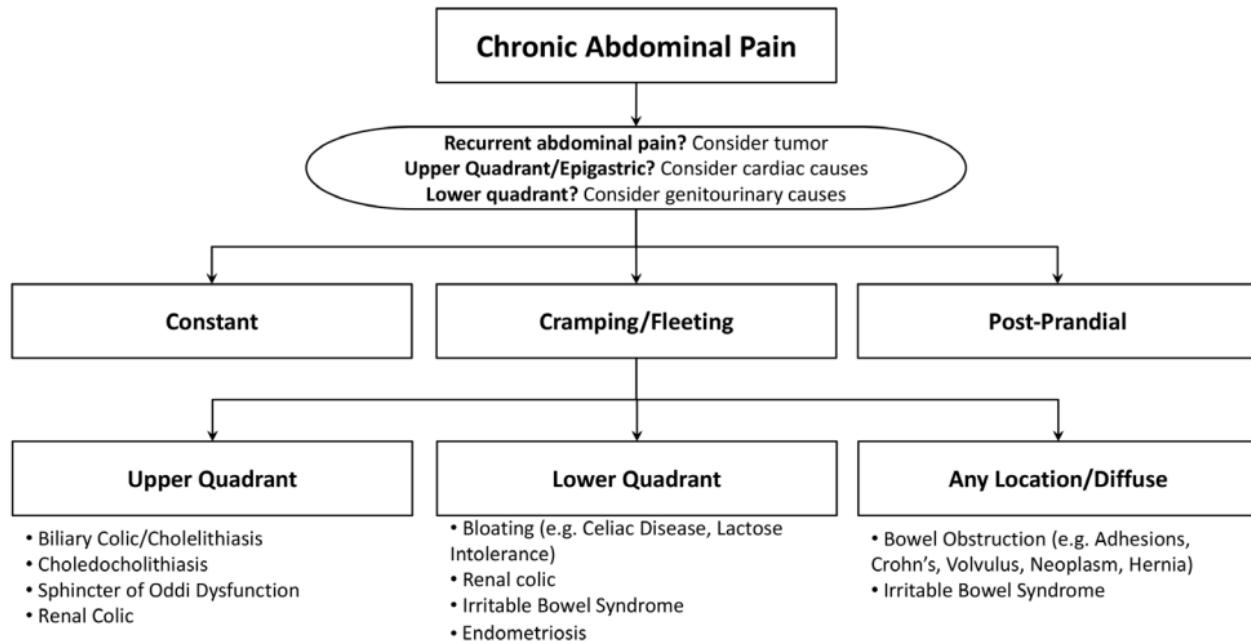
# Abdominal Pain (Adult)

Chronic - Constant



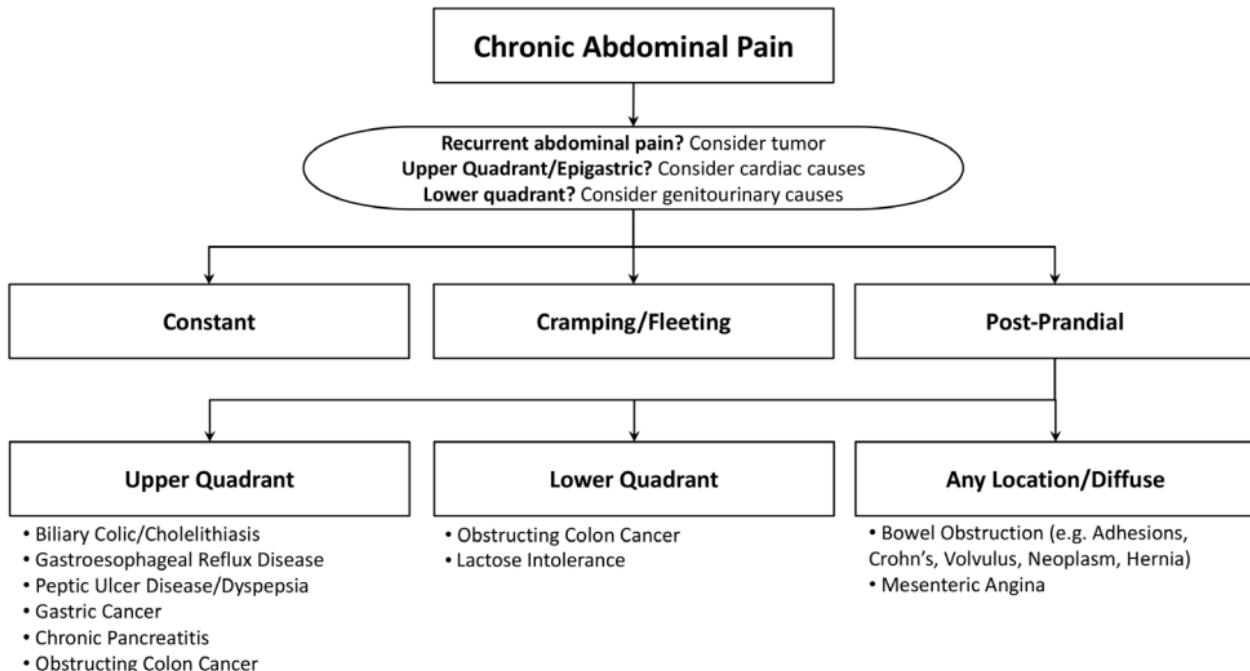
# Abdominal Pain (Adult)

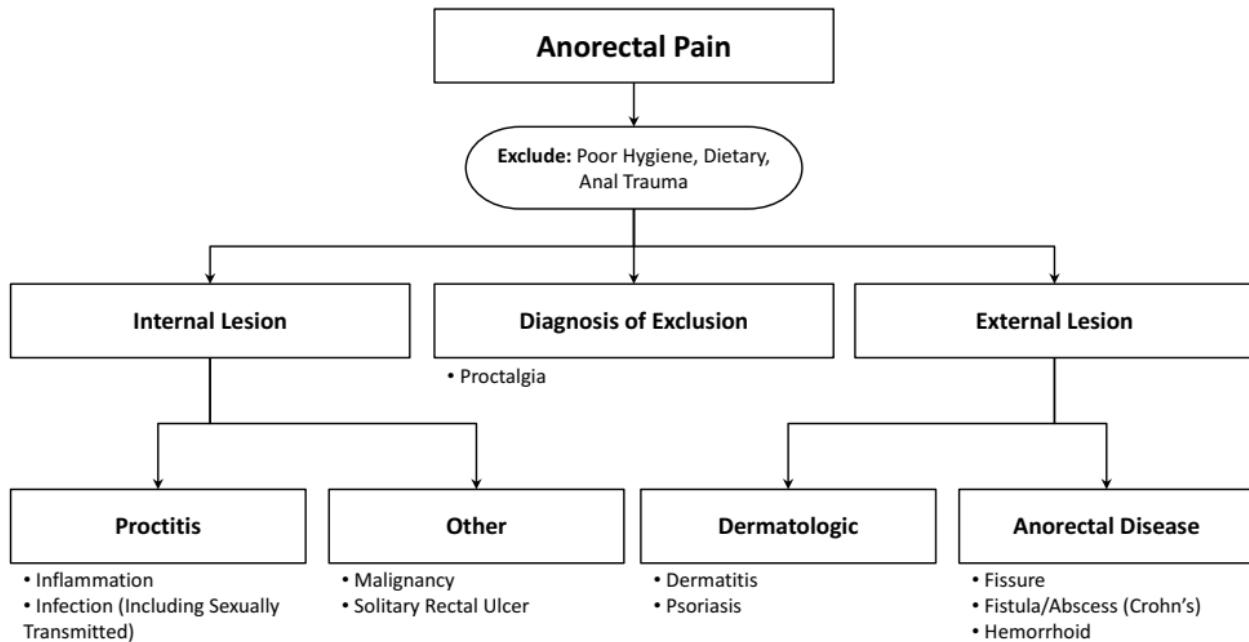
Chronic - Crampy / Fleeting



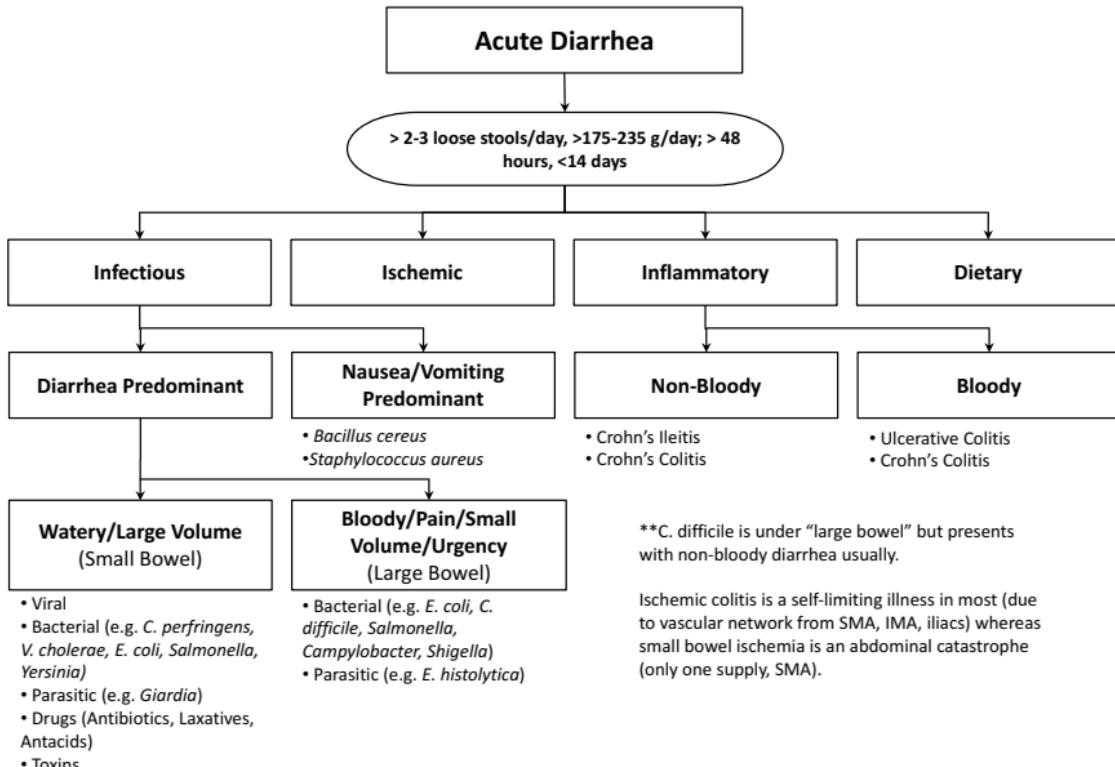
# Abdominal Pain (Adult)

Chronic - Post-Prandial



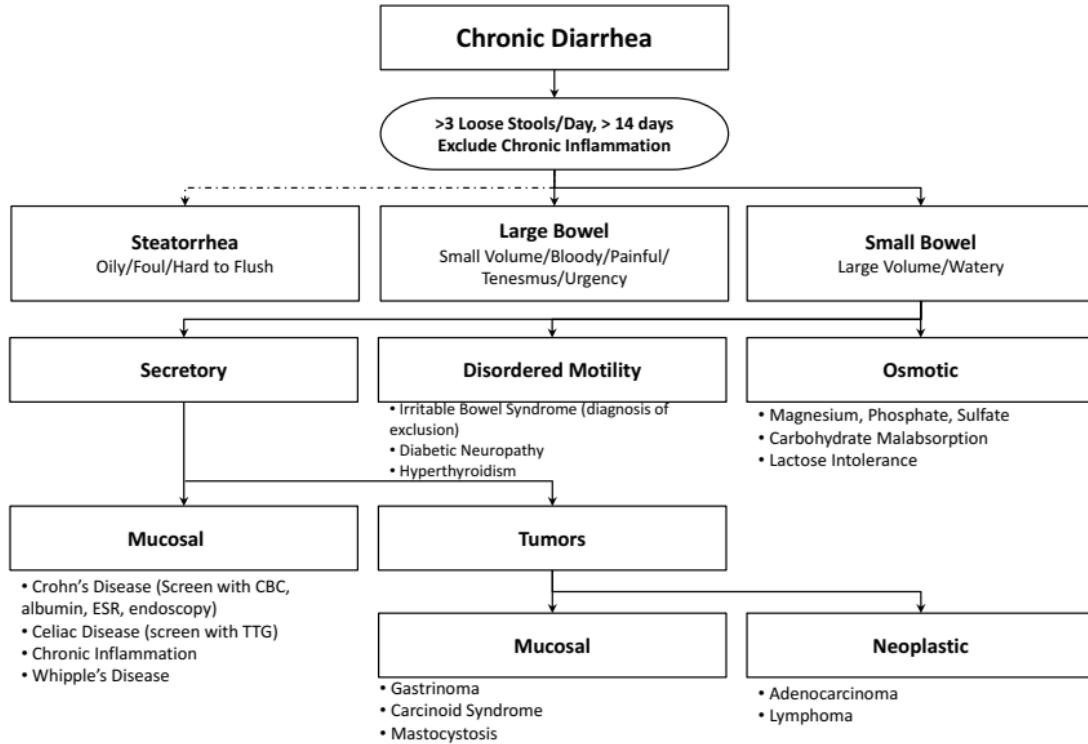


# Acute Diarrhea



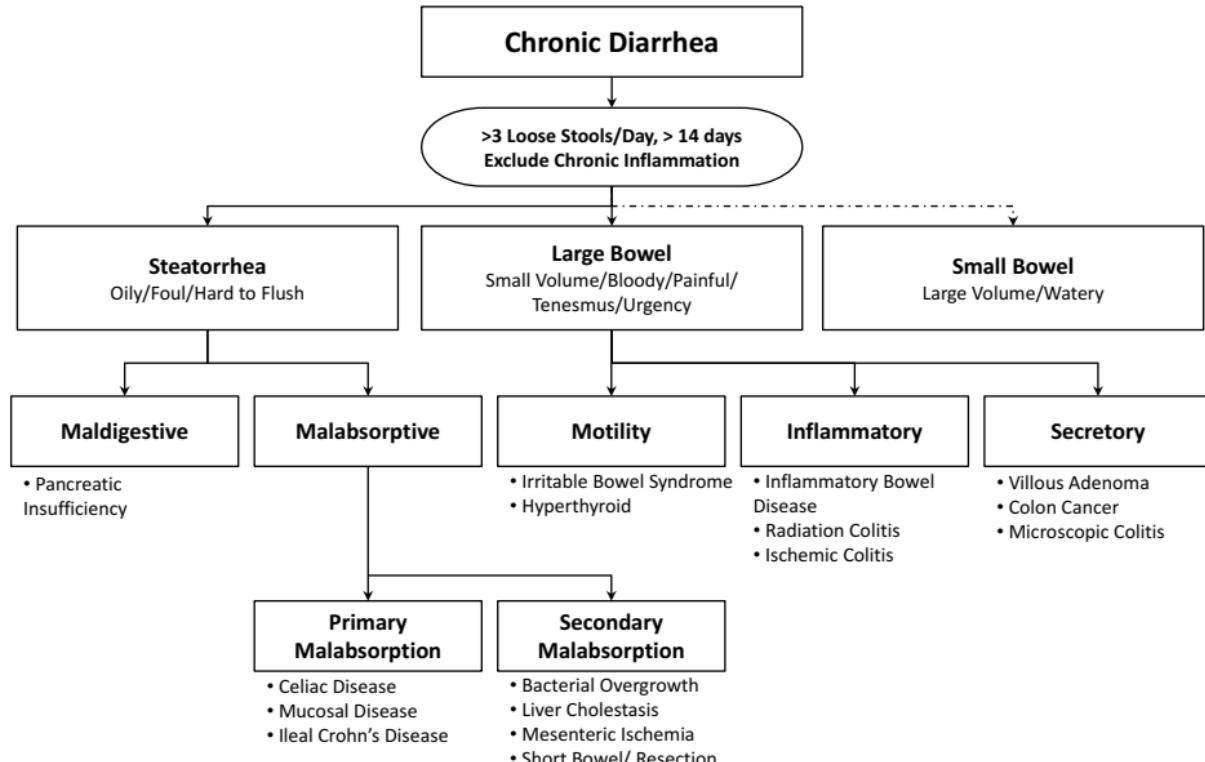
# Chronic Diarrhea

Small Bowel



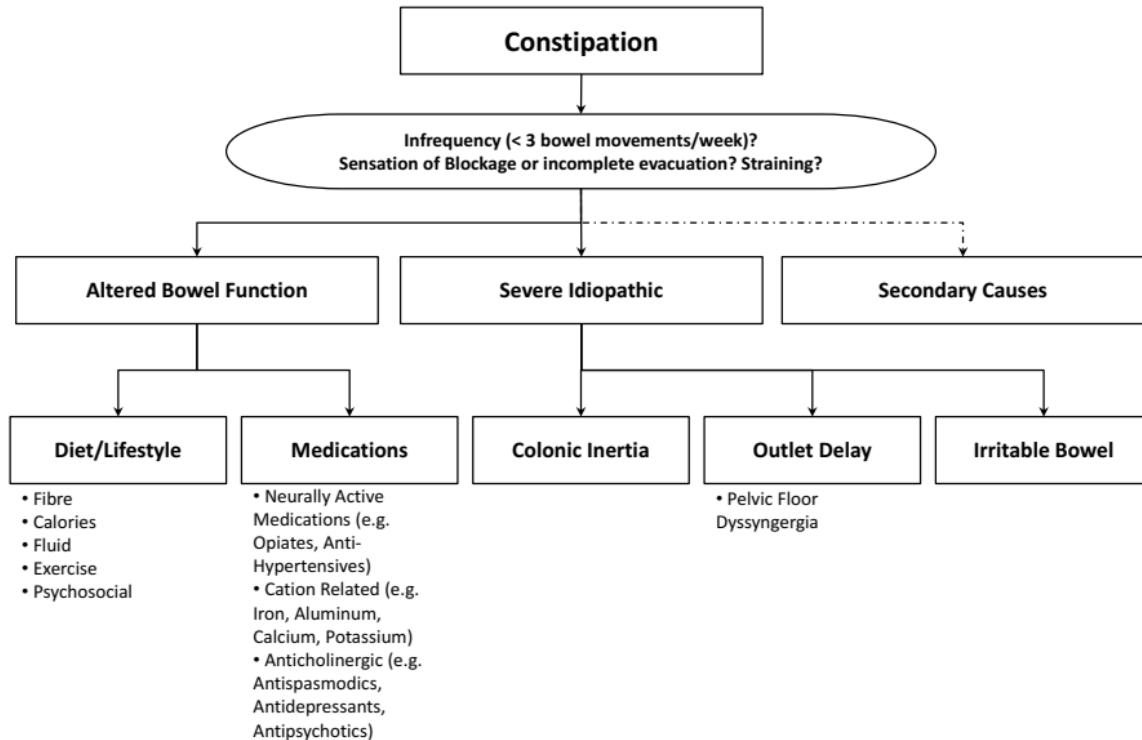
# Chronic Diarrhea

Steatorrhea & Large Bowel



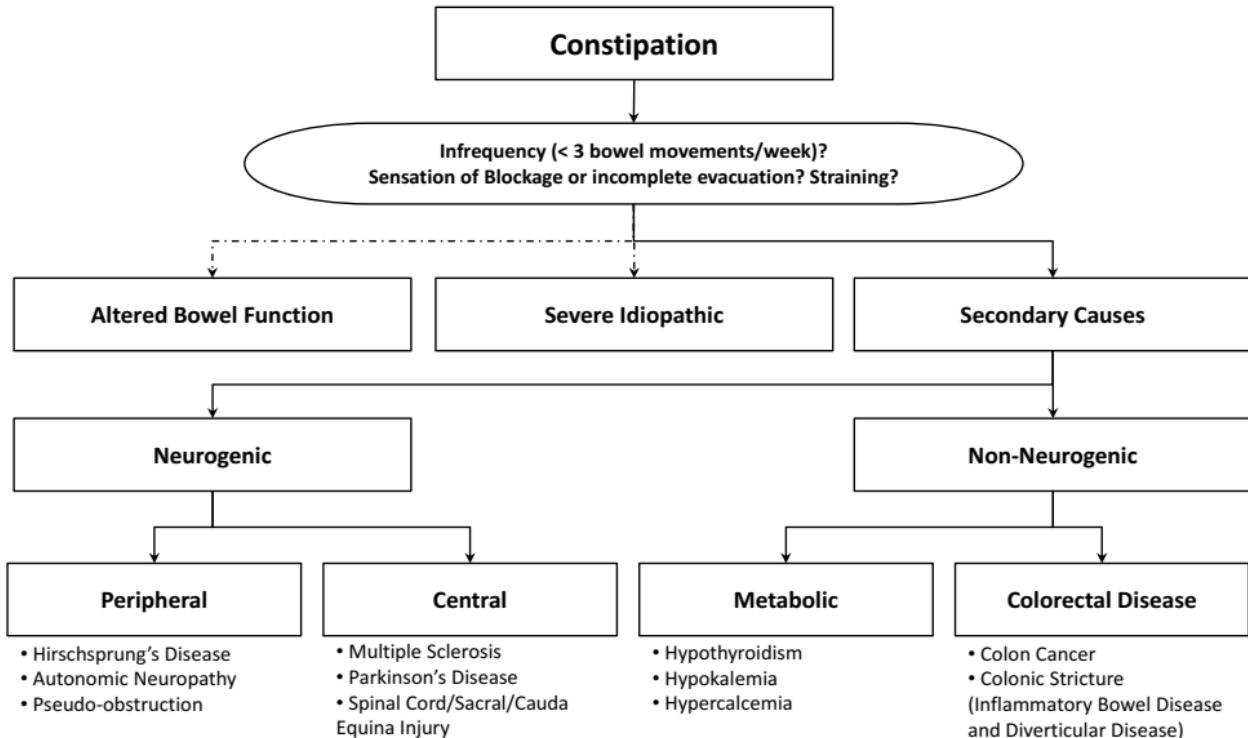
# Constipation (Adult)

Altered Bowel Function & Idiopathic

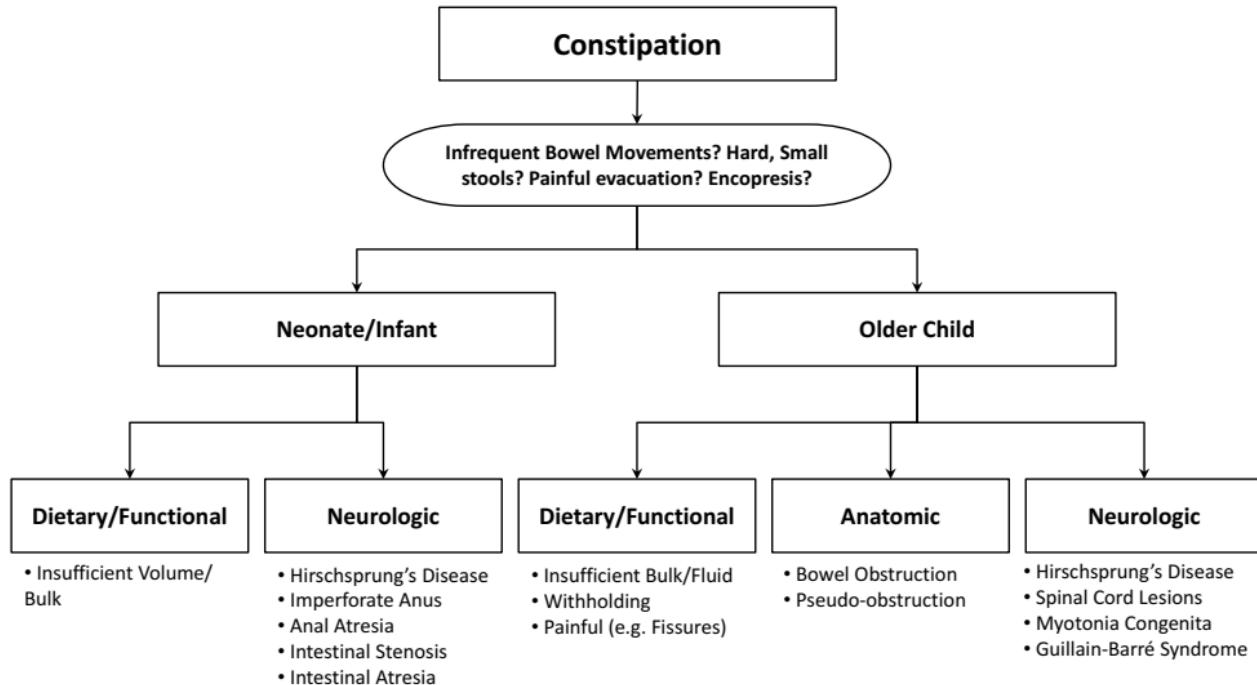


# Constipation (Adult)

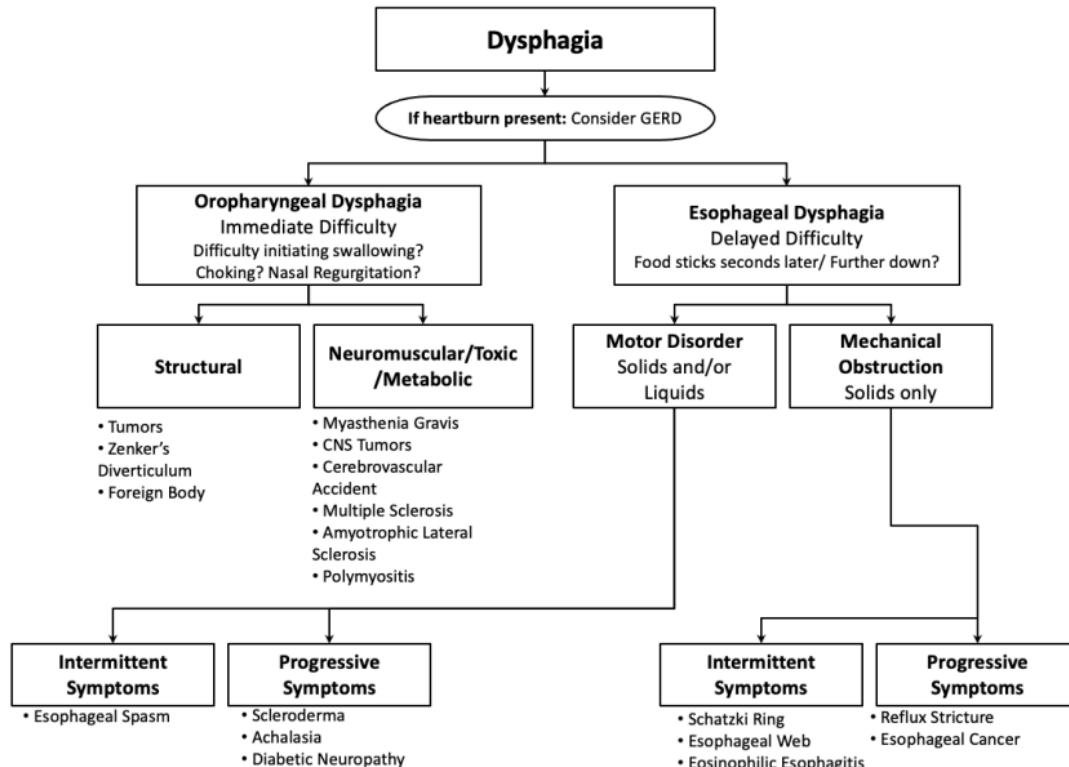
## Secondary Causes



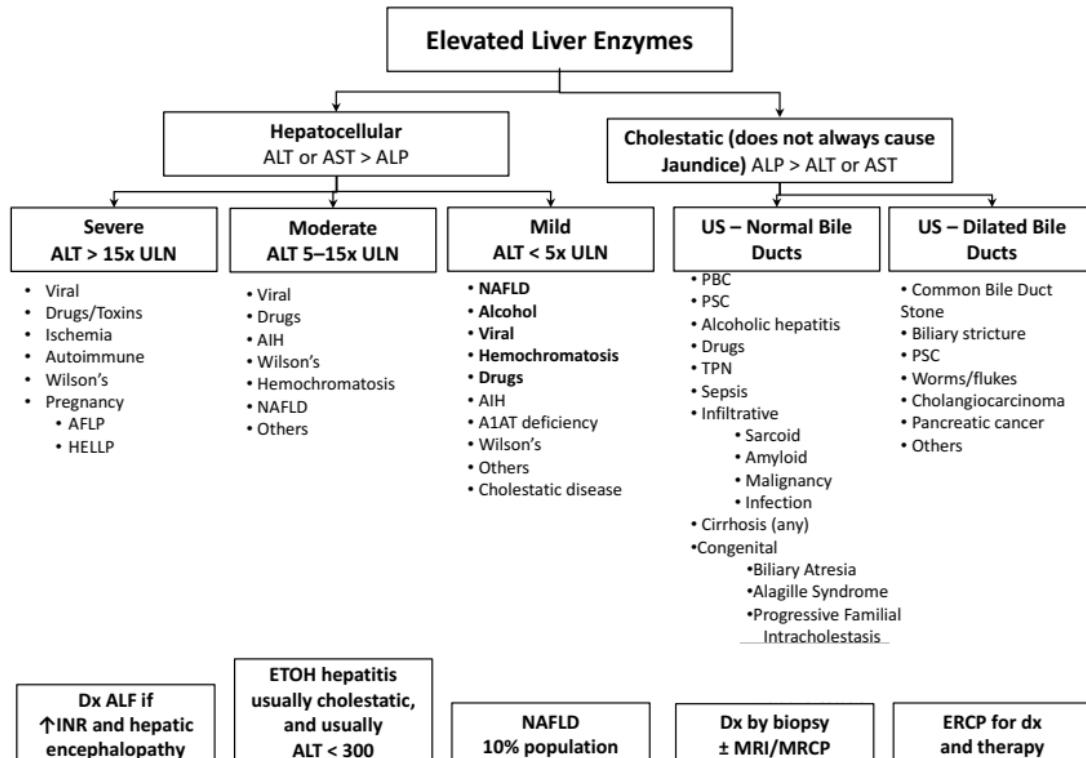
# Constipation (Pediatric)



# Dysphagia

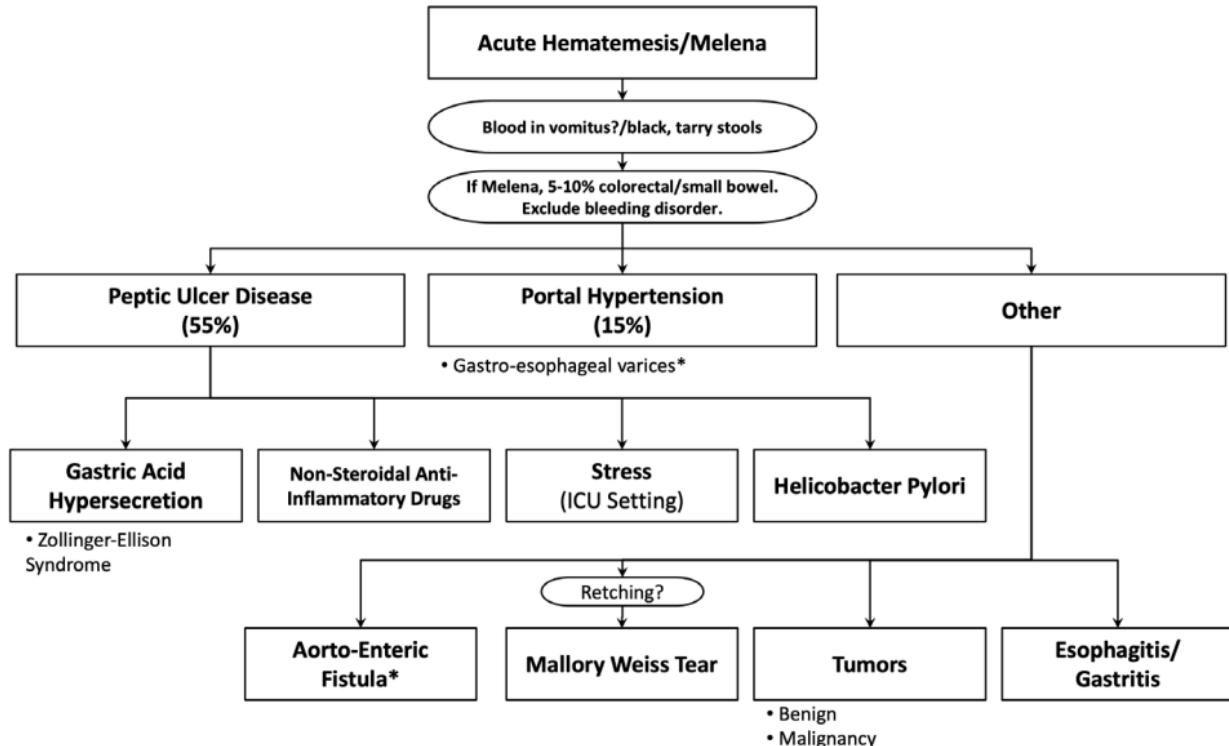


# Elevated Liver Enzymes

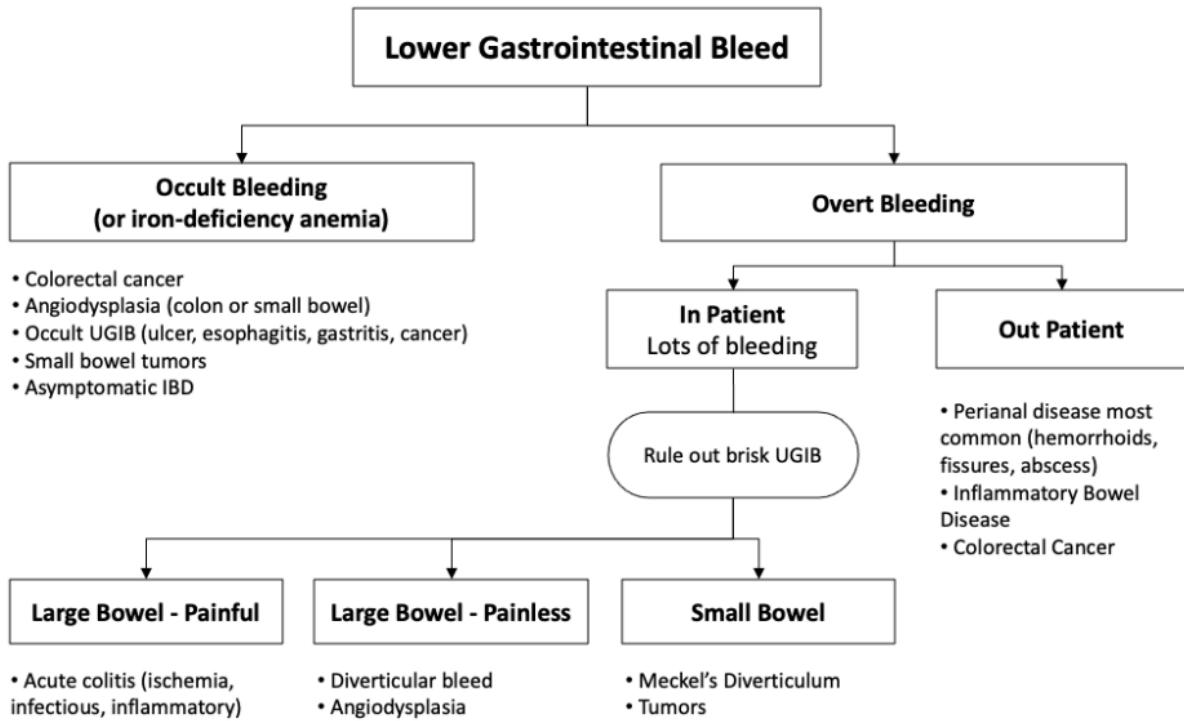


# Upper Gastrointestinal Bleed

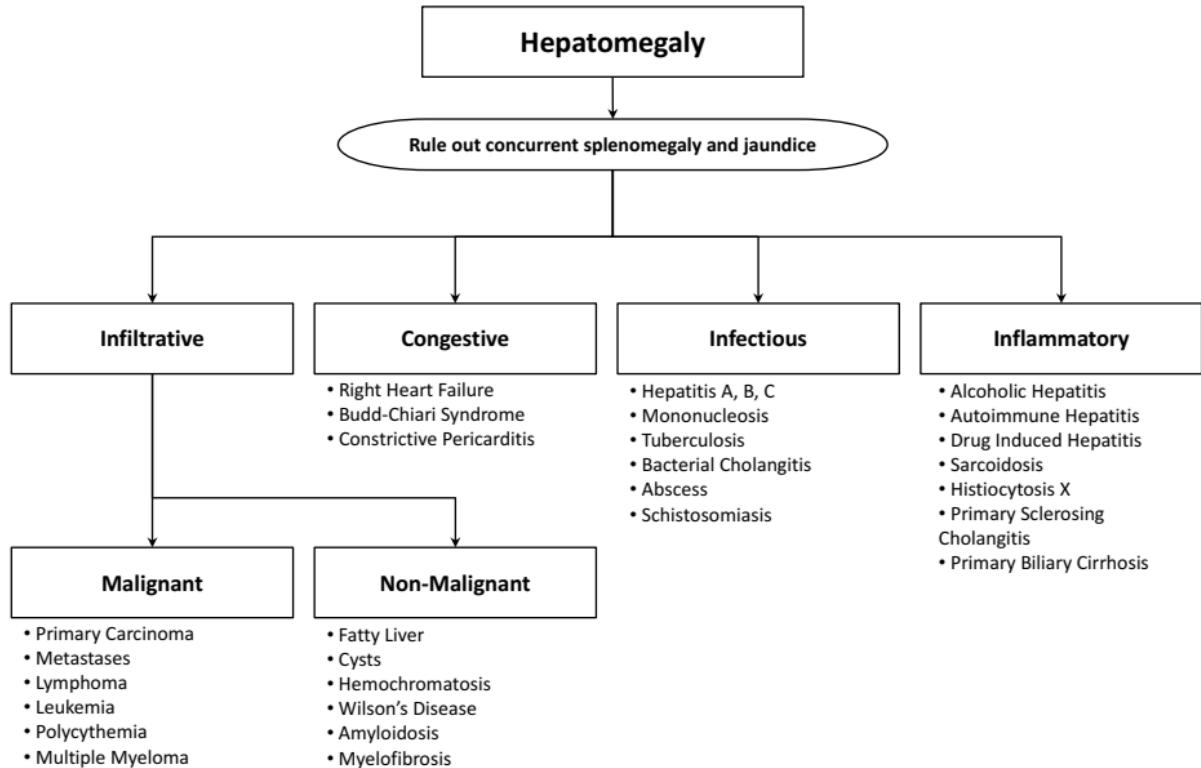
(Hematemesis / Melena)

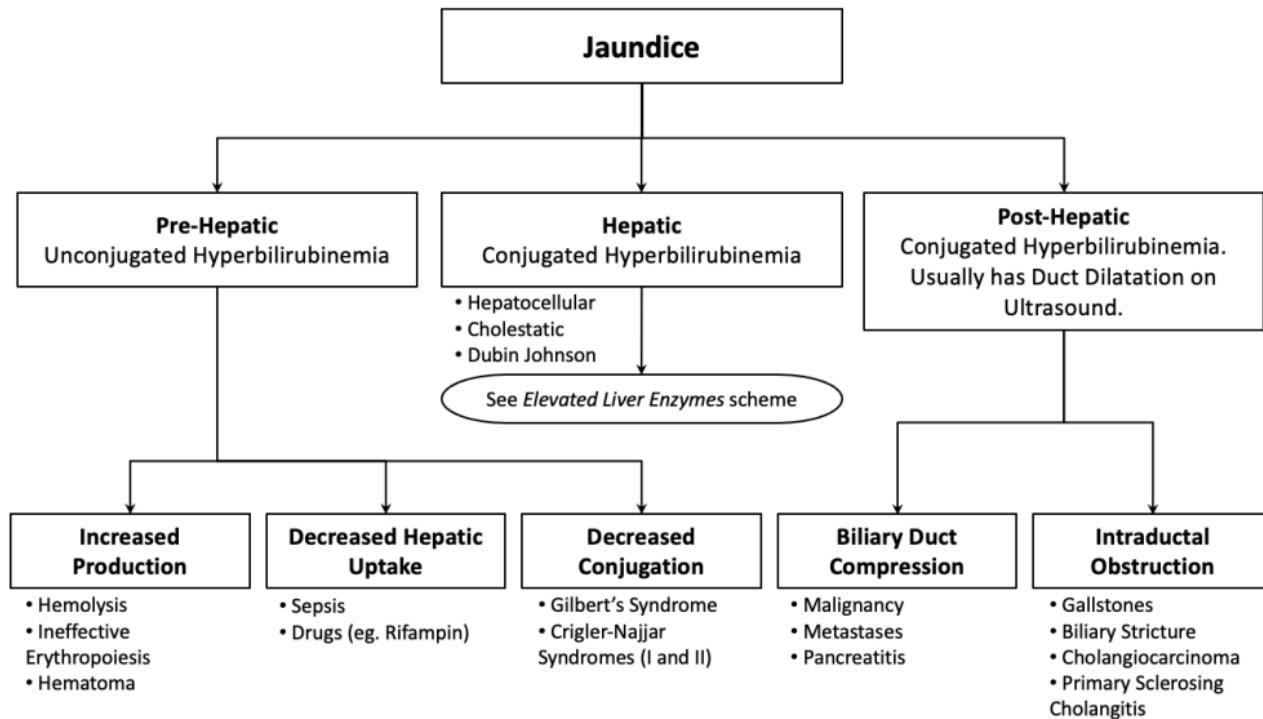


# Lower Gastrointestinal Bleed

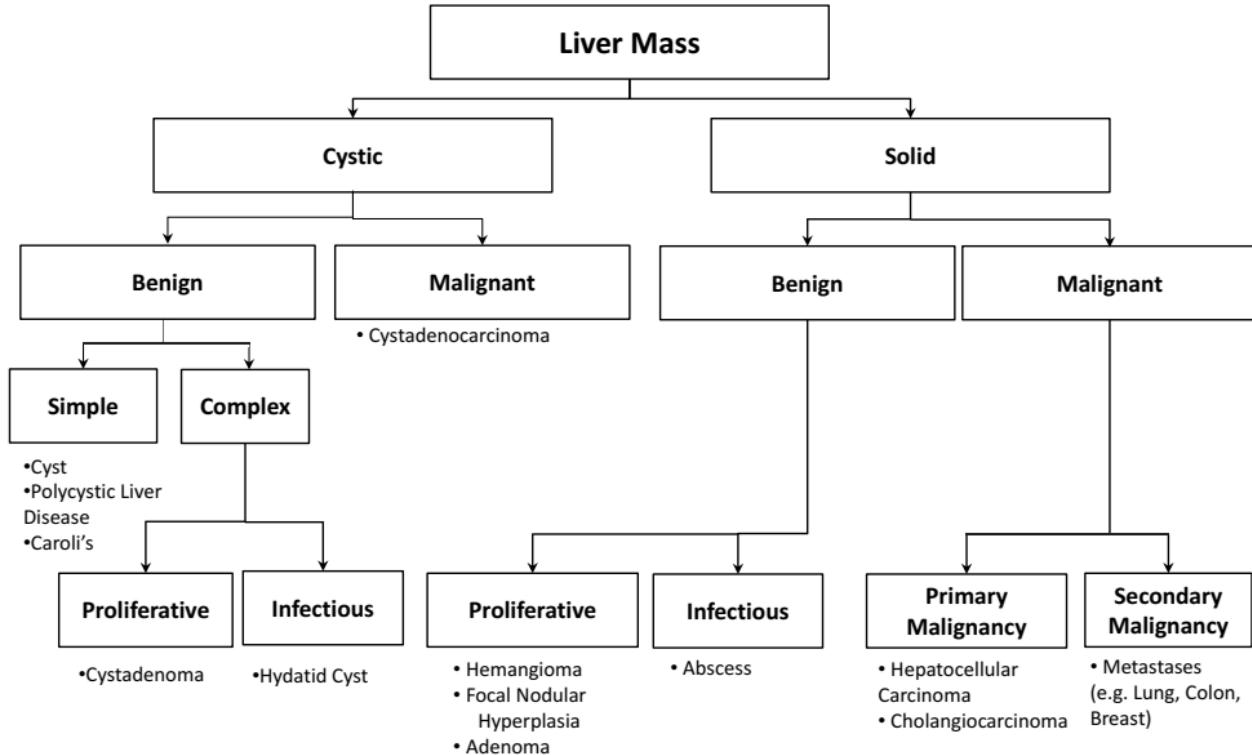


# Hepatomegaly

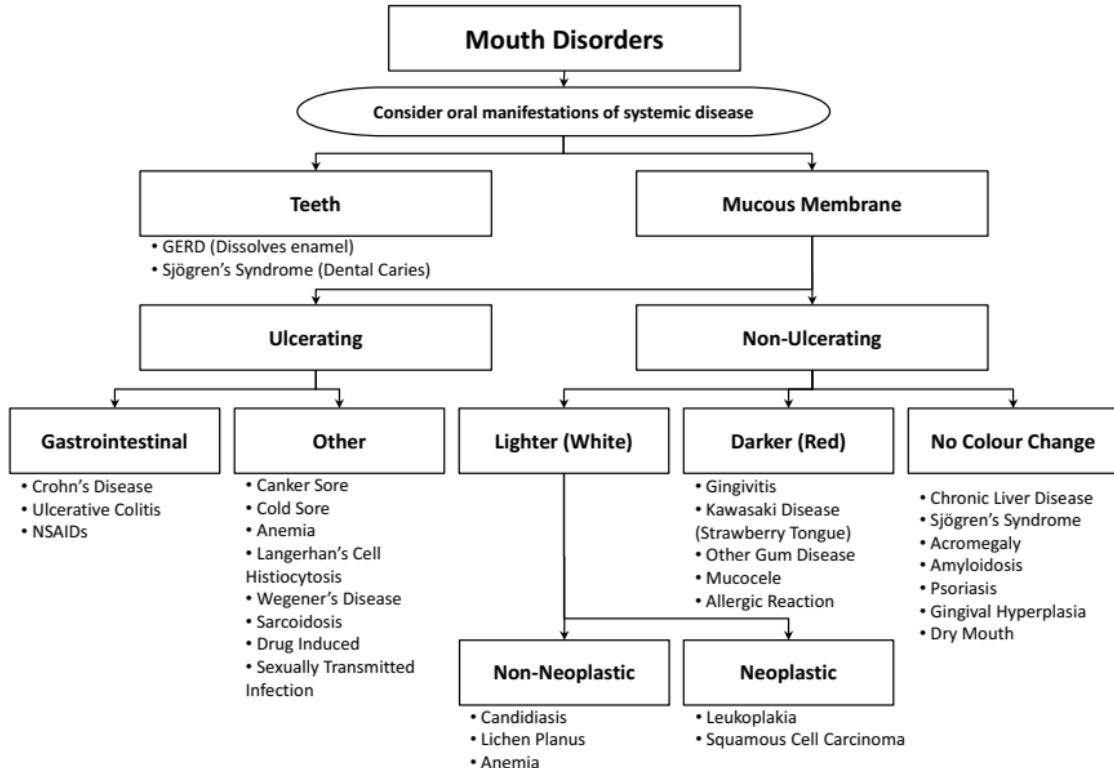




# Liver Mass

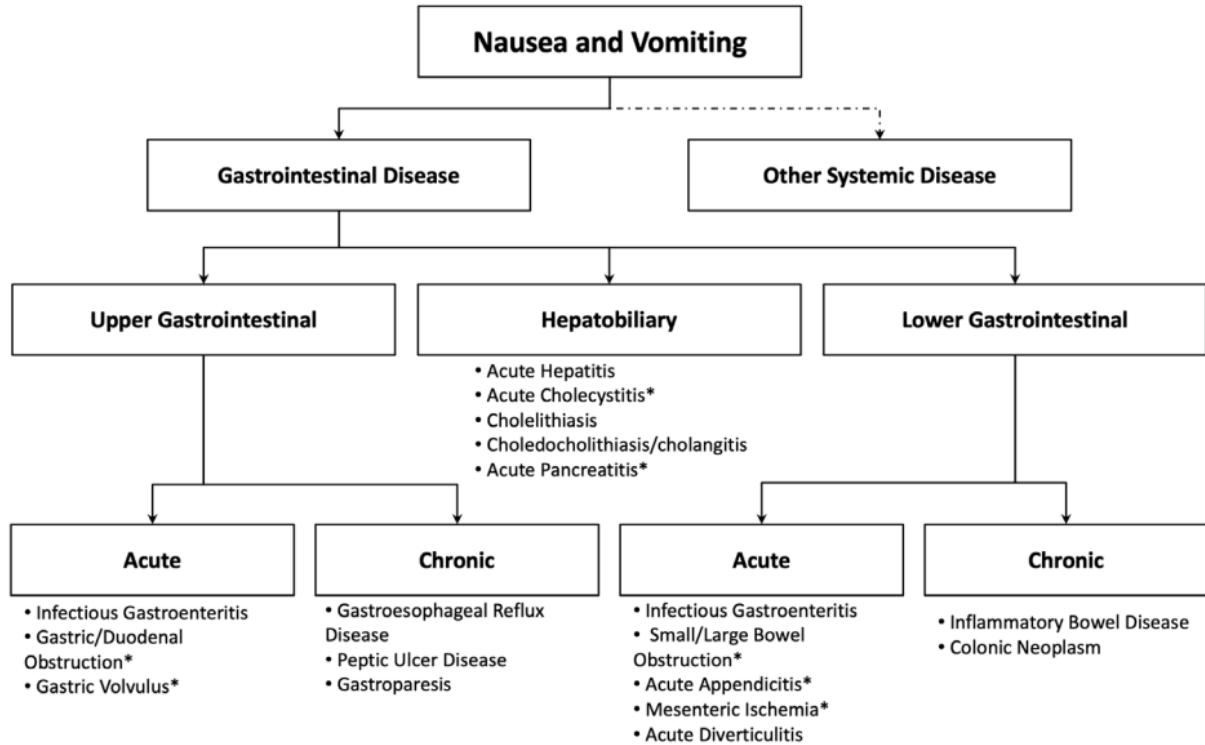


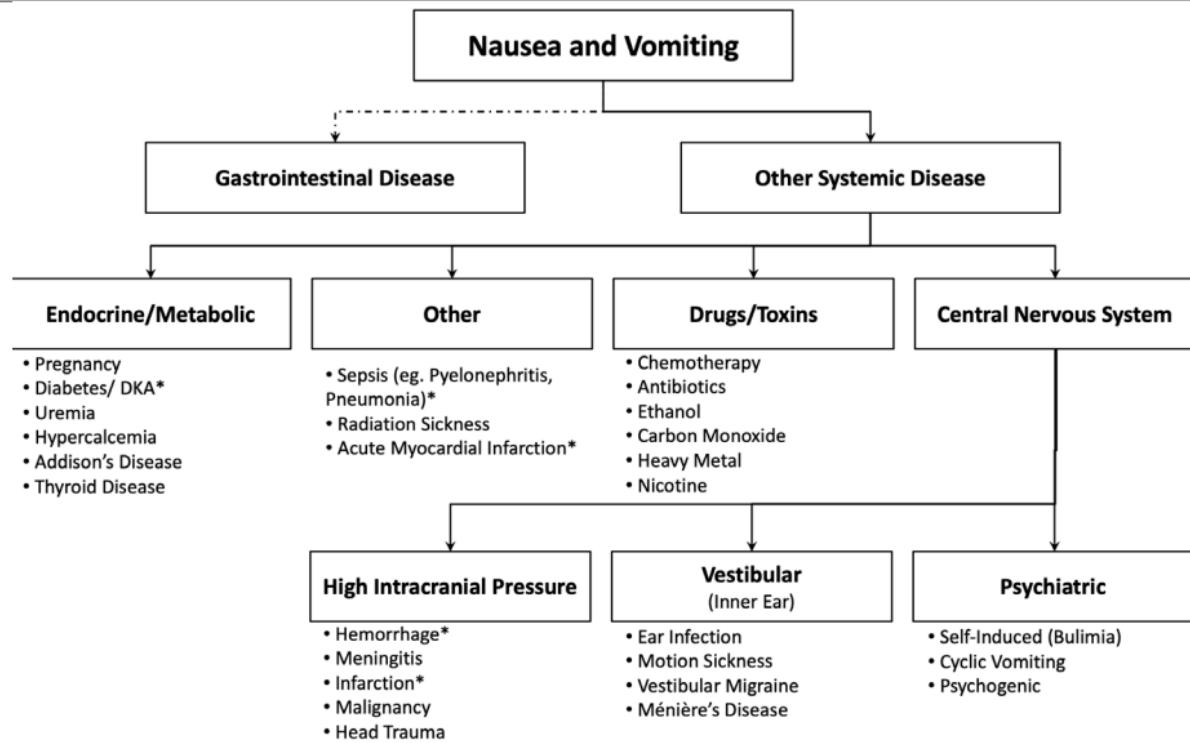
# Mouth Disorders (Adult & Elderly)



# Nausea & Vomiting

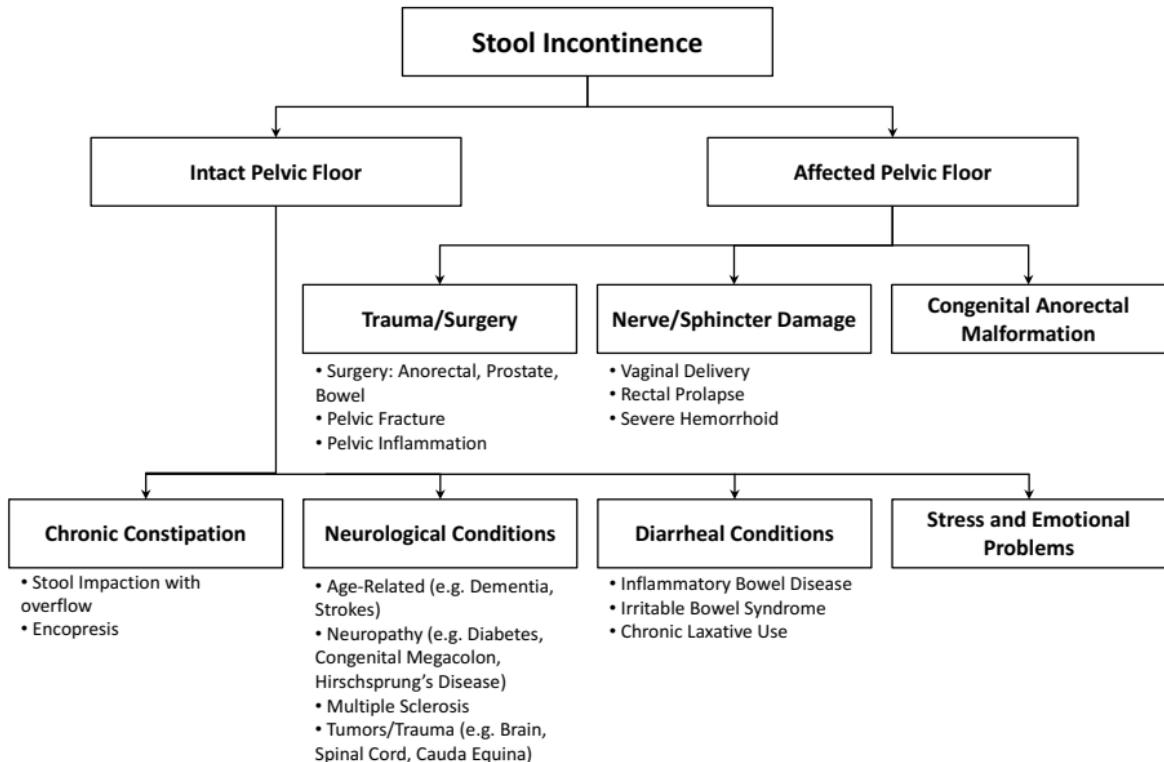
## Gastrointestinal Disease



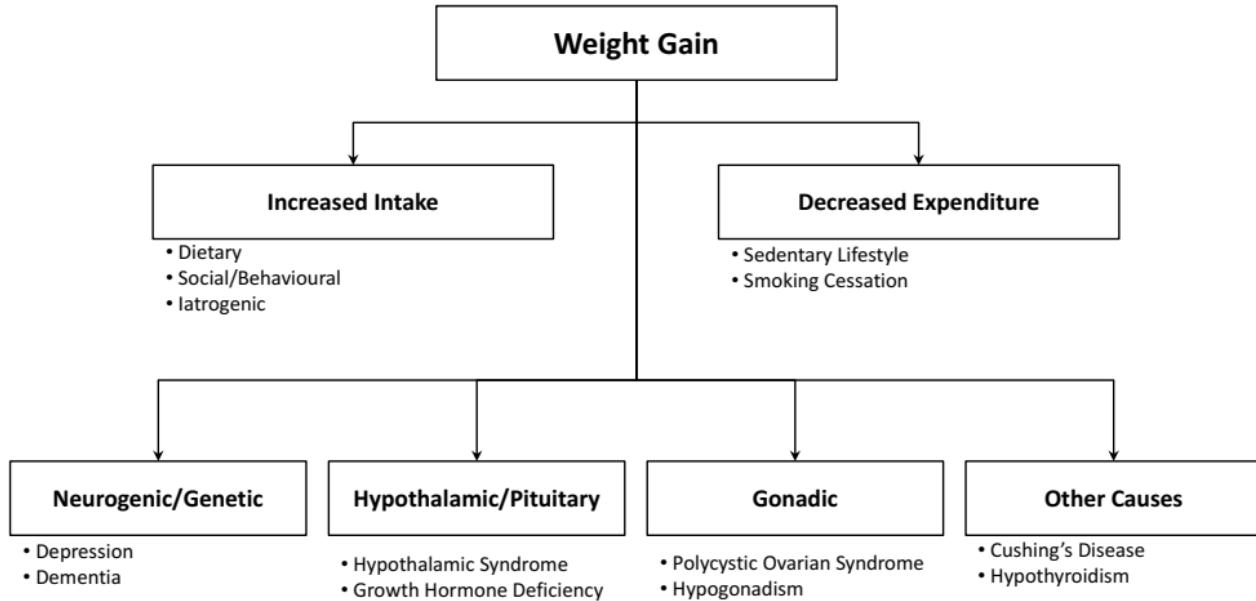


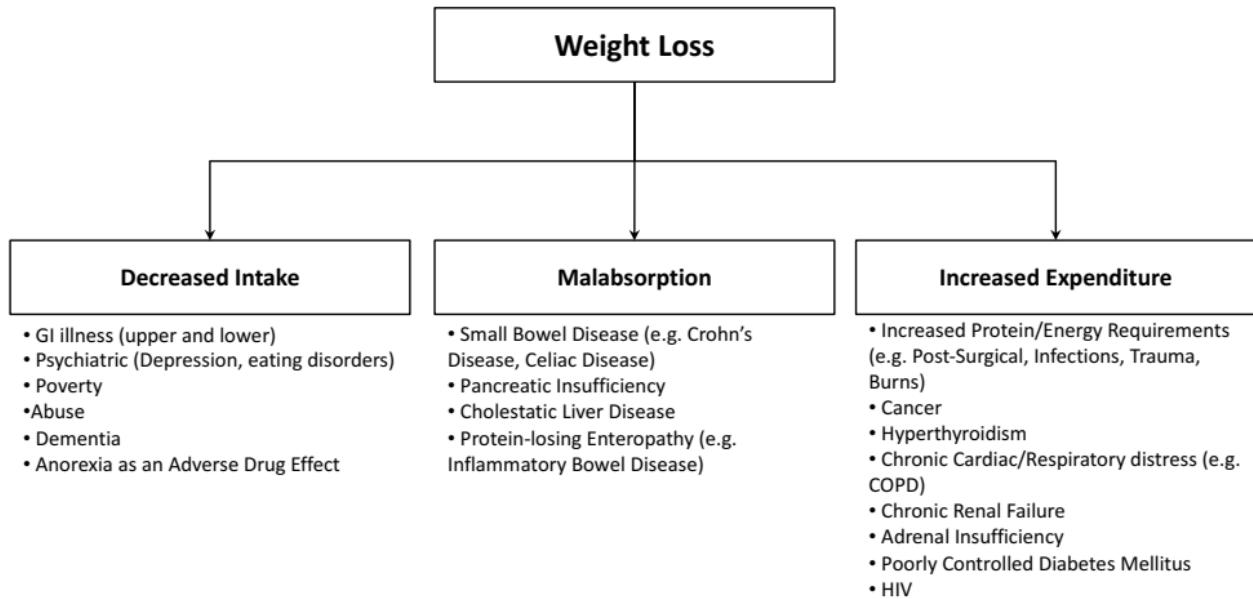
\*Denotes acutely life-threatening conditions

# Stool Incontinence



# Weight Gain



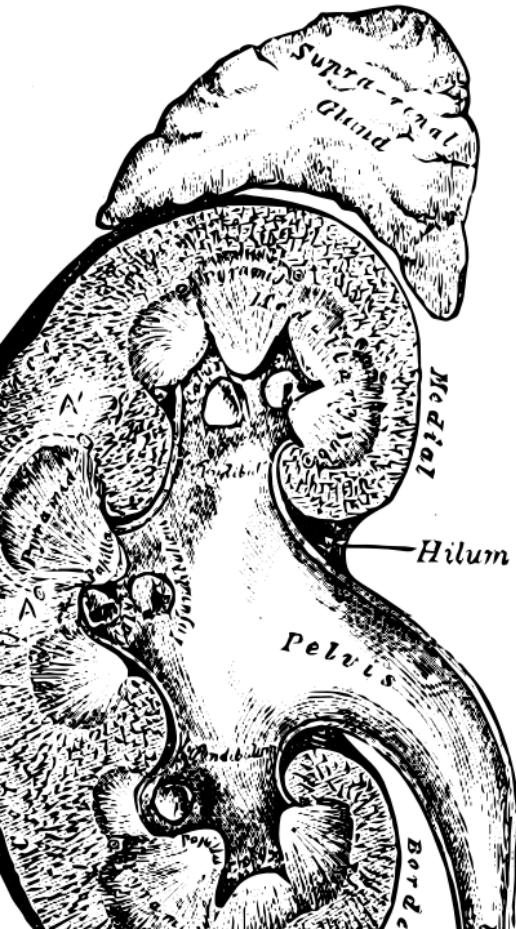




# Renal

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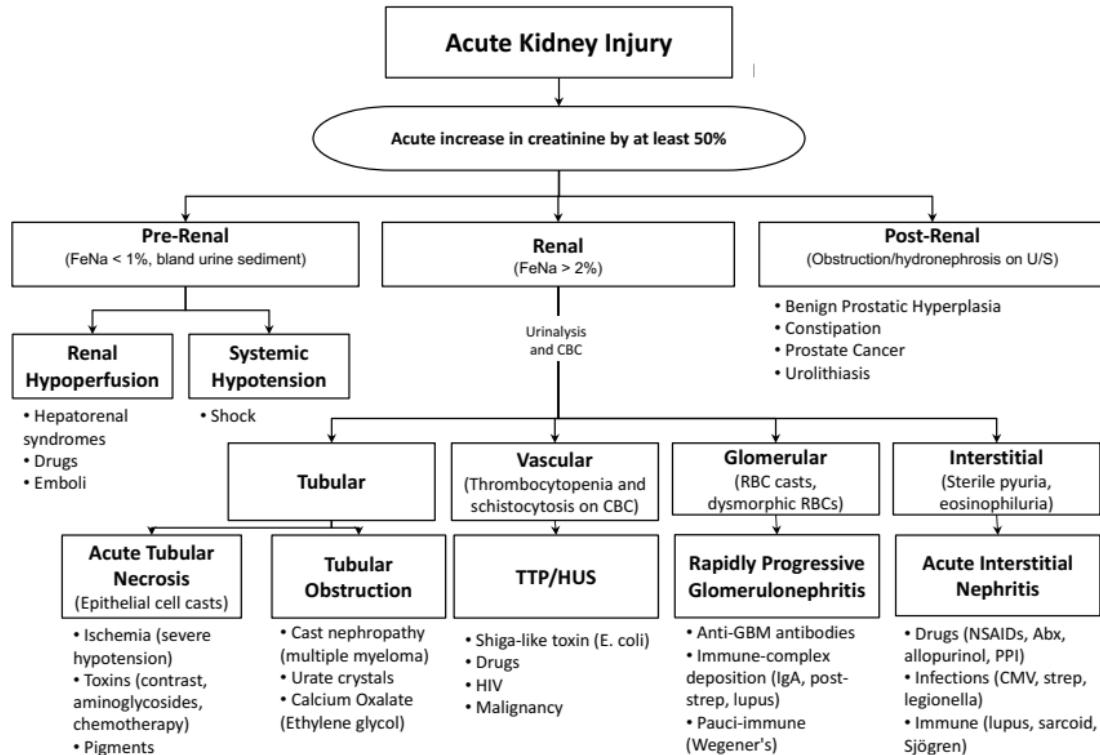
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Mark Elliot (*Co-editor*)

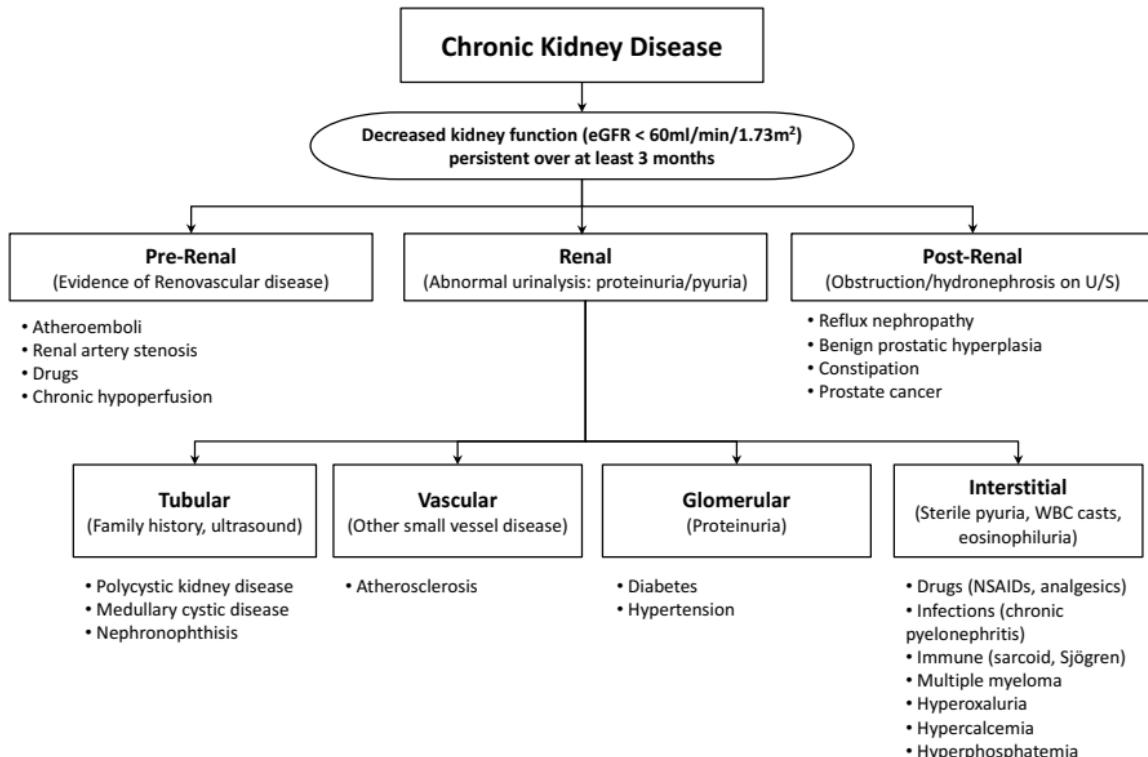
*Faculty Editor*

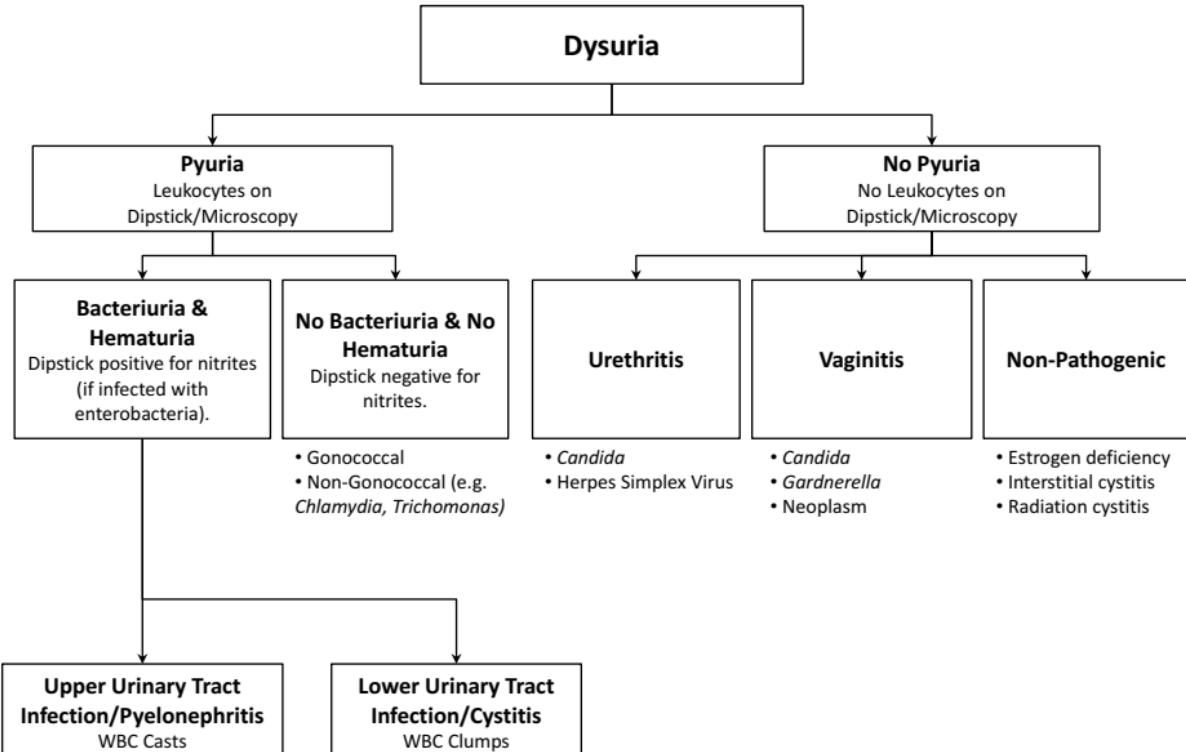
Dr. Kevin McLaughlin

# Acute Kidney Injury

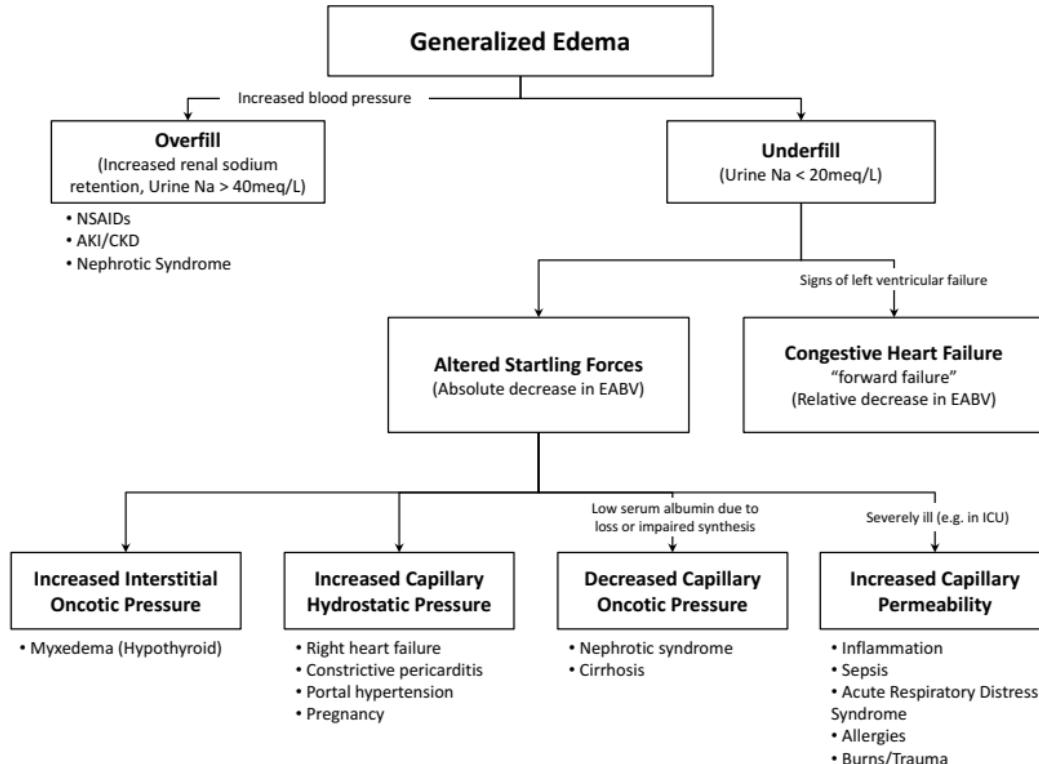


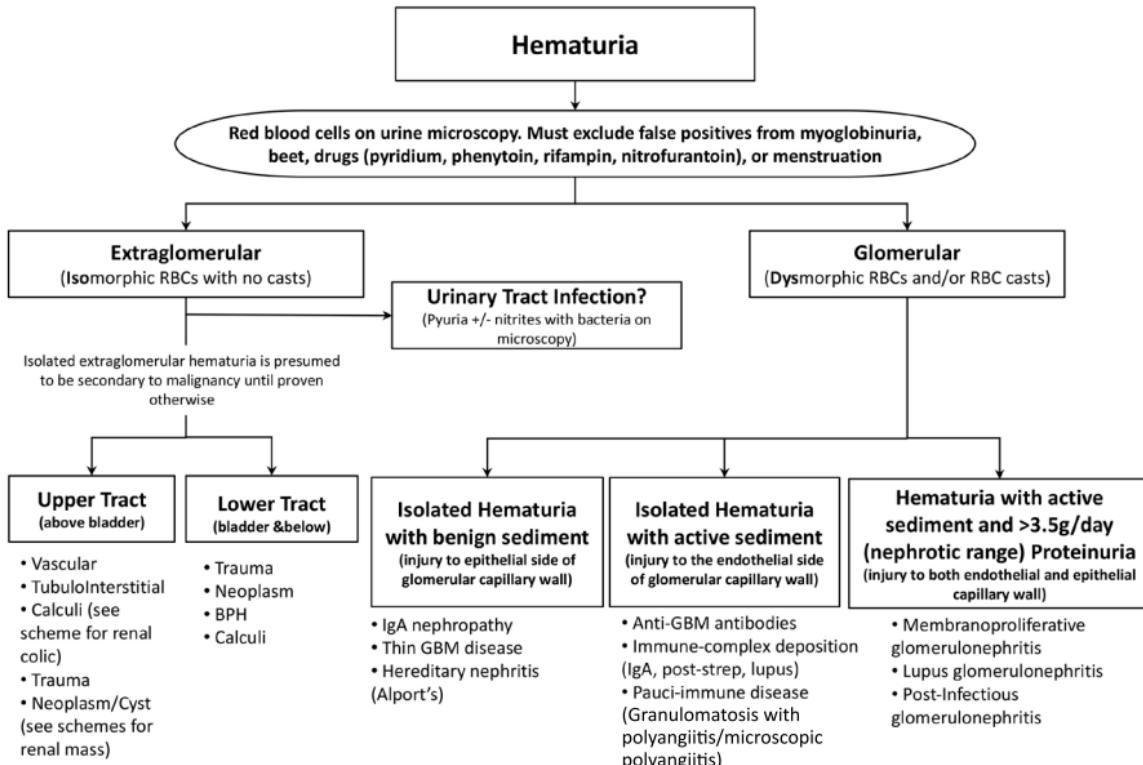
# Chronic Kidney Disease

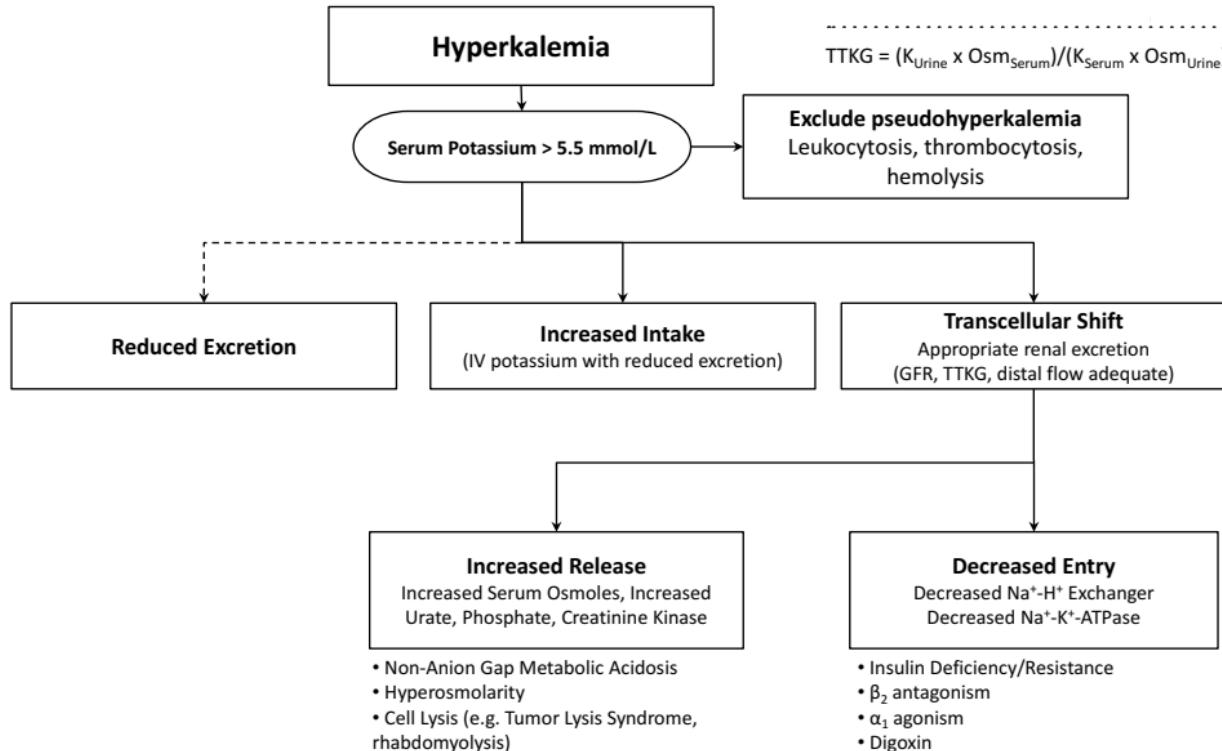




# Generalized Edema

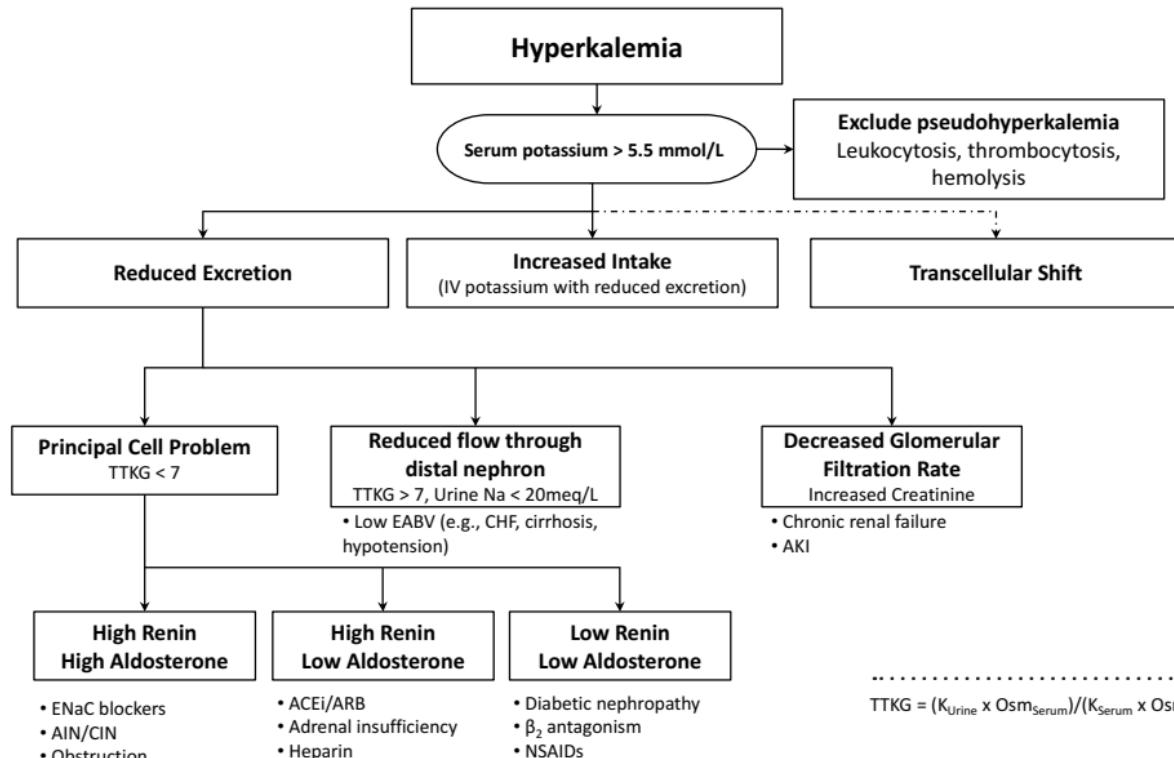


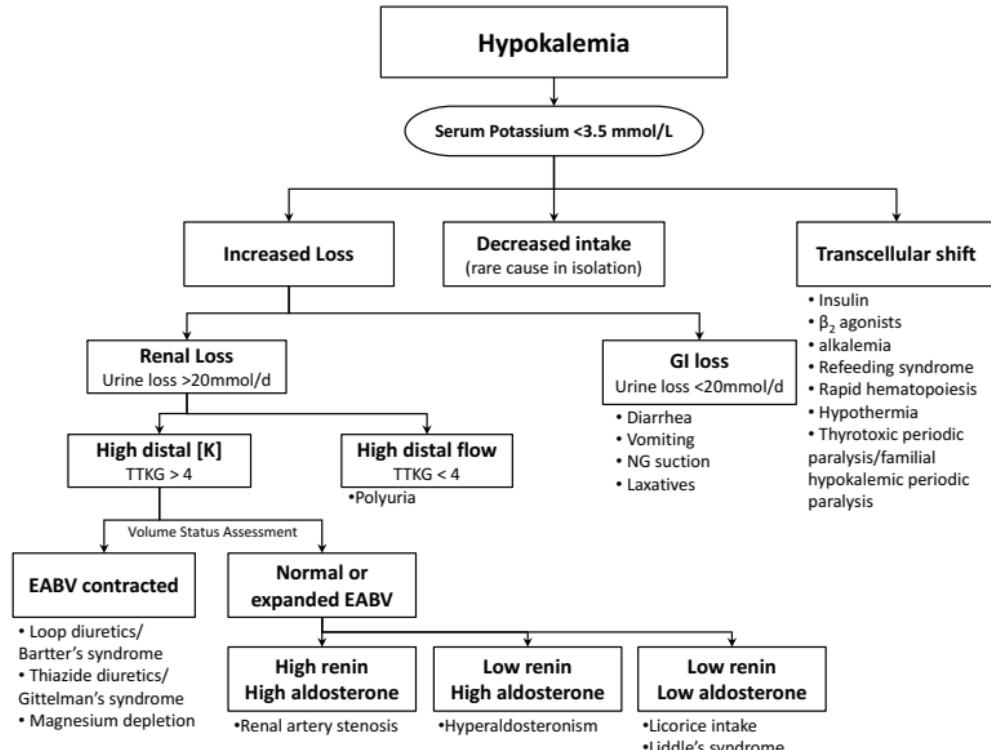




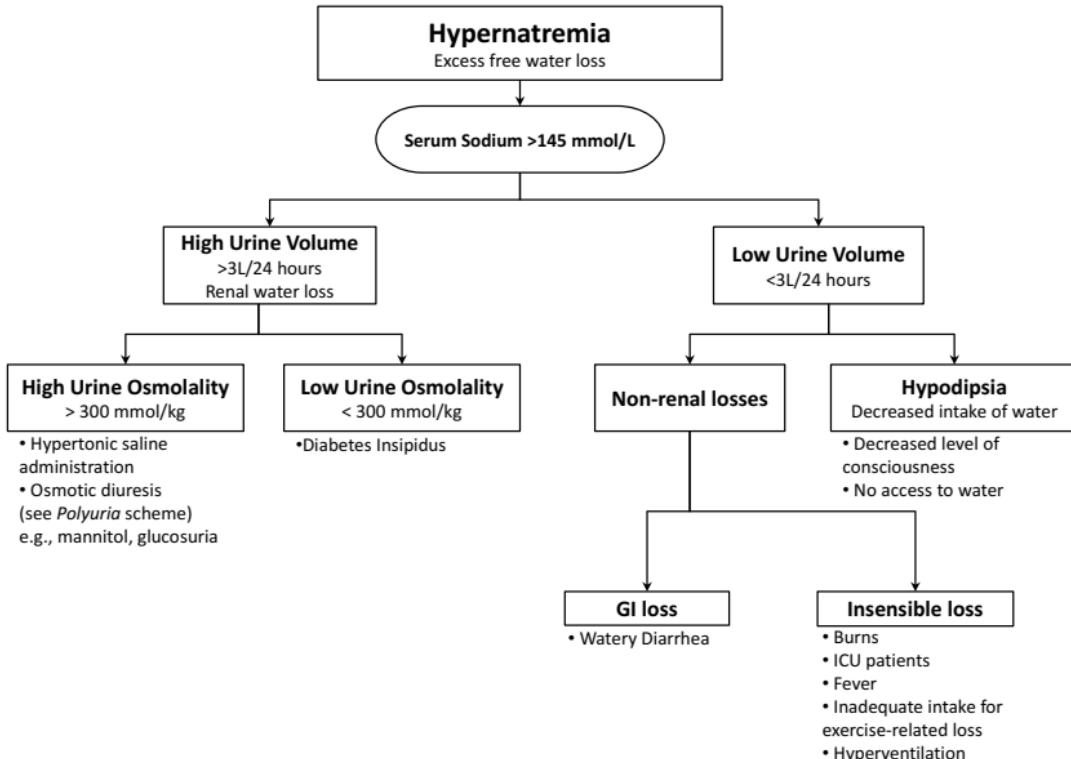
# Hyperkalemia

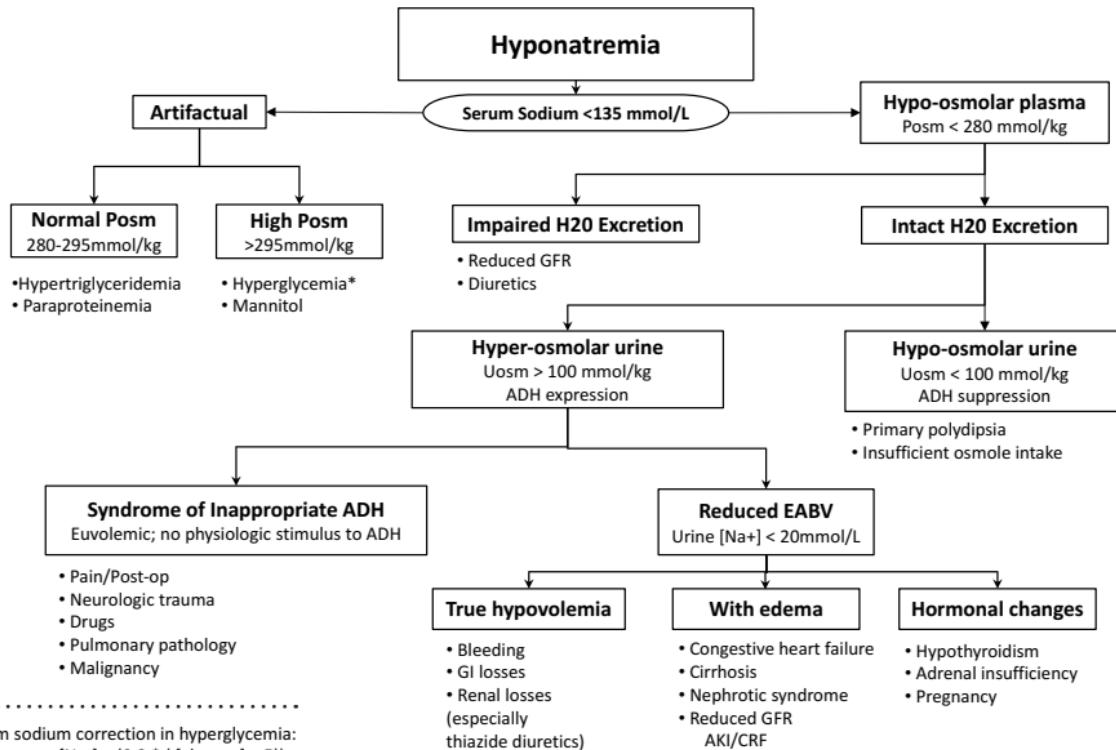
Reduced Excretion



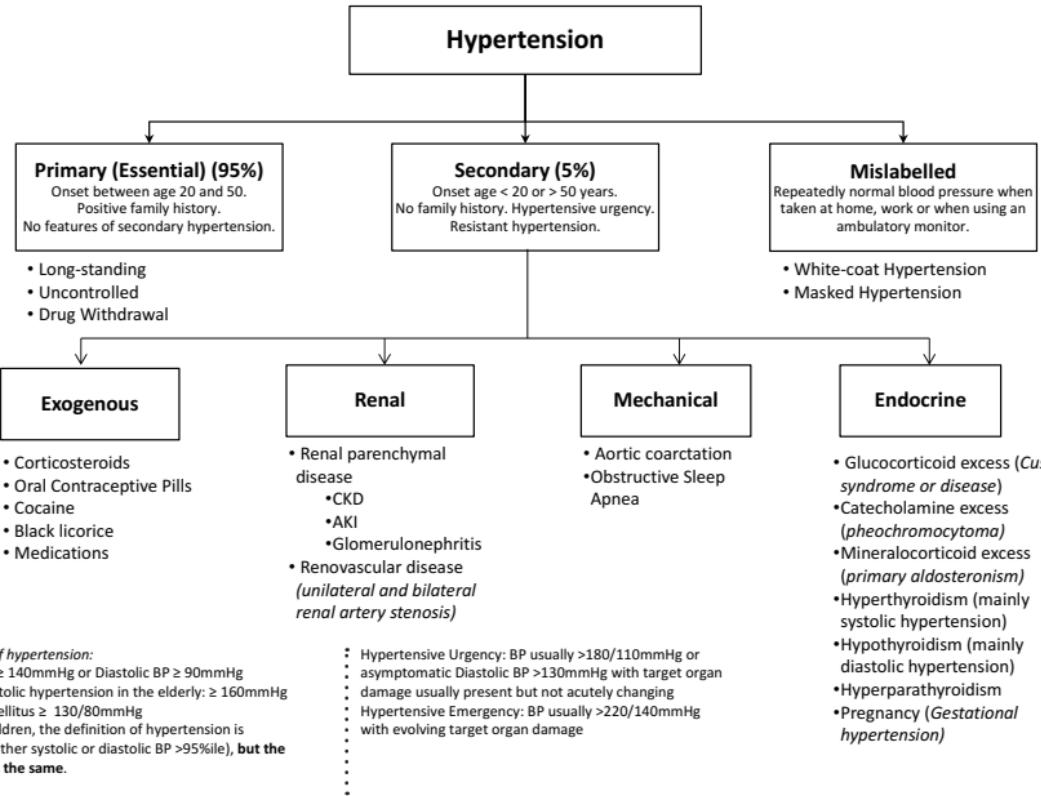


# Hypernatremia

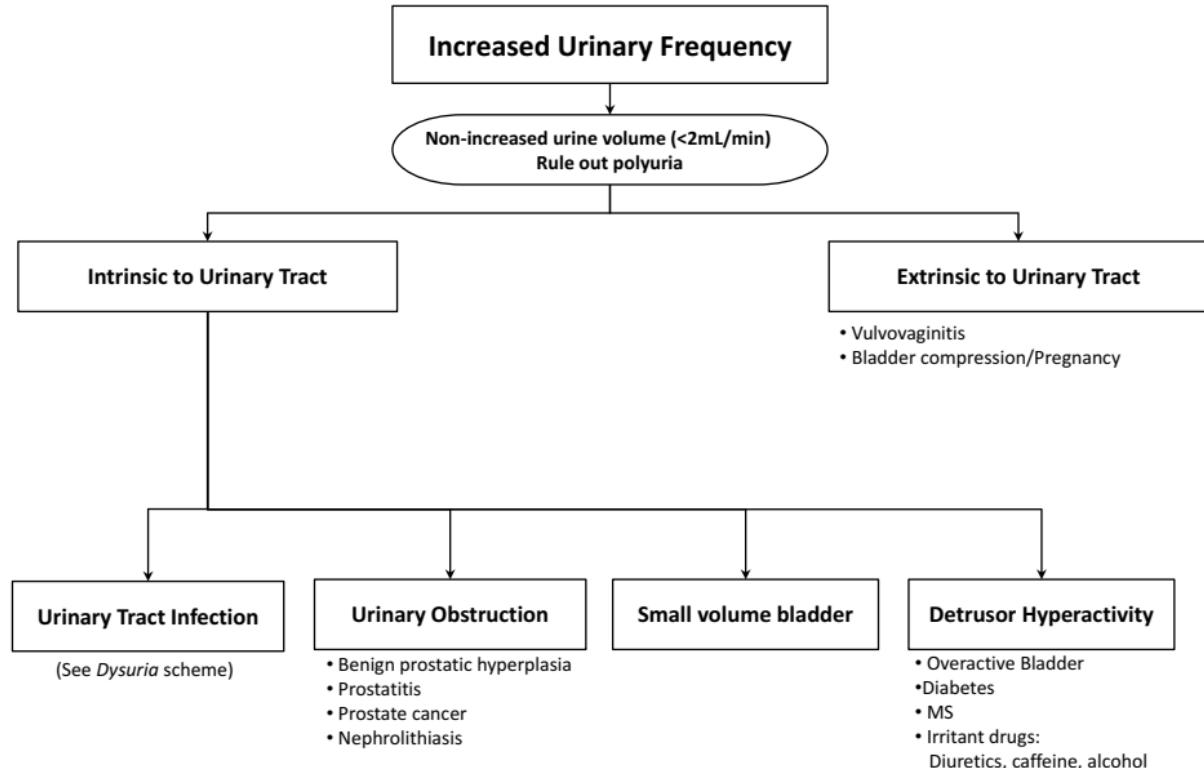




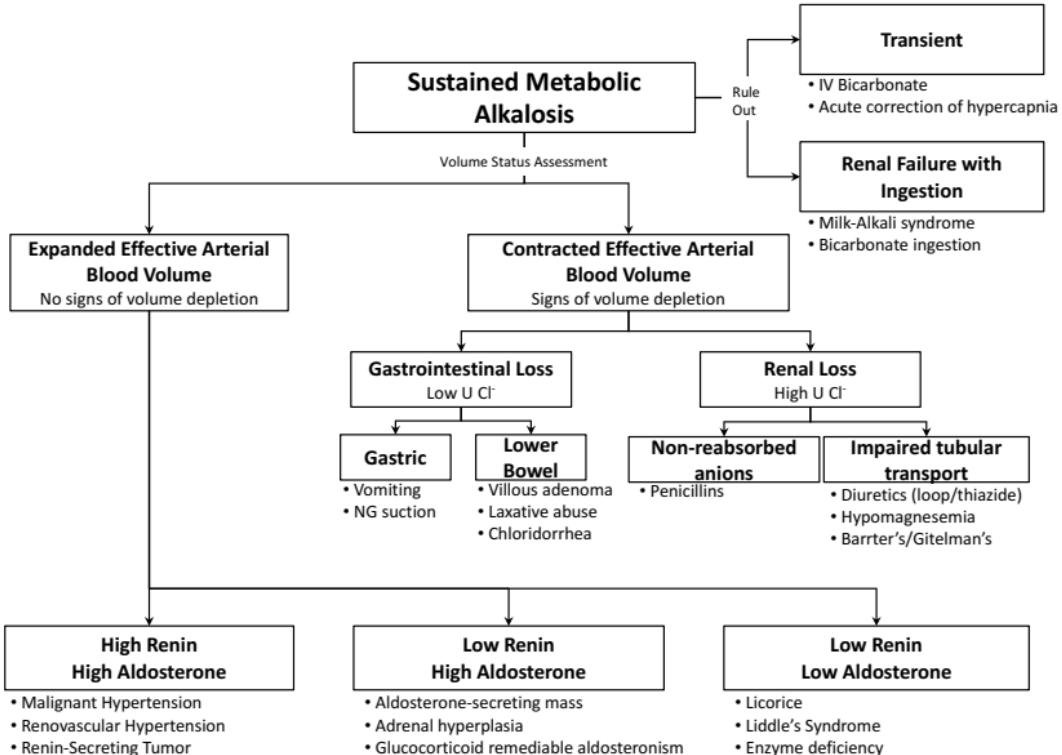
# Hypertension

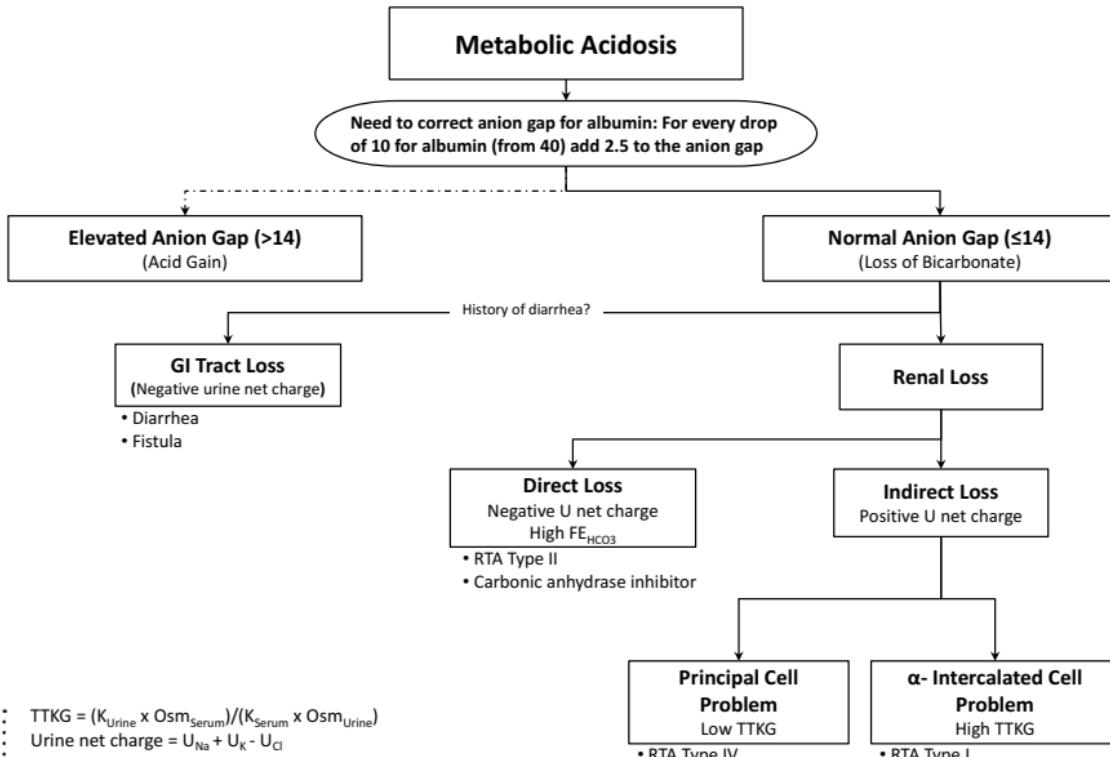


# Increased Urinary Frequency



# Metabolic Alkalosis





# Metabolic Acidosis

## Elevated Anion Gap

$$\text{Anion Gap} = \text{Na} - (\text{Cl} + \text{HCO}_3^-) \quad (\text{normal AG } \leq 12)$$

*Diagnosis of Mixed Metabolic Disorders in Patients with Metabolic Acidosis:*  
Anion Gap Not Increased Non-Anion Gap Acidosis Alone  
 $\Delta\text{Anion Gap} = \Delta\text{HCO}_3^-$ , Anion Gap Acidosis Alone  
 $\Delta\text{Anion Gap} < \Delta\text{HCO}_3^-$ , Mixed Anion Gap Acidosis + Non-Anion Gap Acidosis  
 $\Delta\text{Anion Gap} > \Delta\text{HCO}_3^-$ , Mixed Anion Gap Acidosis + Metabolic Alkalosis

## Metabolic Acidosis

Need to correct anion gap for albumin: For every drop of 10 for albumin (from 40) add 2.5 to the anion gap

Elevated Anion Gap ( $>12$ )  
(Gain of  $\text{H}^+$ )

Normal Anion Gap ( $\leq 12$ )  
(Loss of  $\text{HCO}_3^-$ )

Excess acid addition

Decreased  $\text{NH}_4^+$  production  
and anion secretion

• AKI/CKD

Positive serum  
salicylate level

Salicylate poisoning

Elevated  
serum lactate

Lactic acidosis

Positive serum  
ketones

Ketosis

Elevated  
osmolar gap

Toxic alcohol  
ingestion

Other ingestion

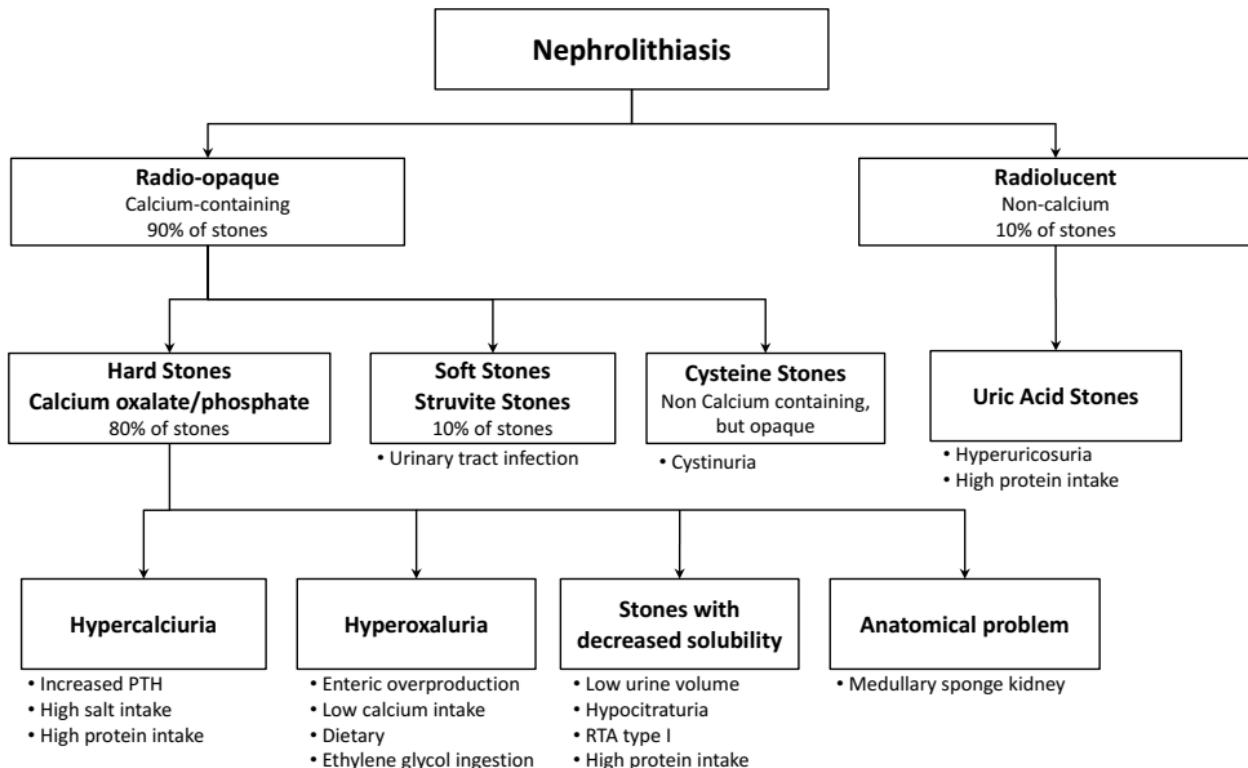
- Shock
- Drugs
- Inborn errors

- Diabetic ketoacidosis
- Starvation/alcoholic ketosis

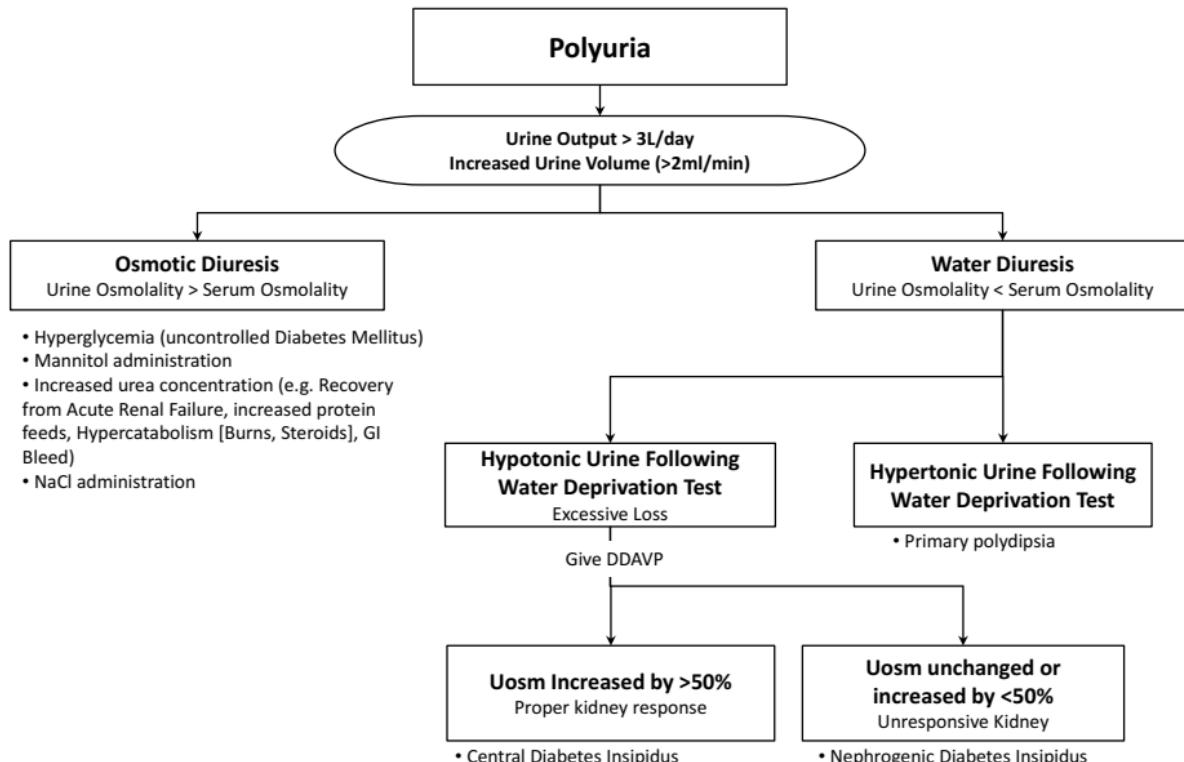
- Ethylene/Propylene glycol
- Methanol

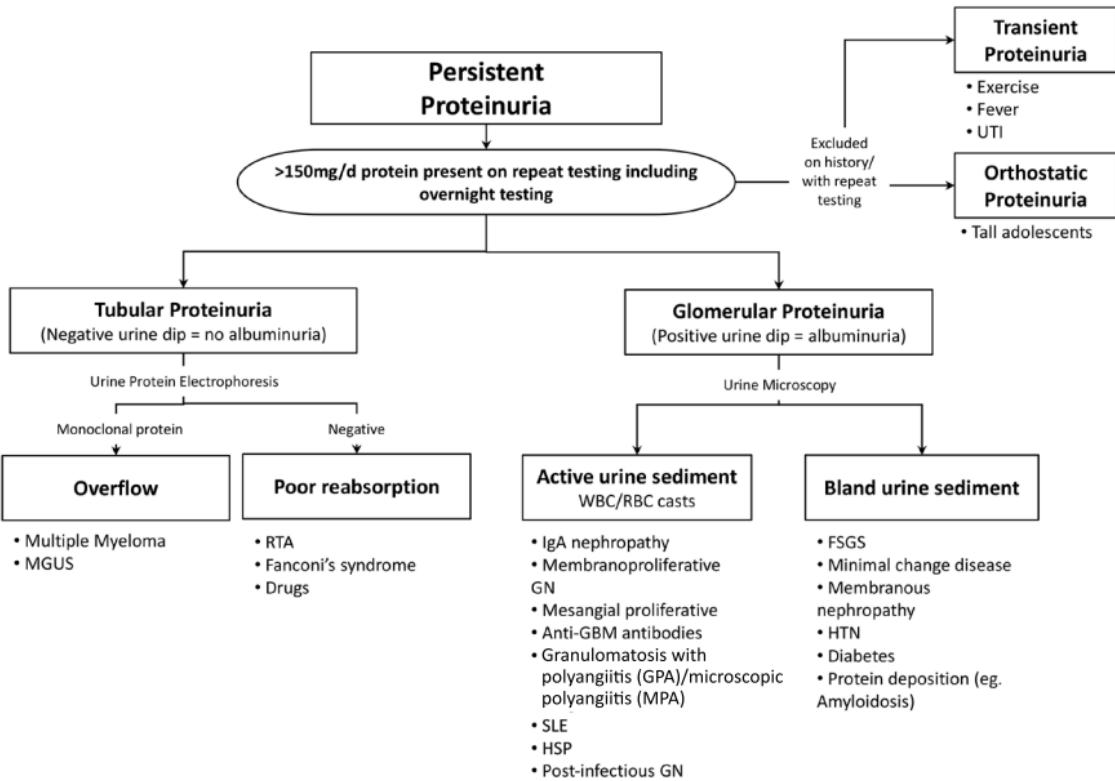
- Paraldehyde, Iron, Isoniazid, Toluene, Cyanide

# Nephrolithiasis



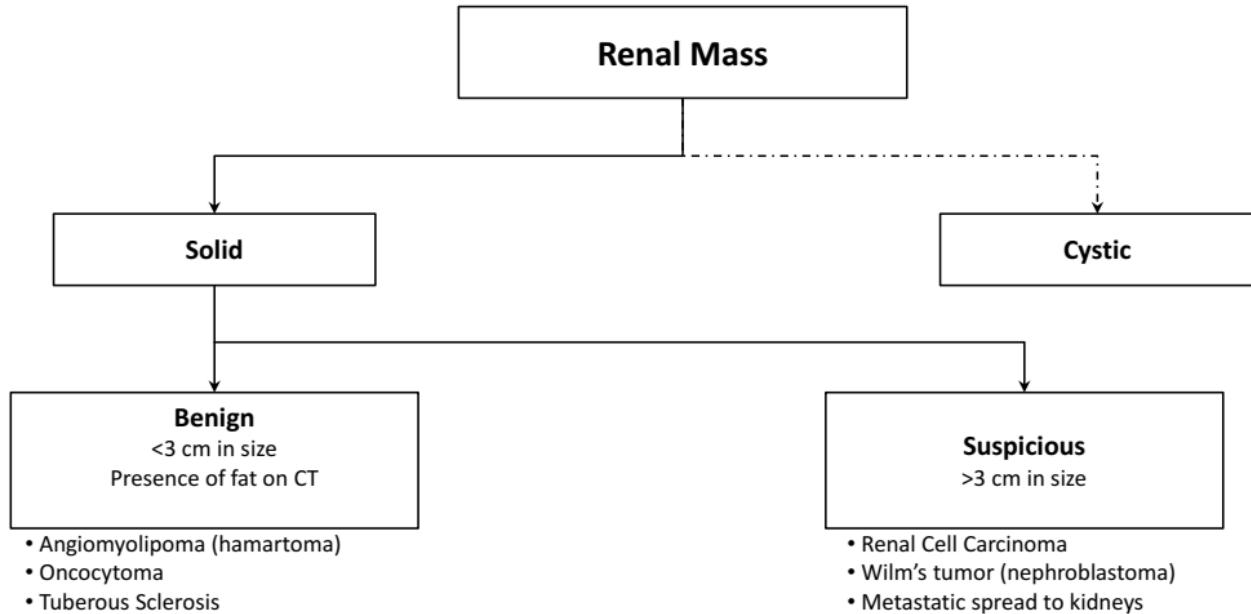
# Polyuria

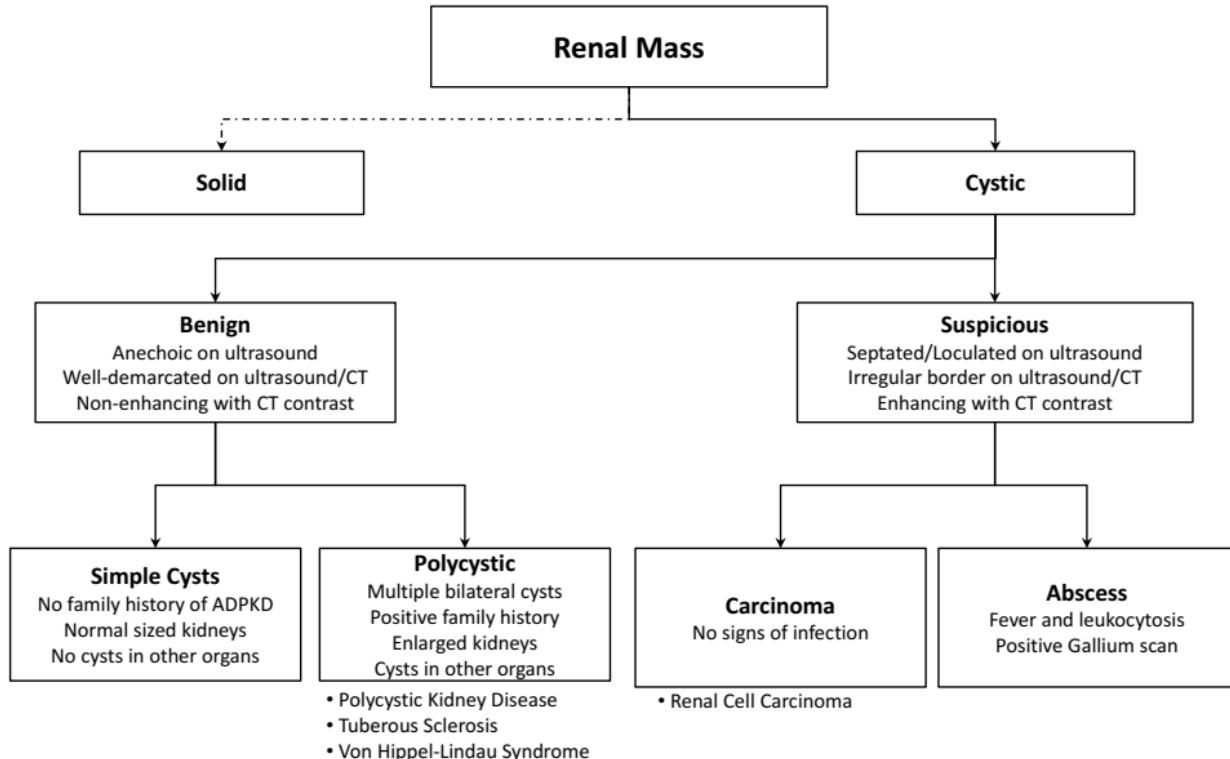




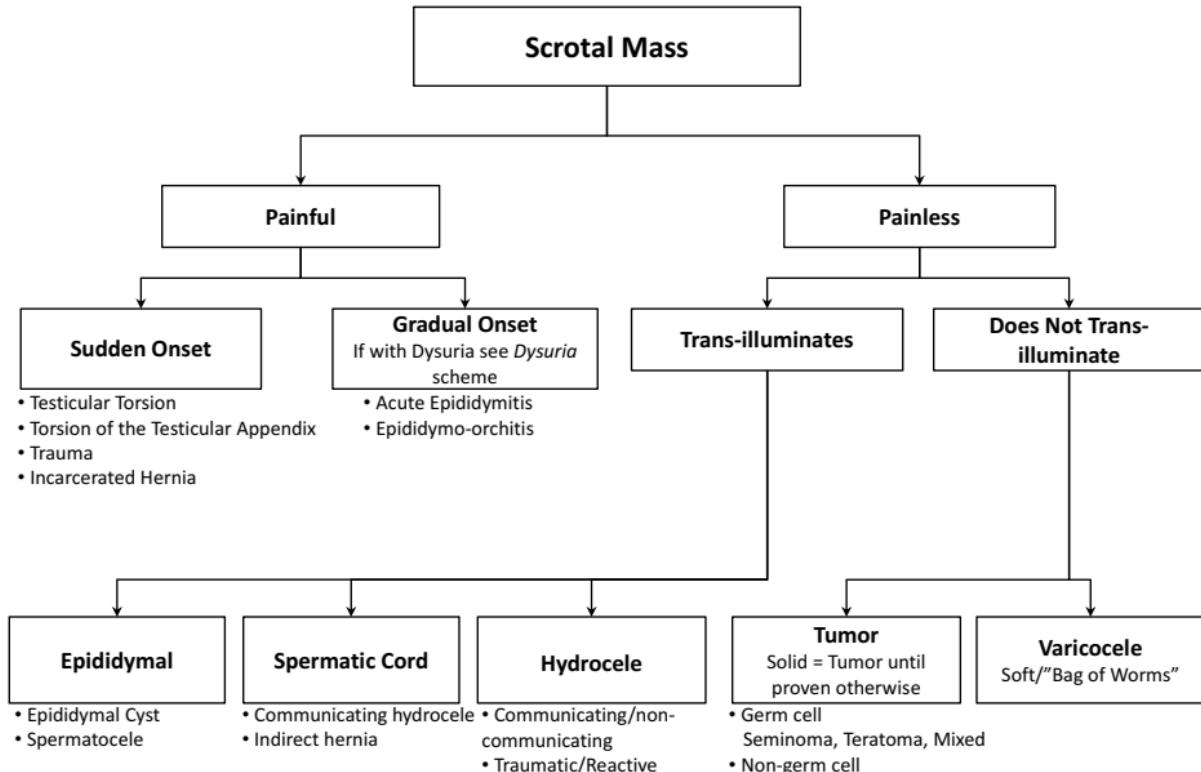
# Renal Mass

Solid

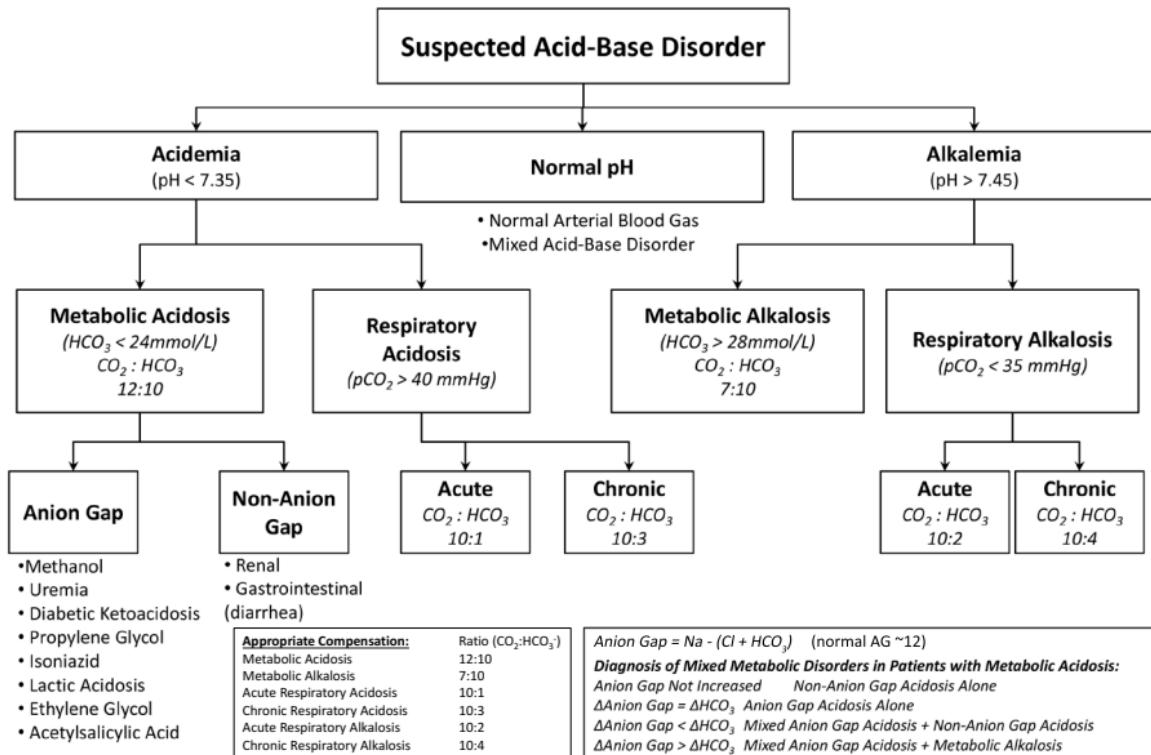




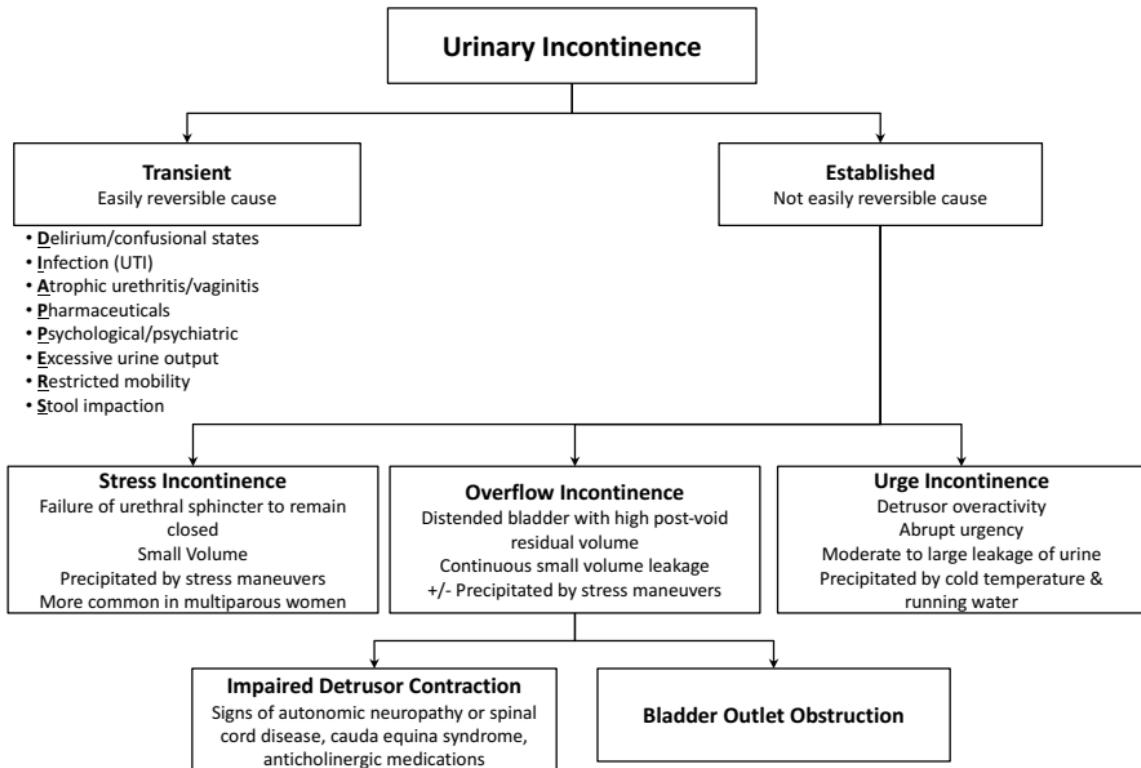
# Scrotal Mass



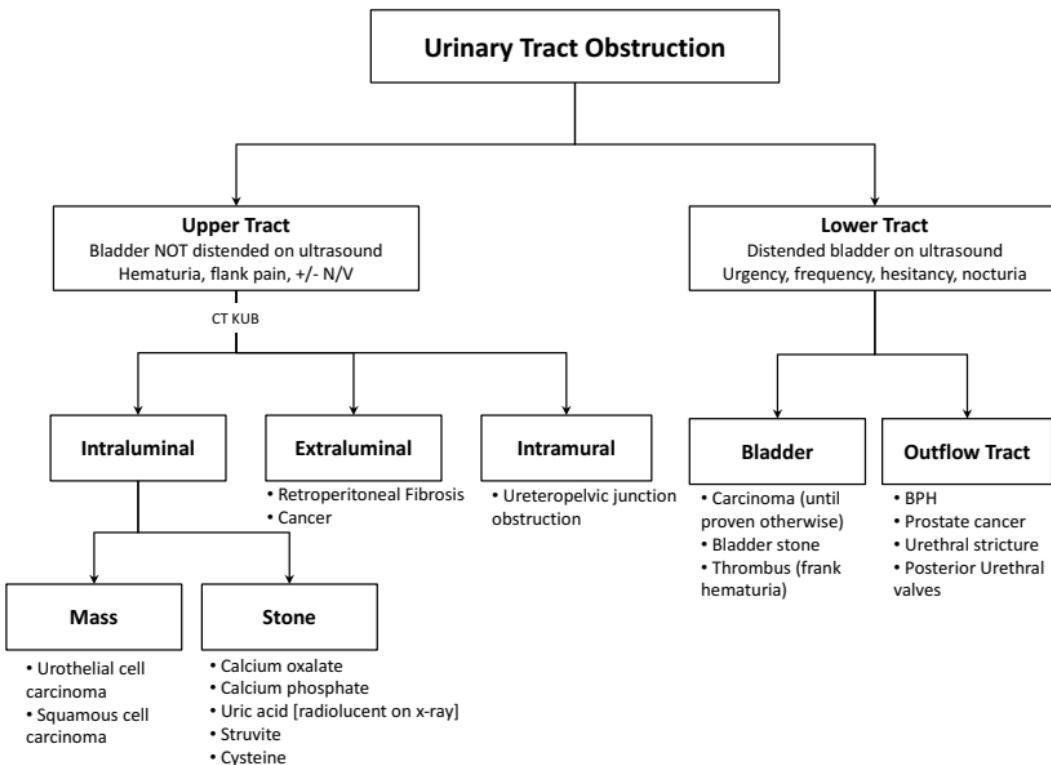
# Suspected Acid-Base Disturbance



# Urinary Incontinence



# Urinary Tract Obstruction



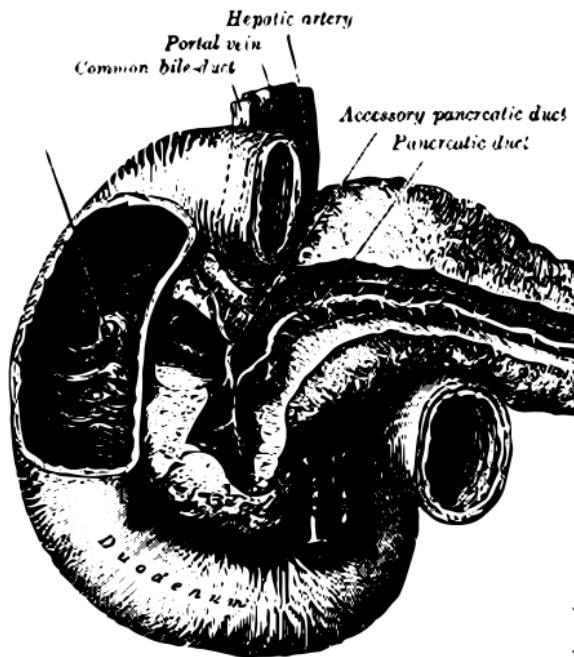
# Endocrinology

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***Historical Editors***

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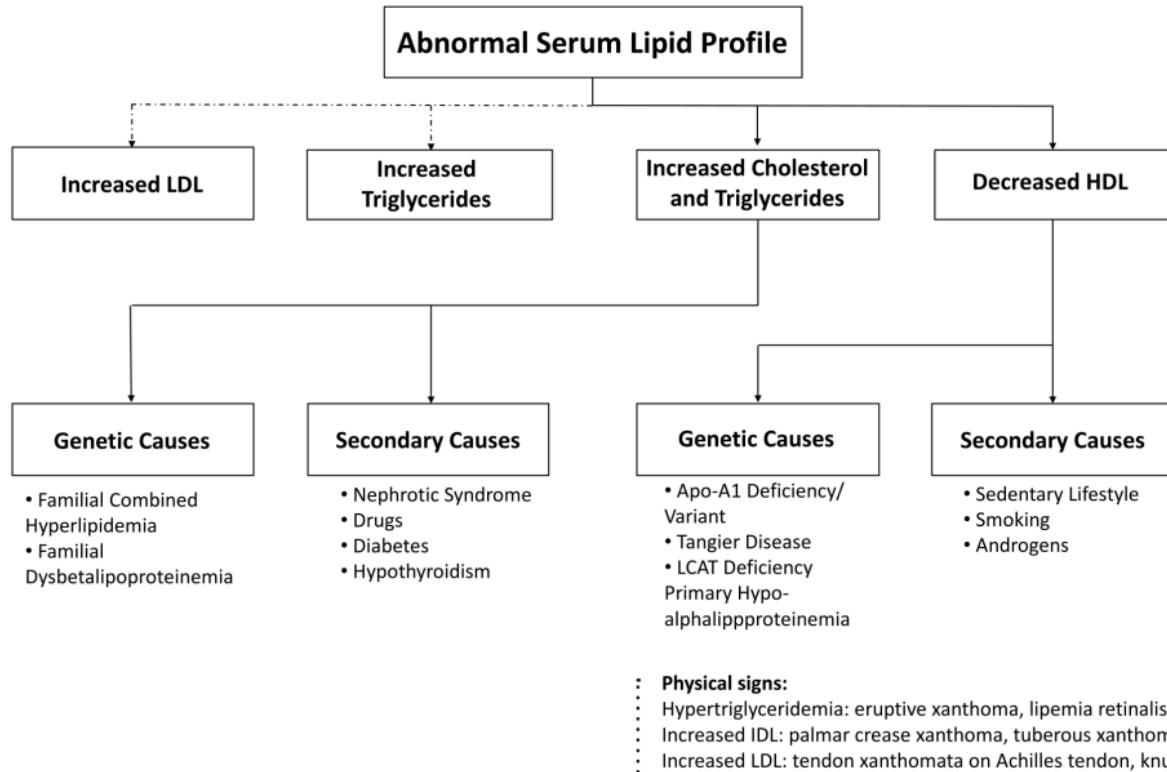
***Faculty Editor***

Dr. Kevin McLaughlin



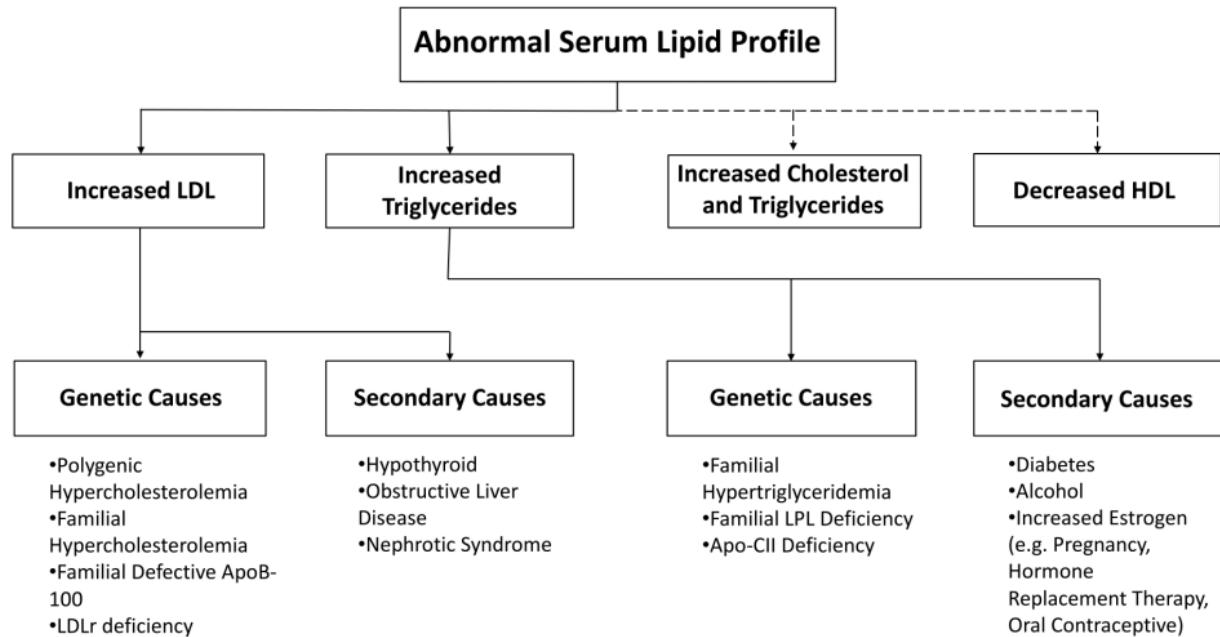
# Abnormal Lipid Profile

Combined & Decreased HDL



# Abnormal Lipid Profile

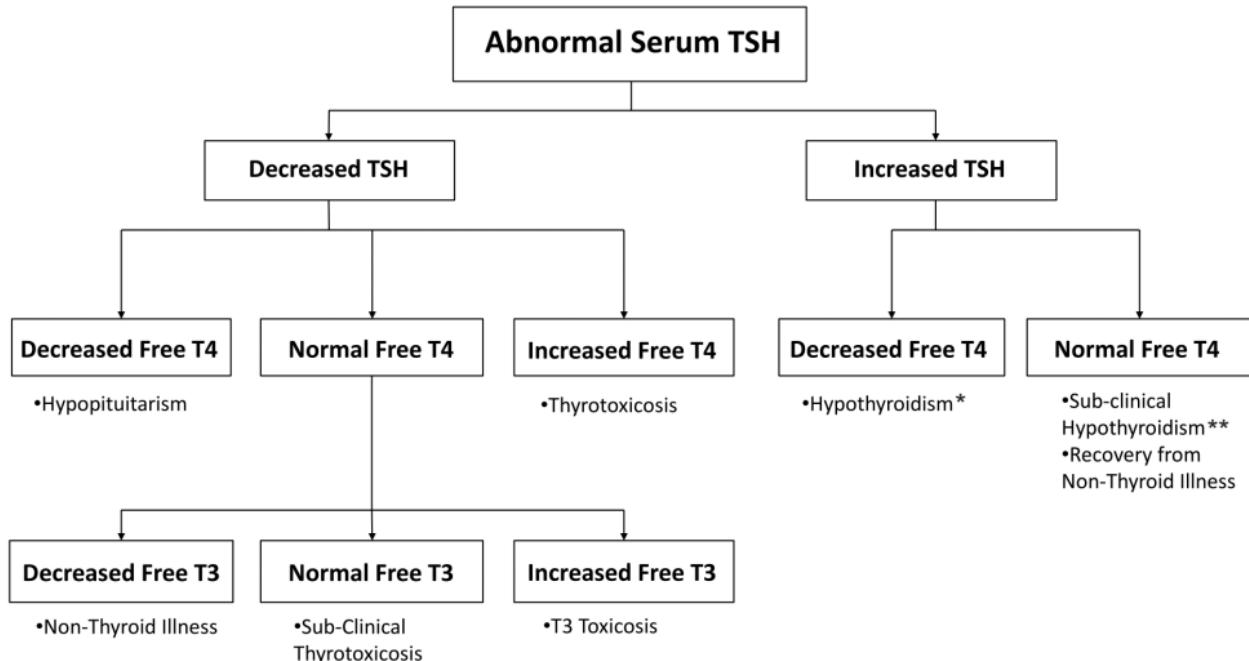
Increased LDL & Increased Triglycerides



**Physical signs:**

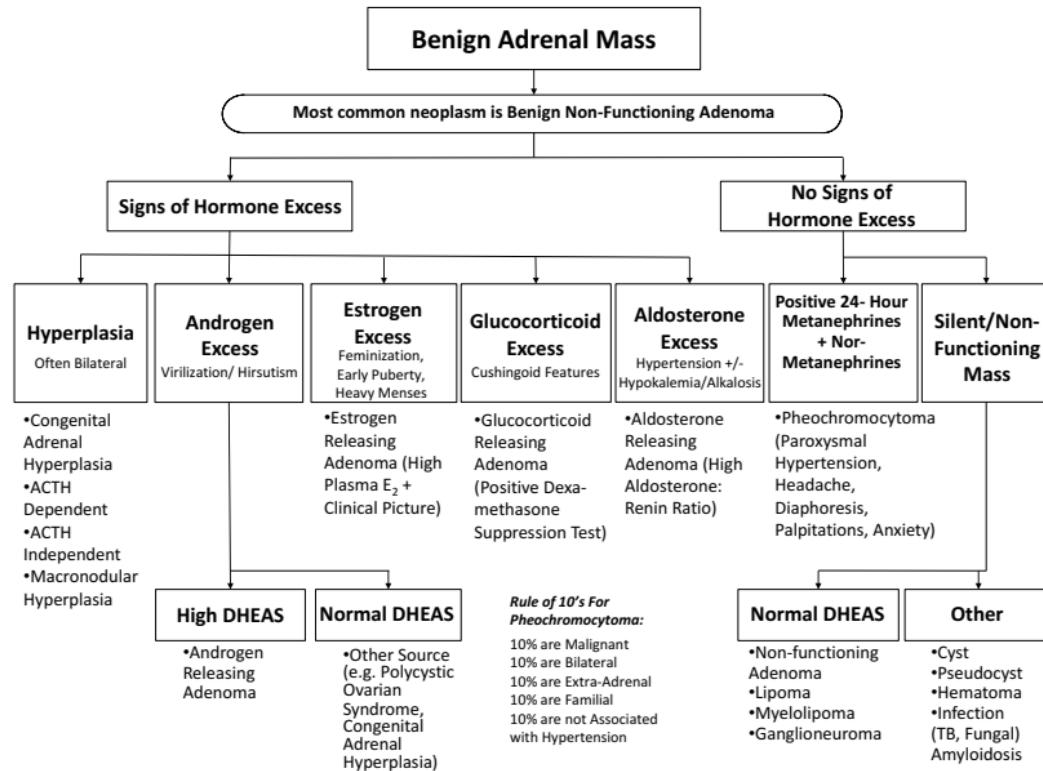
- Hypertriglyceridemia: eruptive xanthoma, lipemia retinalis
- Increased IDL: palmar crease xanthoma, tuberous xanthoma
- Increased LDL: tendon xanthomata on Achilles tendon, knuckles

# Abnormal Serum TSH



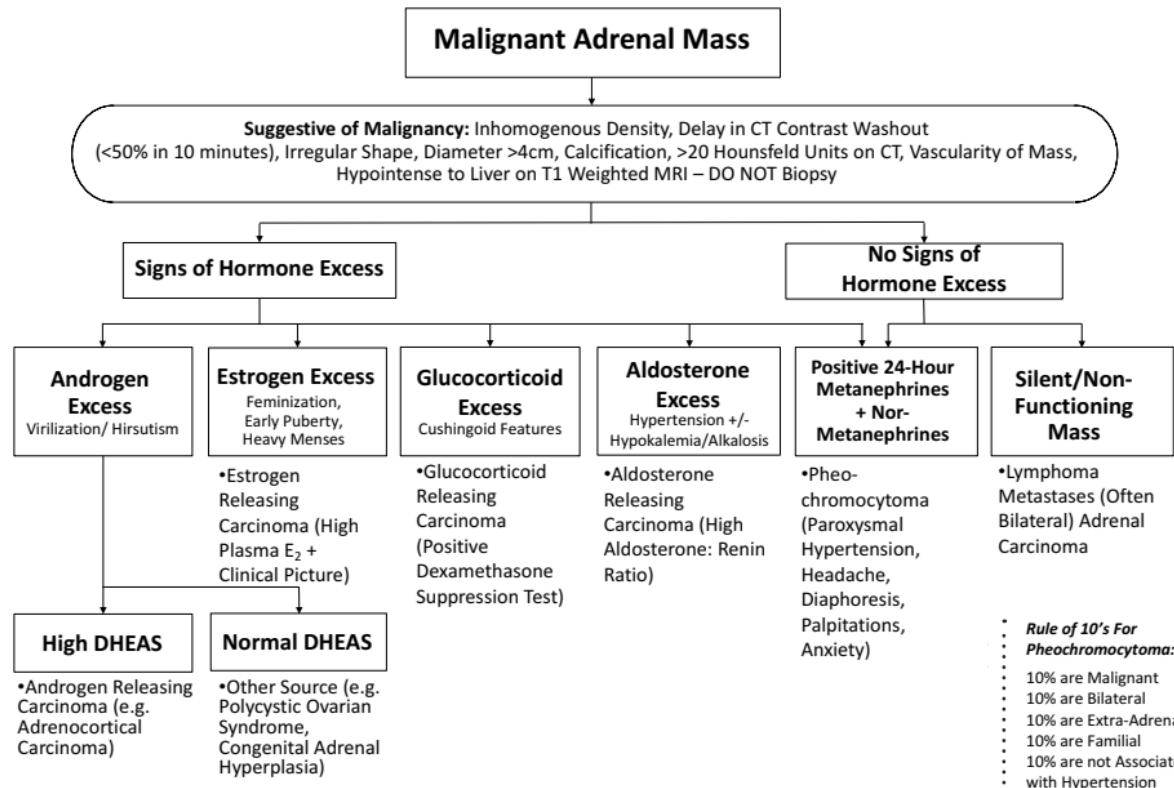
... \*Refer to Hyperthyroidism (1) on page 154  
... \*\*Refer to Hyperthyroidism (2) on page 155

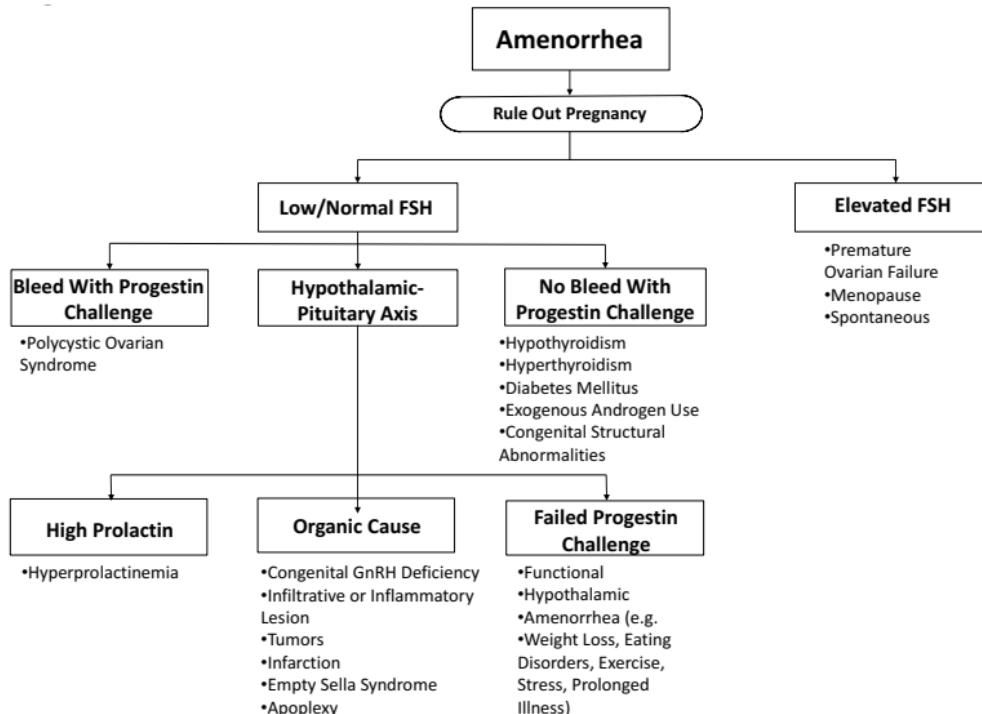
Benign



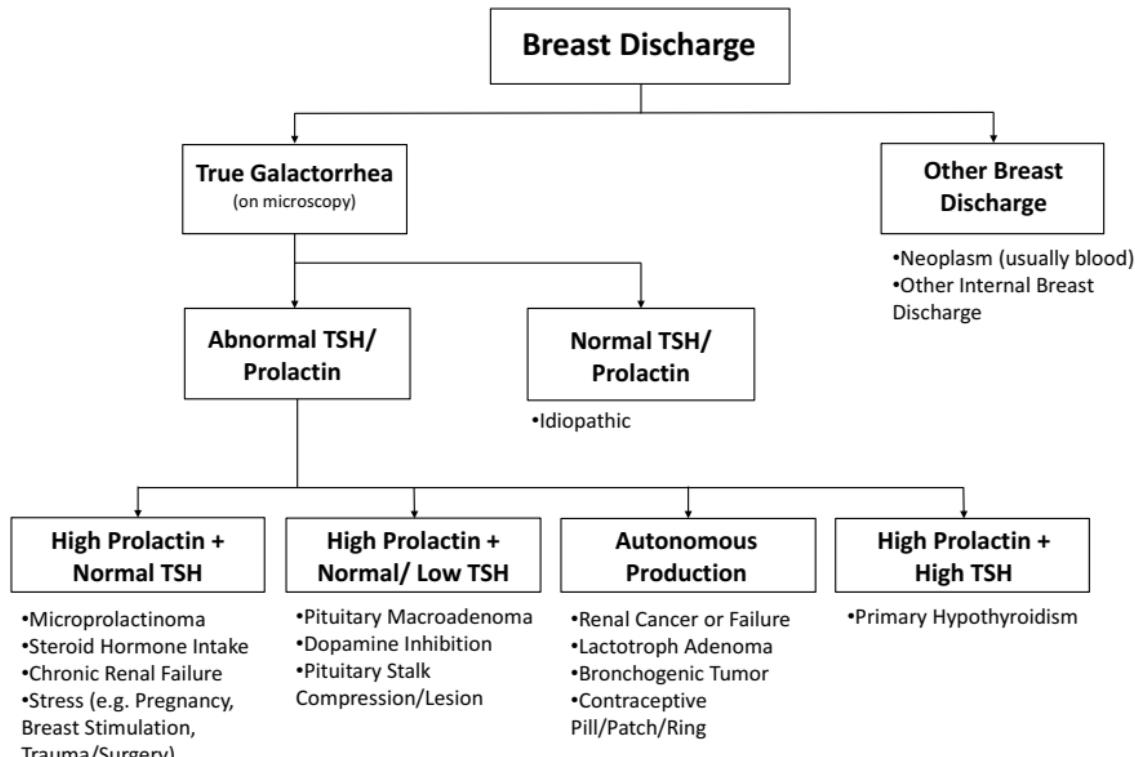
# Adrenal Mass

Malignant



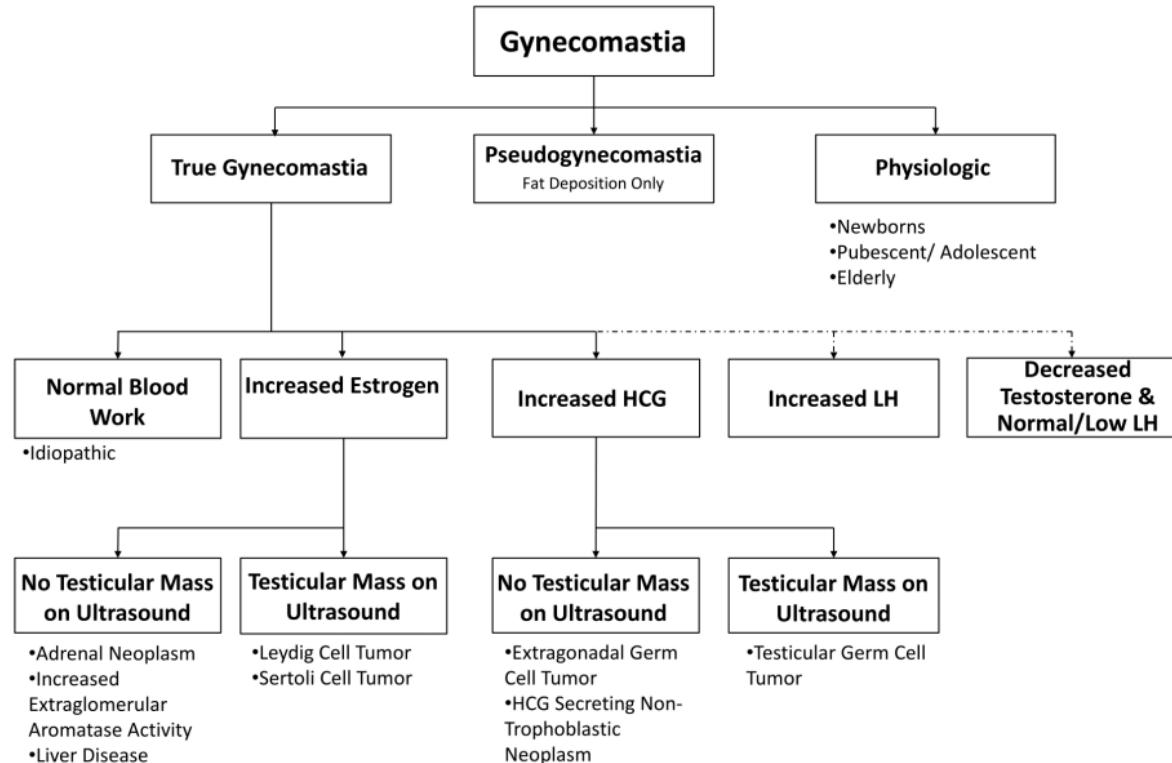


# Breast Discharge



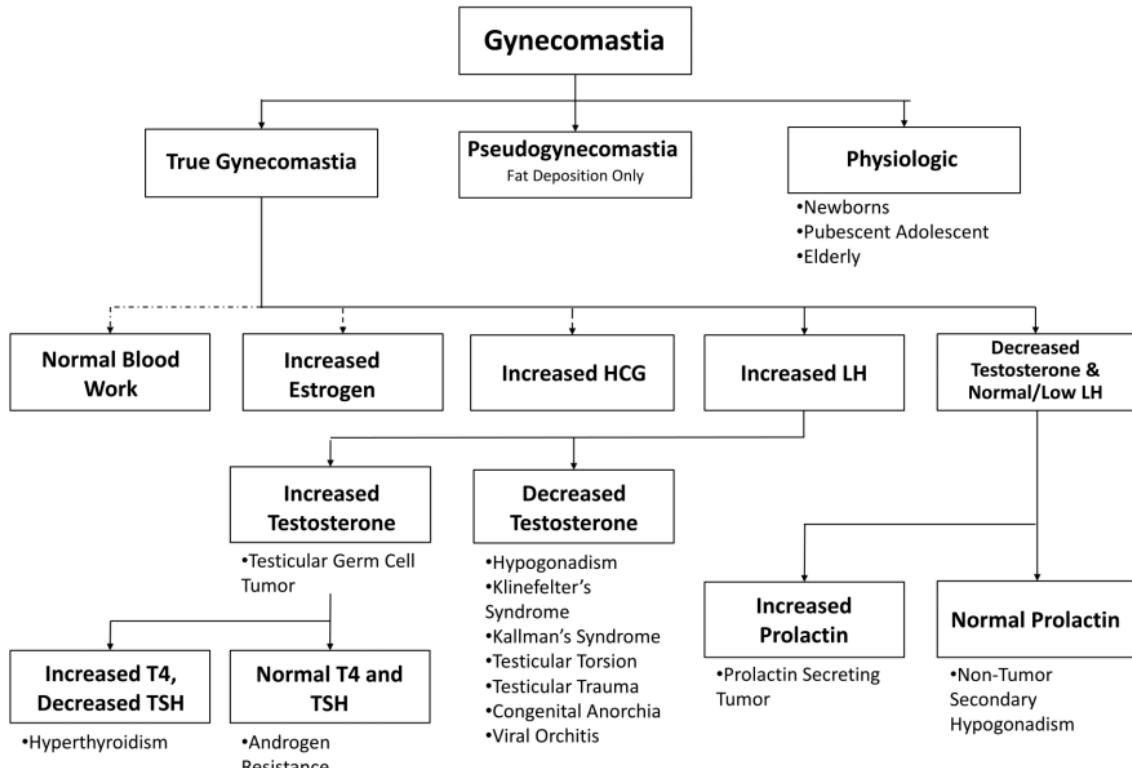
# Gynecomastia

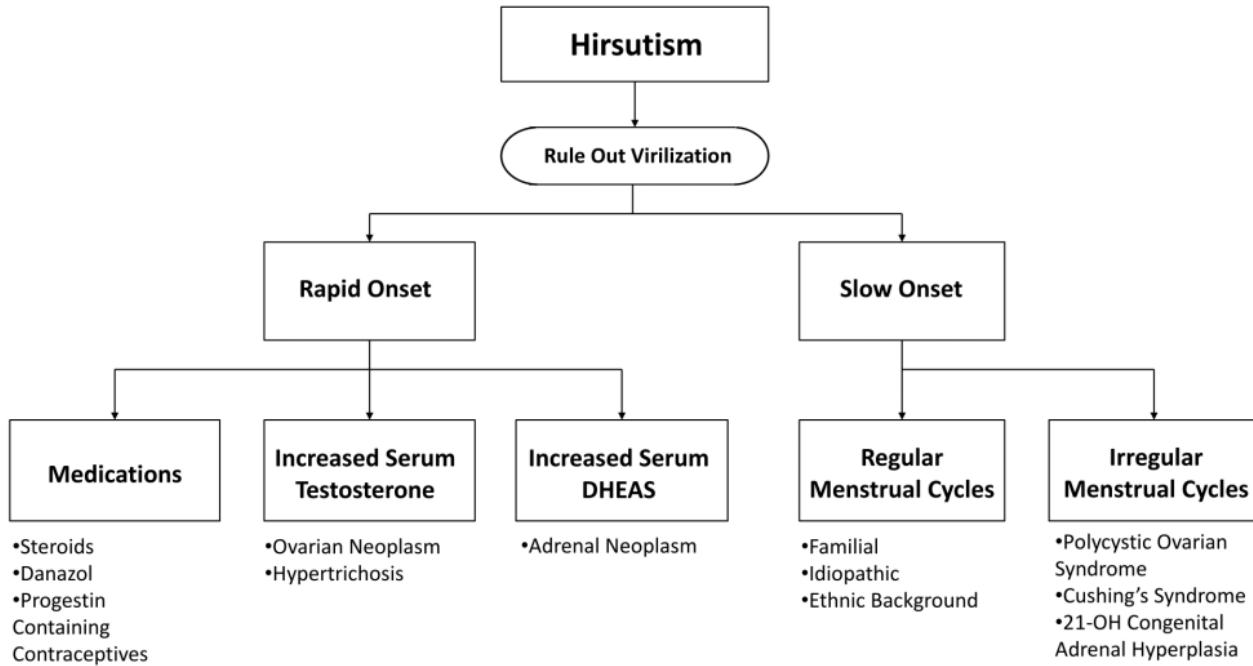
Increased Estrogen & Increased HCG



# Gynecomastia

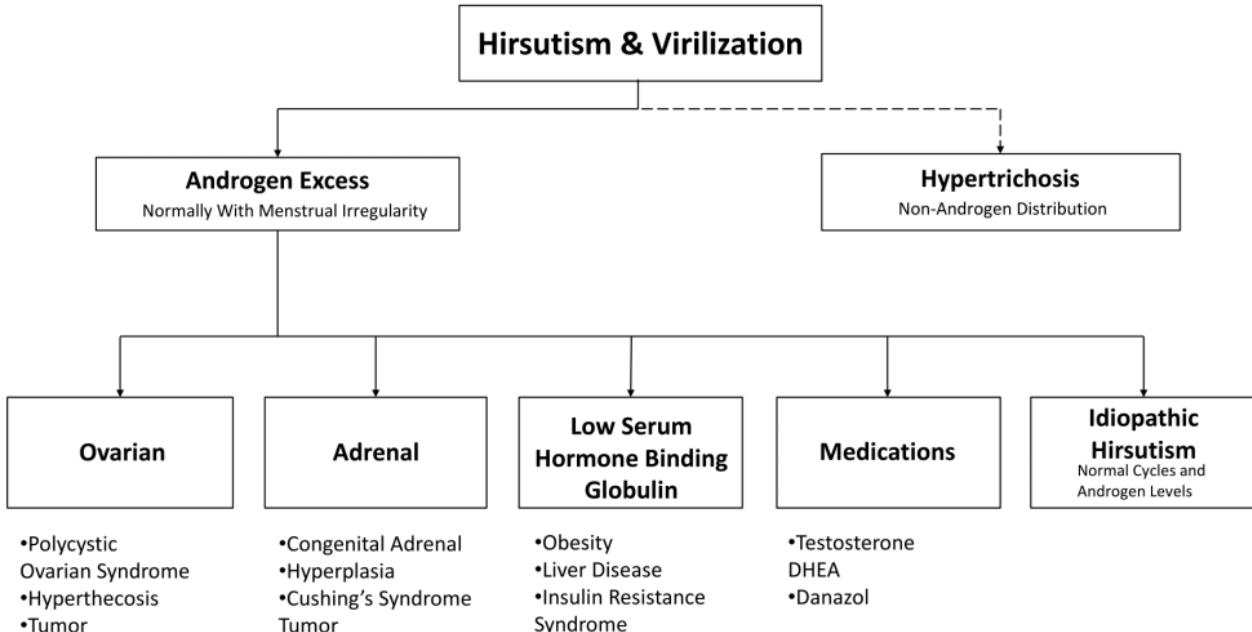
Increased LH & Decreased Testosterone





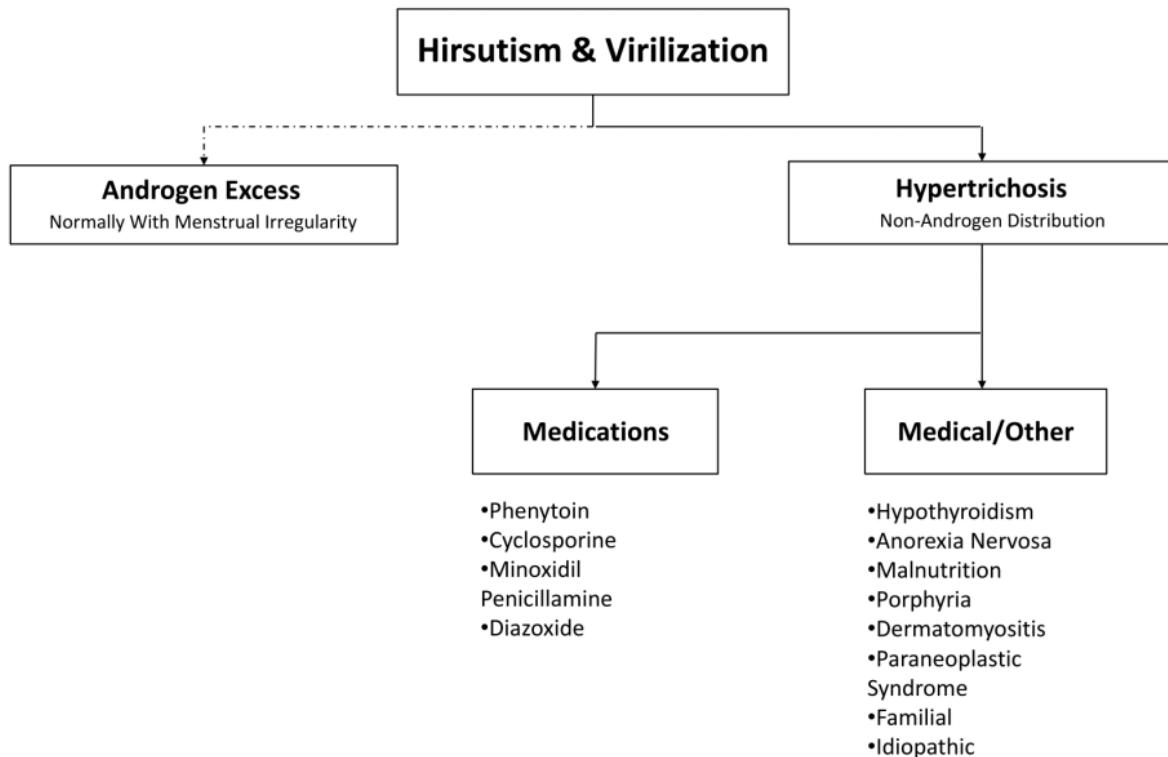
# Hirsutism & Virilization

Androgen Excess



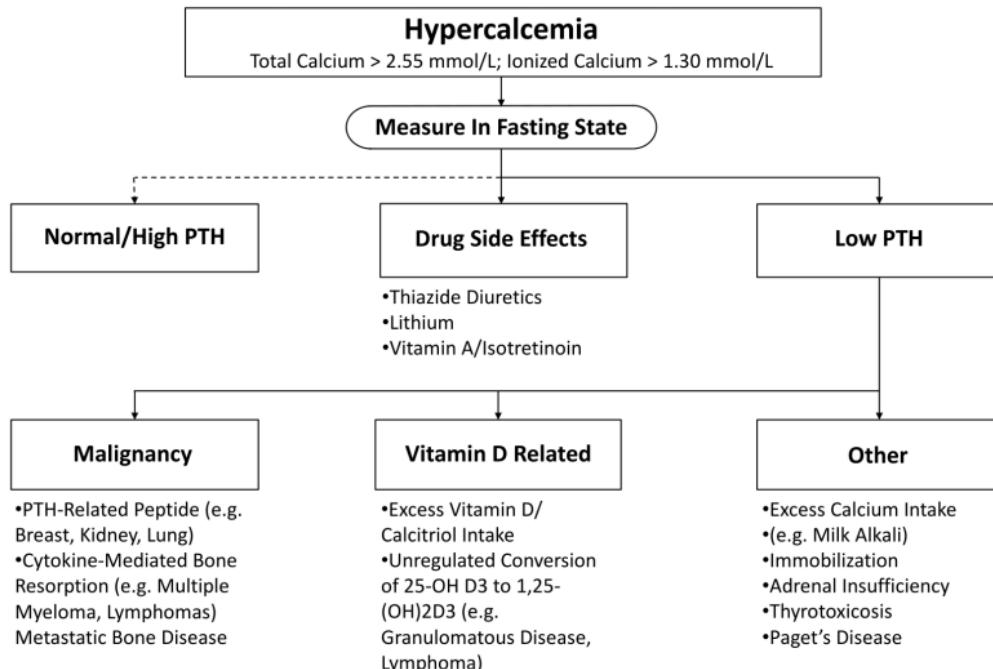
# Hirsutism & Virilization

Hypertrichosis

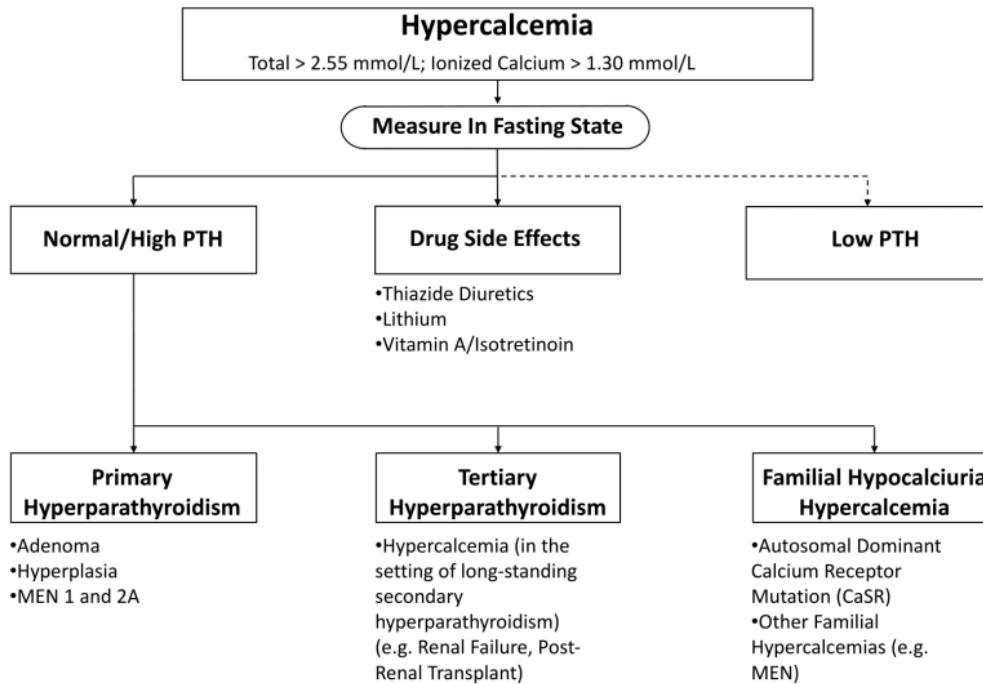


# Hypercalcemia

Low PTH



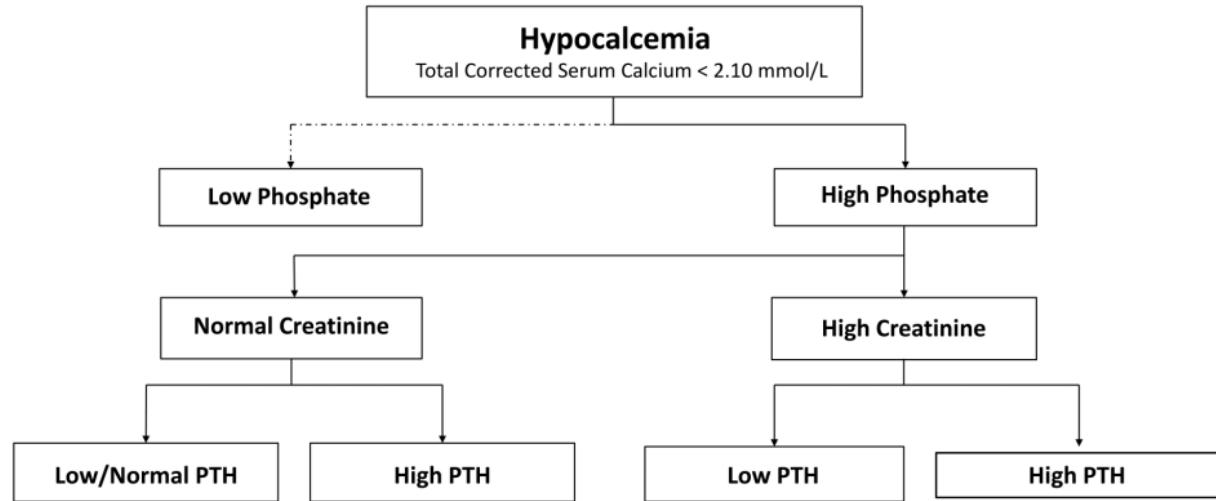
$$\text{Corrected total serum calcium concentration (mmol/L)} = \text{measured total serum calcium concentration (mmol/L)} + 0.02[40 \text{ g/L} - \text{albumin(g/L)}]$$



Corrected total serum calcium concentration (mmol/L) =  
measured total serum calcium concentration (mmol/L) + 0.02[40 g/L – albumin(g/L)]

# Hypocalcemia

High Phosphate



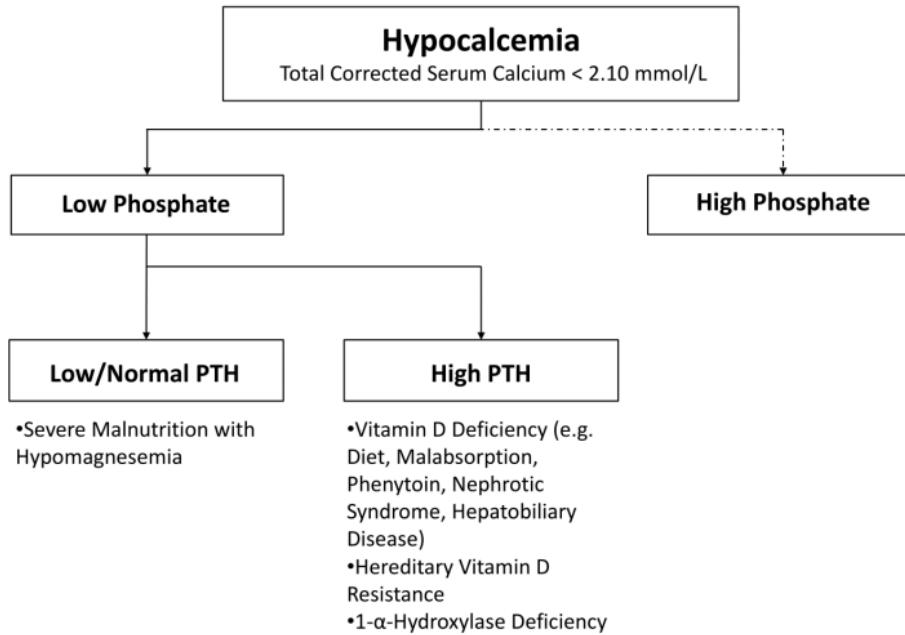
- Hypoparathyroidism (e.g. Acquired, Autoimmune, Idiopathic, Congenital, Infiltrative)
- Activating Mutation in Calcium Sensing Receptor (CaSR)
- Hypomagnesemia

- PTH Resistance (Pseudo-hypoparathyroidism)
- Calcium Complexing
- (Citrate Infusion, Pancreatitis)

- Hypoparathyroidism with Chronic Kidney Disease

- Secondary Hyperparathyroidism
- Rhabdomyolysis
- Phosphate Poisoning

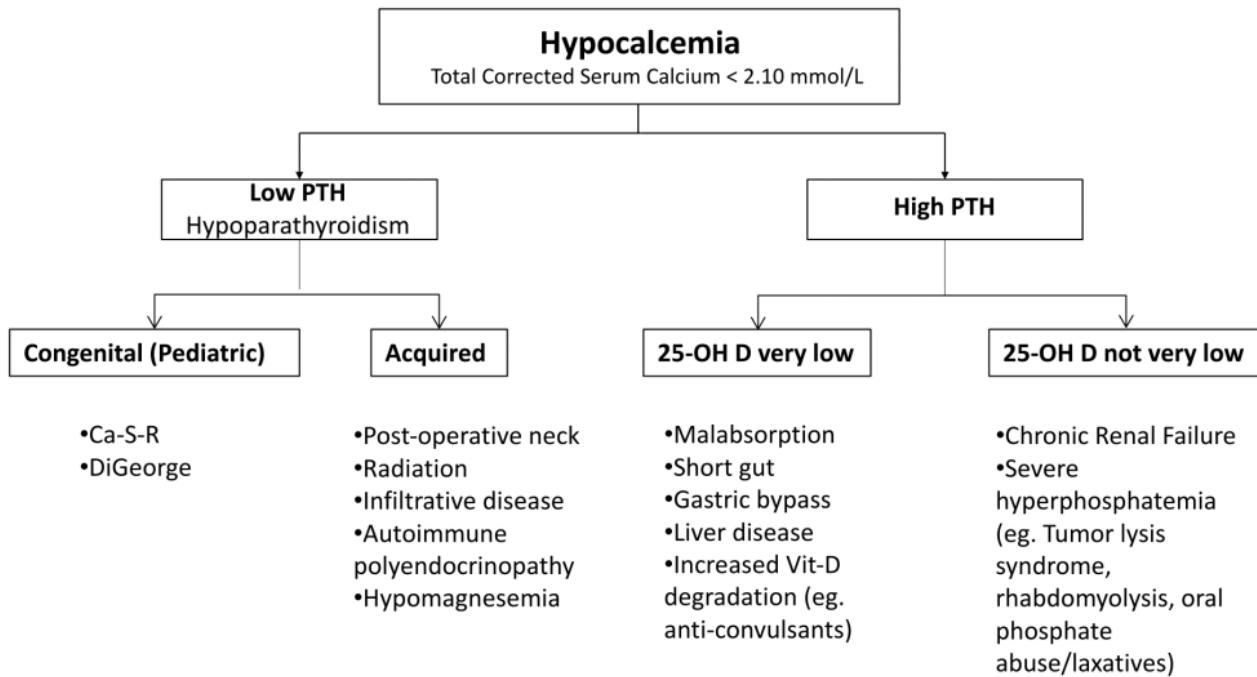
Corrected total serum calcium concentration (mmol/L) =  
measured total serum calcium concentration (mmol/L) + 0.02[40 g/L - albumin(g/L)]



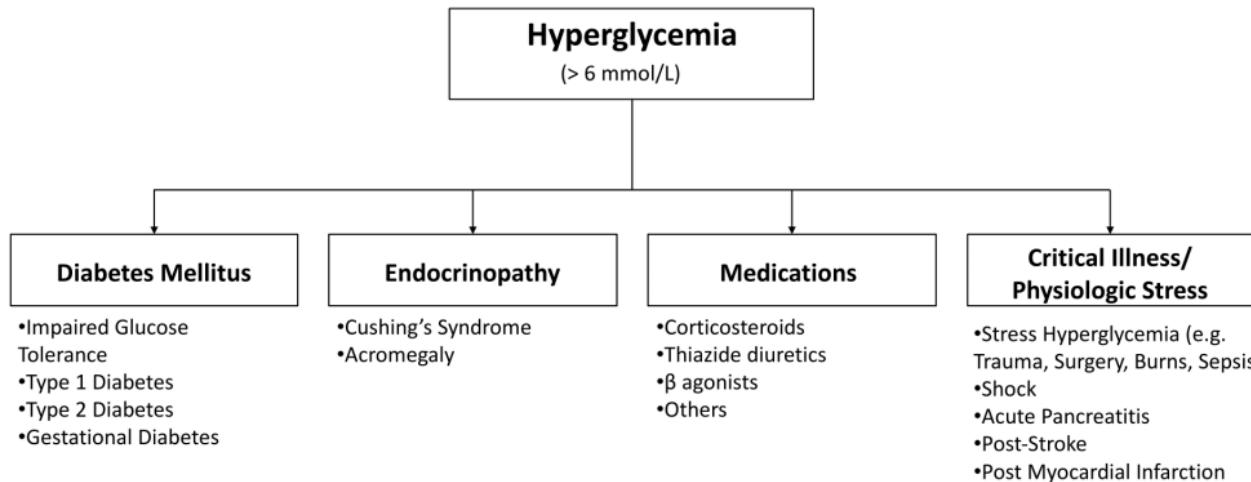
Corrected total serum calcium concentration (mmol/L) =  
measured total serum calcium concentration (mmol/L) + 0.02[40 g/L – albumin(g/L)]

# Hypocalcemia

High / Low PTH

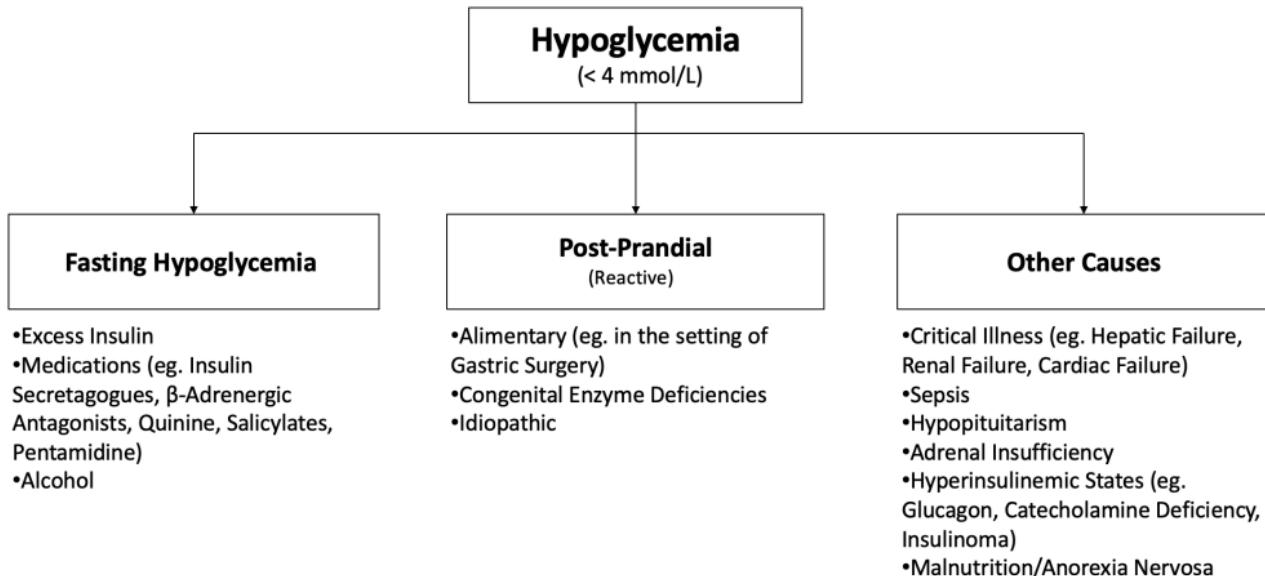


$$\text{Corrected total serum calcium concentration (mmol/L)} = \text{measured total serum calcium concentration (mmol/L)} + 0.02[40 \text{ g/L} - \text{albumin(g/L)}]$$



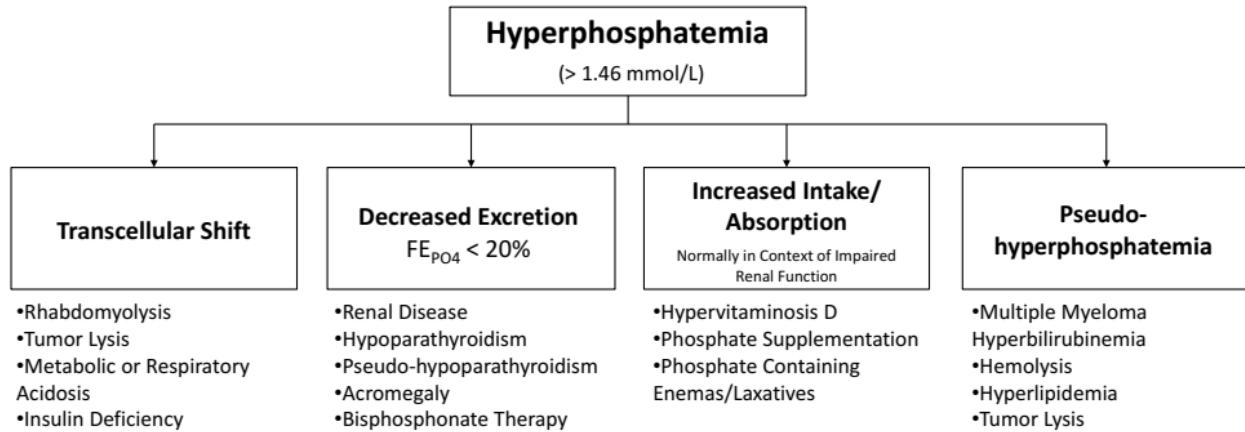
**Signs/Symptoms of Hyperglycemia:**  
Polyphagia, polydipsia, polyuria, blurred vision, fatigue and weight loss

# Hypoglycemia

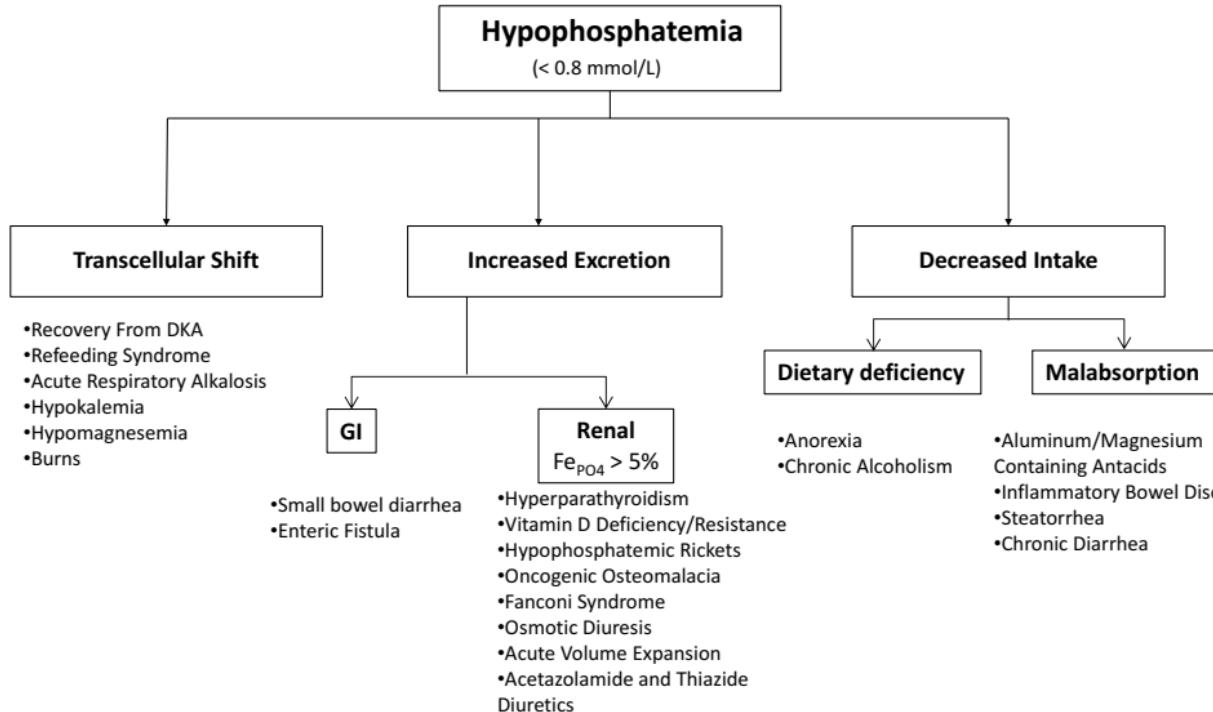


- Signs/Symptoms of Hypoglycemia:
- Neurogenic: irritability, tremor, anxiety, palpitations, tachycardia, sweating, pallor, paresthesias
- Neuroglycopenia: confusion, lethargy, abnormal behaviour, amnesia, weakness, blurred vision, seizures

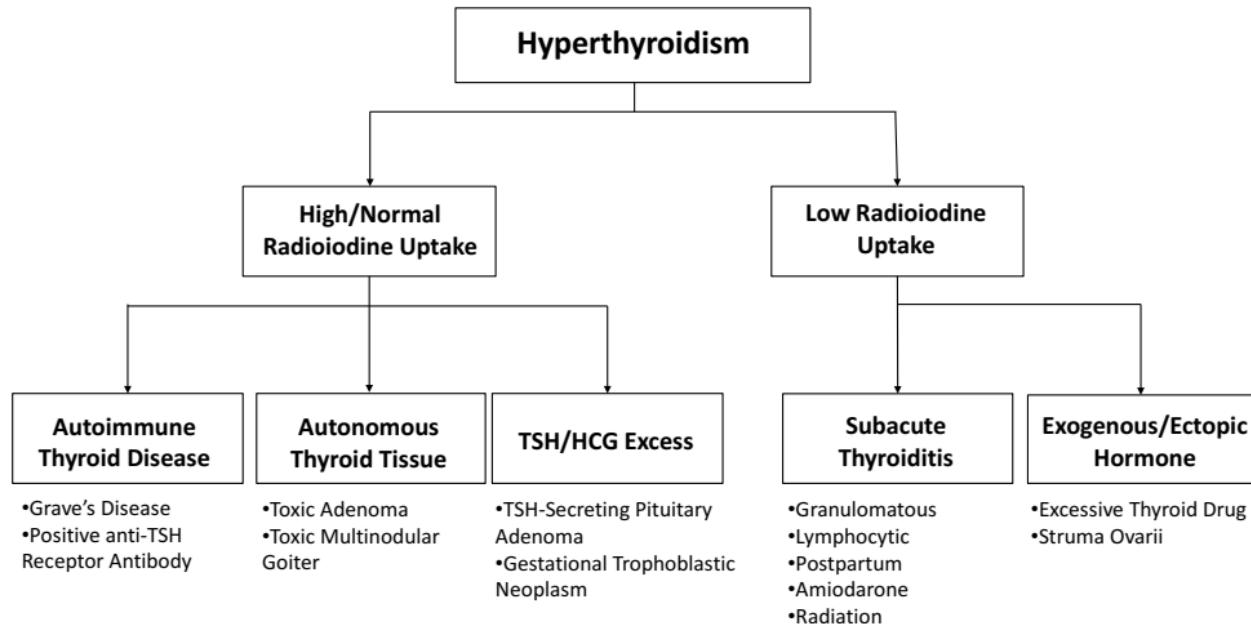
# Hyperphosphatemia



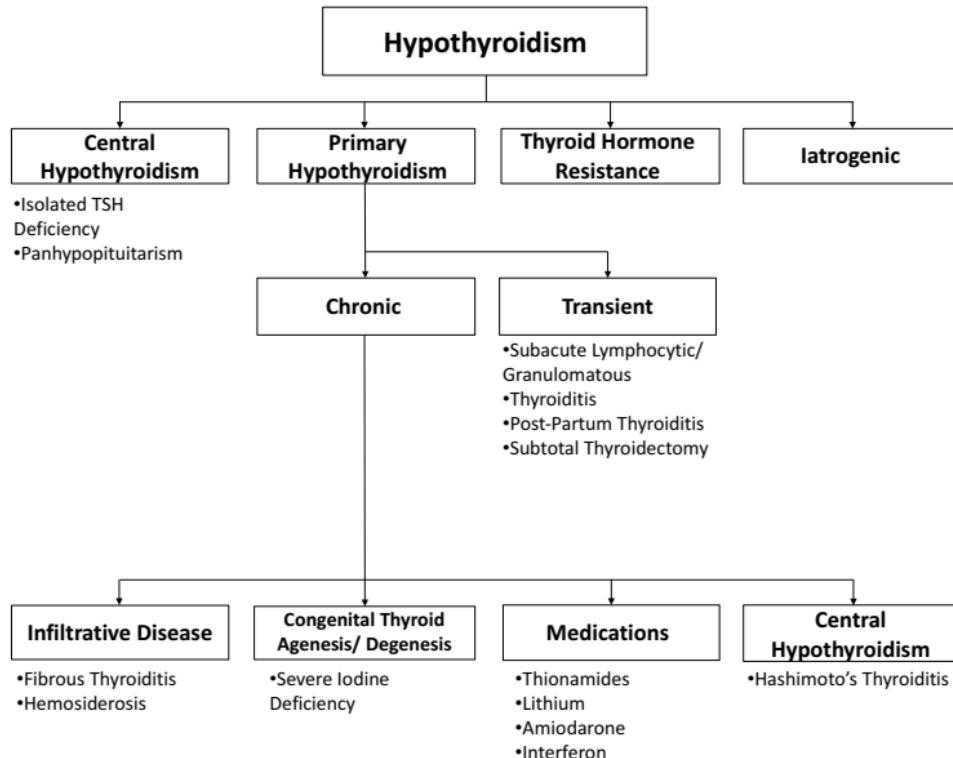
# Hypophosphatemia



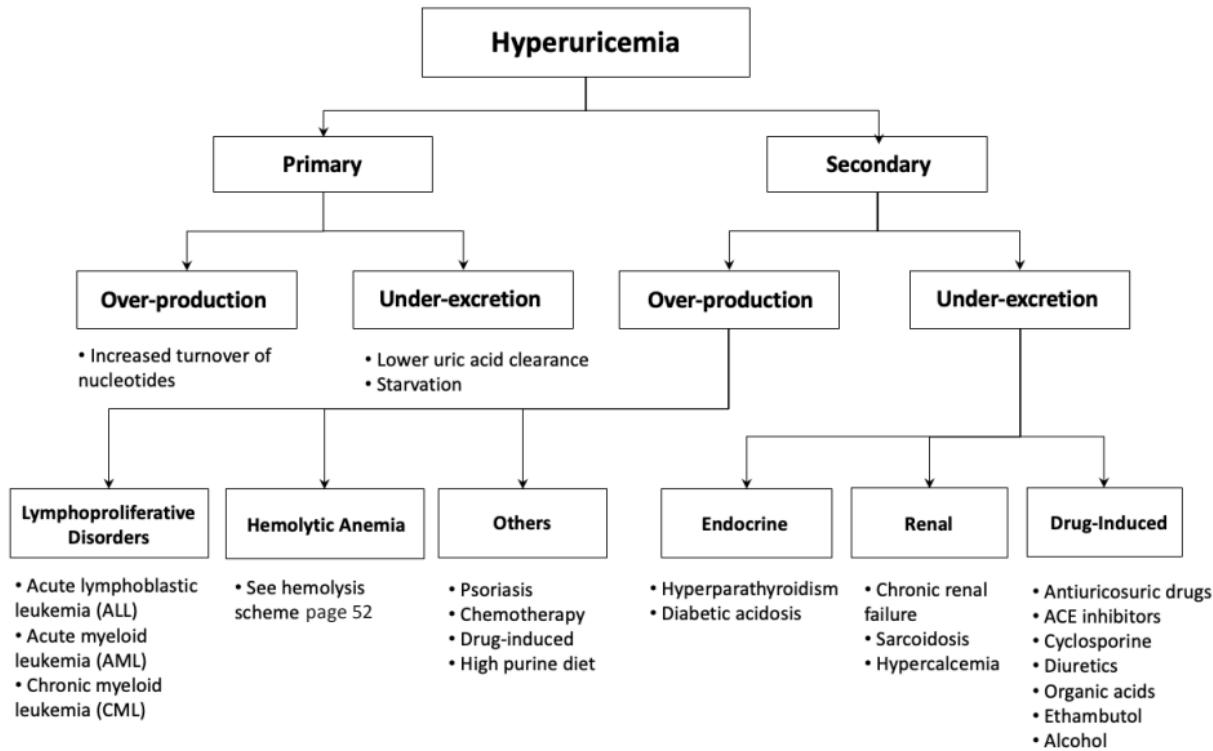
# Hyperthyroidism



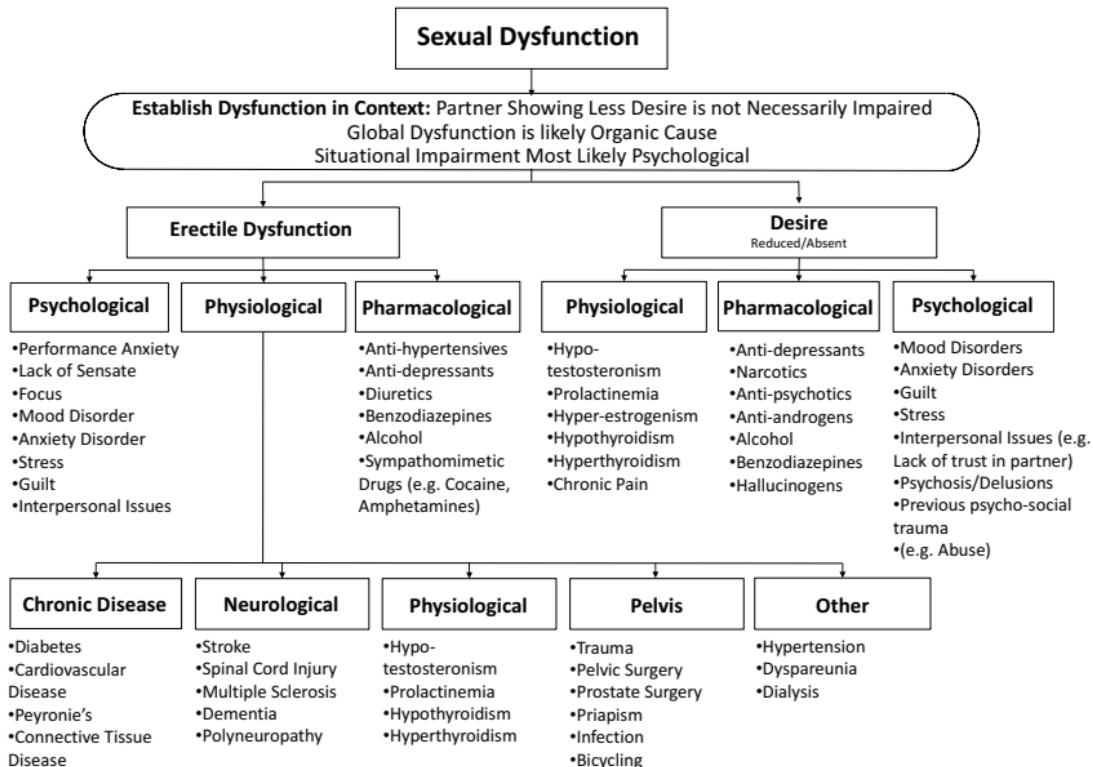
# Hypothyroidism



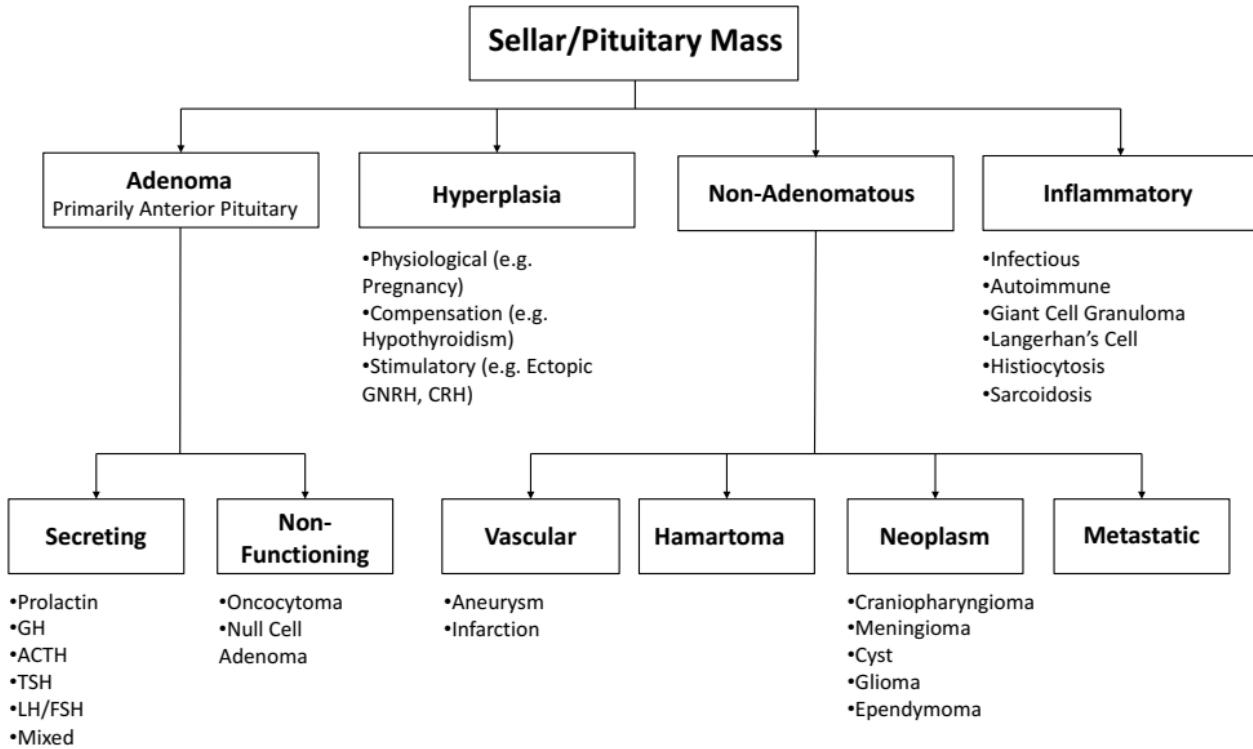
# Hyperuricemia



# Male Sexual Dysfunction

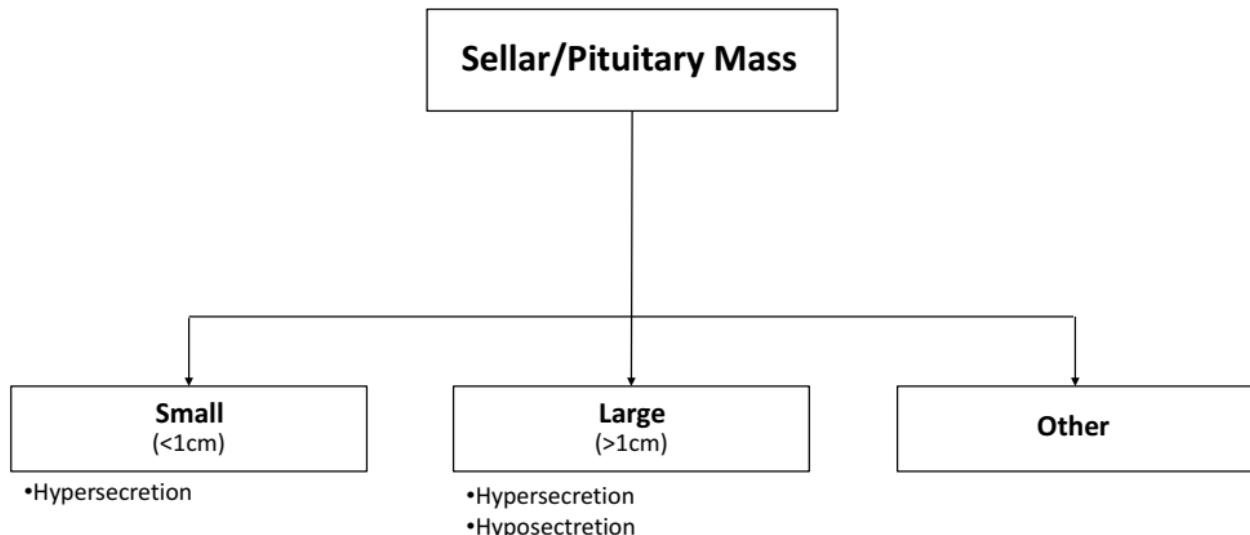


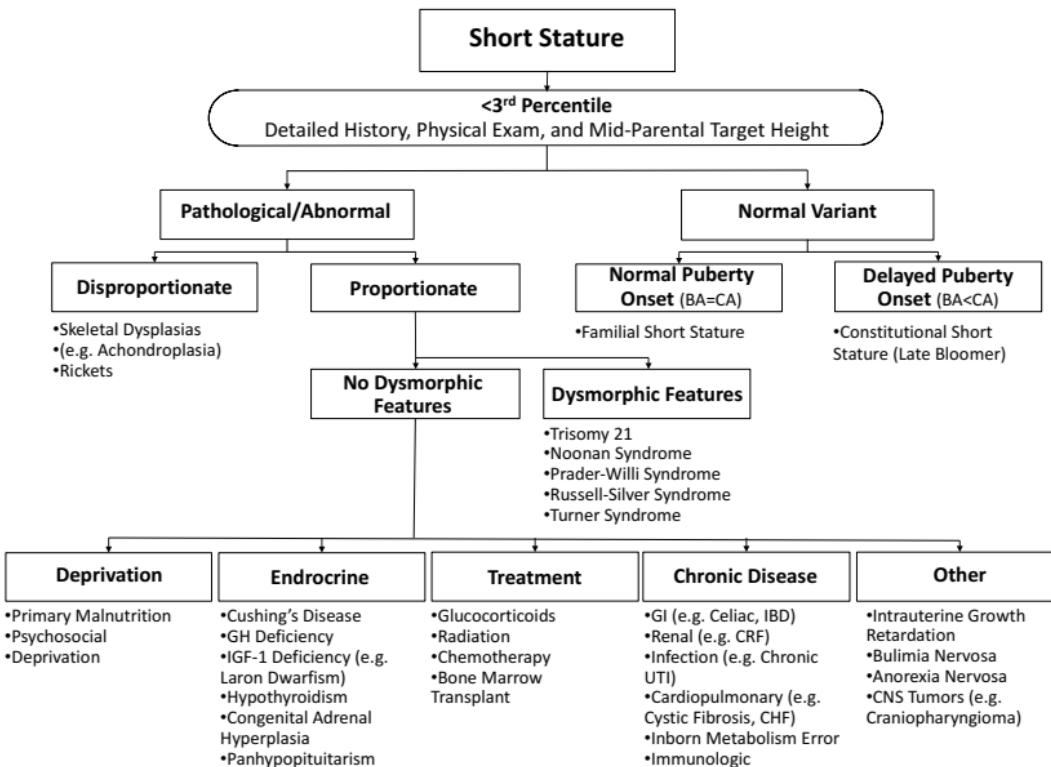
# Sellar / Pituitary Mass



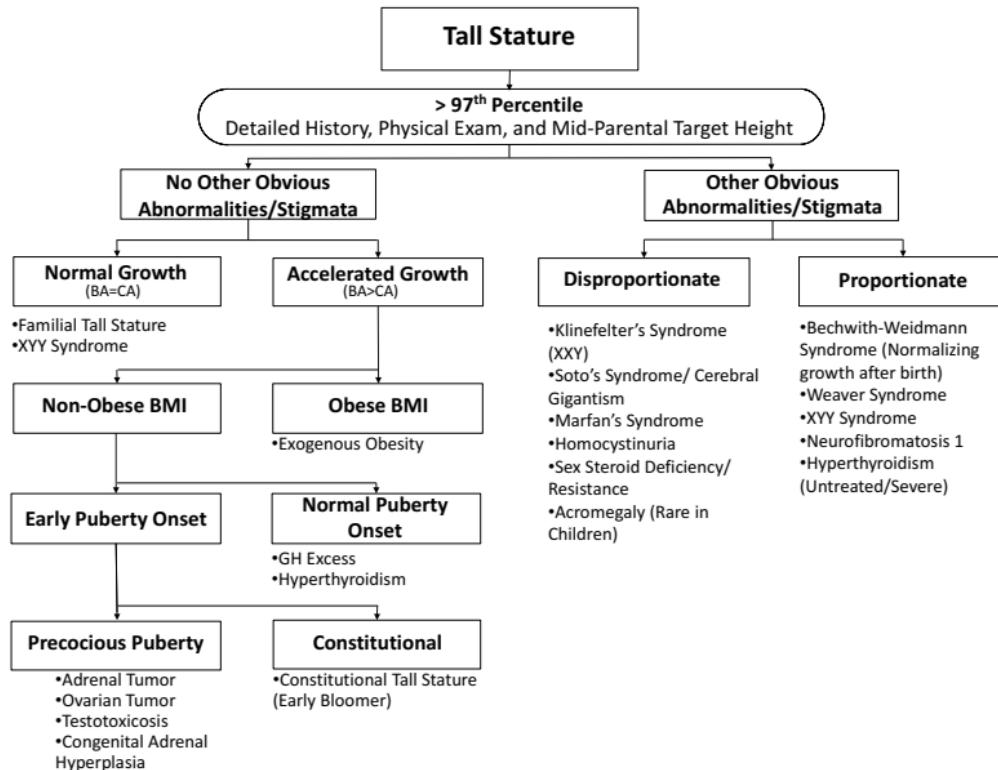
# Sellar / Pituitary Mass

Size

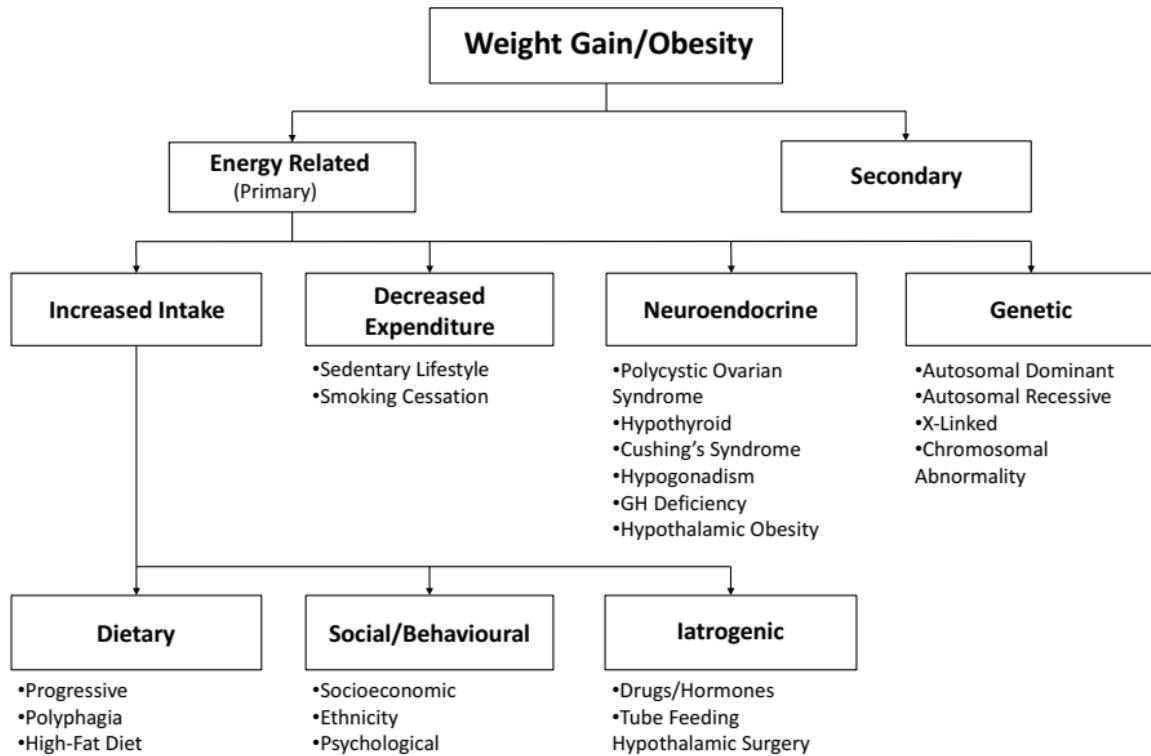




# Tall Stature



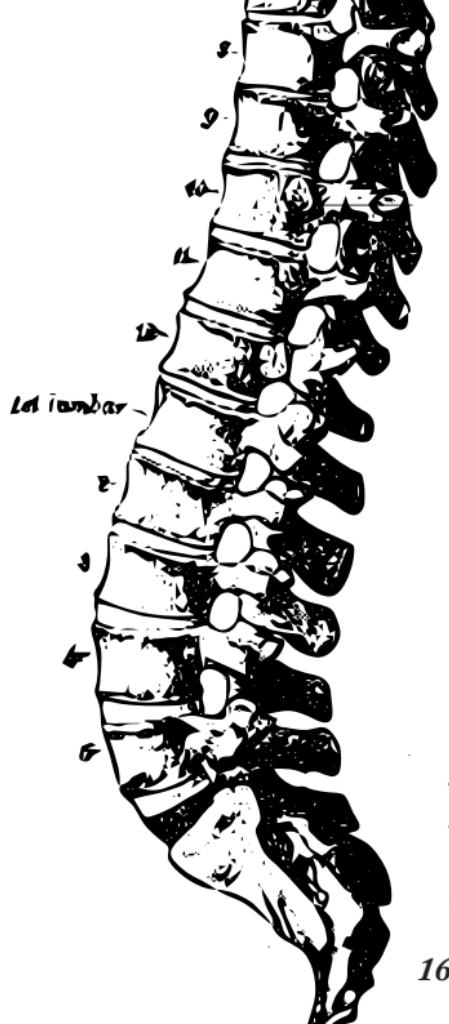
# Weight Gain / Obesity



# Neurologic

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Lumbar

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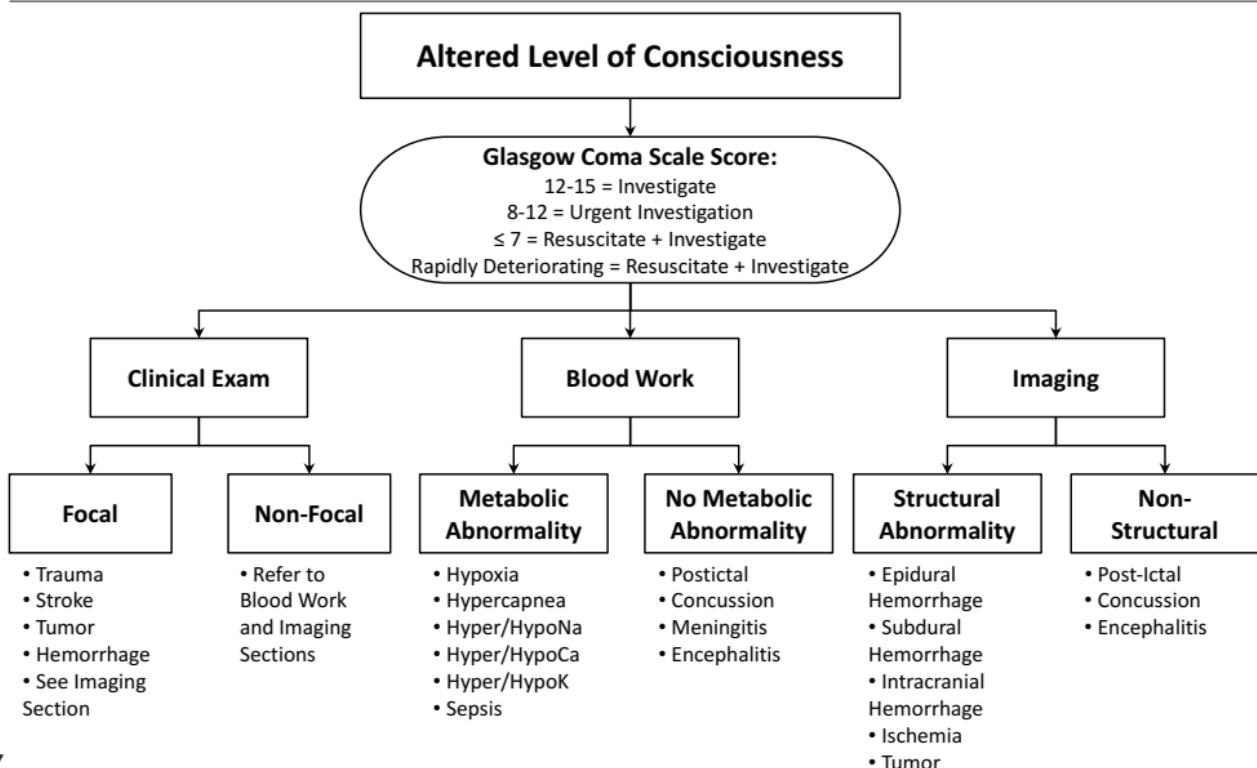
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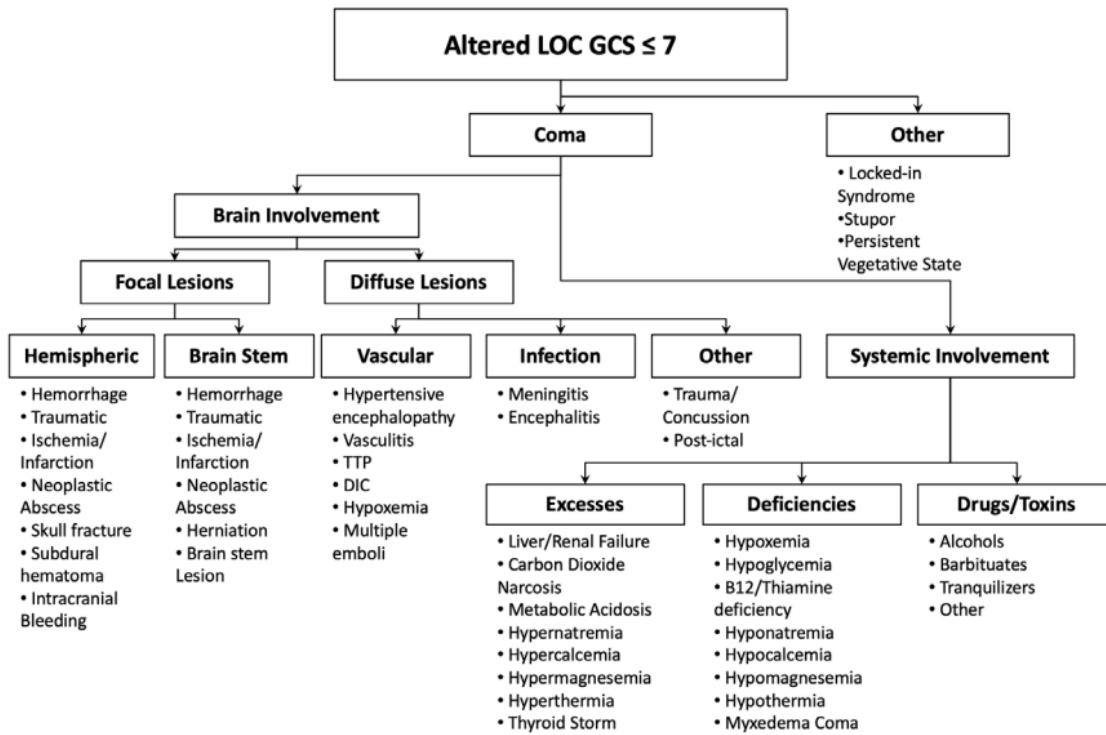
# Altered Level of Consciousness

## Approach



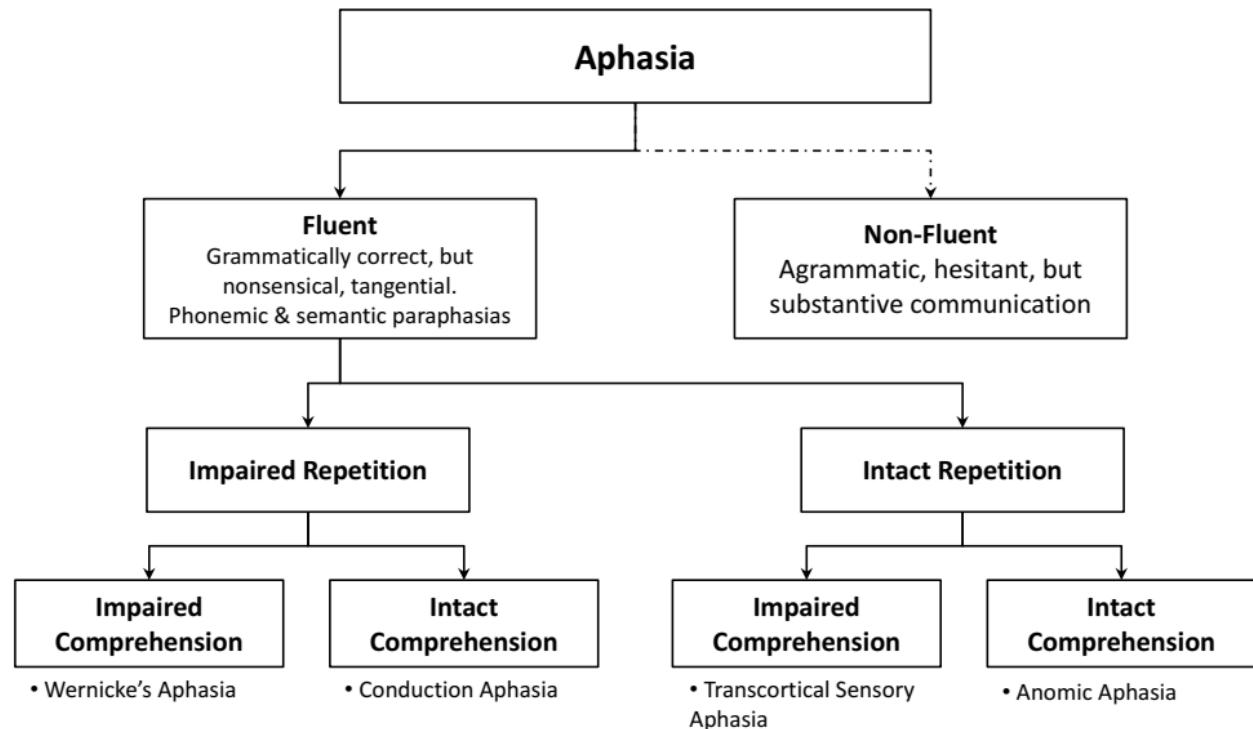
# Altered Level of Consciousness

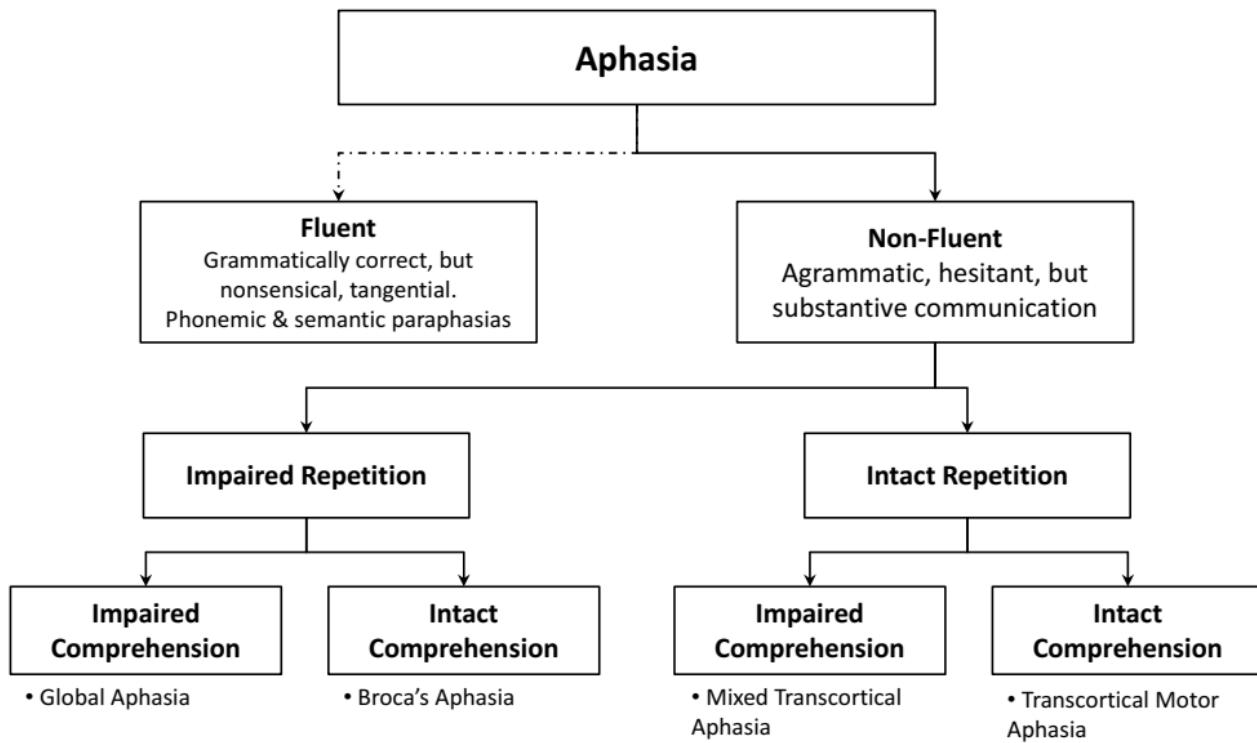
GCS ≤ 7



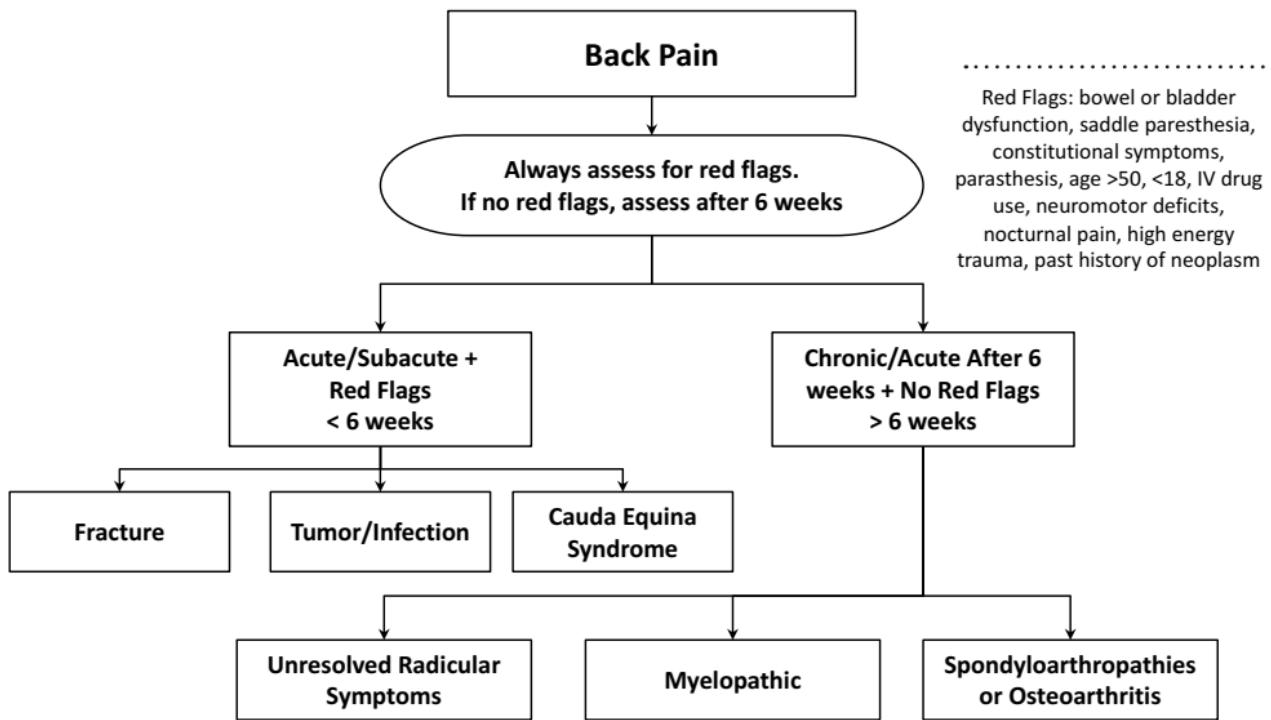
# Aphasia

Fluent

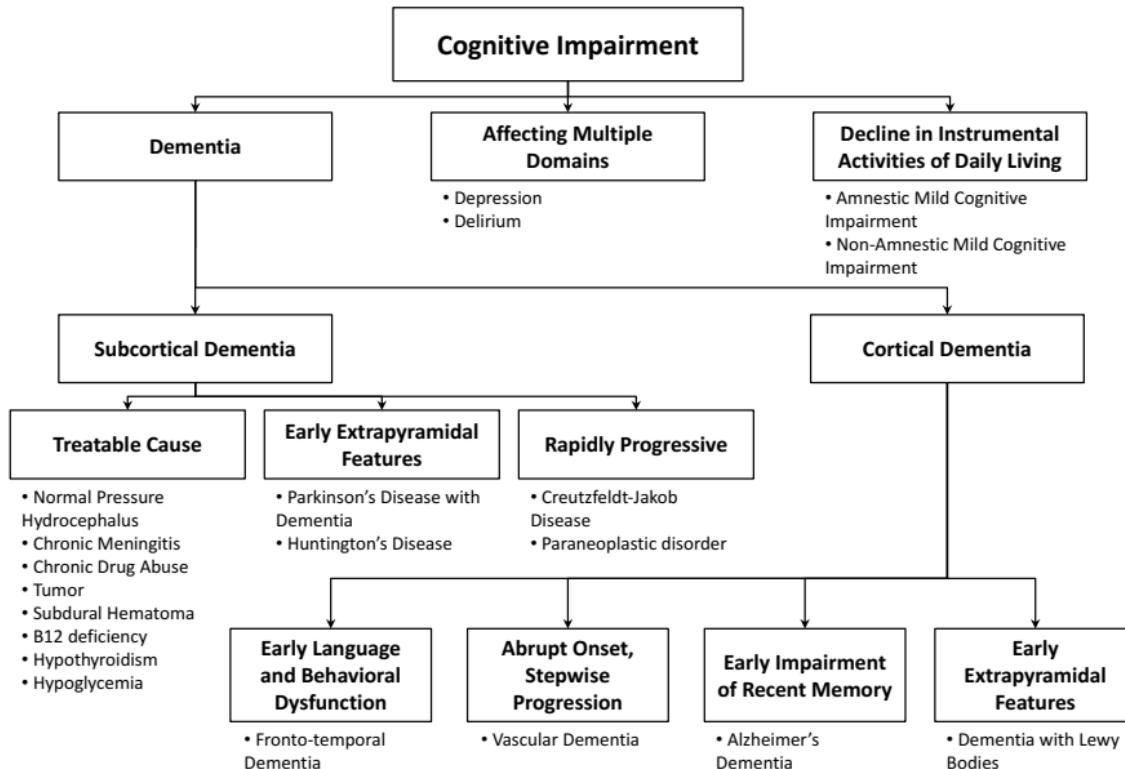


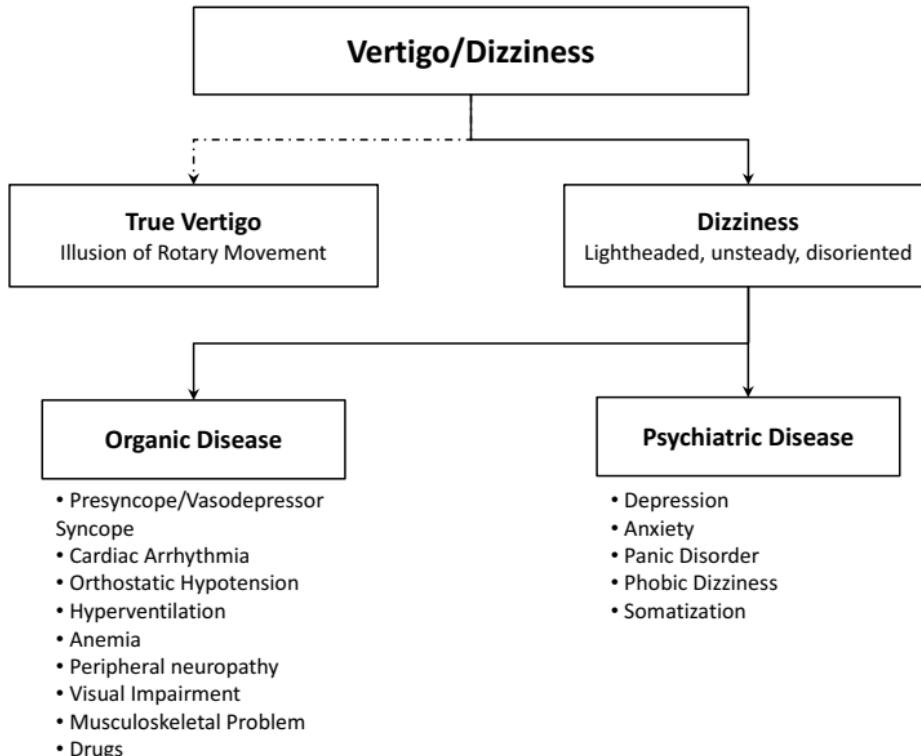


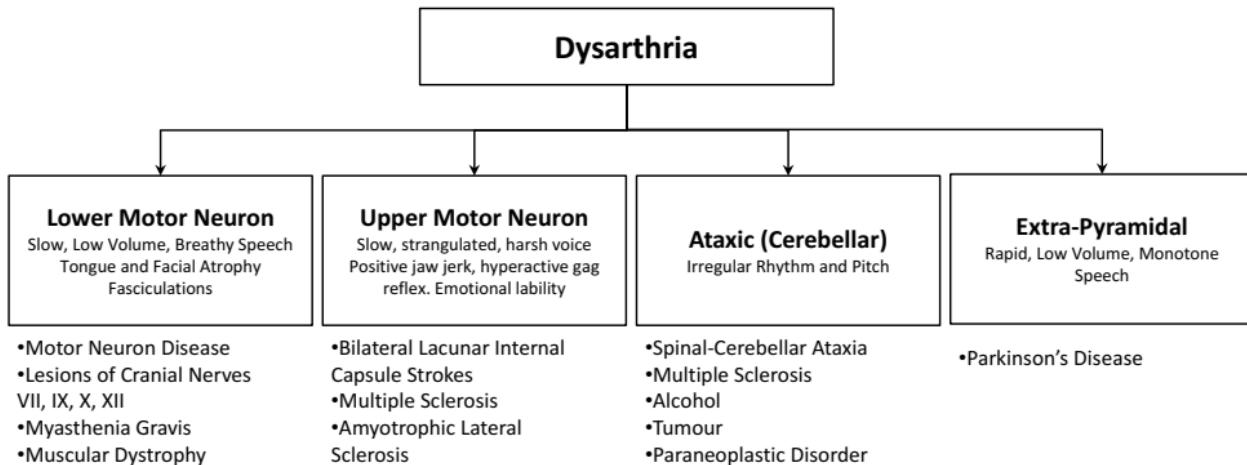
# Back Pain



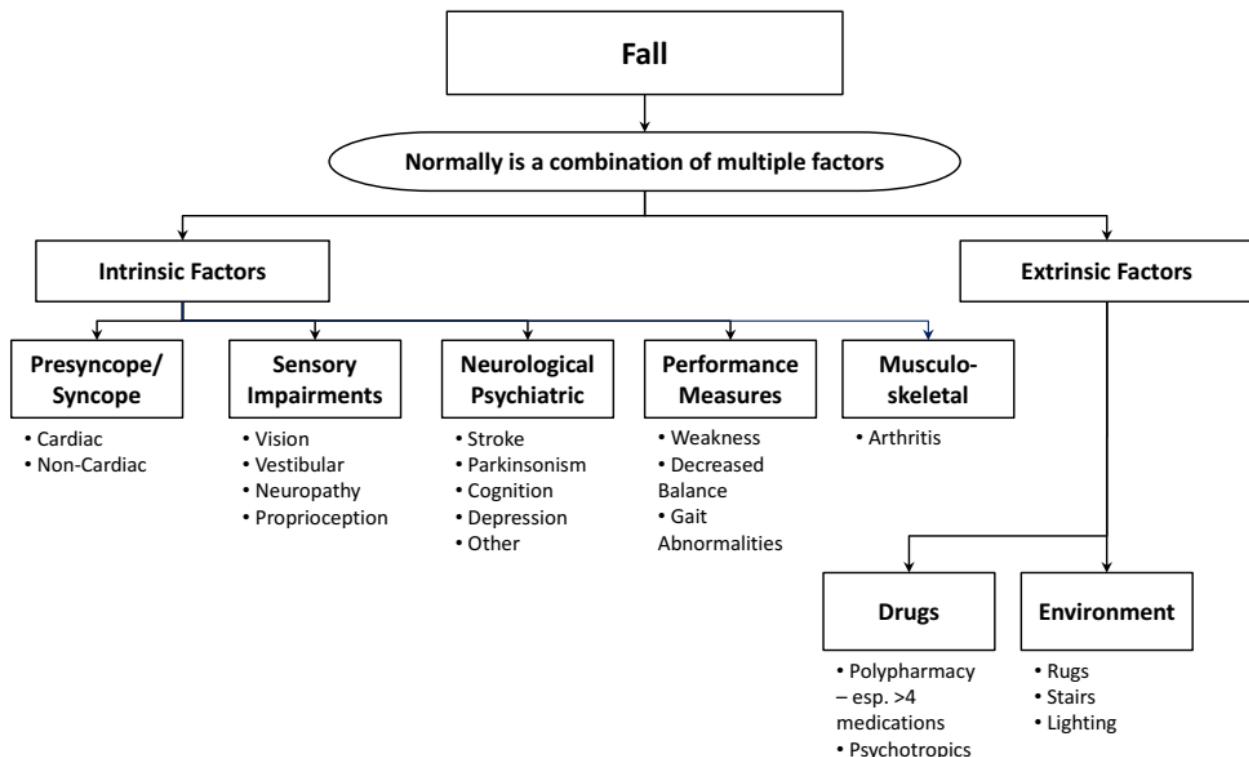
# Cognitive Impairment



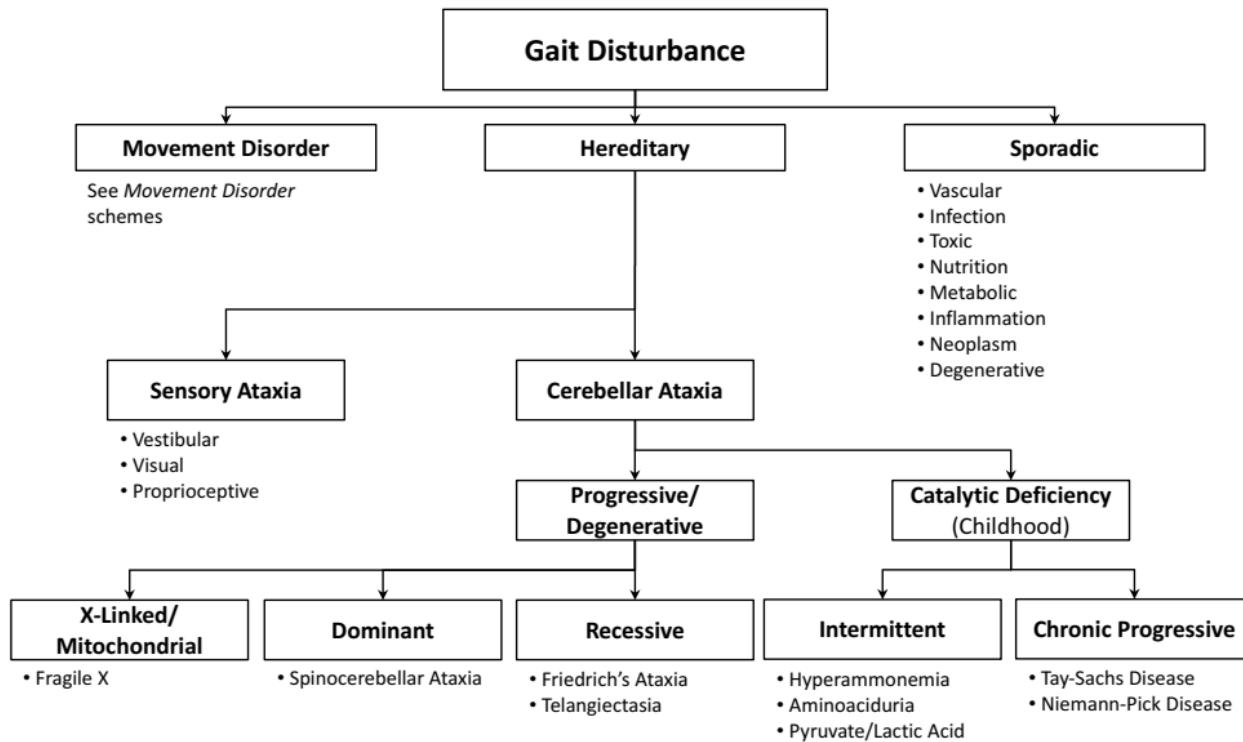




# Falls in the Elderly

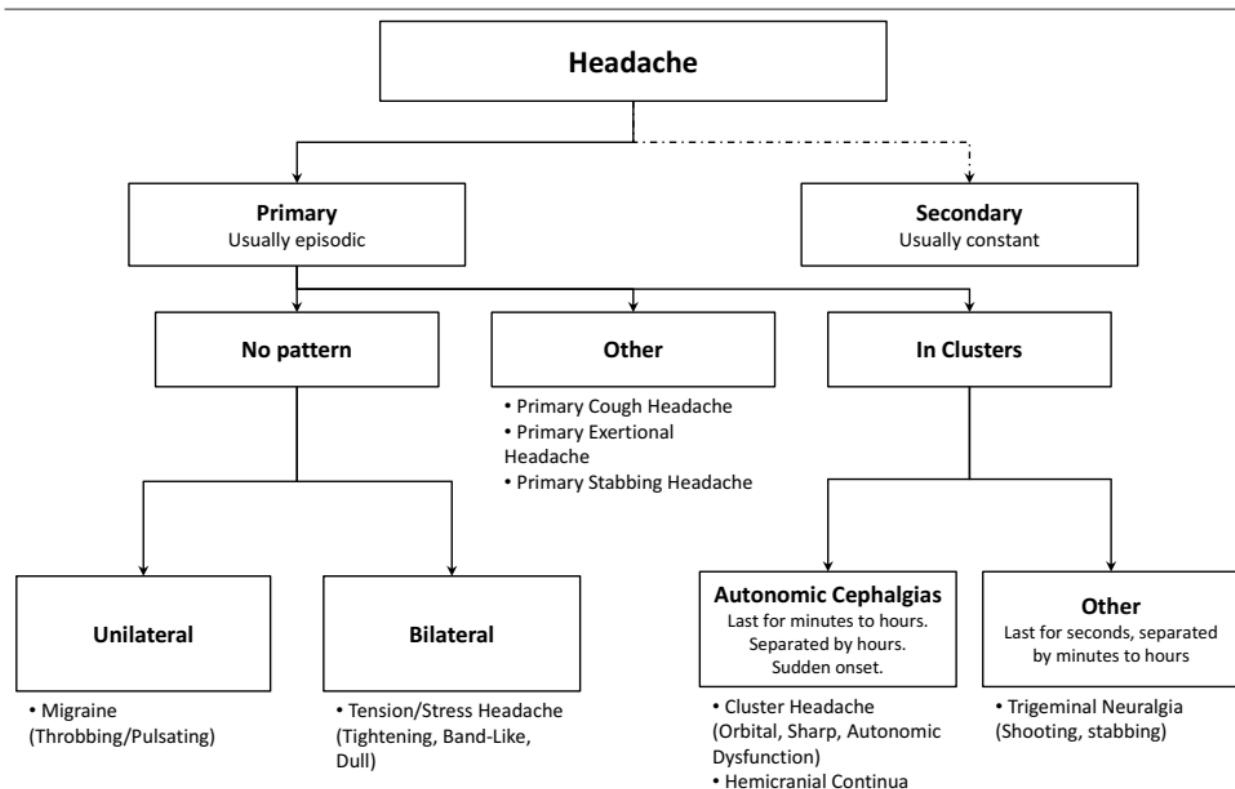


# Gait Disturbance

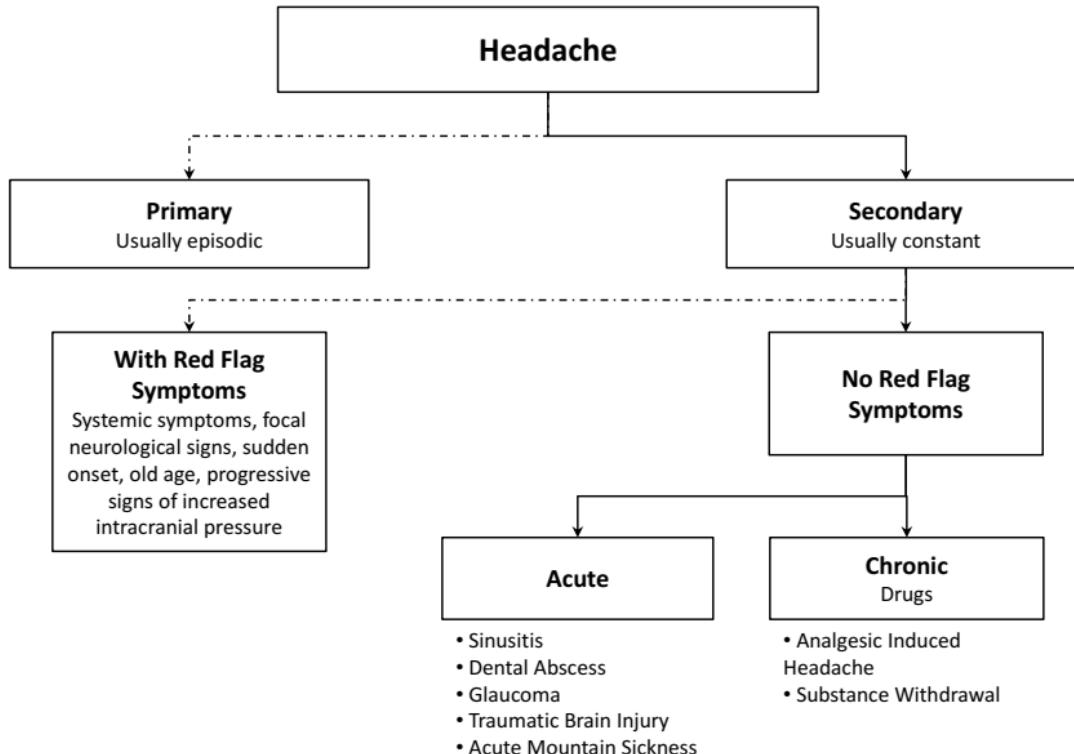


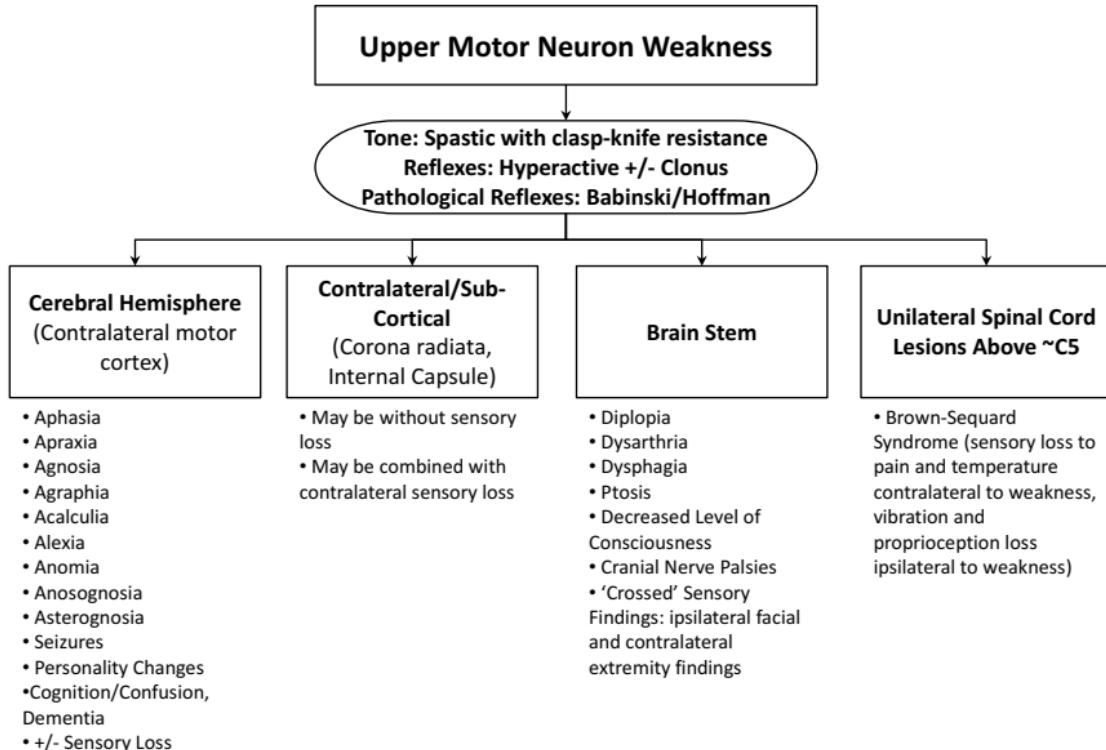
# Headache

Primary

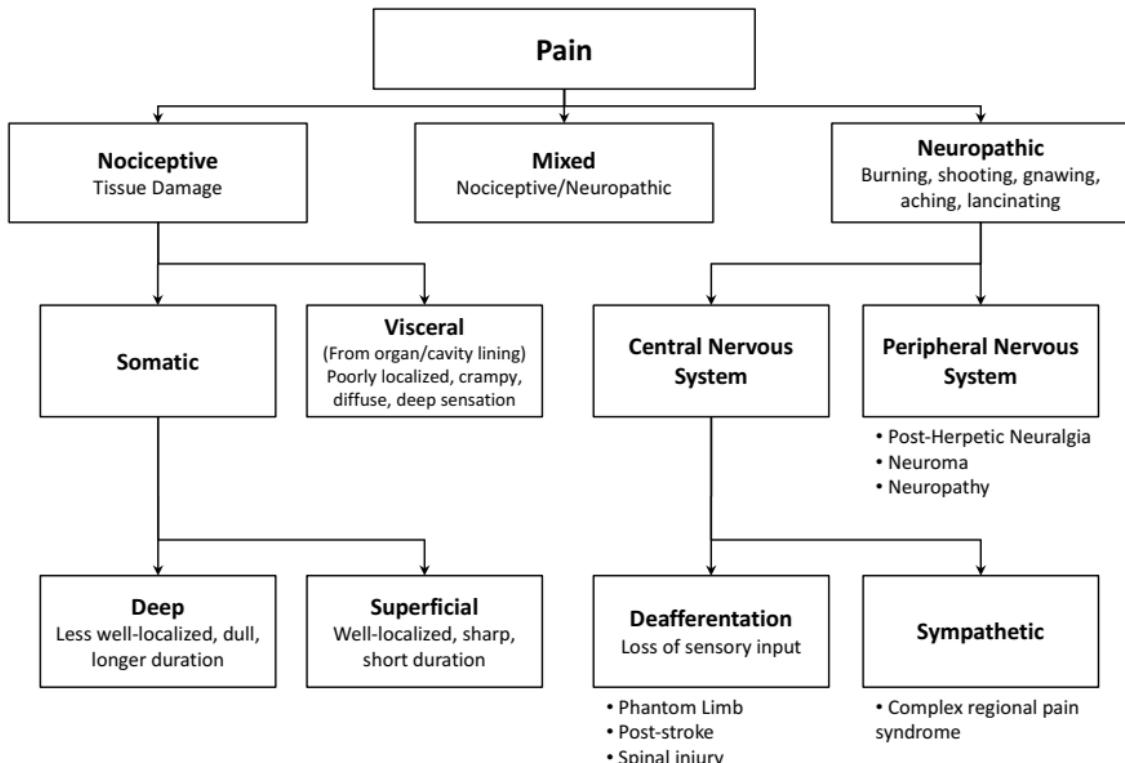


Secondary, without Red Flag Symptoms



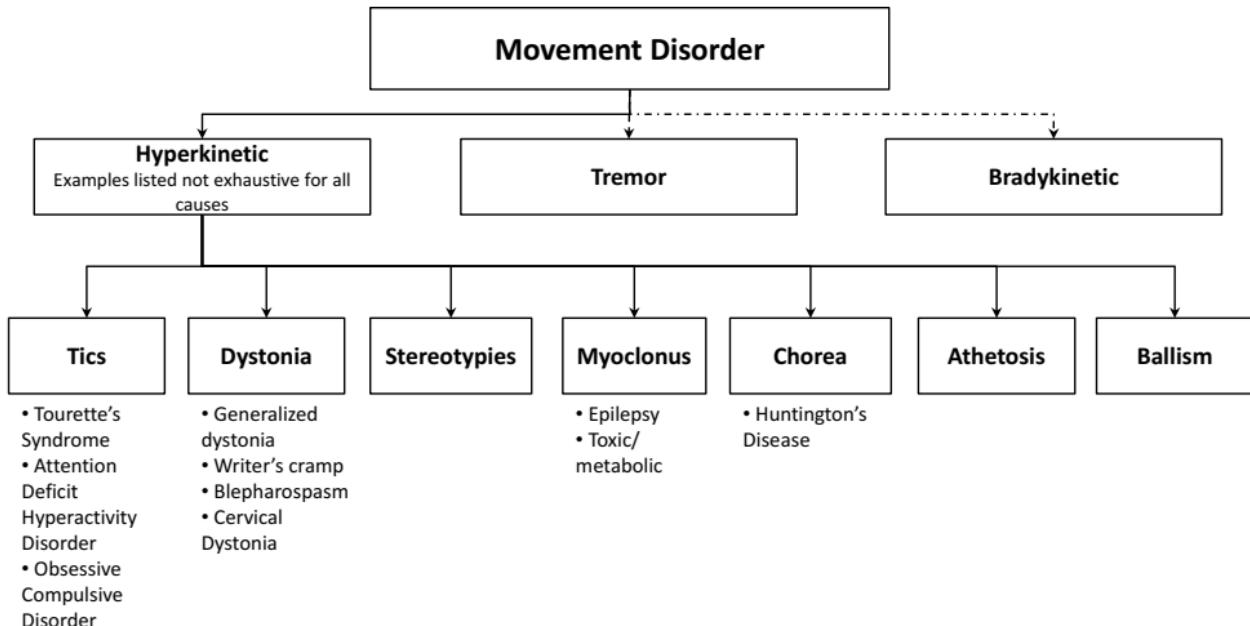


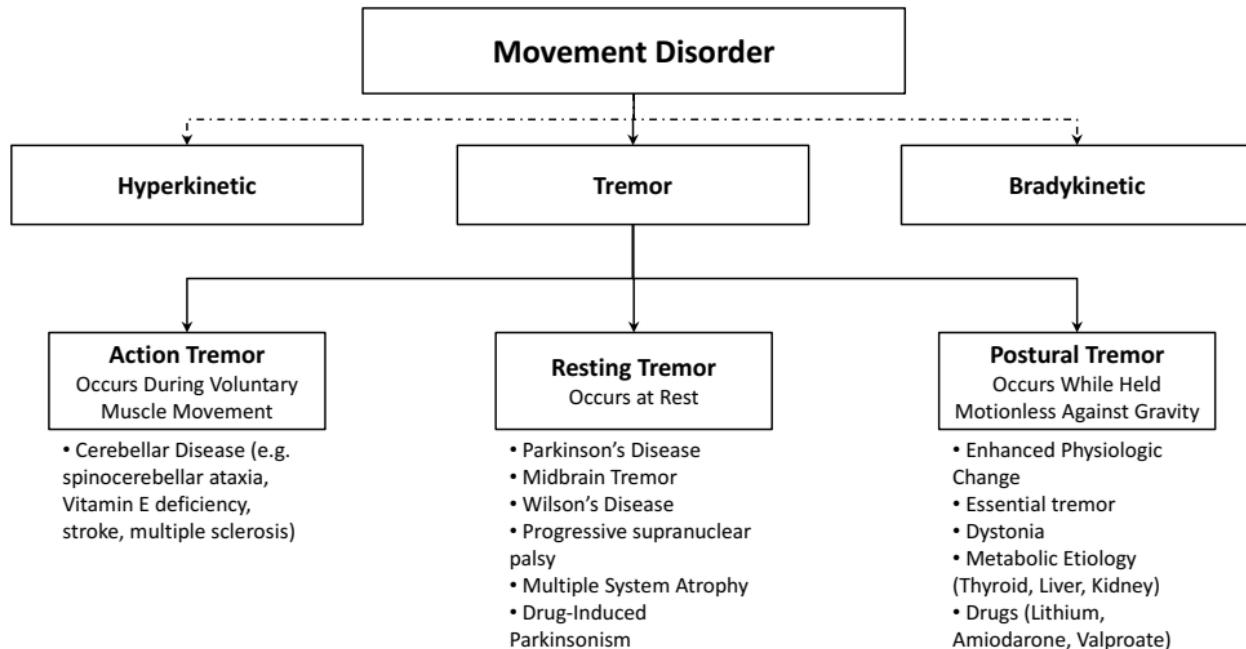
# Mechanisms of Pain



# Movement Disorder

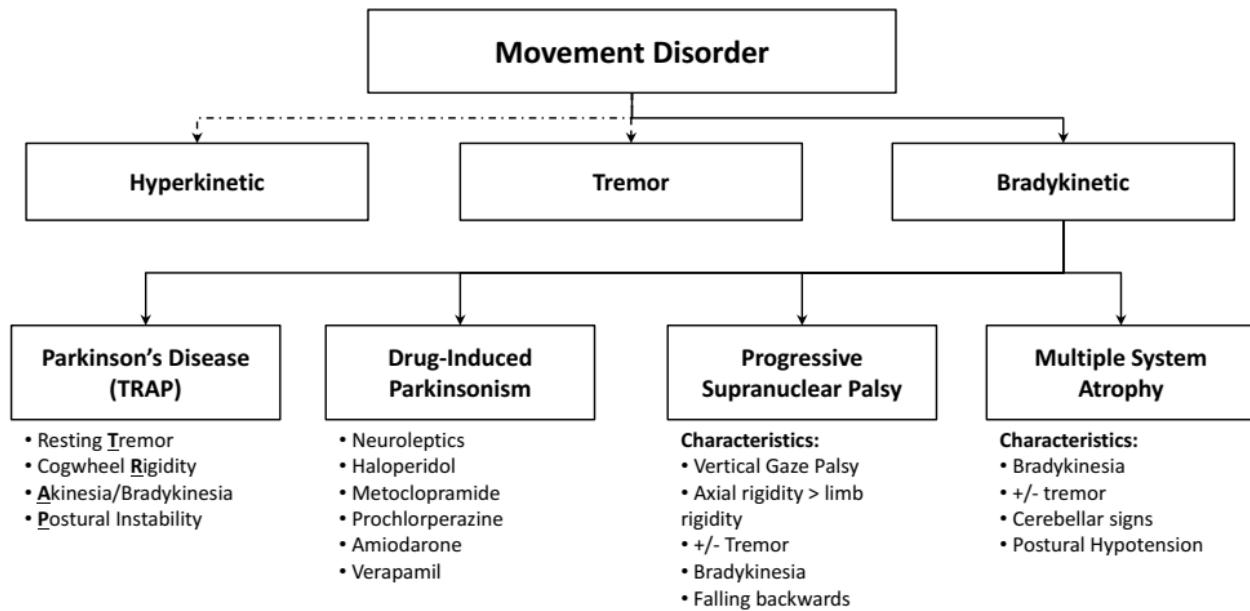
Hyperkinetic



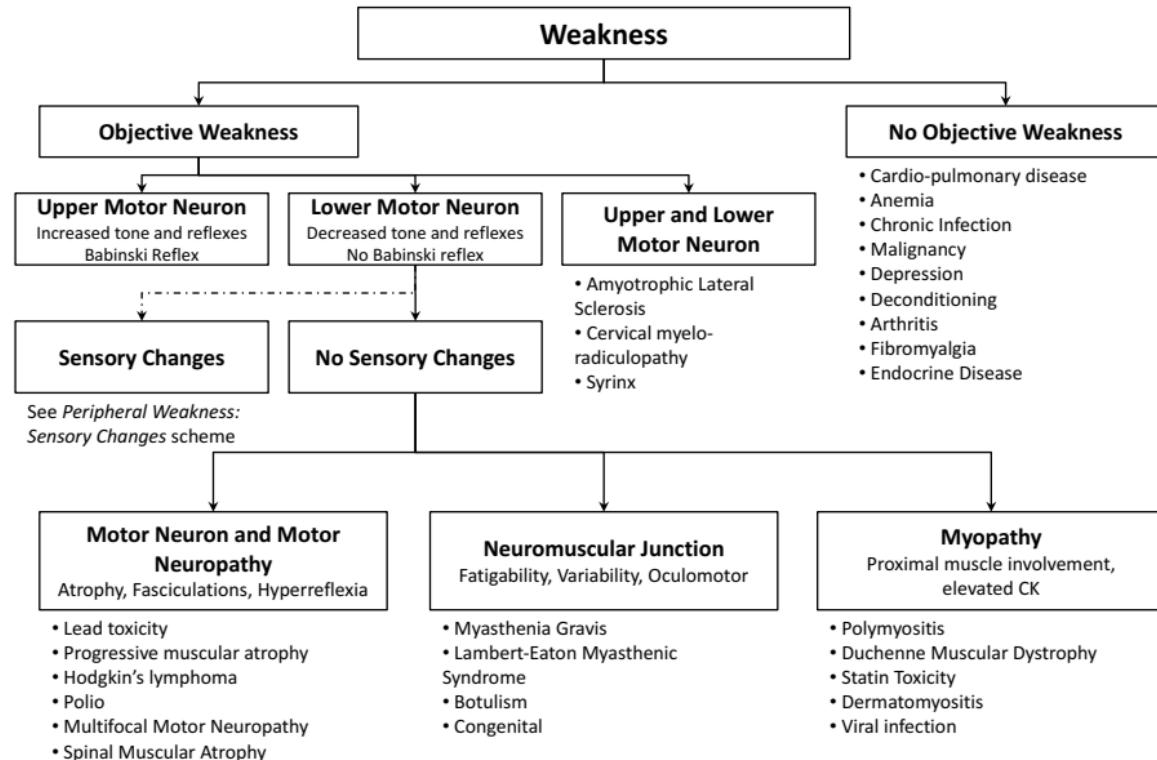


# Movement Disorder

Bradykinetic

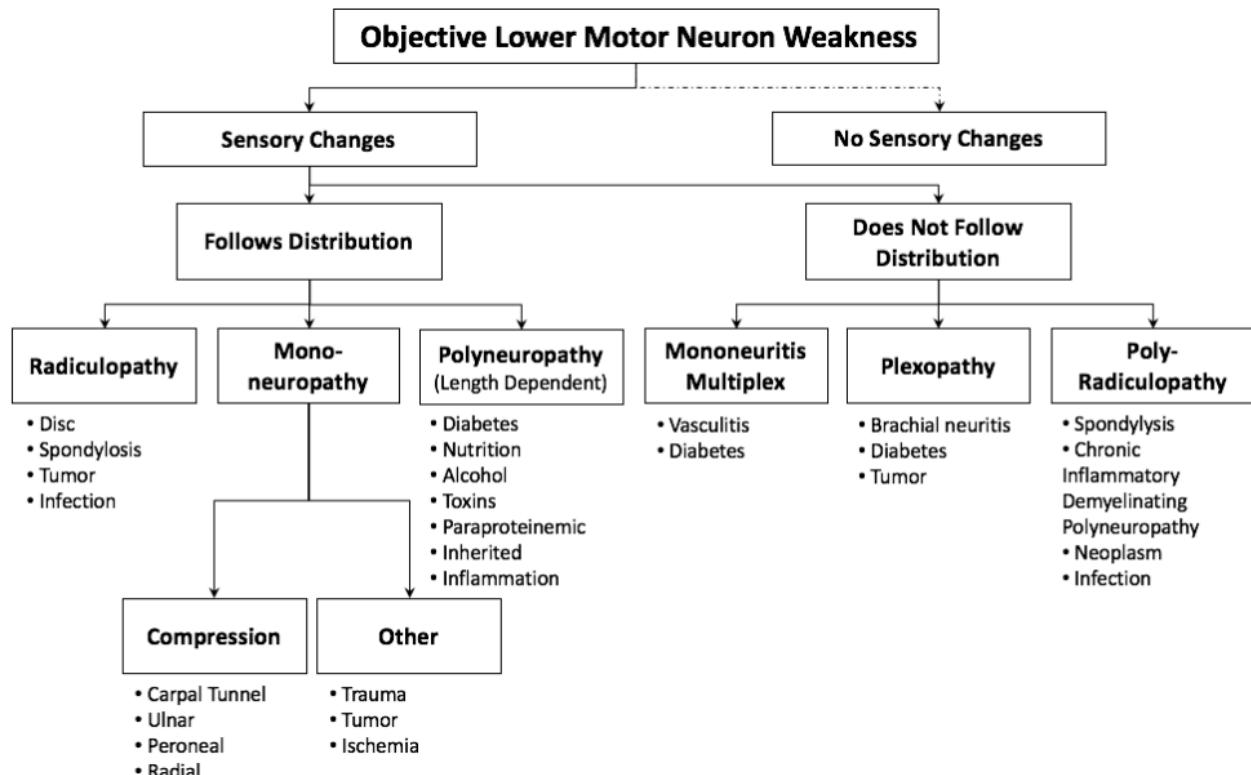


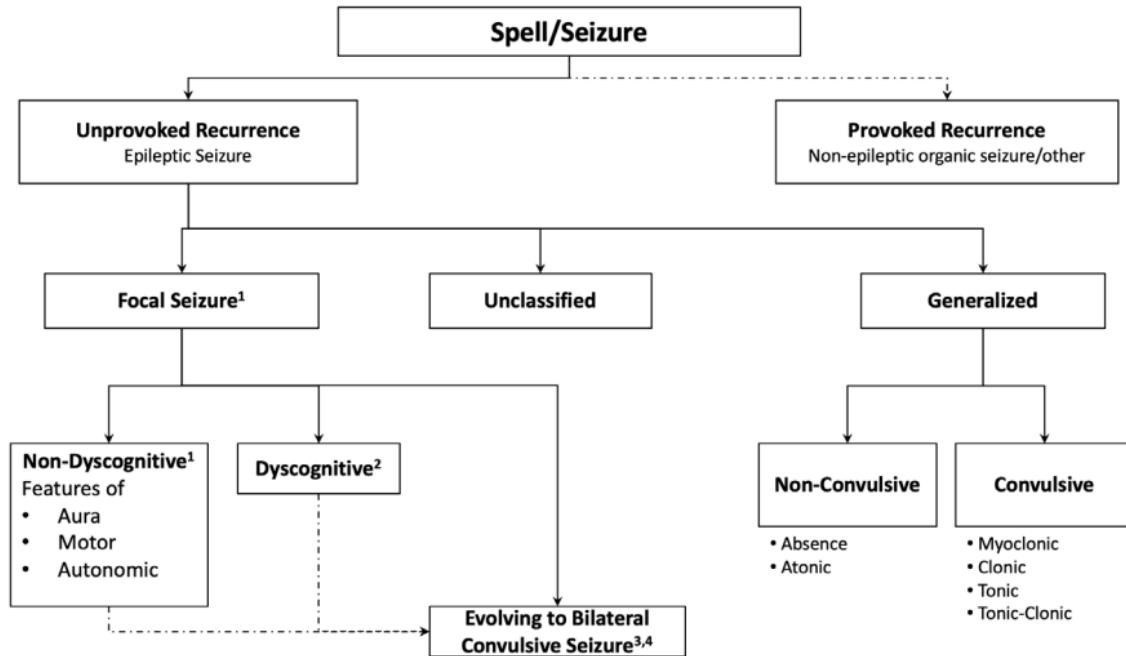
# Peripheral Weakness



# Peripheral Weakness

## Sensory Changes





Potentially acutely life-threatening presentation

1 Previously named Simple Partial Seizure

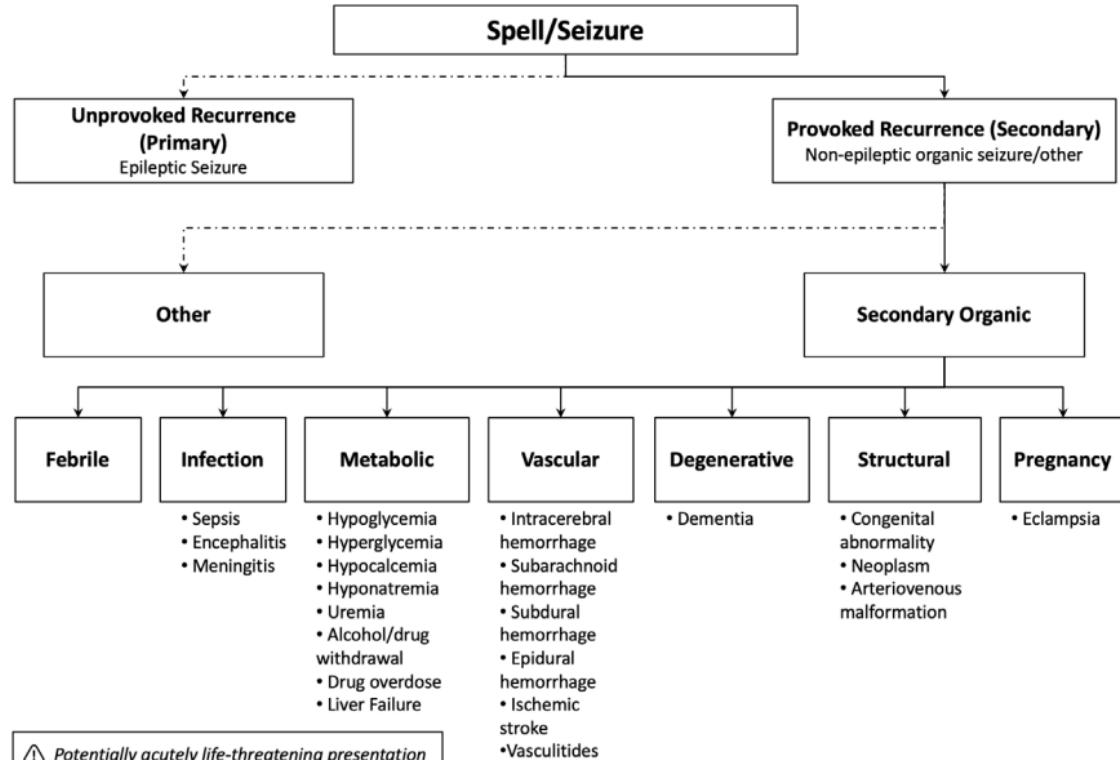
2 Previously named Complex Partial Seizure

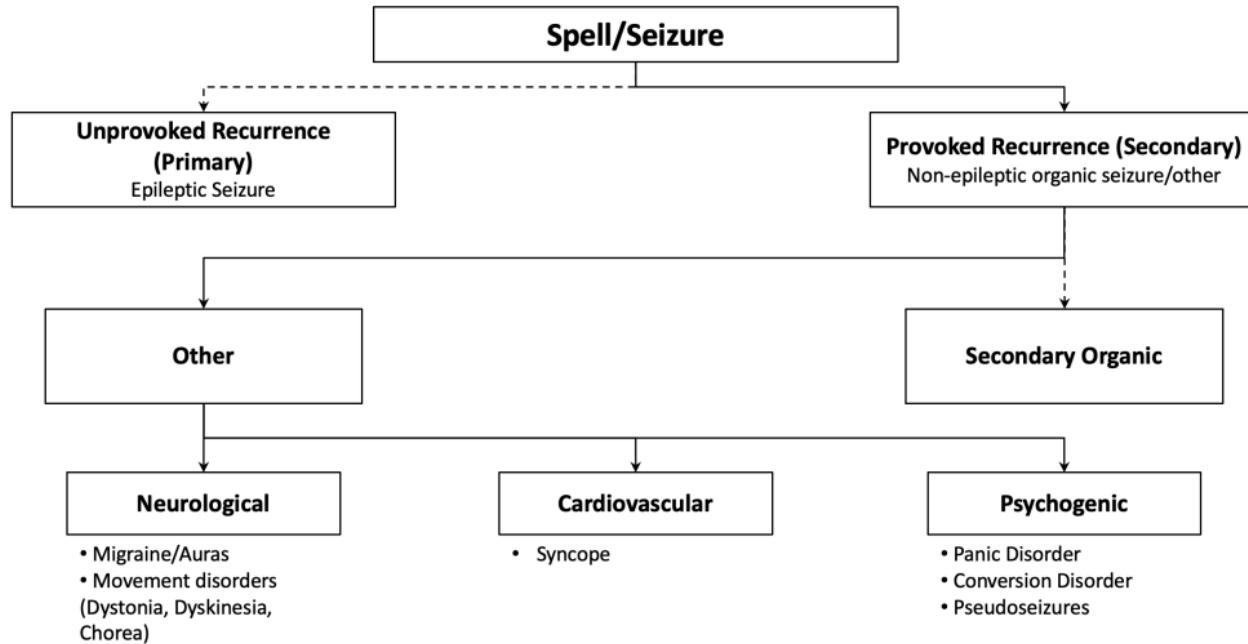
3 Previously named Secondary Generalized Tonic-Clonic Seizure

4 A focal seizure may evolve so rapidly to a bilateral convulsive seizure that no initial distinguishing features are apparent.

# Spell / Seizure

## Secondary Organic

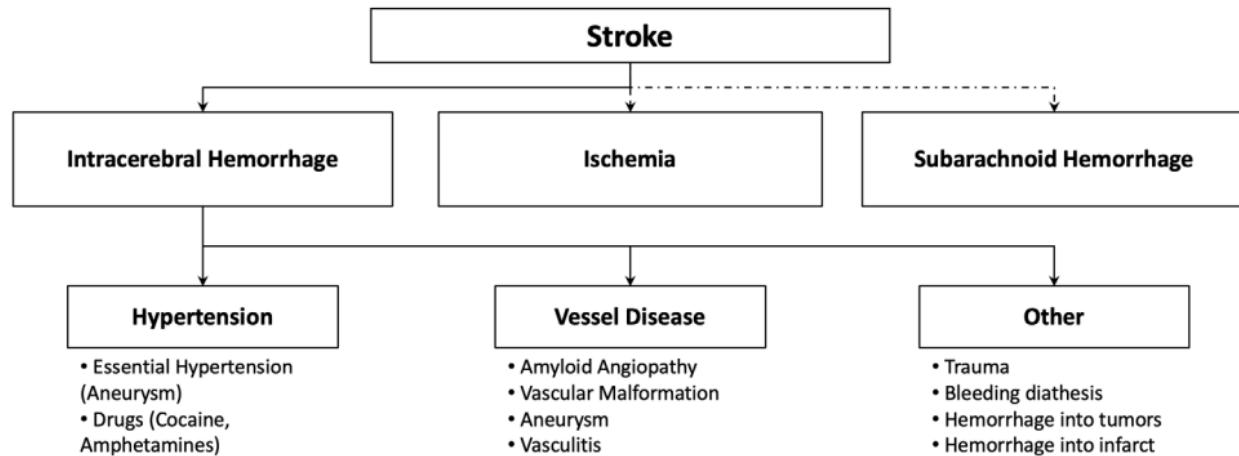


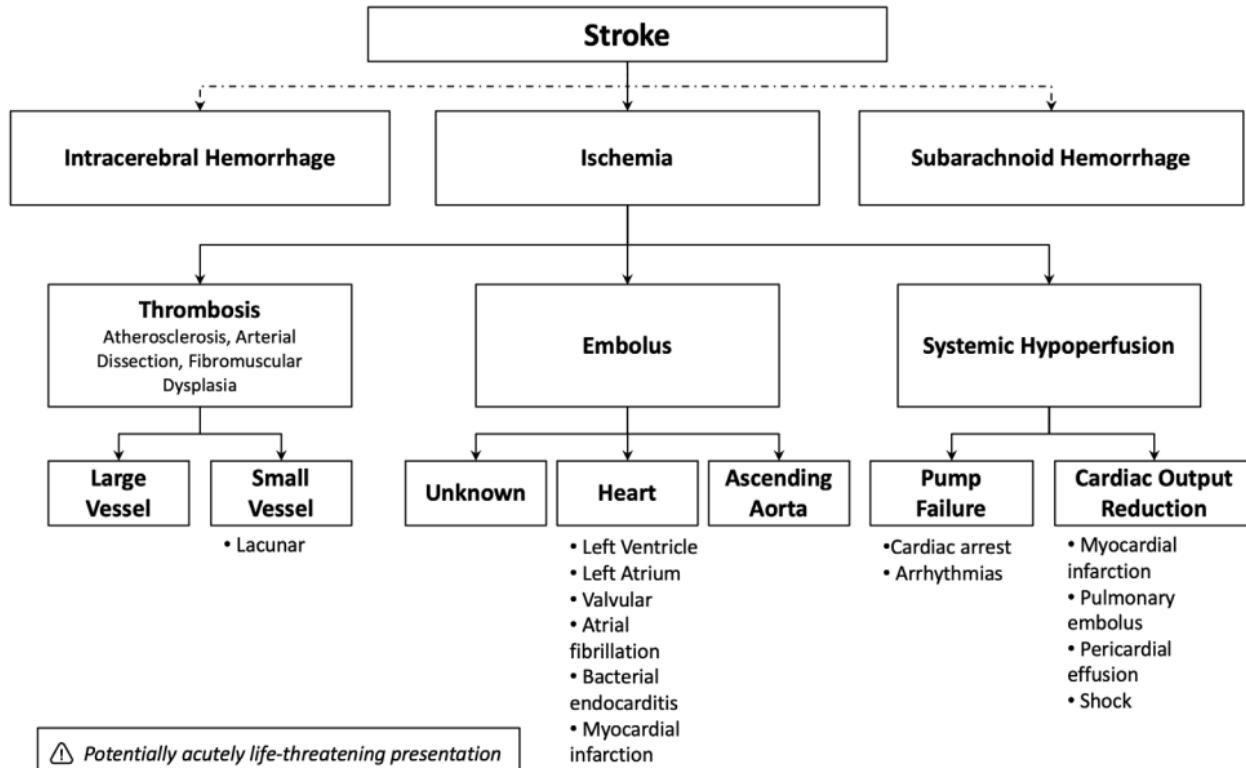


Potentially acutely life-threatening presentation

# Stroke

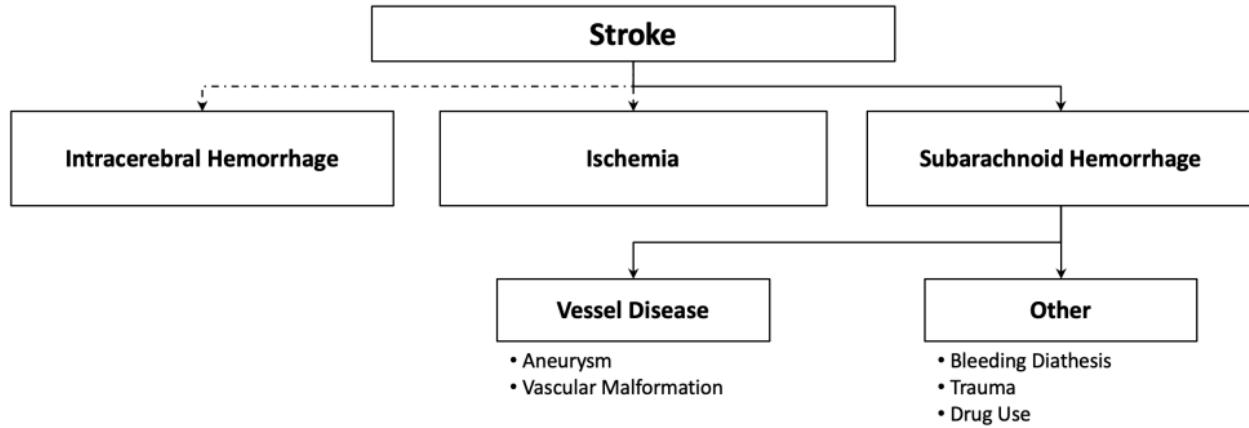
## Intracerebral Hemorrhage

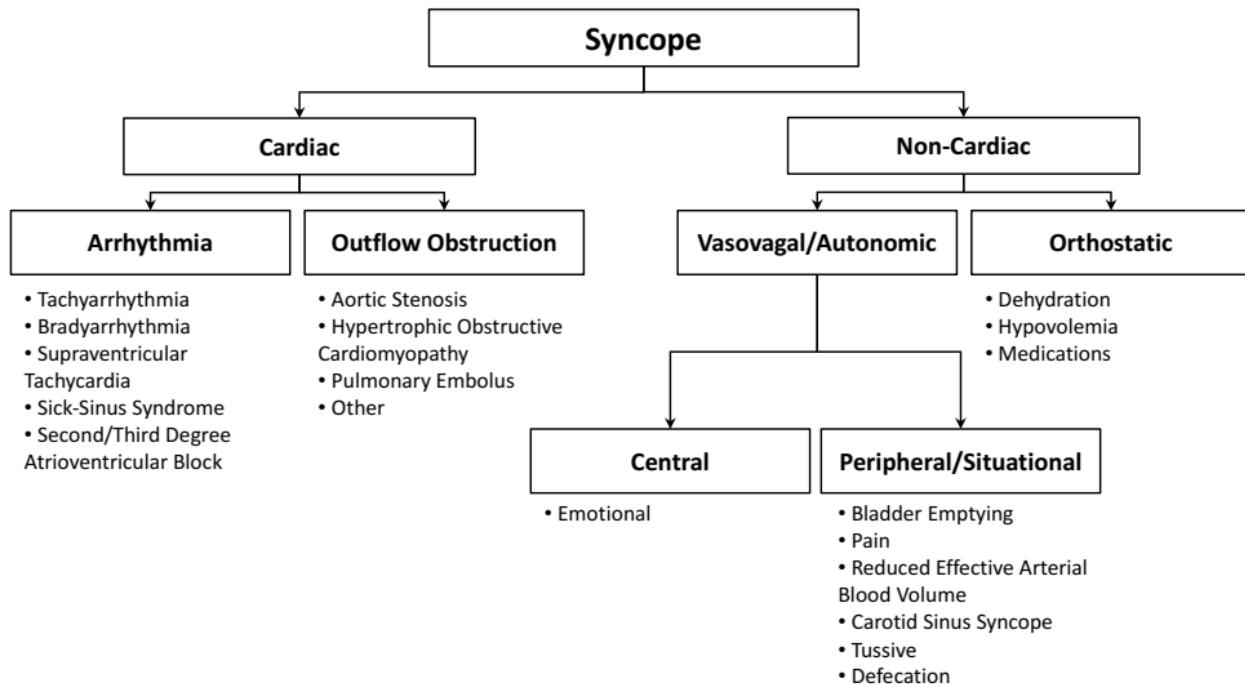


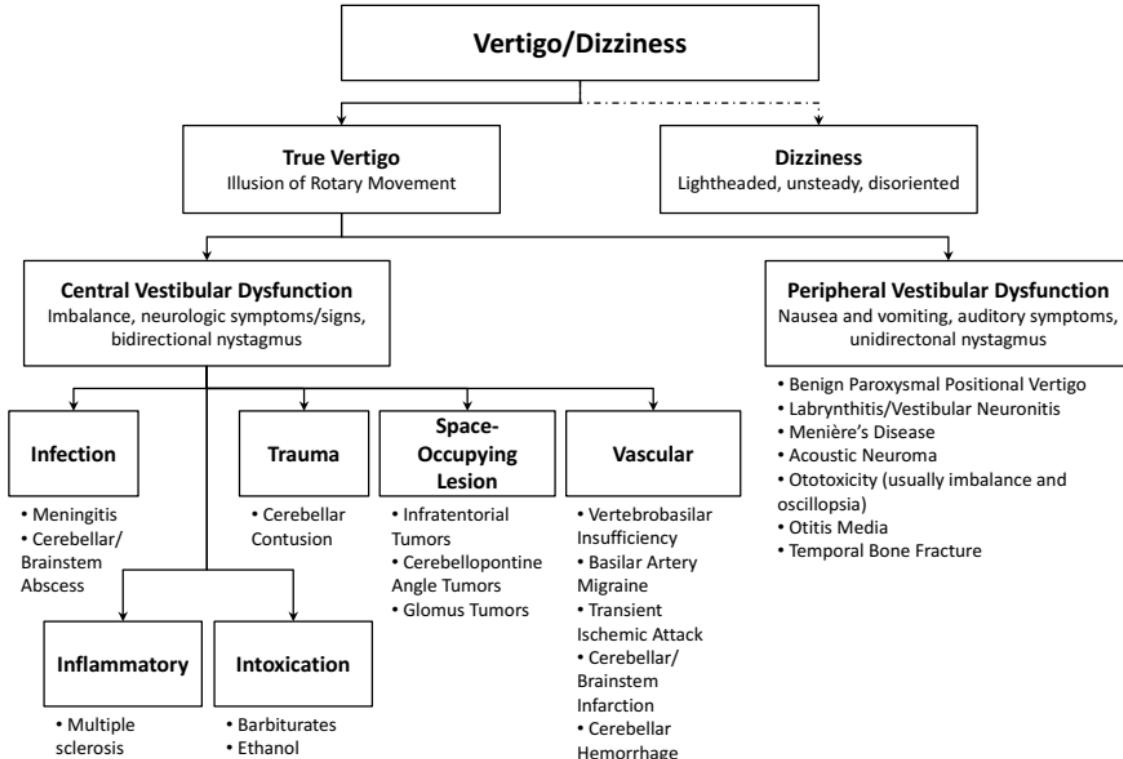


# Stroke

## Subarachnoid Hemorrhage









# Obstetrical & Gynecological

Wall of life

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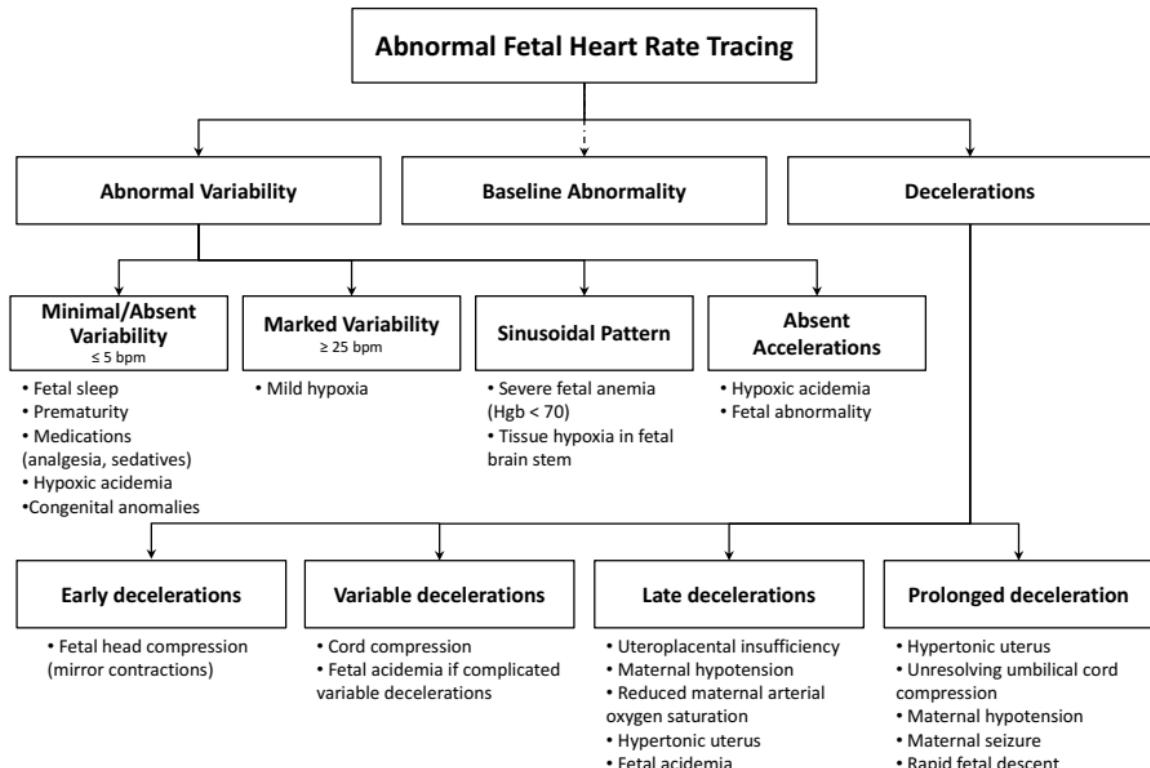
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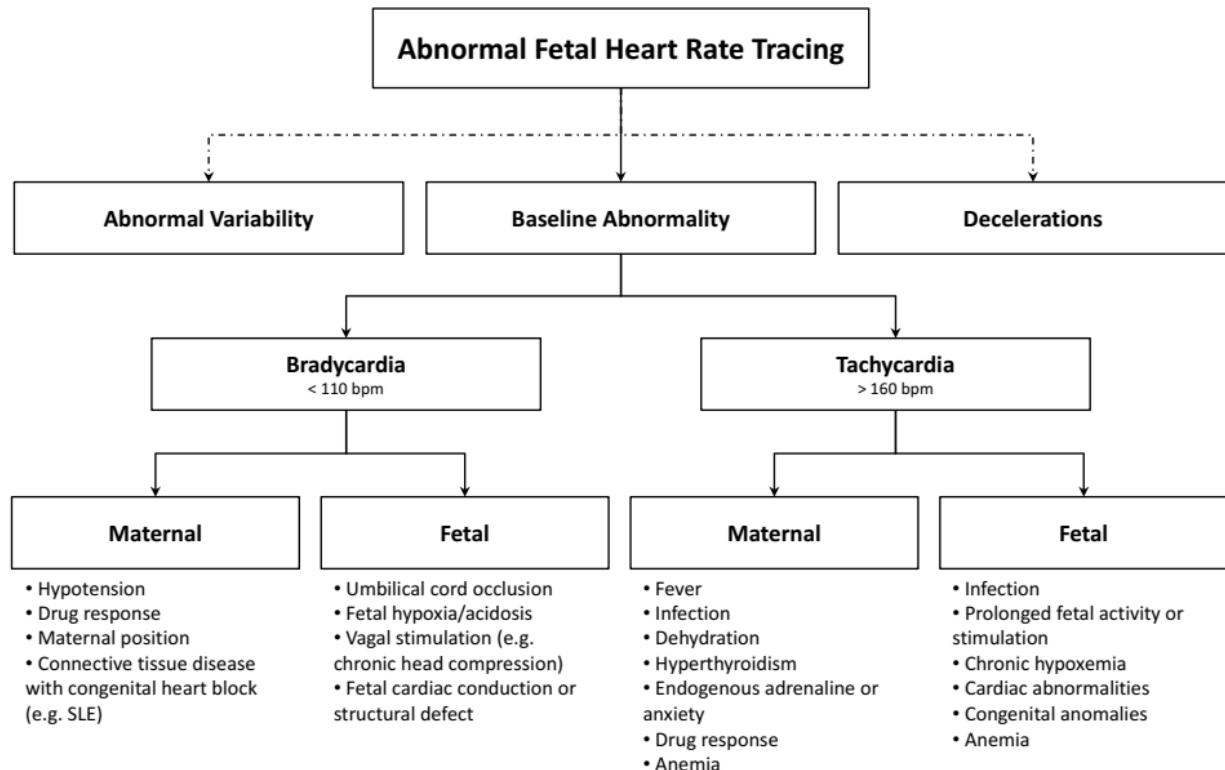
# Intrapartum Abnormal Fetal HR Tracing

## Variability & Decelerations

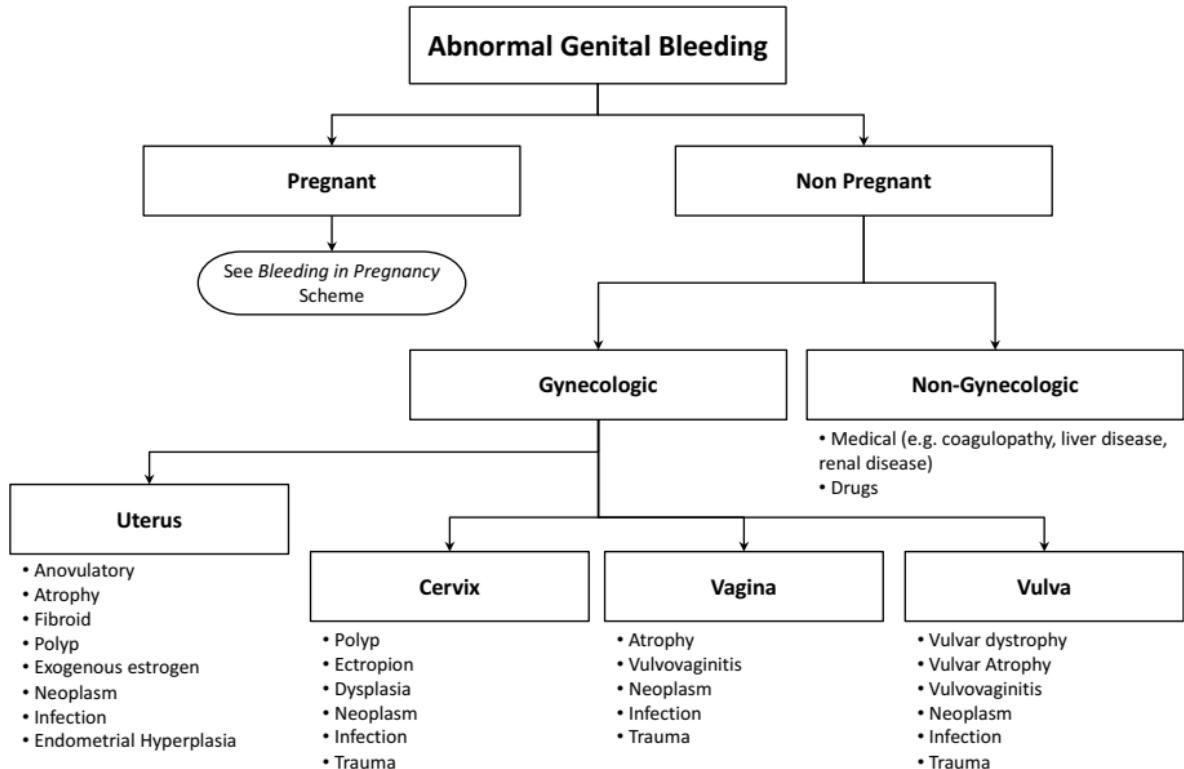


# Intrapartum Abnormal Fetal HR Tracing

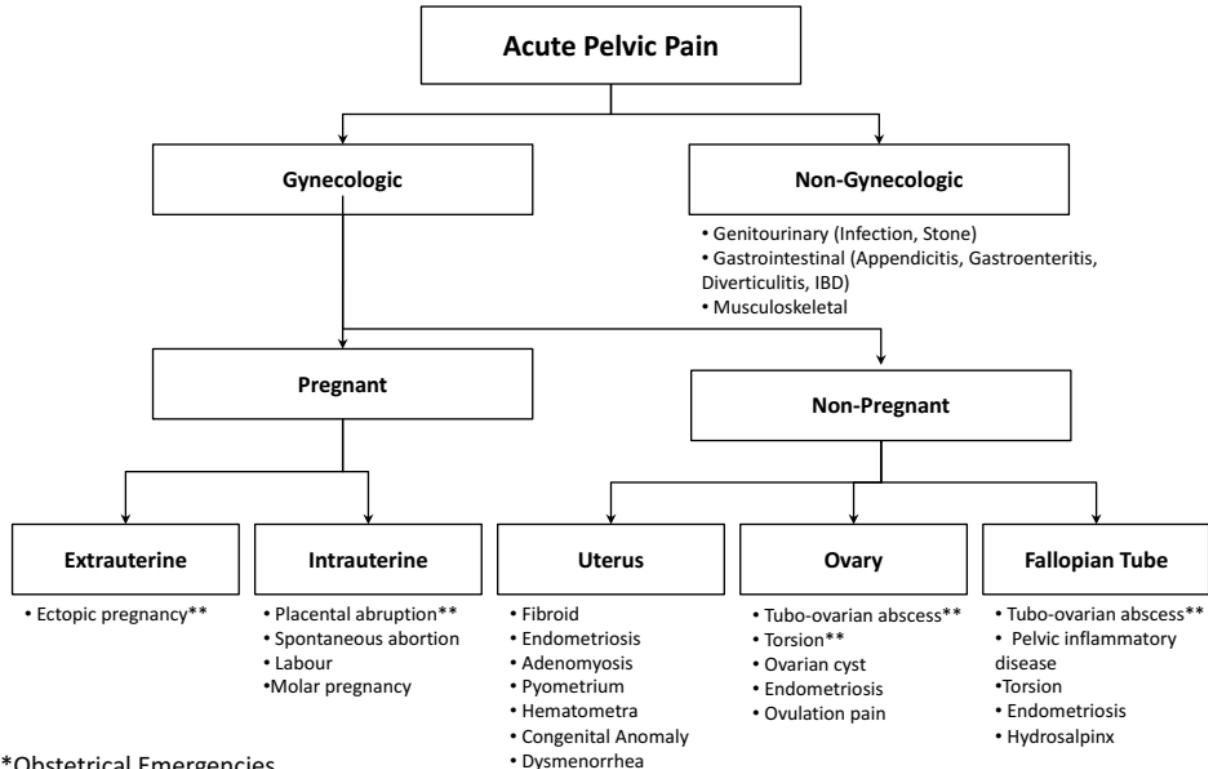
Baseline



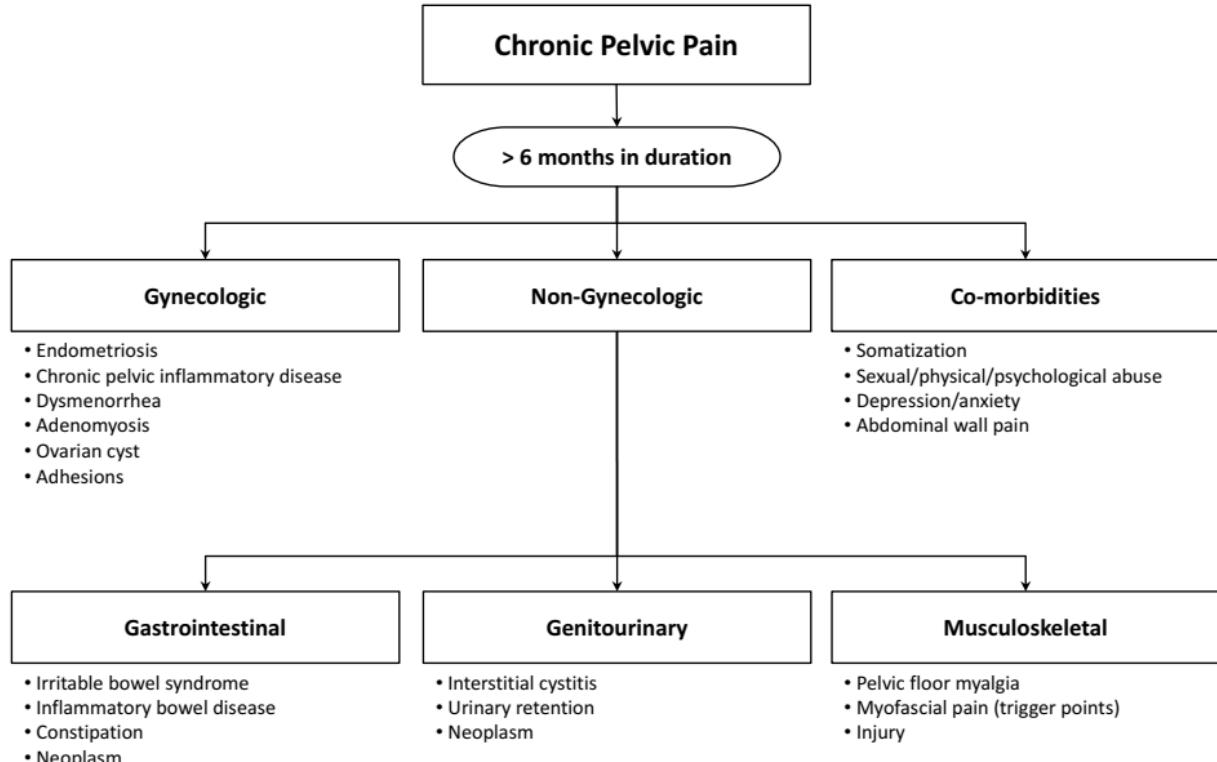
# Abnormal Genital Bleeding

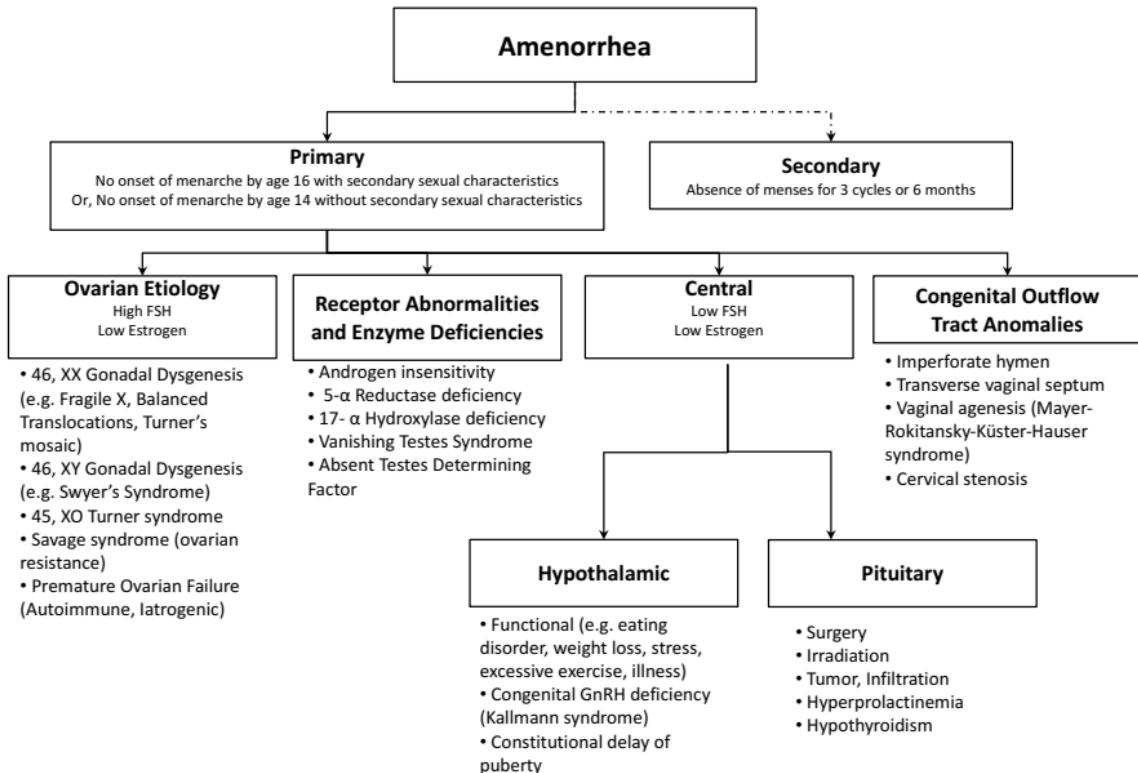


# Acute Pelvic Pain



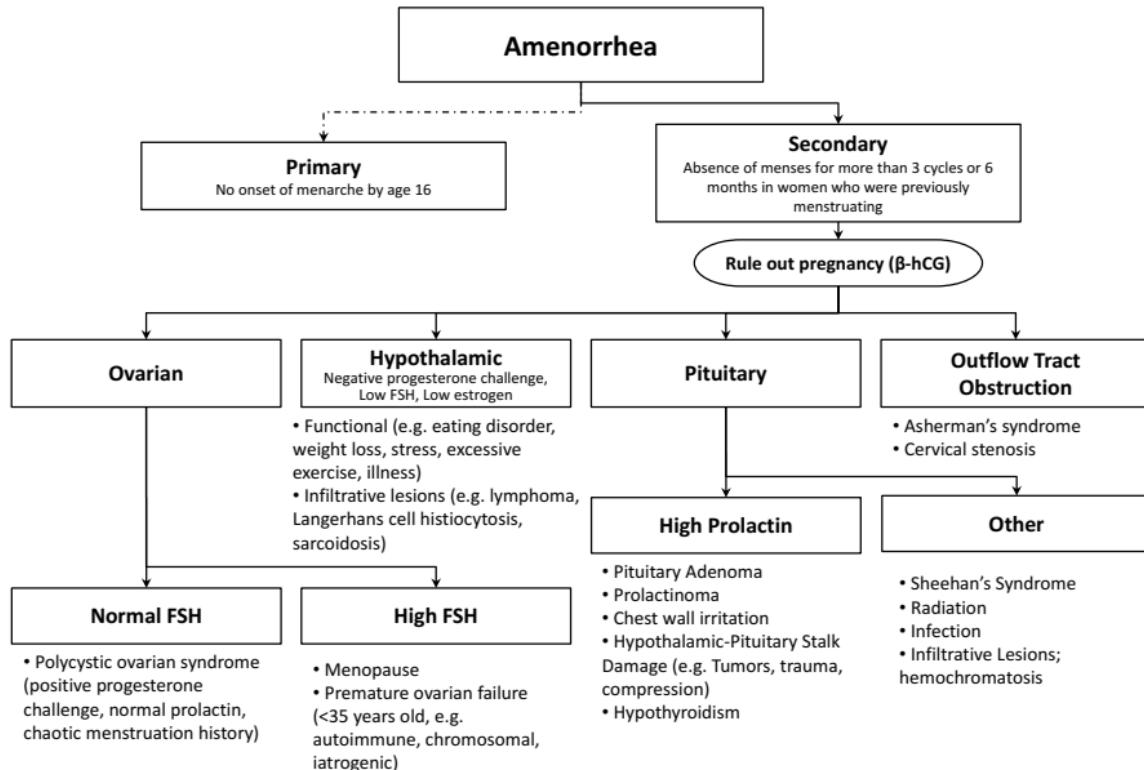
# Chronic Pelvic Pain

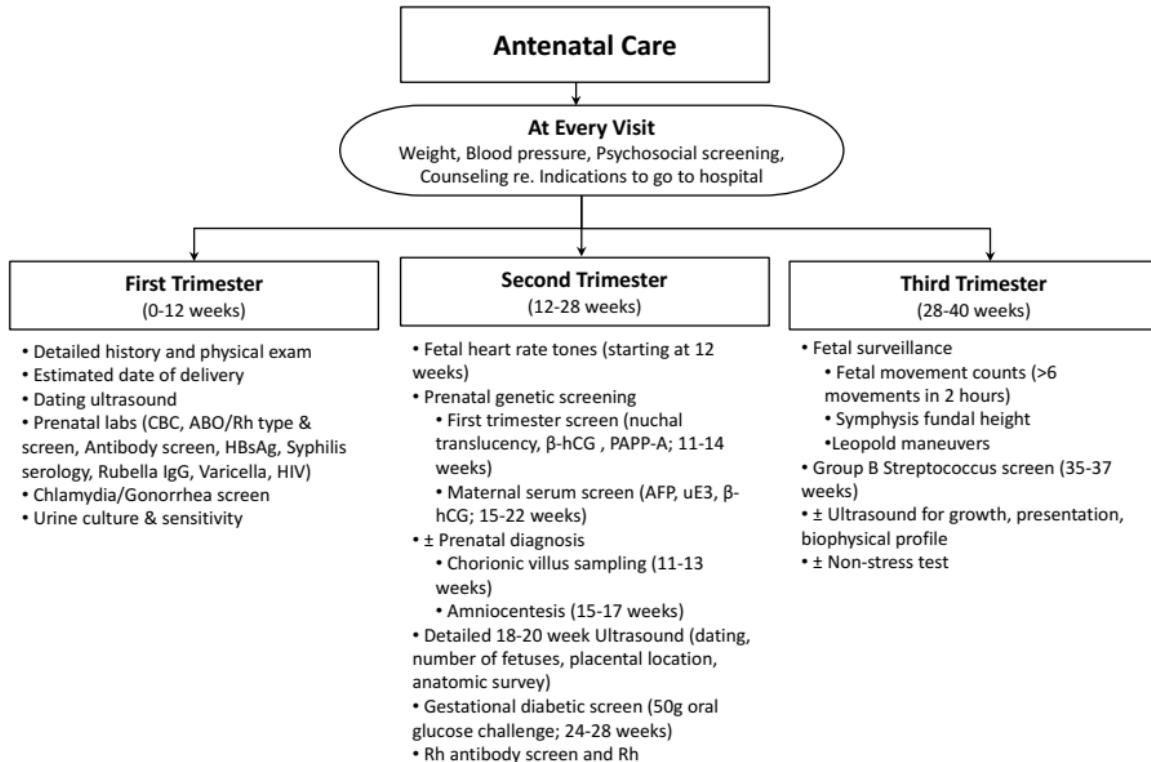




# Amenorrhea

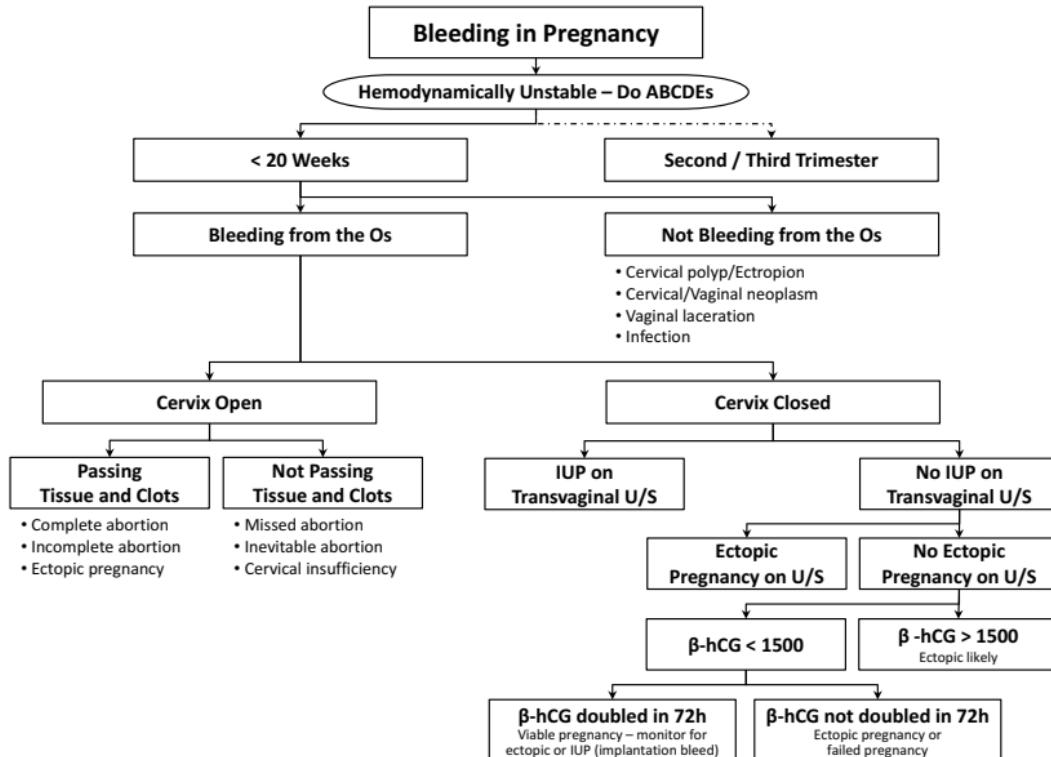
## Secondary





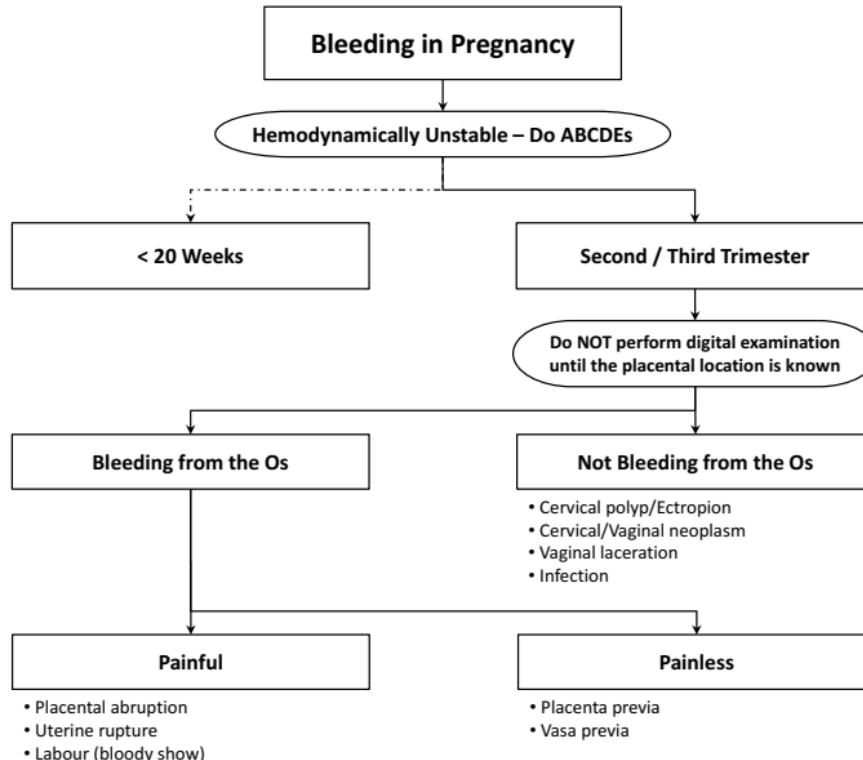
# Bleeding in Pregnancy

< 20 Weeks

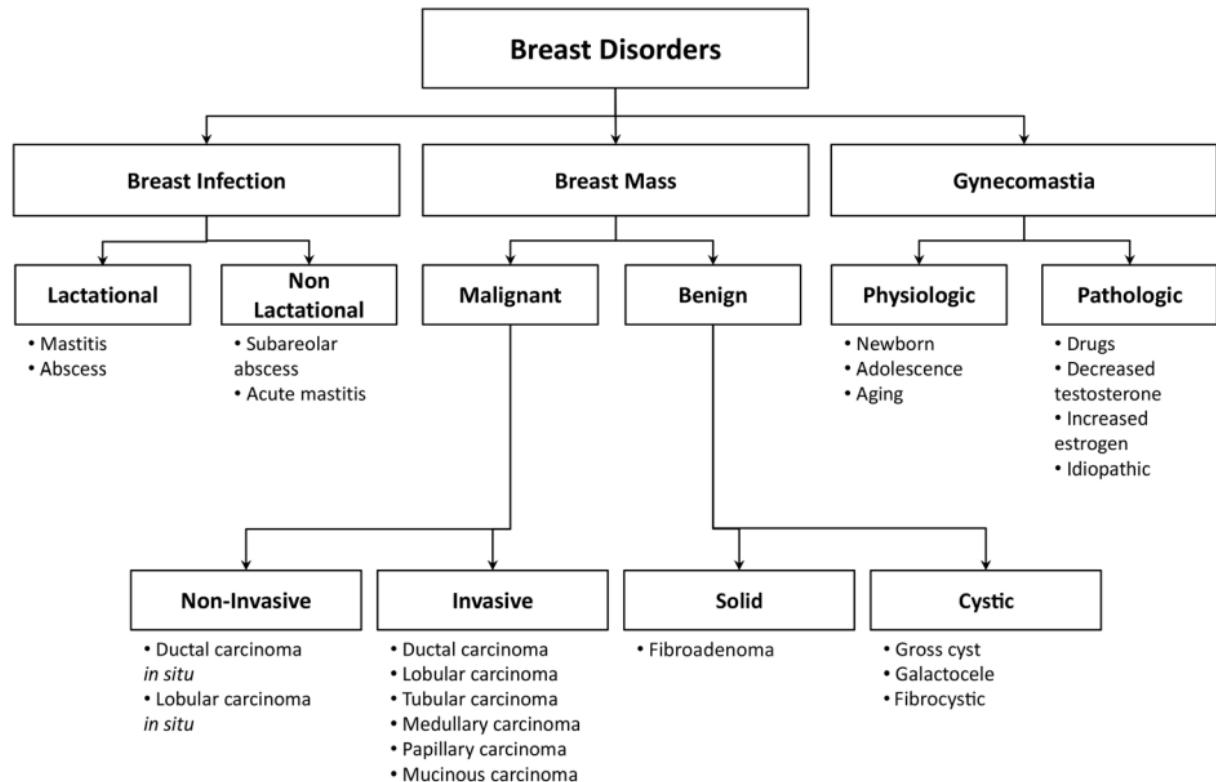


# Bleeding in Pregnancy

2nd &amp; 3rd Trimester

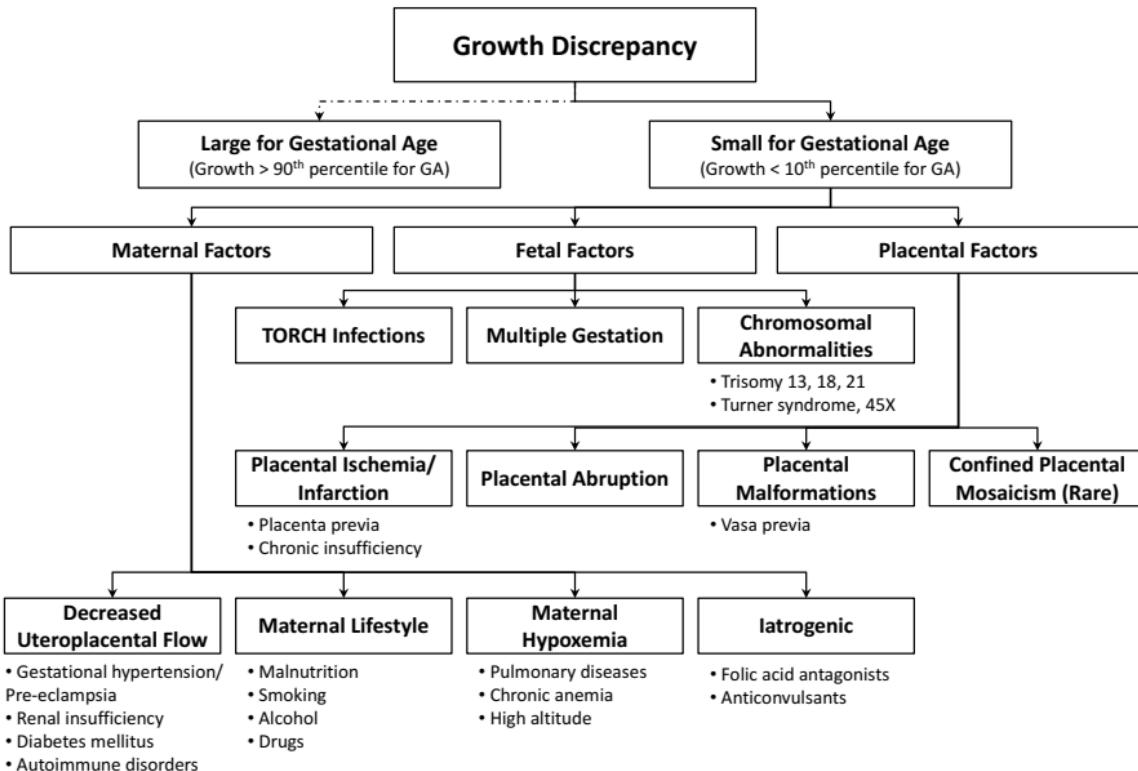


# Breast Disorder



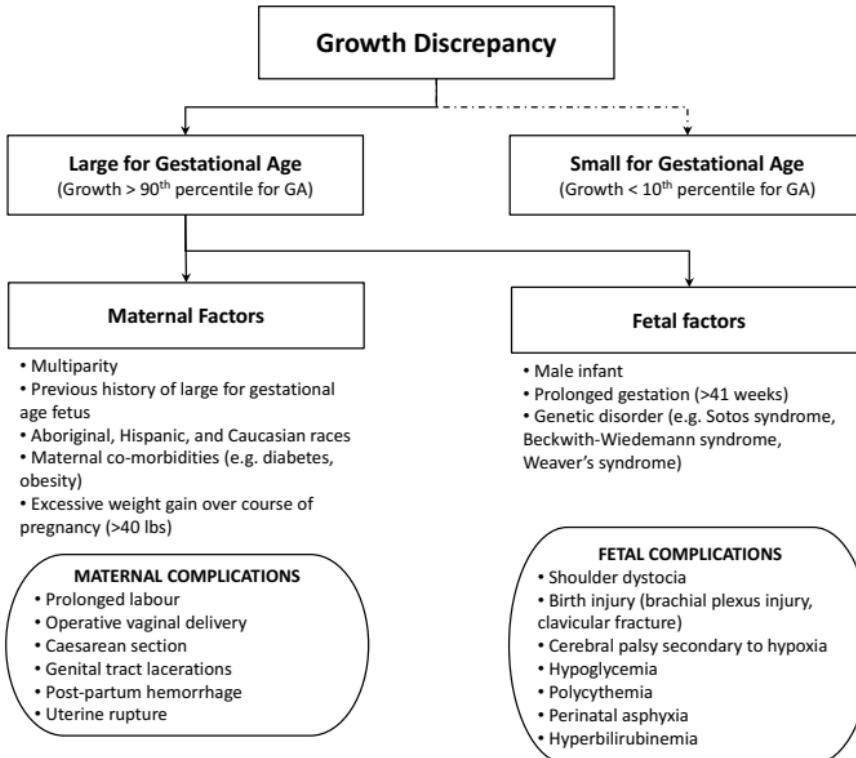
# Growth Discrepancy

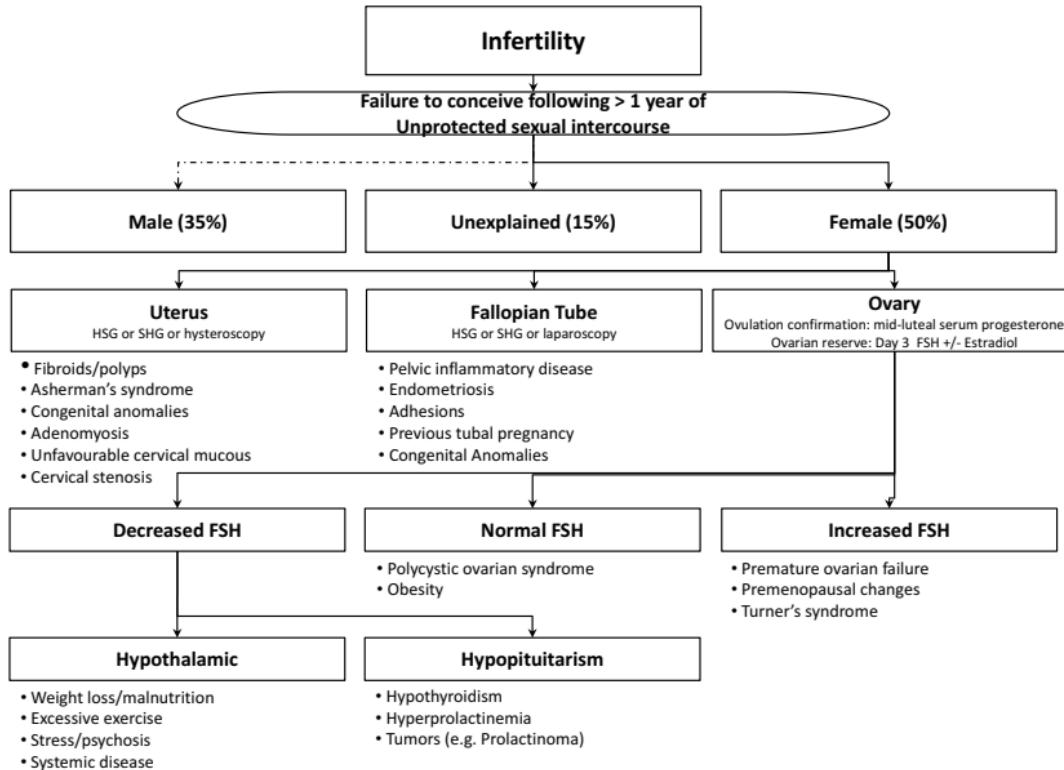
Small for Gestational Age / Intrauterine Growth Restriction



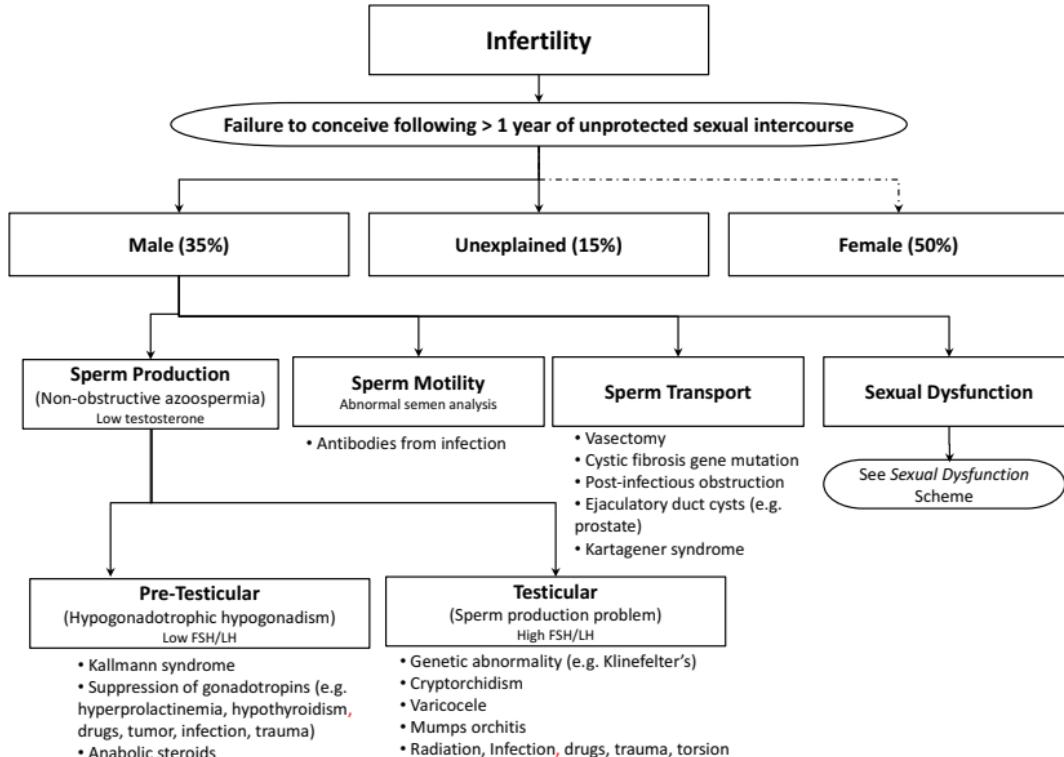
# Growth Discrepancy

Large for Gestational Age

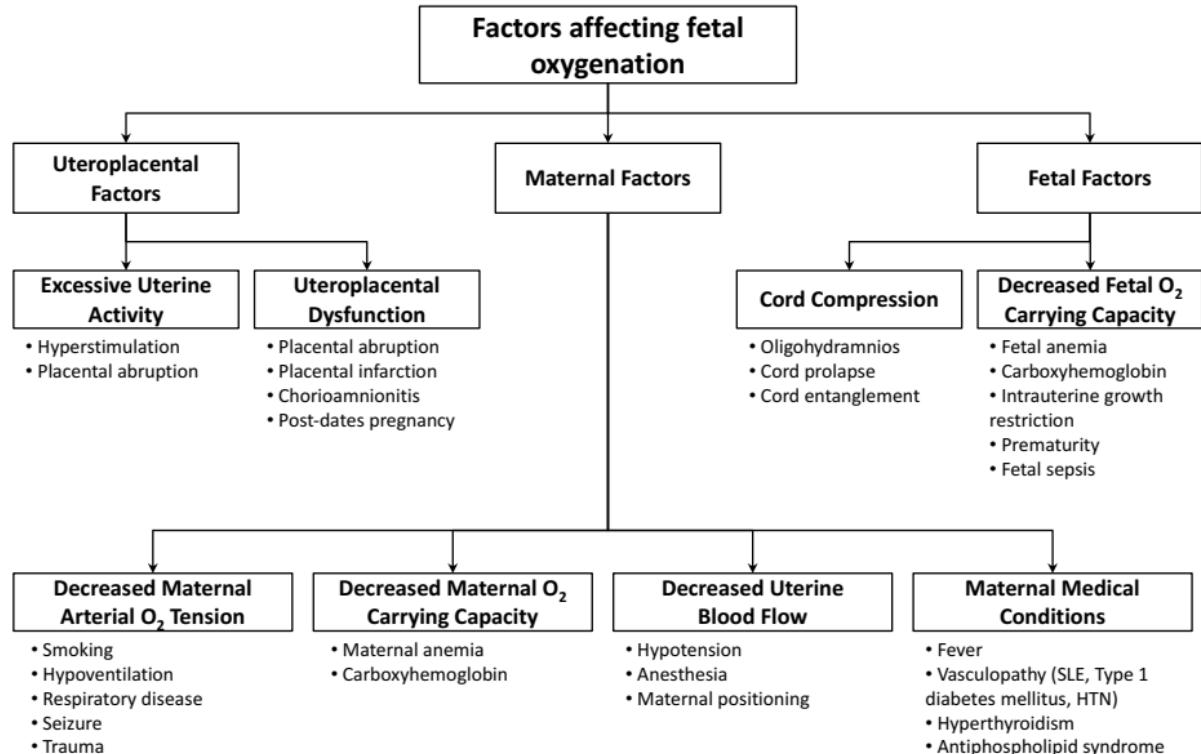




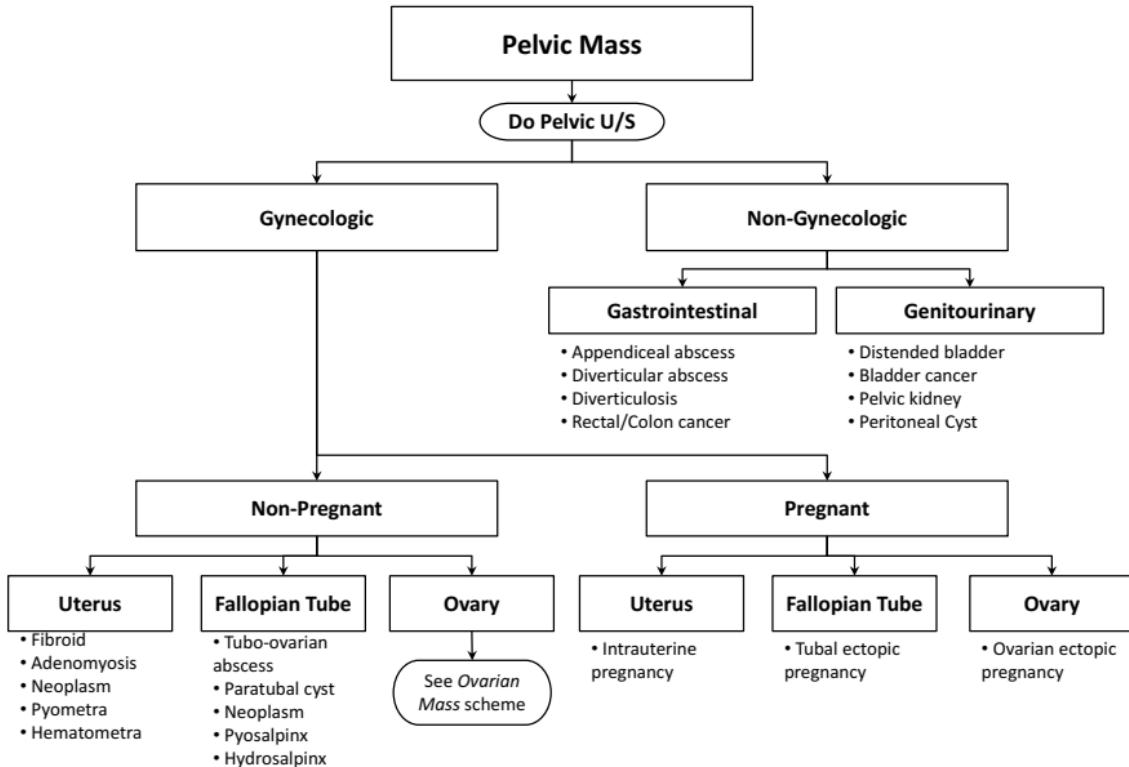
# Infertility (Male)

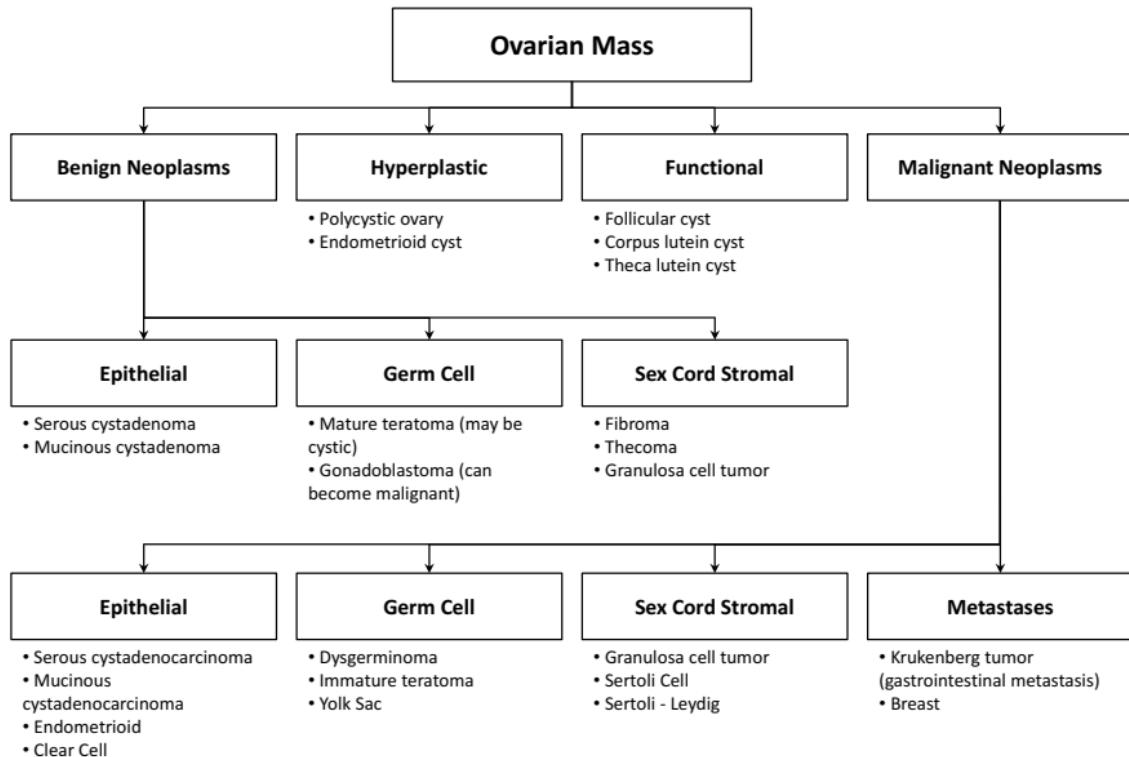


## Factors that May Affect Fetal Oxygenation

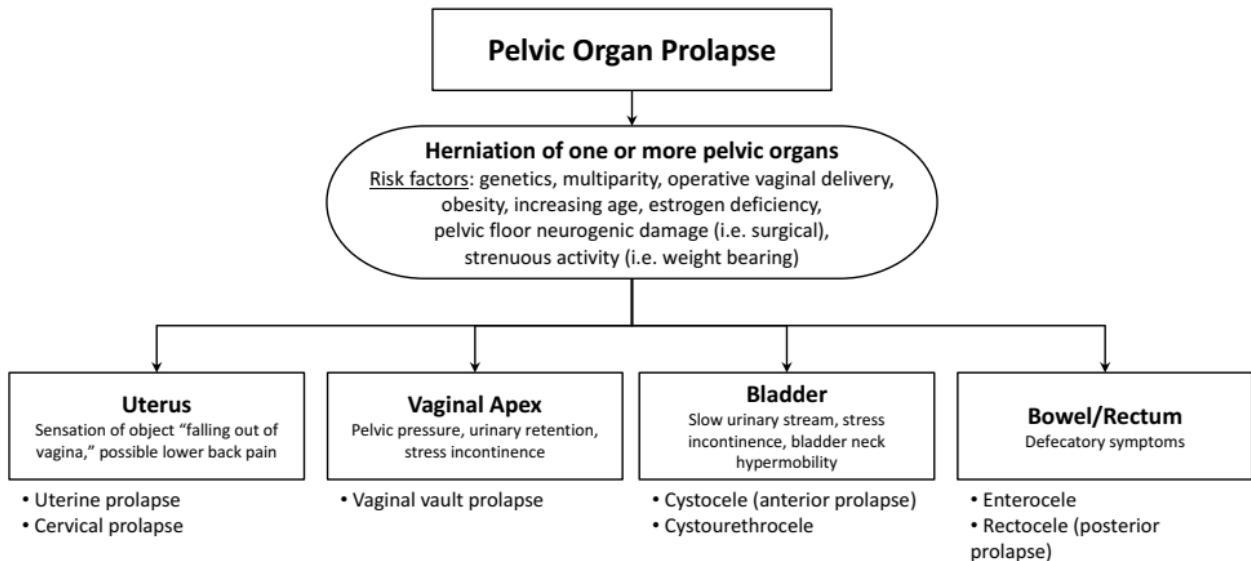


# Pelvic Mass





# Pelvic Organ Prolapse



## 6 W's for Causes of PPF

Wind: pneumonia, atelectasis

Water: UTI

"Woobies": mastitis

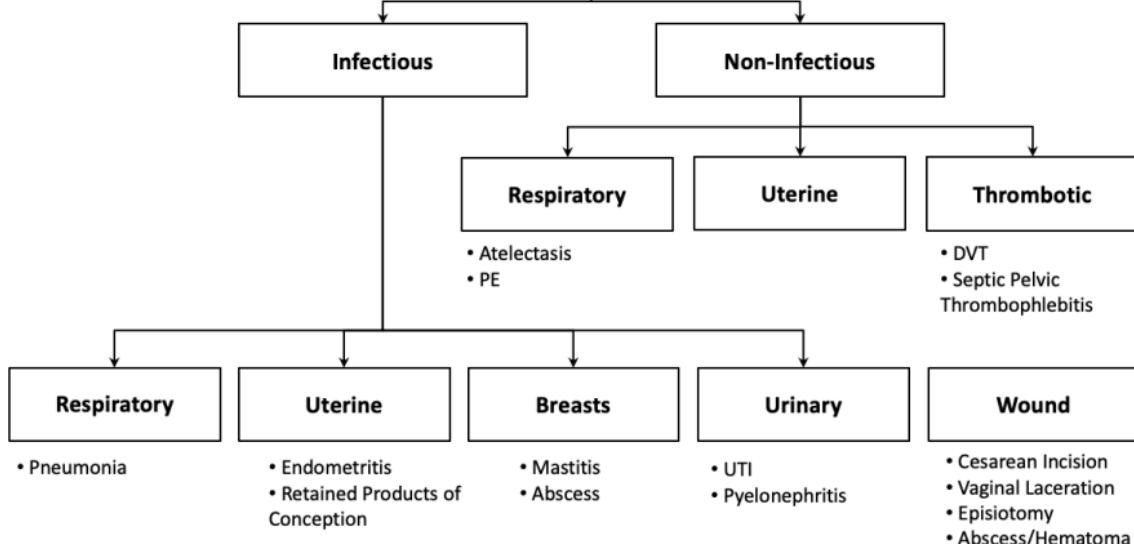
Womb

Wound: cellulitis, vulvas incision, endomyometritis

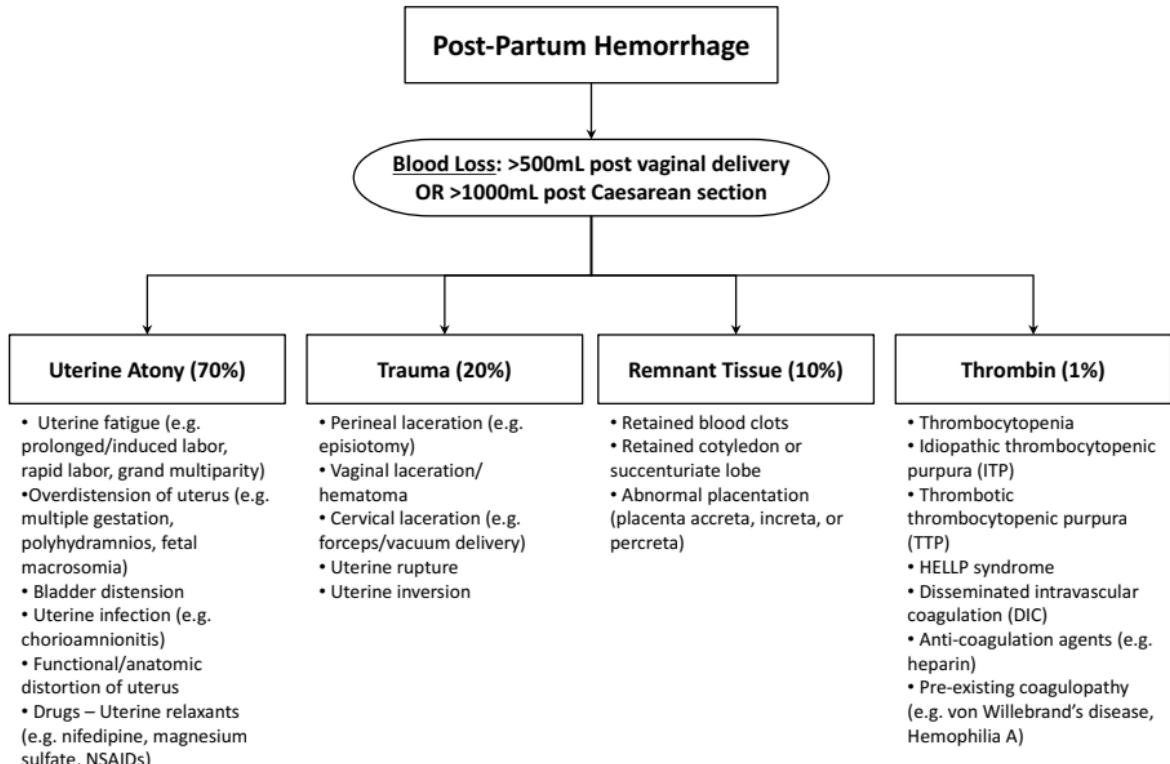
Walking: DVT

## Post-Partum Fever (Puerperal)

<6 Weeks Post-Partum

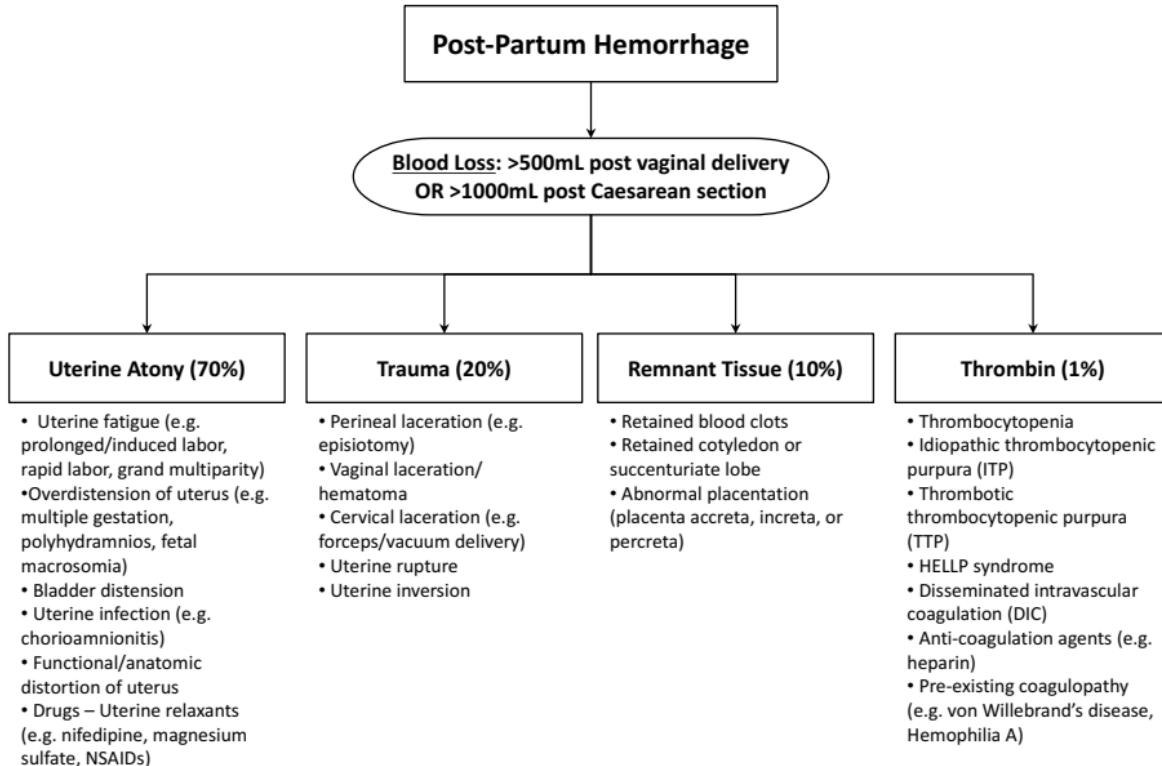


# Post-Partum Hemorrhage

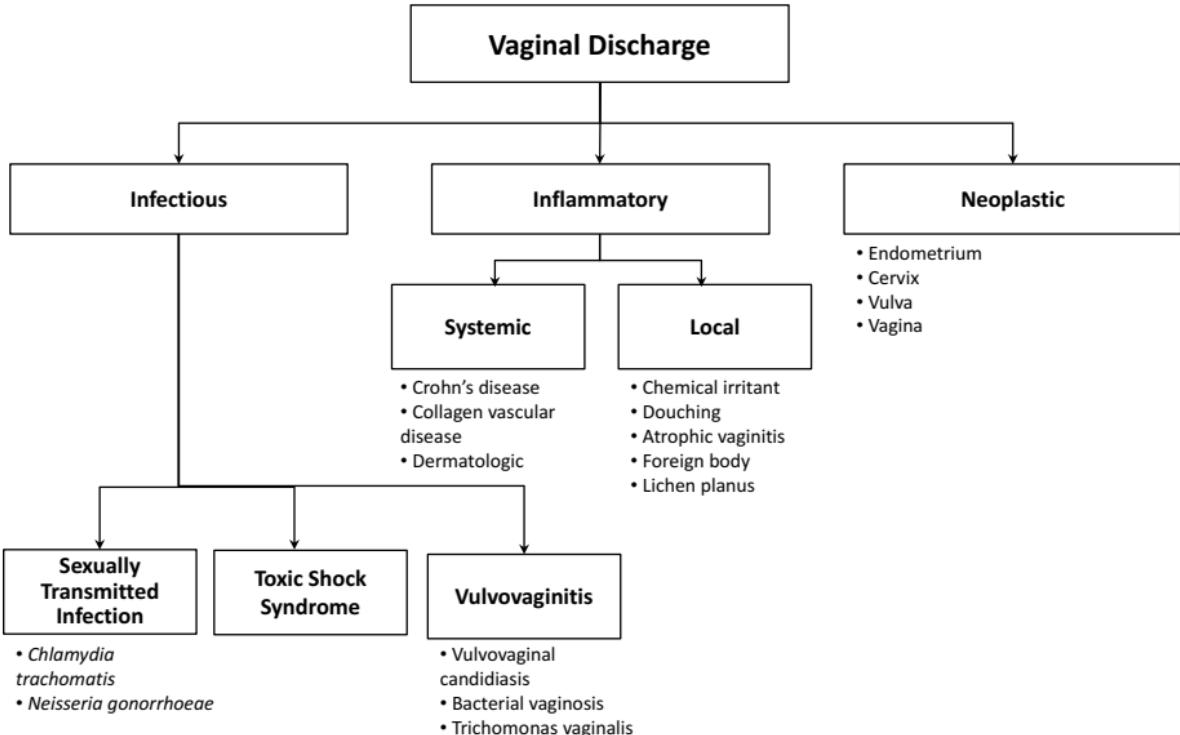




# Recurrent Pregnancy Loss



# Vaginal Discharge





# Dermatologic

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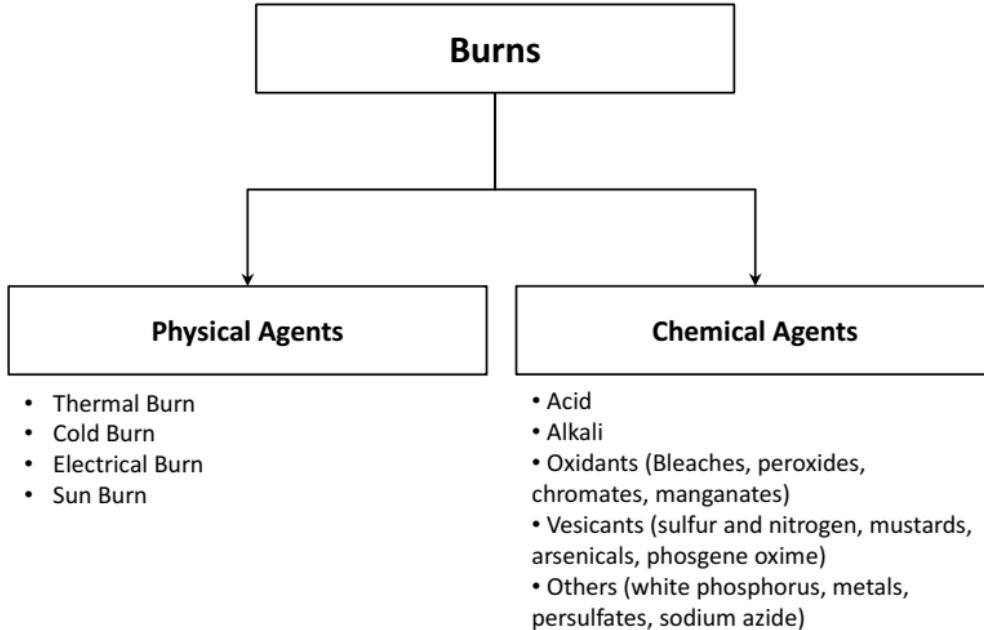
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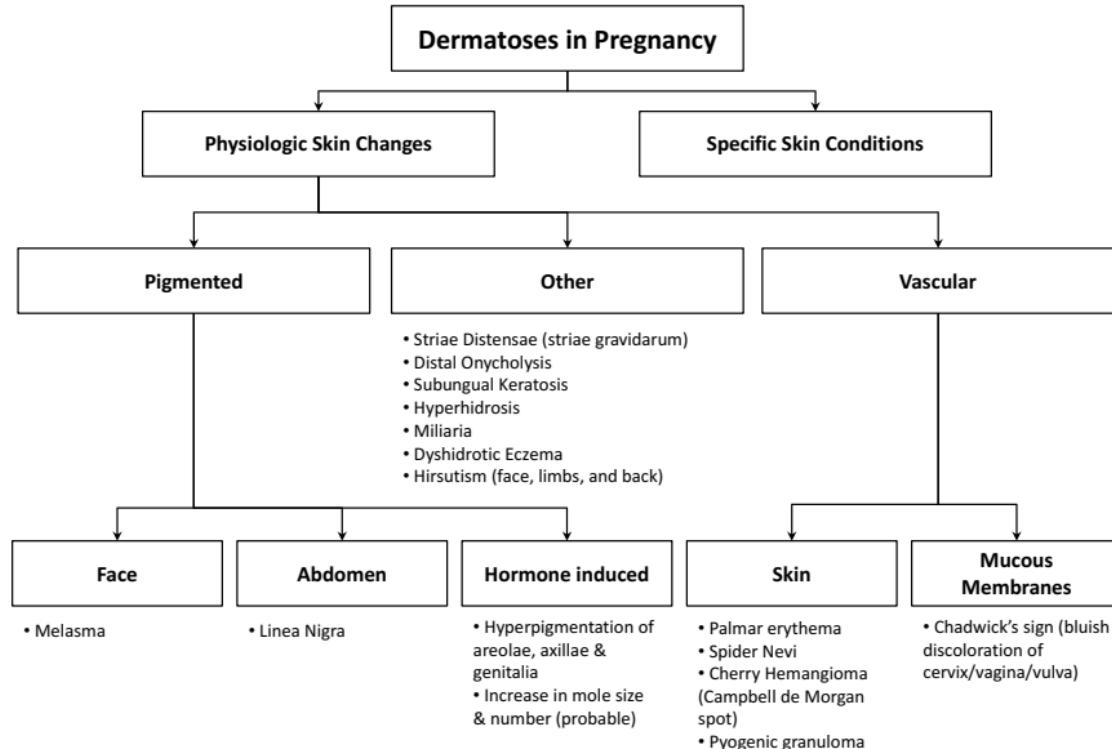




Parkland formula for fluid resuscitation:  
 $4\text{cc} \times \text{Weight (kg)} \times \% \text{TBSA burn}$

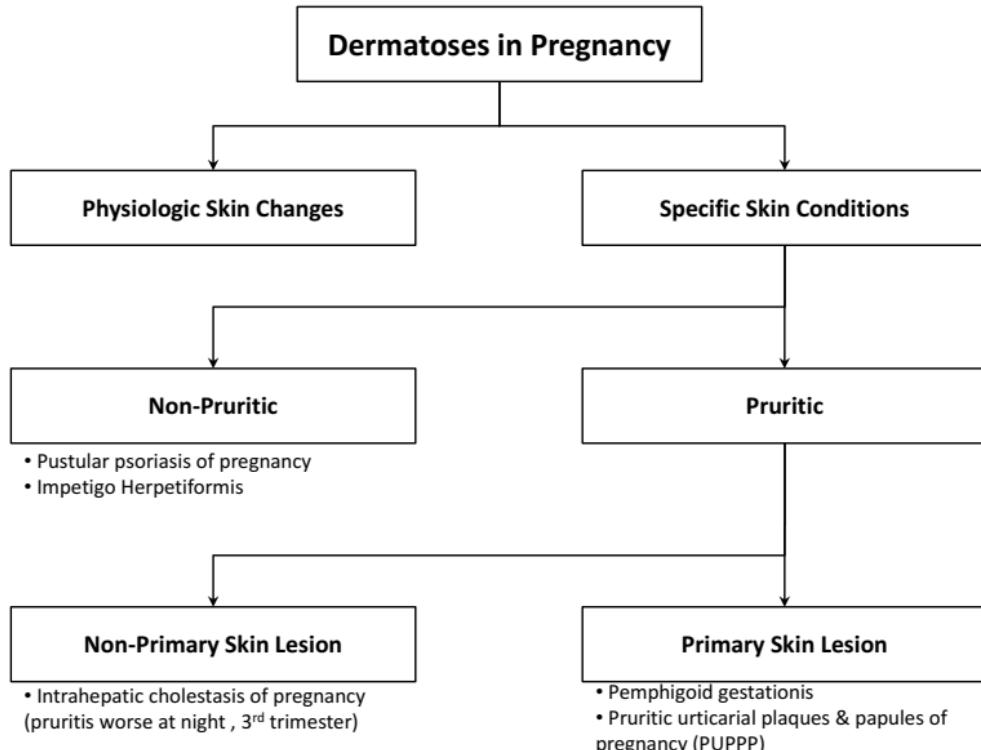
# Dermatoses in Pregnancy

Physiologic Changes



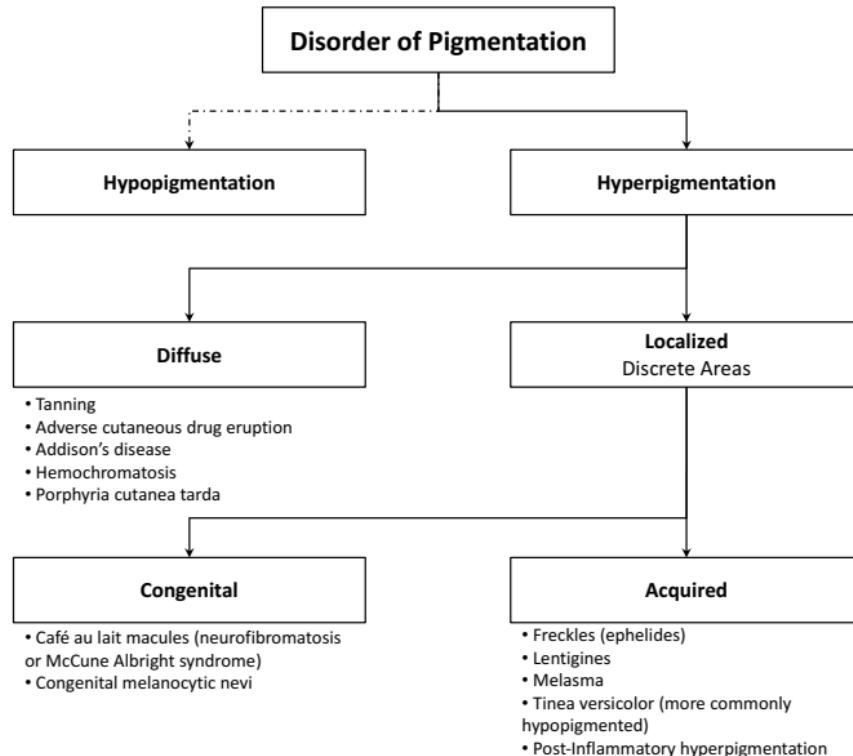
# Dermatoses in Pregnancy

## Specific Skin Conditions



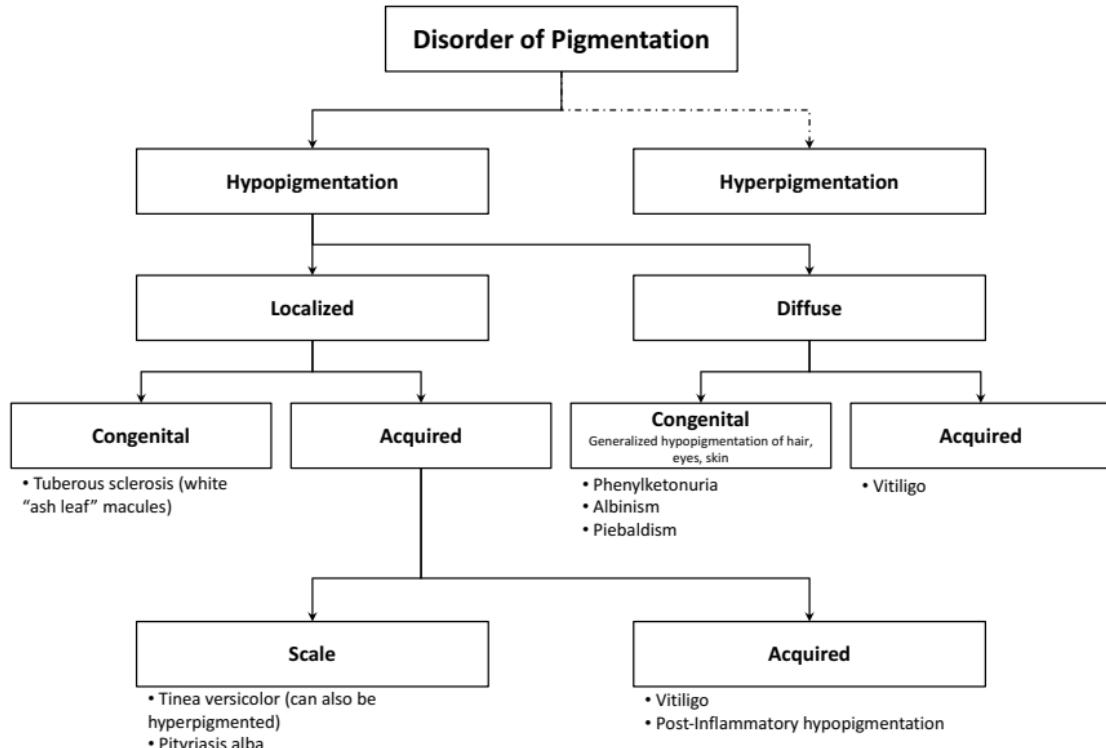
# Disorders of Pigmentations

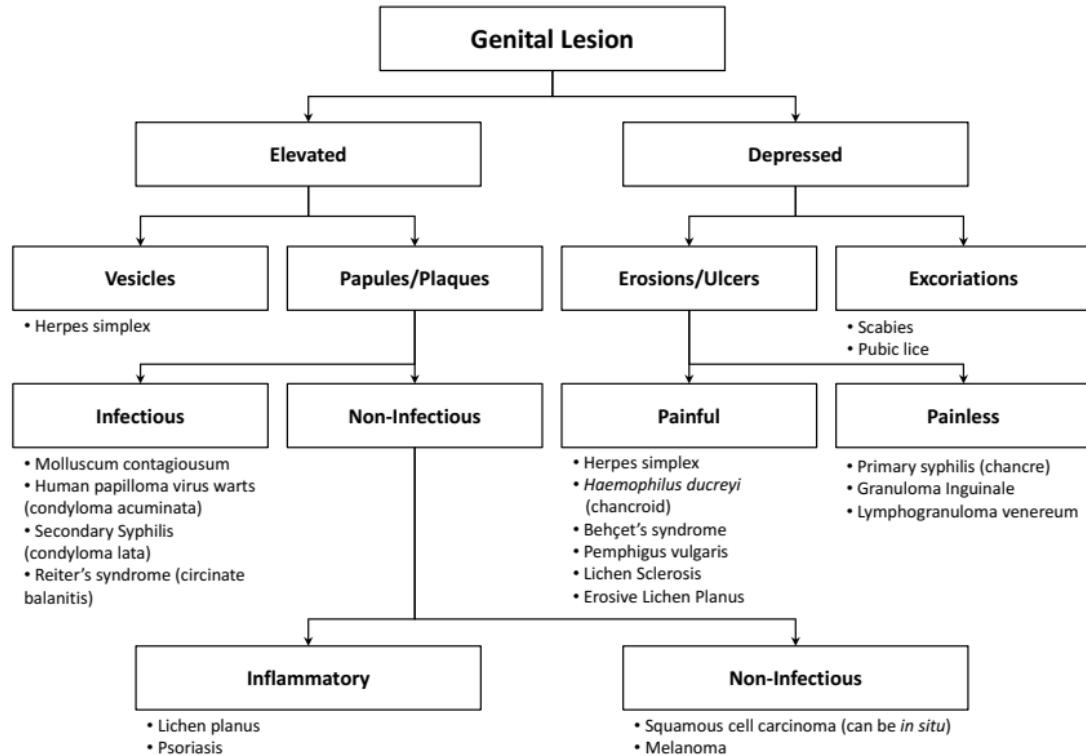
Hyperpigmentation



# Disorders of Pigmentations

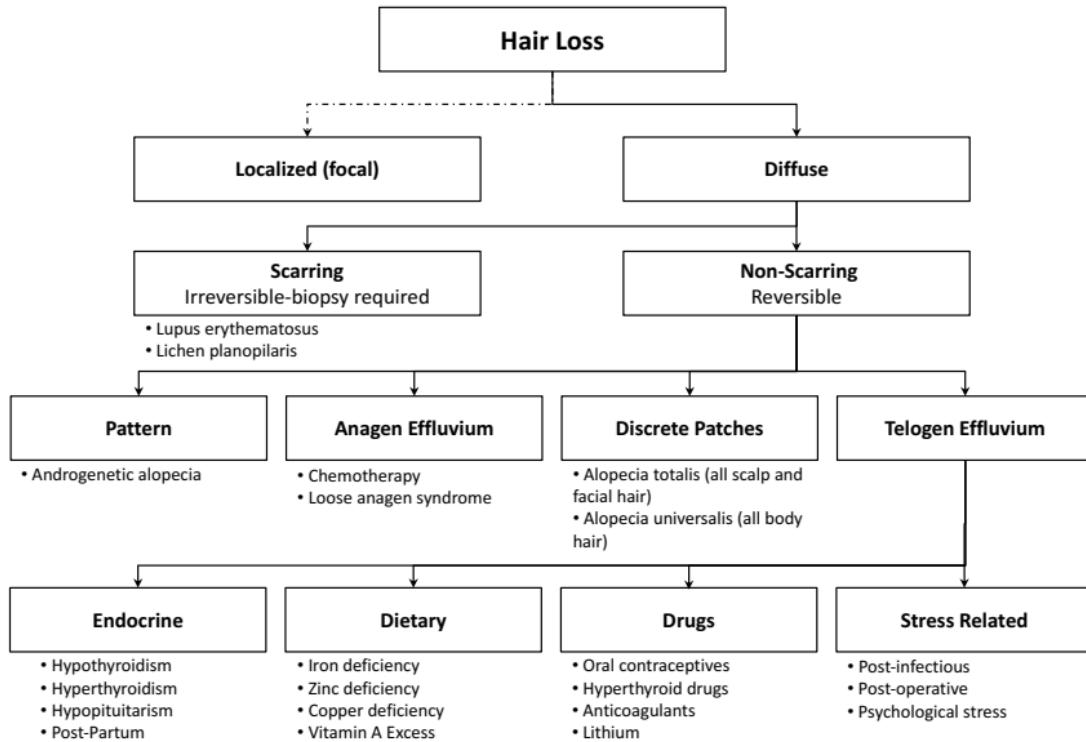
## Hypopigmentation

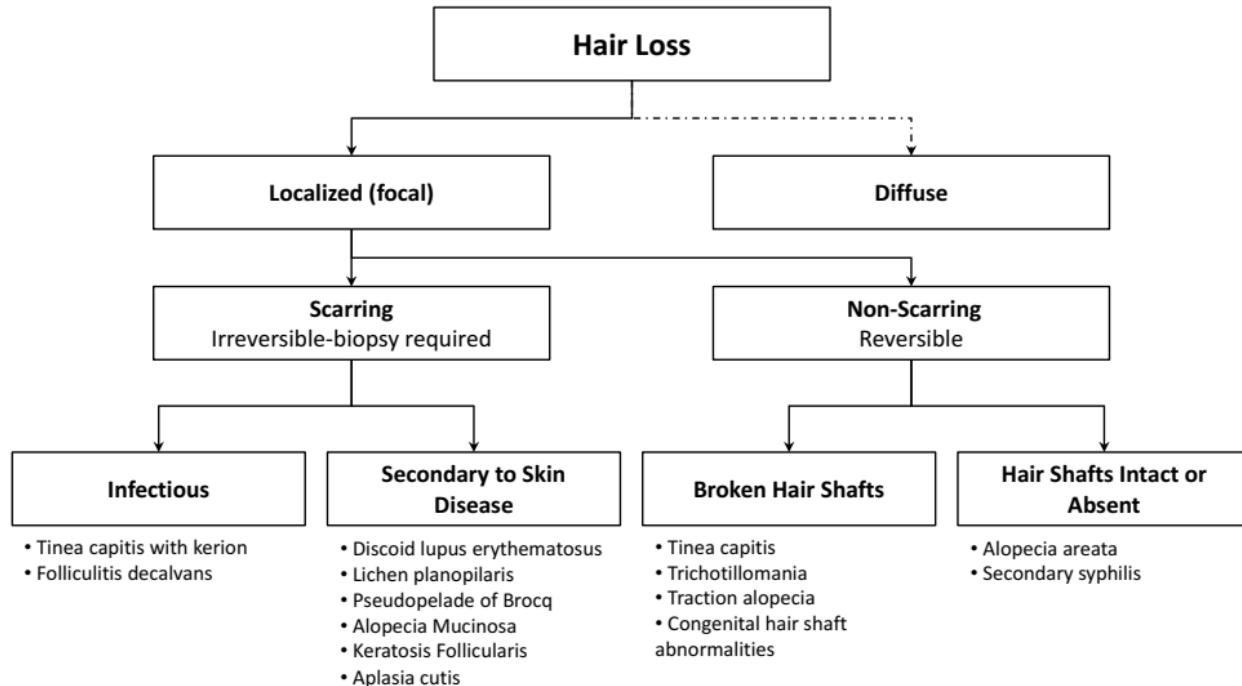




# Hair Loss (Alopecia)

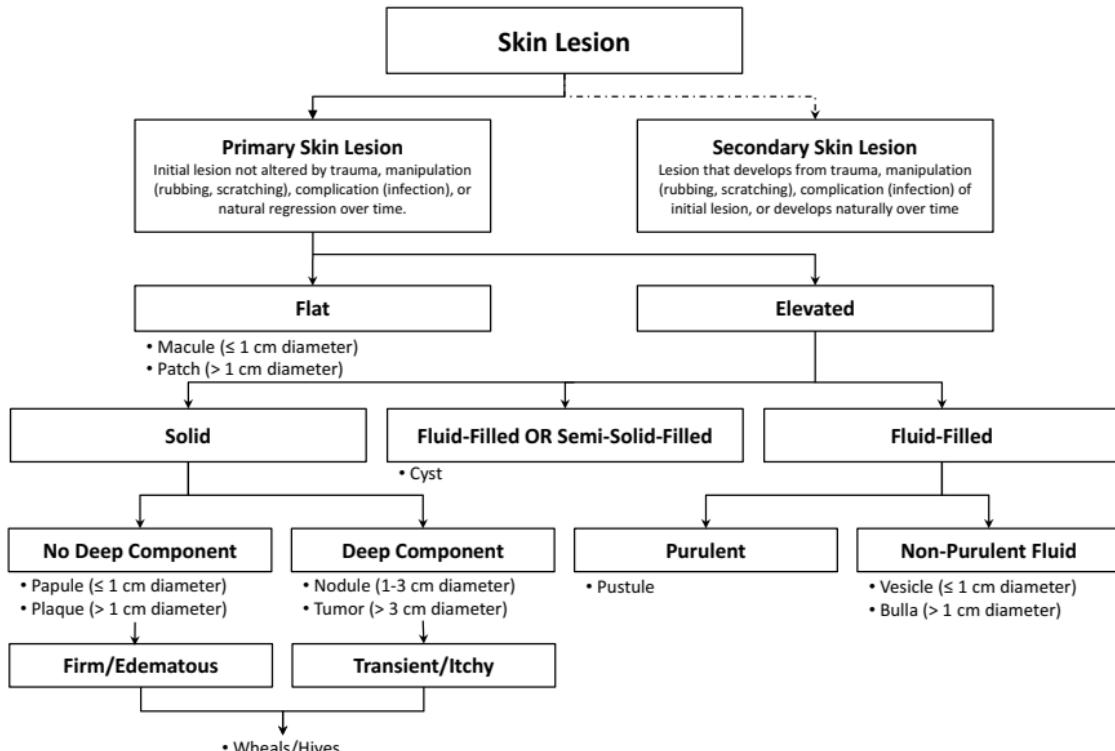
Diffuse





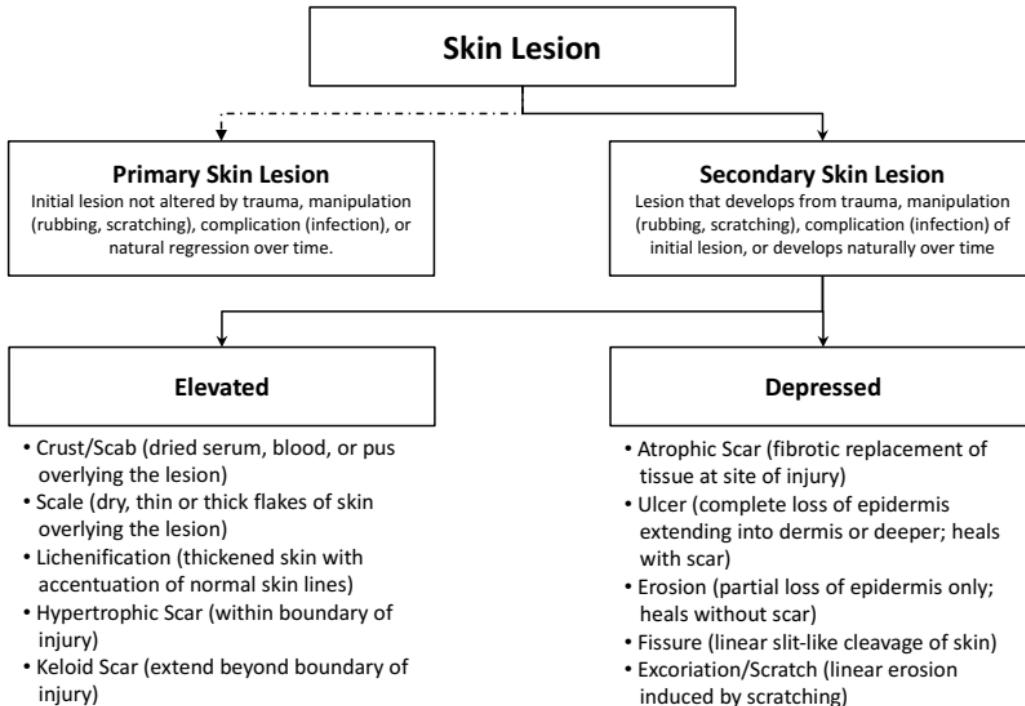
# Morphology of Skin Lesions

## Primary Skin Lesions



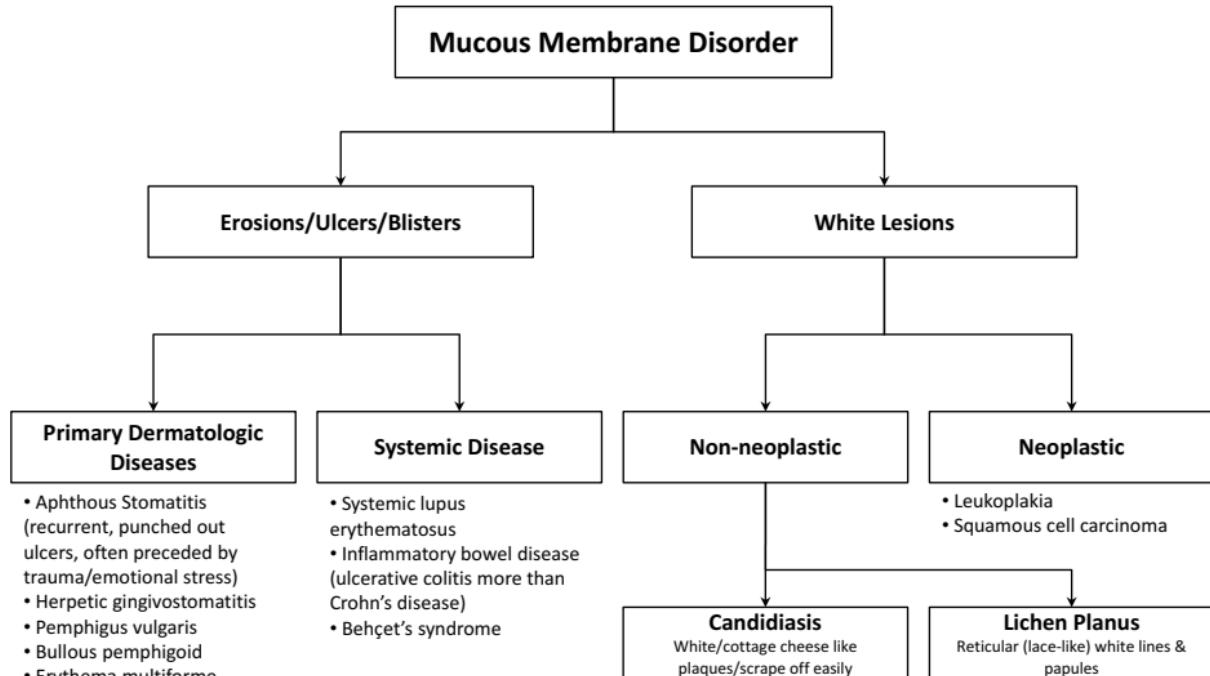
# Morphology of Skin Lesions

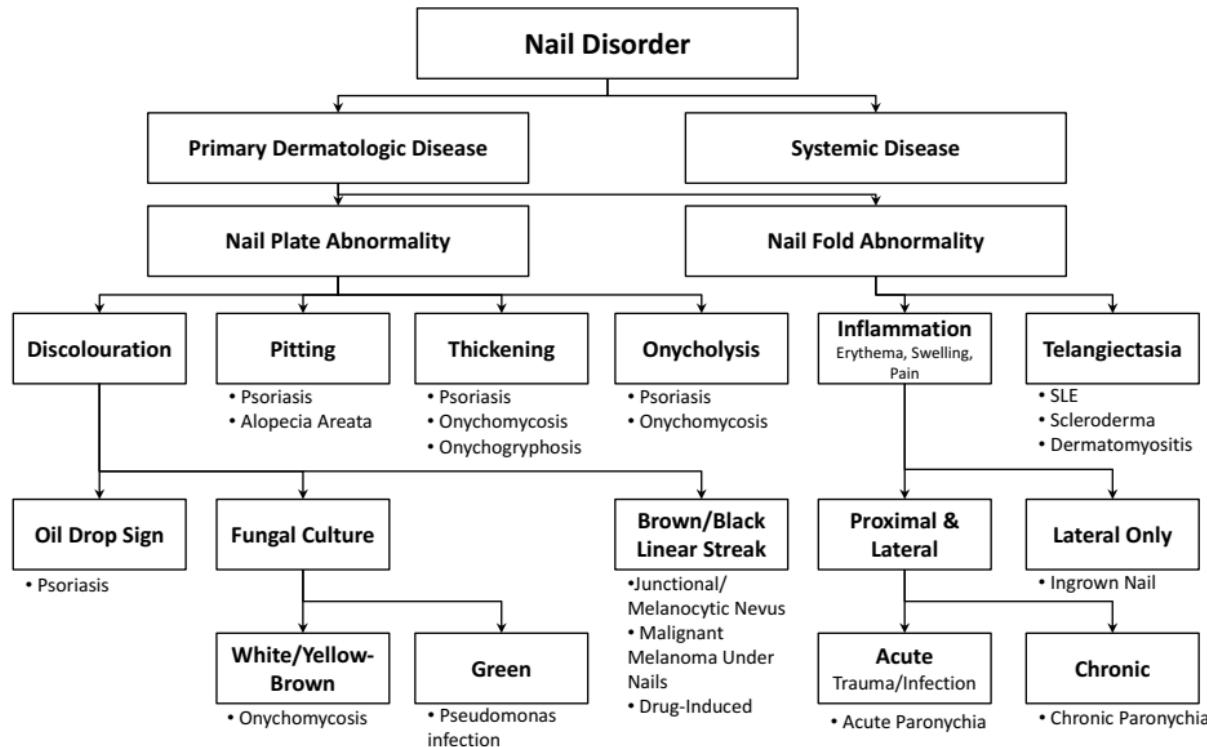
## Secondary Skin Lesions



# Mucous Membrane Disorder

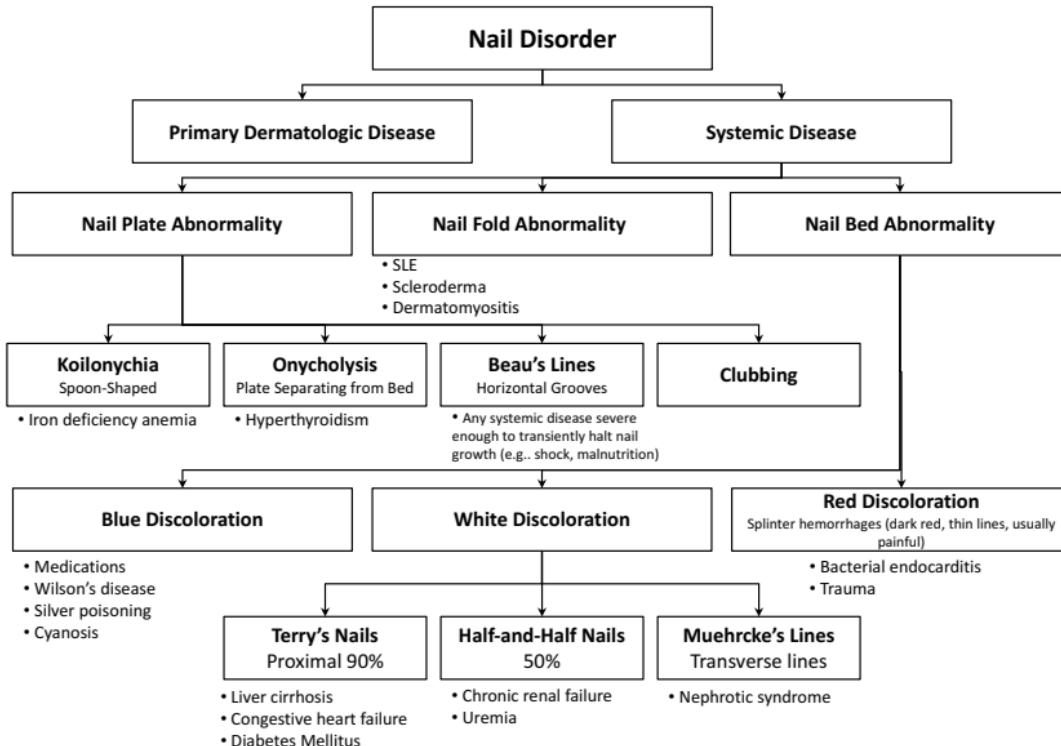
Oral Cavity

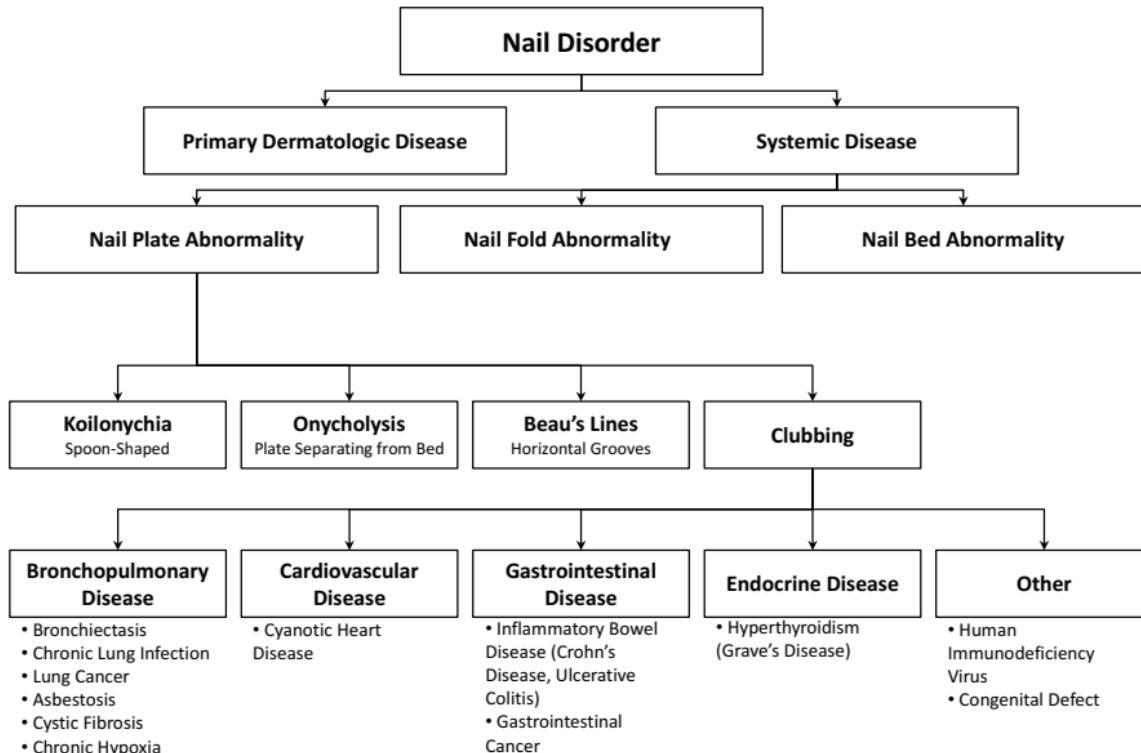




# Nail Disorders

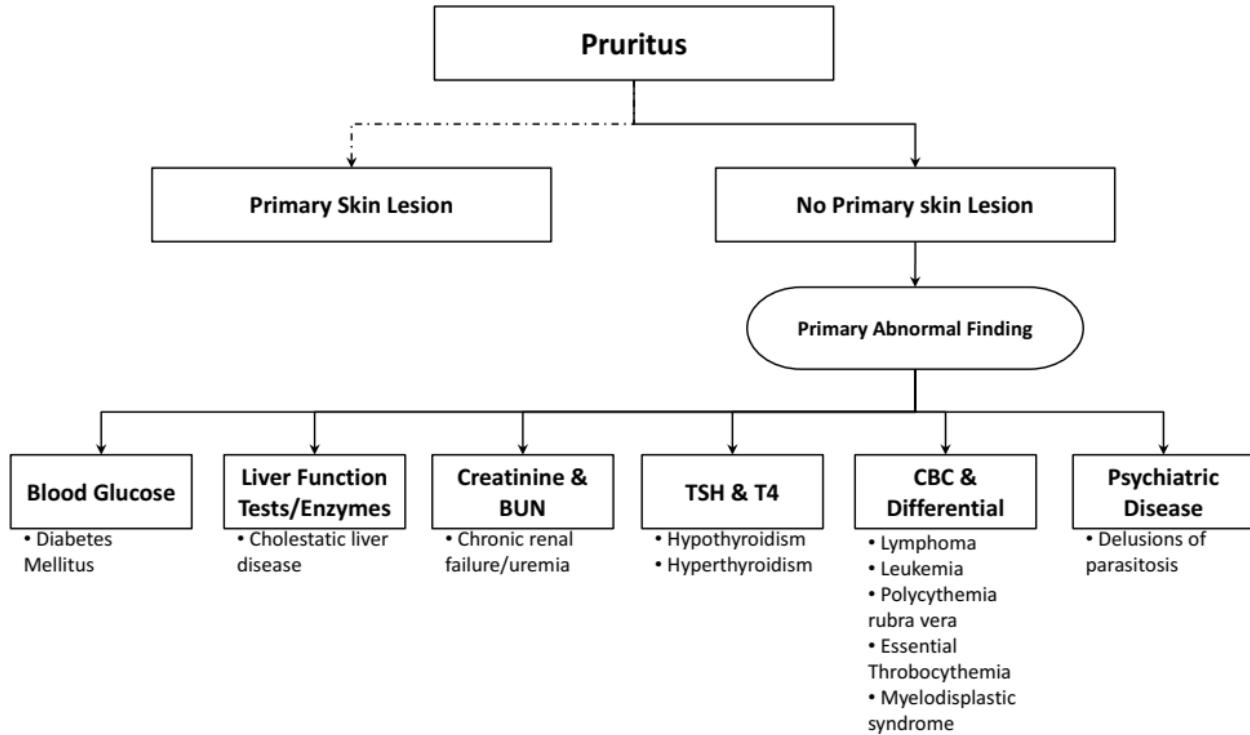
## Systemic Disease

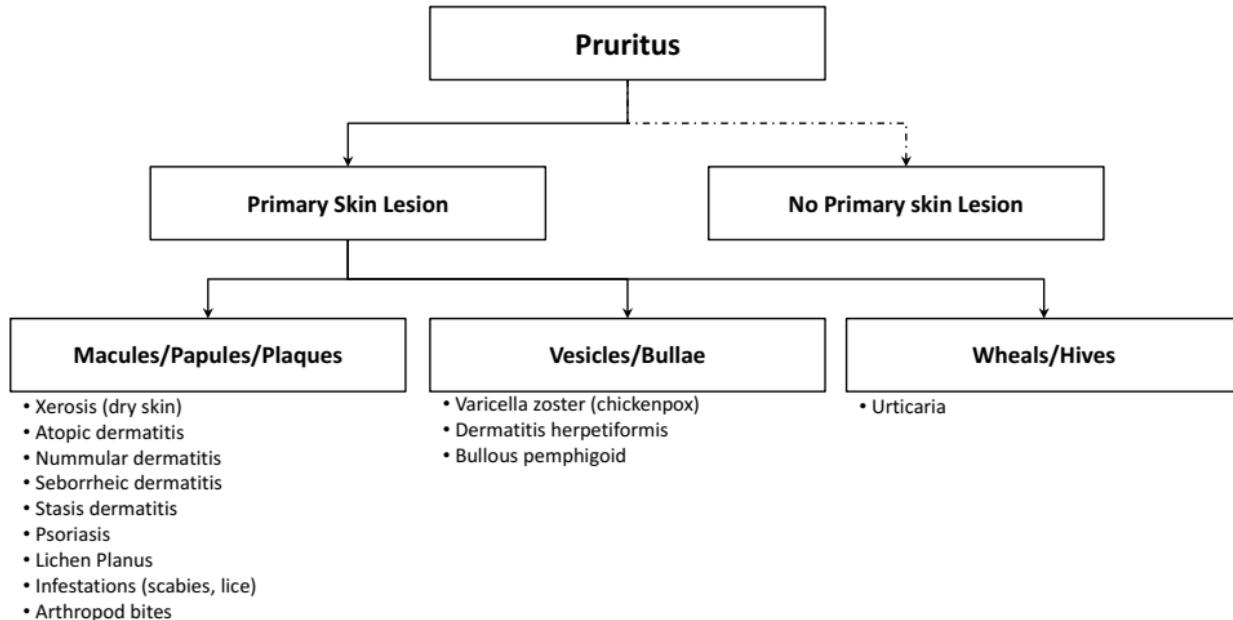




# Pruritus

No Primary Skin Lesion

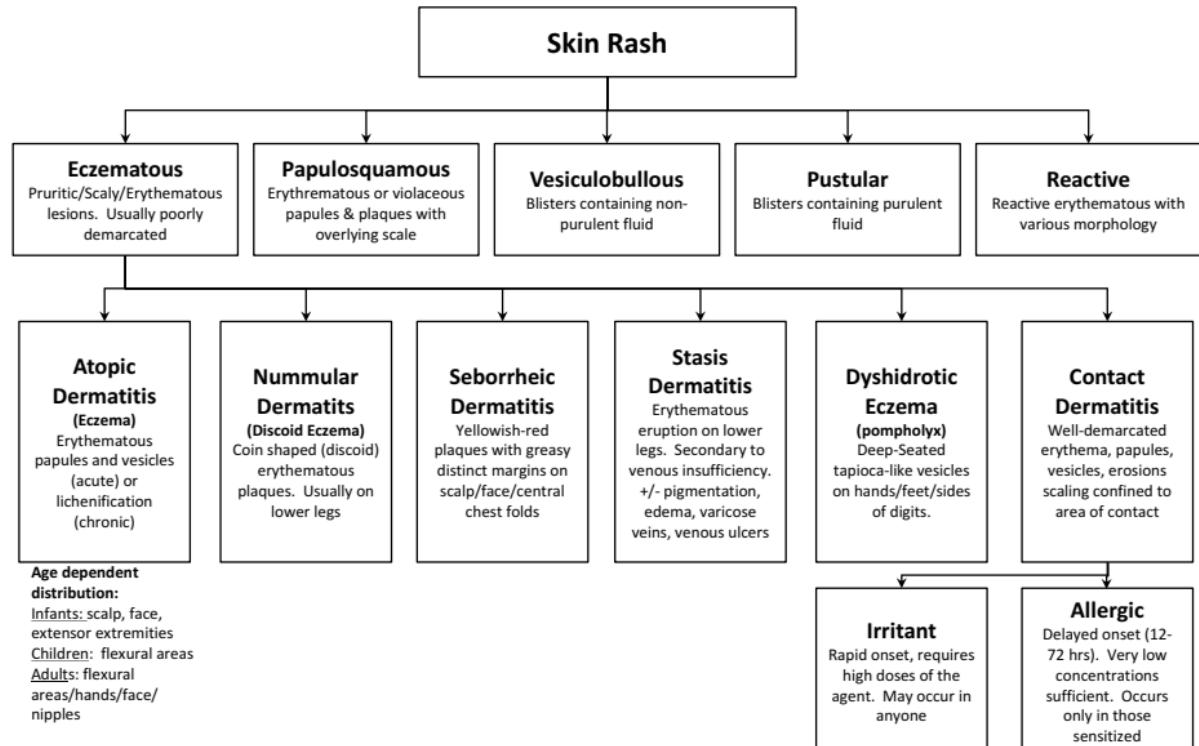


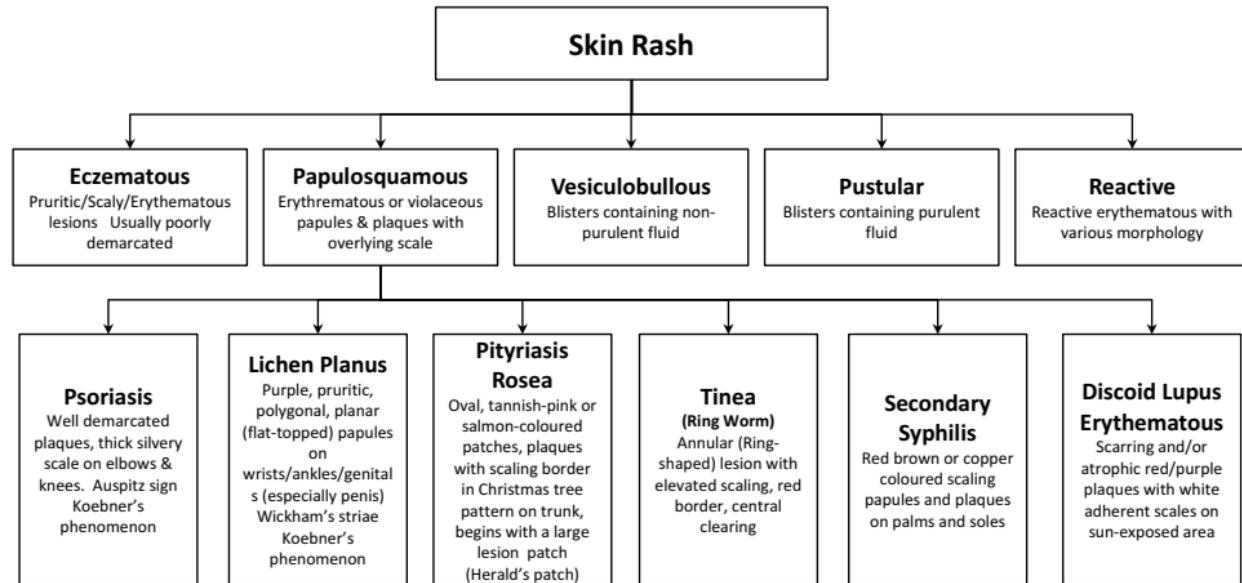


# Skin Rash



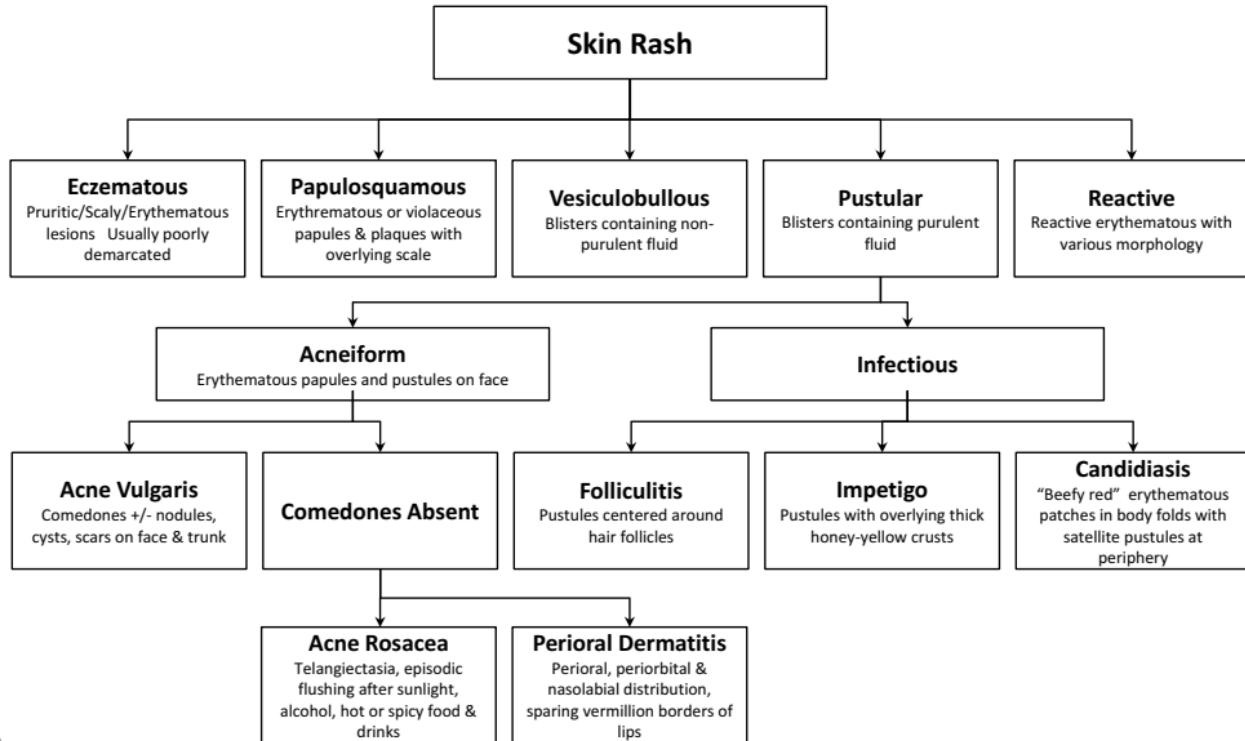
## Eczematous

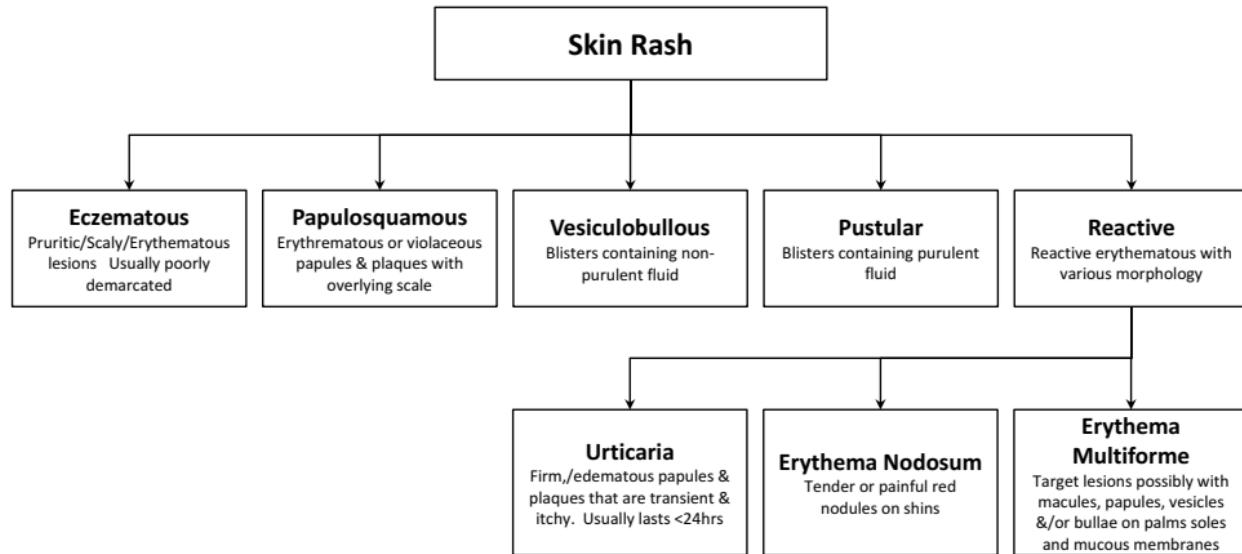




# Skin Rash

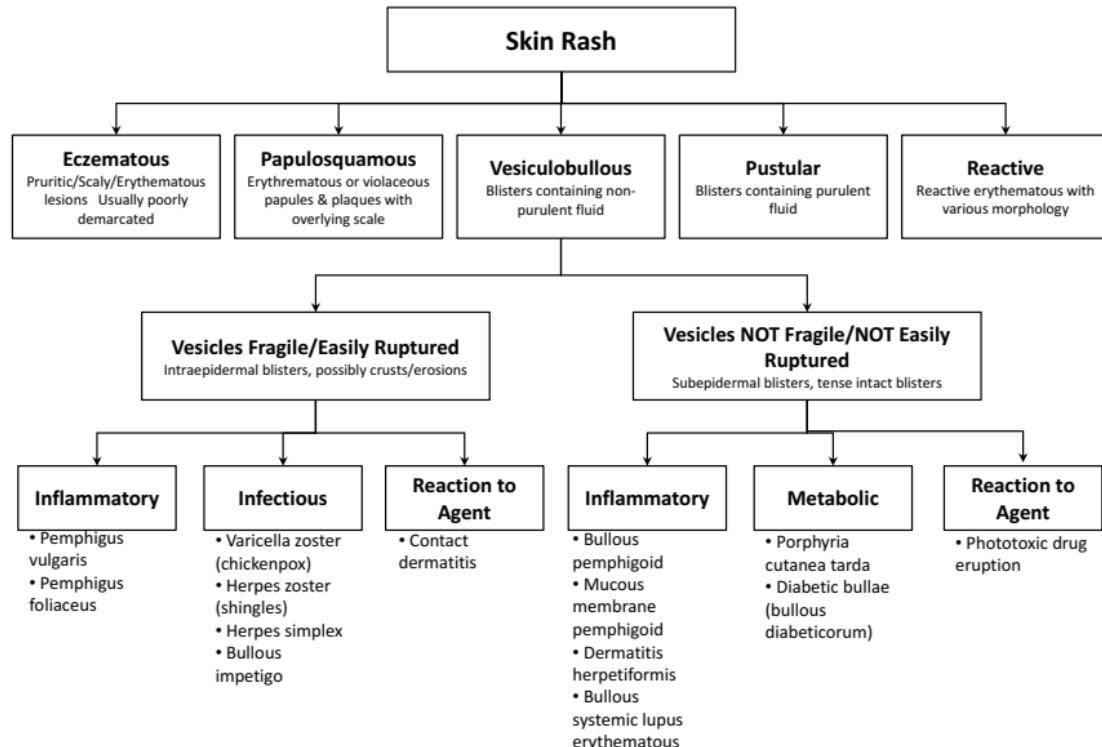
Pustular



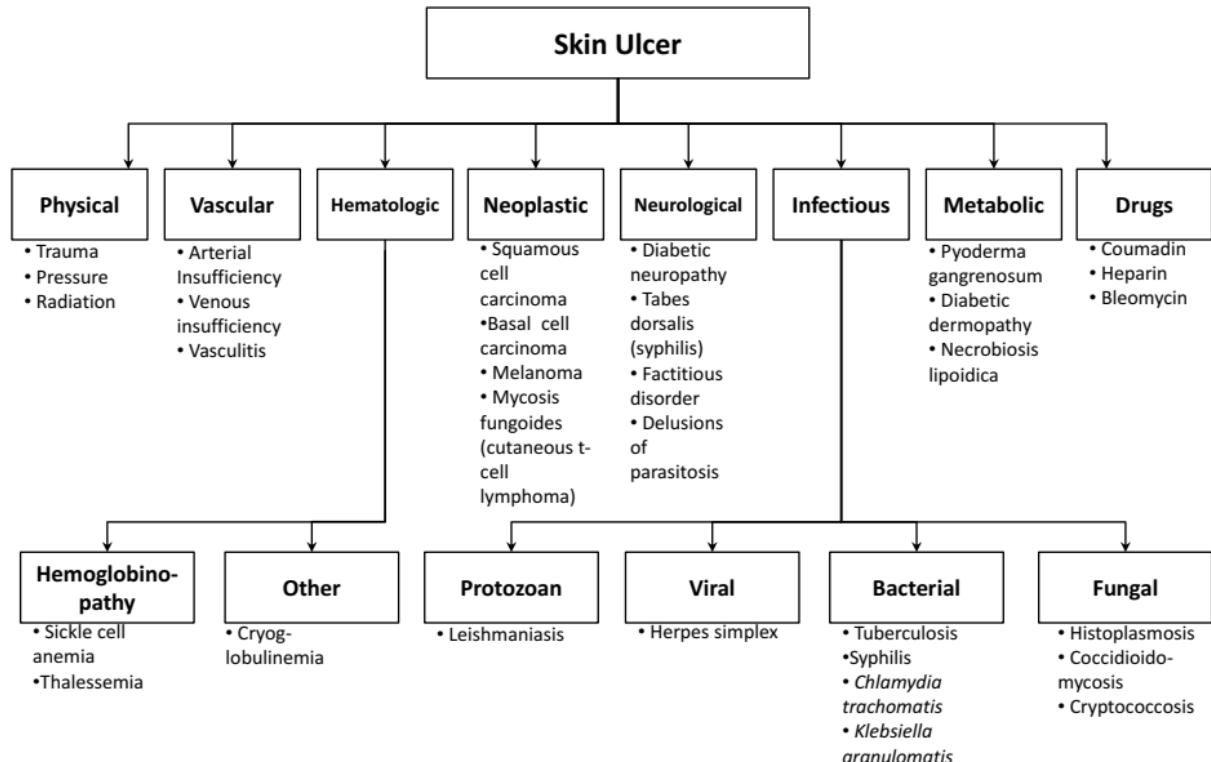


# Skin Rash

## Vesiculobullous

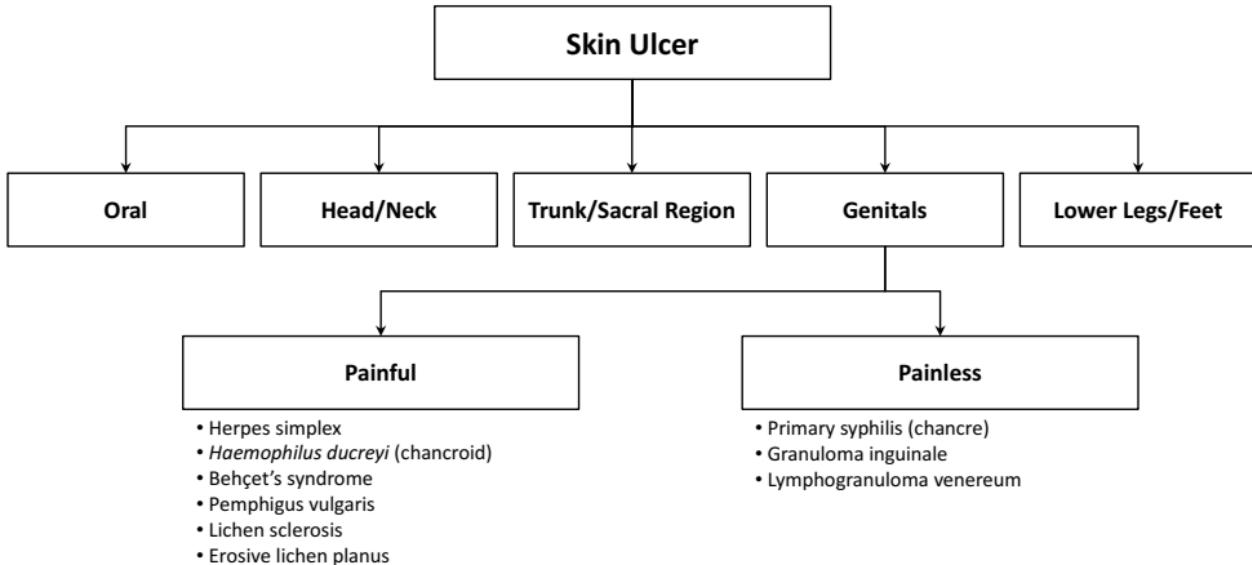


# Skin Ulcer by Etiology



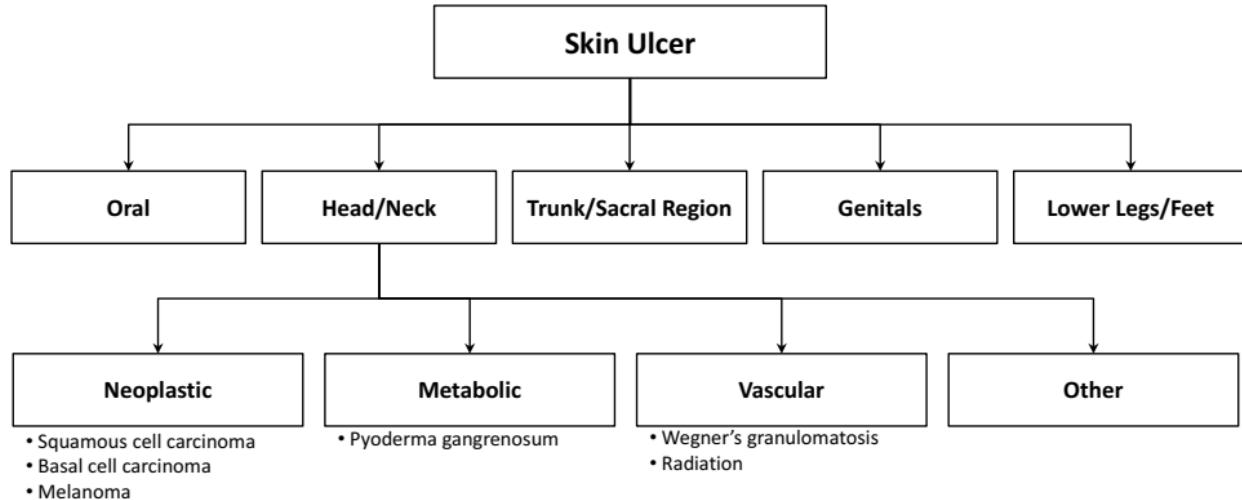
# Skin Ulcer by Location

Genitals



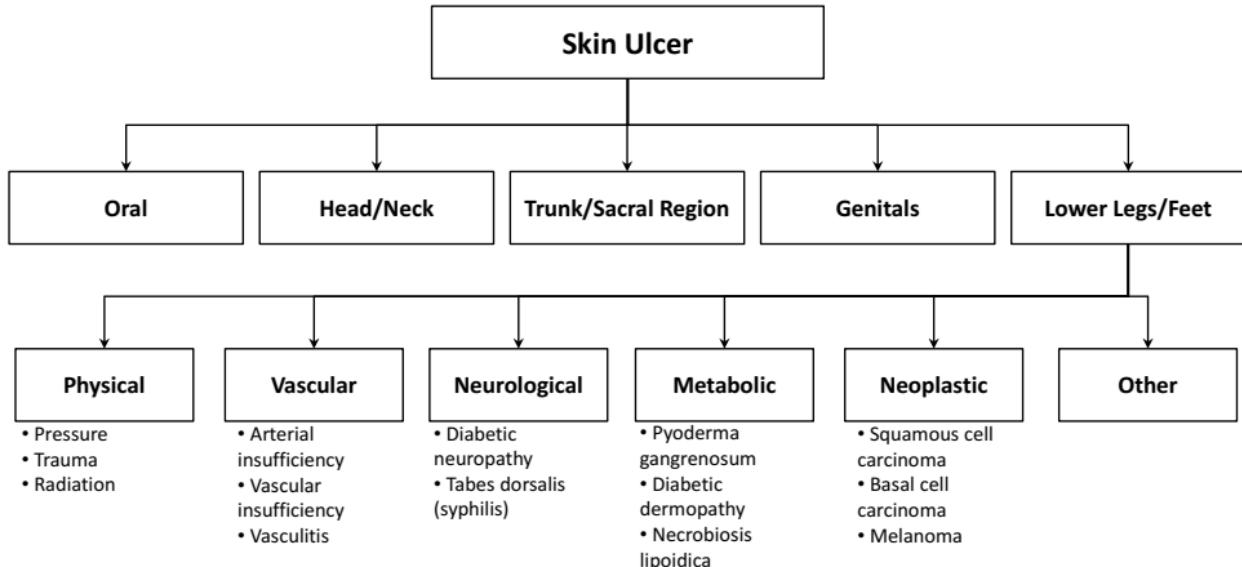
# Skin Ulcer by Location

Head & Neck



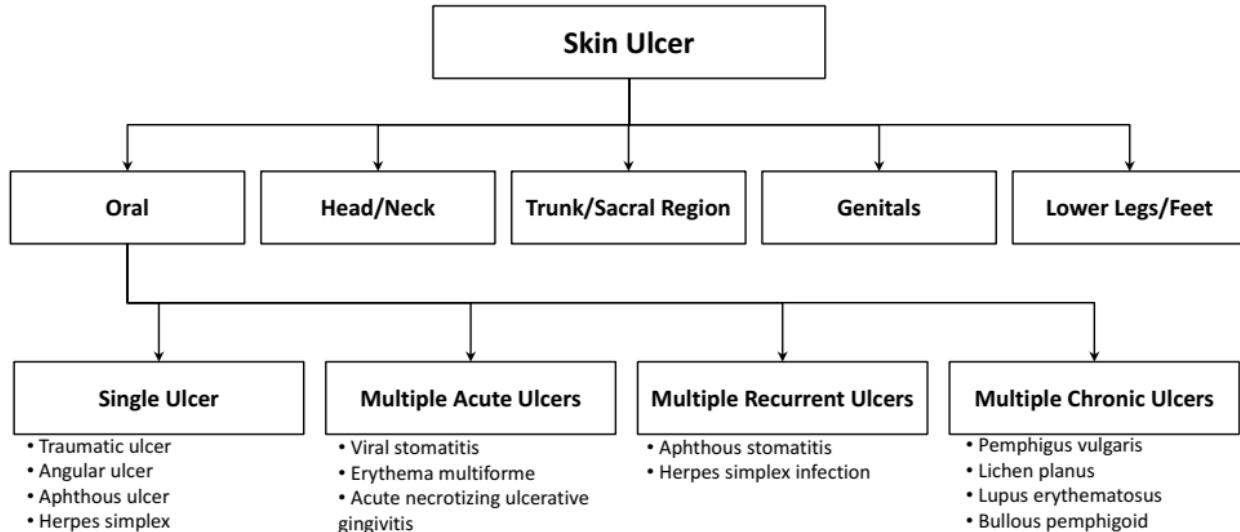
# Skin Ulcer by Location

Lower Legs / Feet



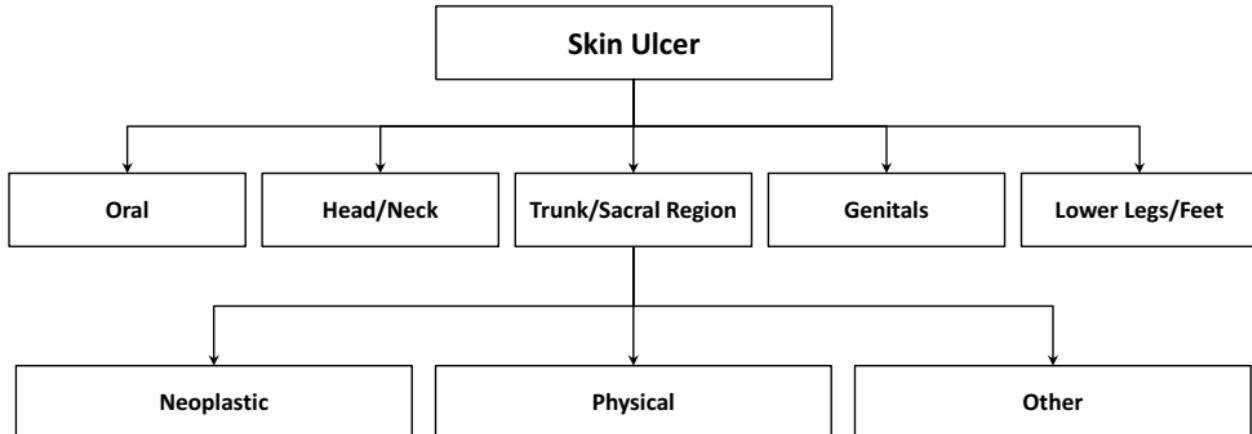
# Skin Ulcer by Location

Oral Ulcers



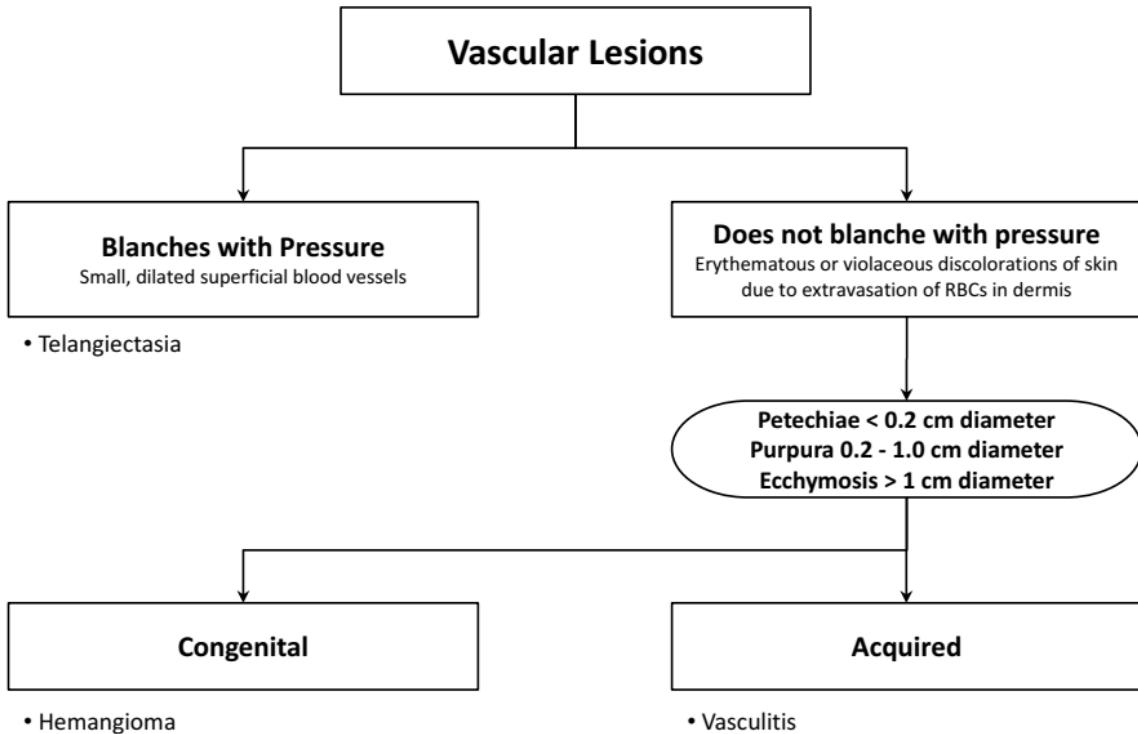
# Skin Ulcer by Location

Trunk / Sacral Region



- Squamous cell carcinoma
- Basal cell carcinoma
- Melanoma
- Mycosis fungoides (cutaneous t-cell lymphoma)

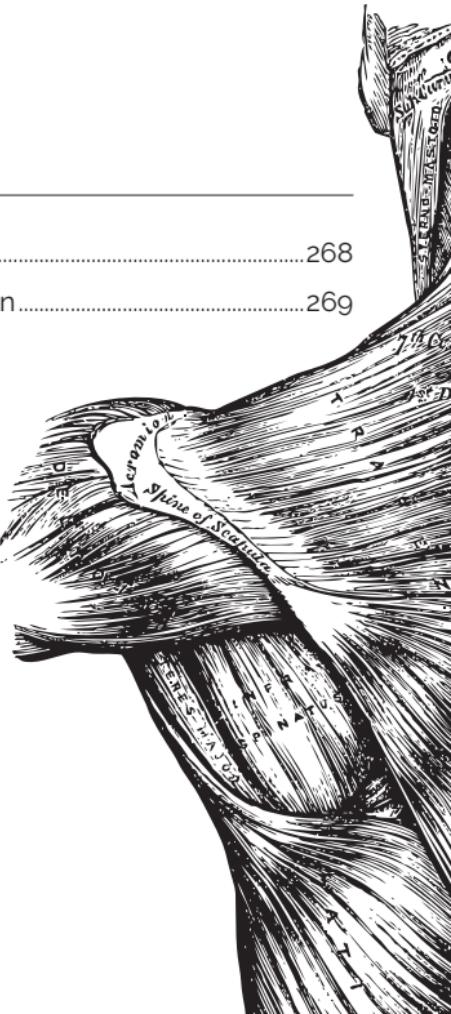
- Physical
- Trauma
- Radiation

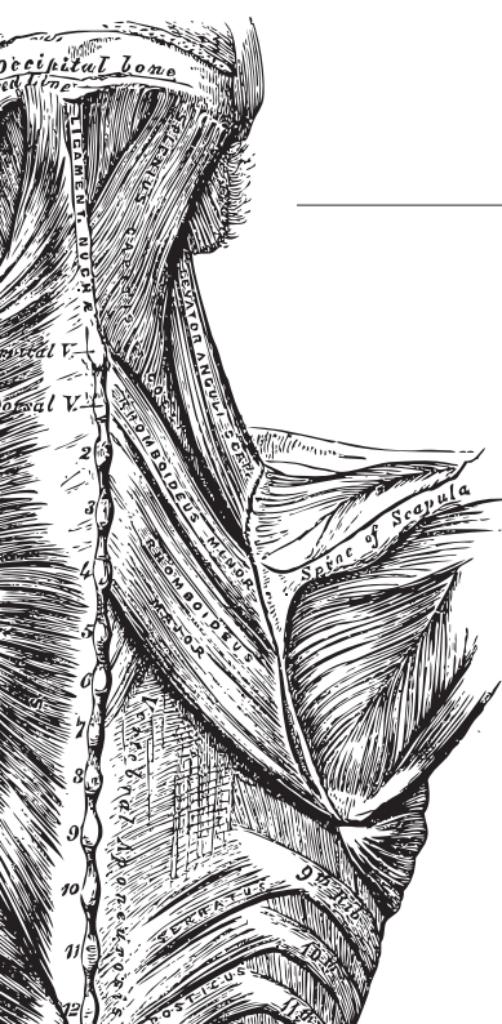


# Musculoskeletal

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Dr. Carol Hutchison

# Acute Joint Pain

Vitamin CD



**Vascular**

- See *vascular joint pain*

**Infectious**

- See *infectious joint pain*

**Trauma**

- Multiple injury sites, Open Fracture, Infectious joint pain

**Autoimmune**

- See *inflammatory joint pain*

**Metabolic**

- See *pathologic fractures*

**Iatrogenic**

- Hx of prior surgery

**Neoplastic**

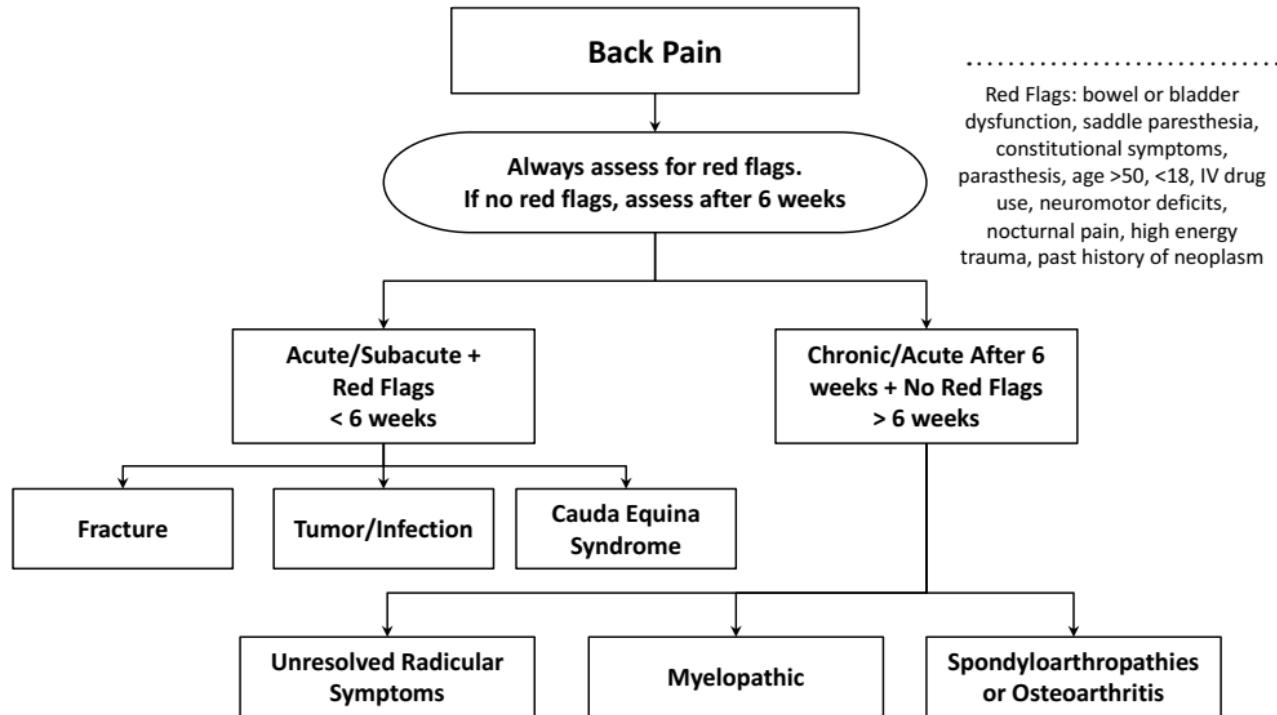
- See *Tumour*

**Congenital**

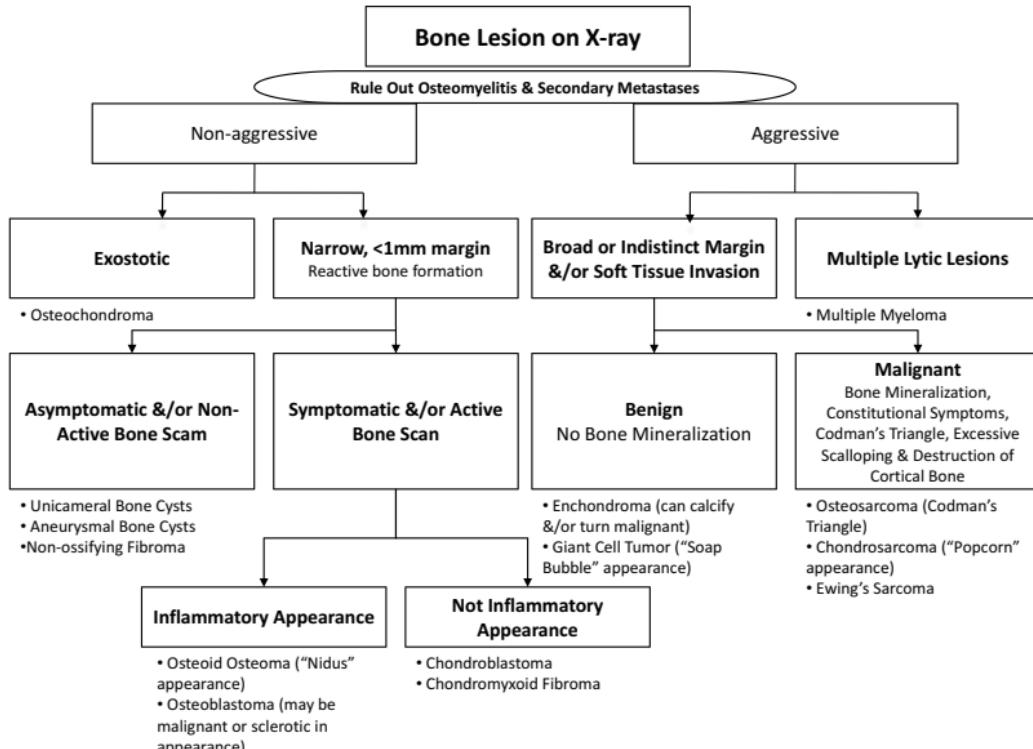
- Scoliosis, Talipes Equinovarus, Meta tarsus adductus, Bow leg, Knock-Knee'd

**Degenerative**

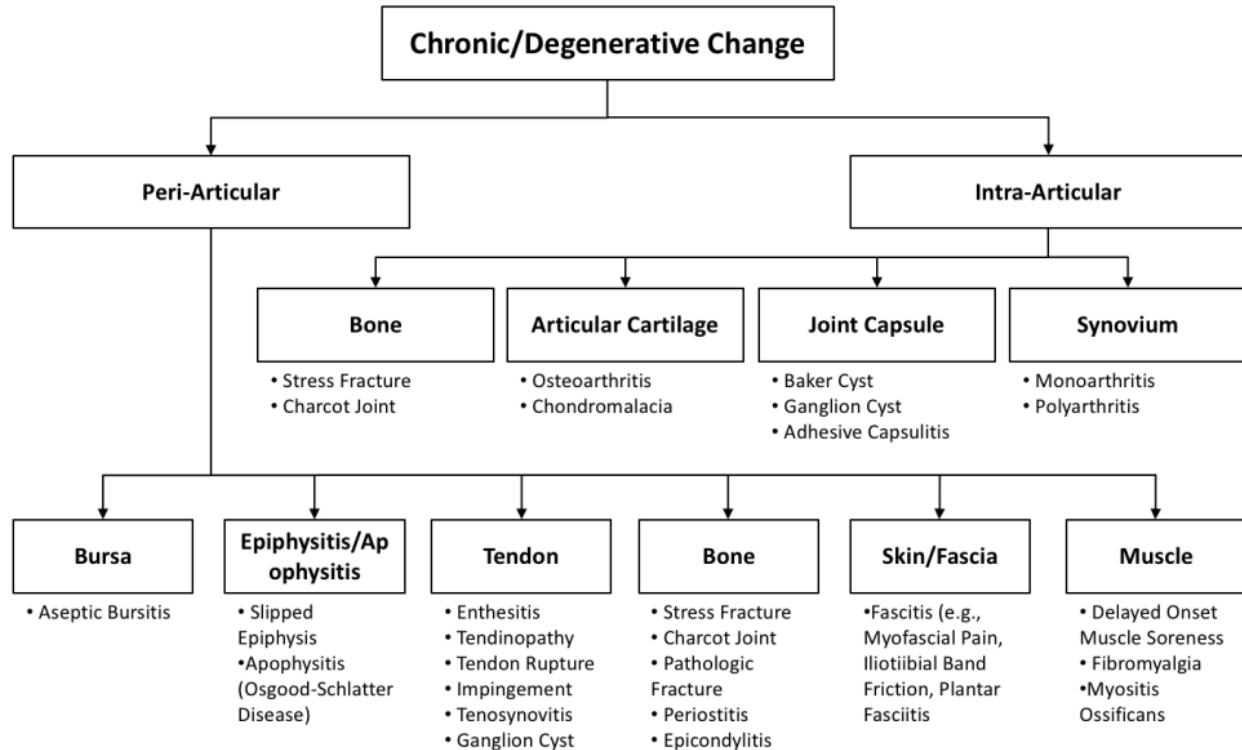
- Degenerative Disc Disease, Osteoarthritis, Osteoporosis



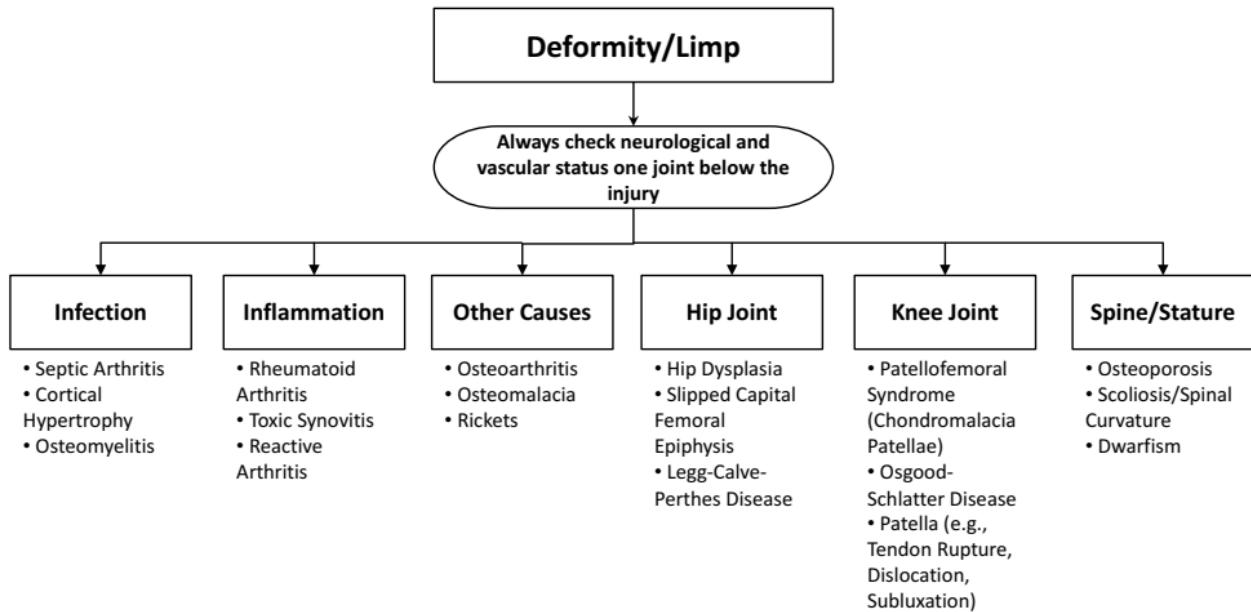
# Bone Lesion



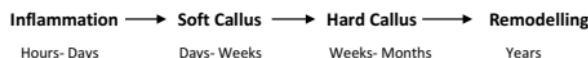
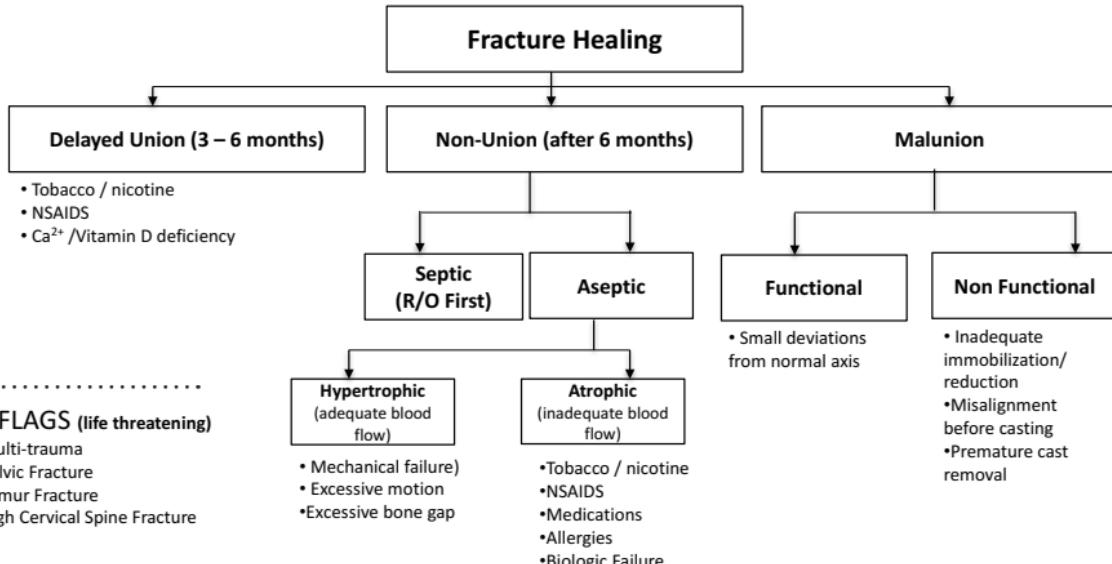
# Chronic Joint Pain



# Deformity / Limp



# Fracture Healing

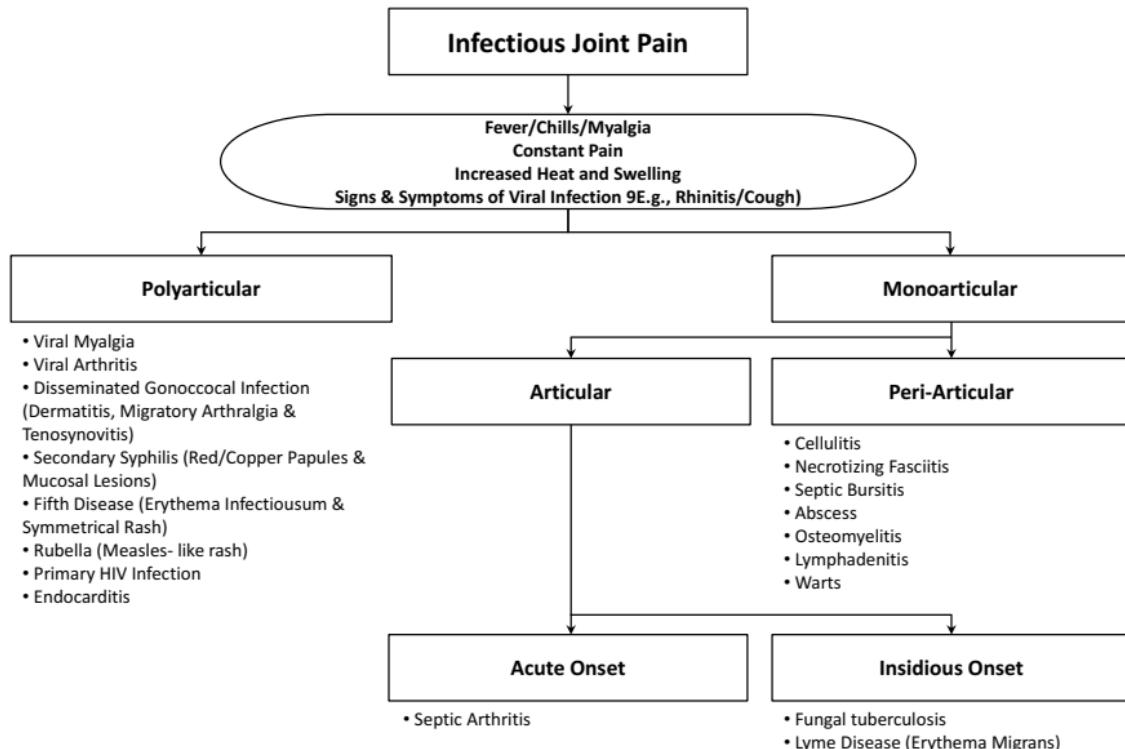


# Guide to Spinal Cord Injury

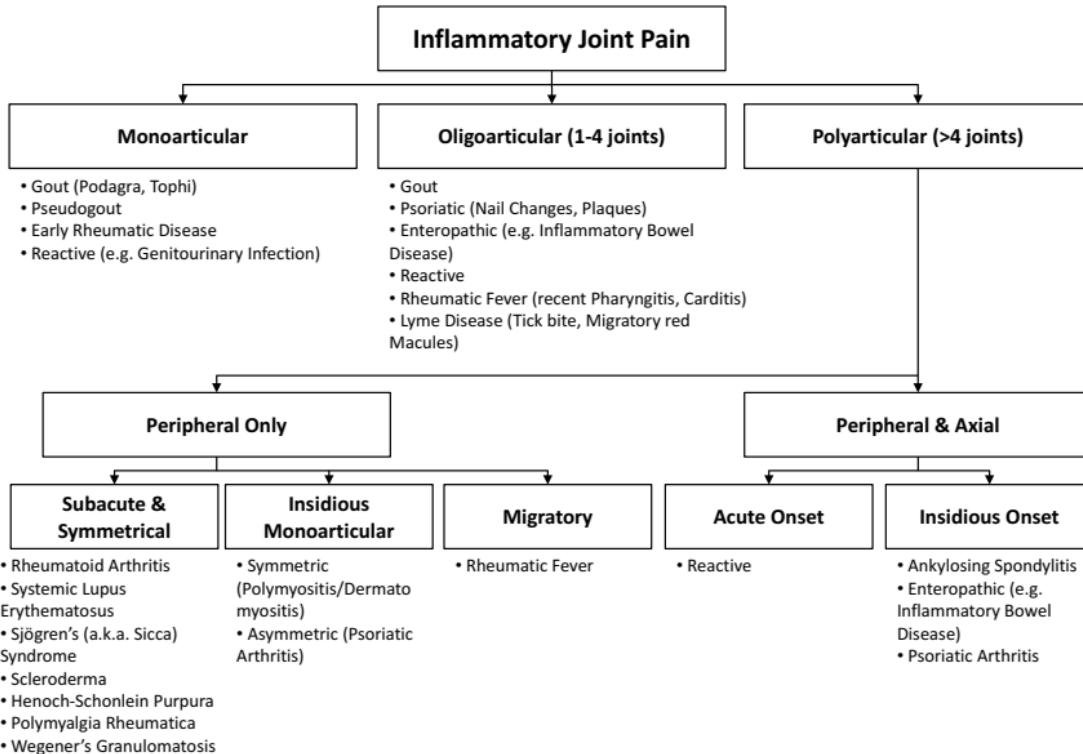


<u>Spinal Root</u>	<u>Sensory</u>	<u>Motor</u>	<u>Reflex</u>
C4	Acromioclavicular Joint	Respiration	None
C5	Radial Antecubital Fossa	Elbow Flexion	Biceps Reflex
C6	Dorsal Thumb	Wrist Extension	Brachioradialis Reflex
C7	Dorsal Middle Finger	Elbow Extension	Triceps Reflex
C8	Dorsal Little Finger	Finger Flexion	None
T1	Ulnar Antecubital Fossa	Finger Abduction	None
T7-12	See Dermatomes	Abdominal Muscles	Abdominal Reflex
L2	Anterior Medial Thigh	Hip Flexion	Cremasteric Reflex
L3	Medial Femoral Condyle	Knee Extension	None
L4	Medial Malleolus	Ankle Dorsiflexion	Knee Jerk Reflex
L5	First Web Space (1 <sup>st</sup> /2 <sup>nd</sup> MTP)	Big Toe Extension	Hamstring Reflex
S1	Lateral Calcaneus	Ankle Plantarflexion	Ankle Jerk Reflex
S2	Popliteal Fossa	Anal Sphincter	Bulbocavernosus
S3/S4	Perianal Region	Anal Sphincter	None

# Infectious Joint Pain



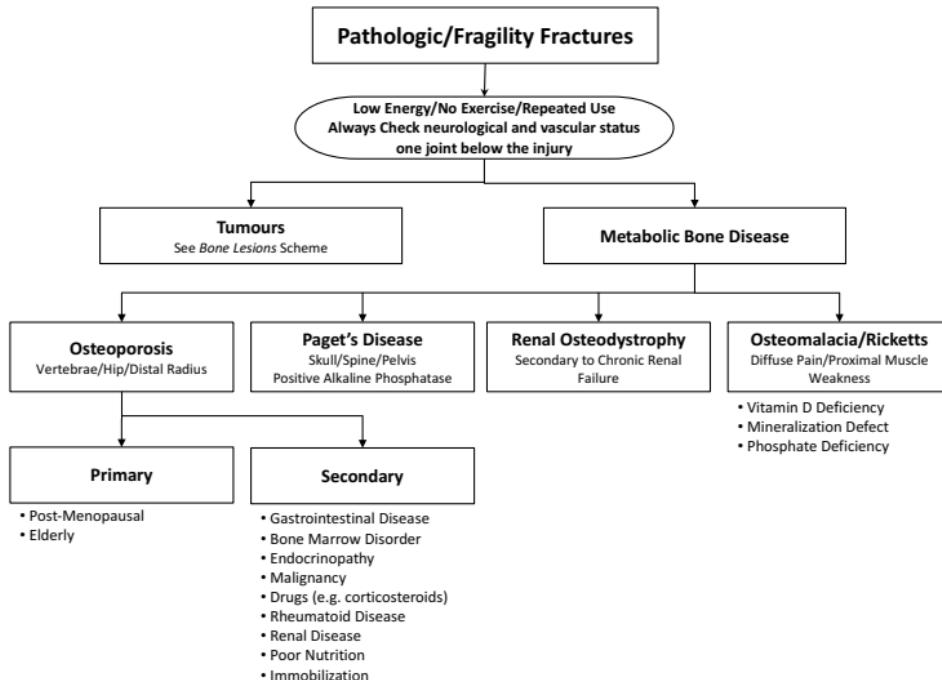
# Inflammatory Joint Pain

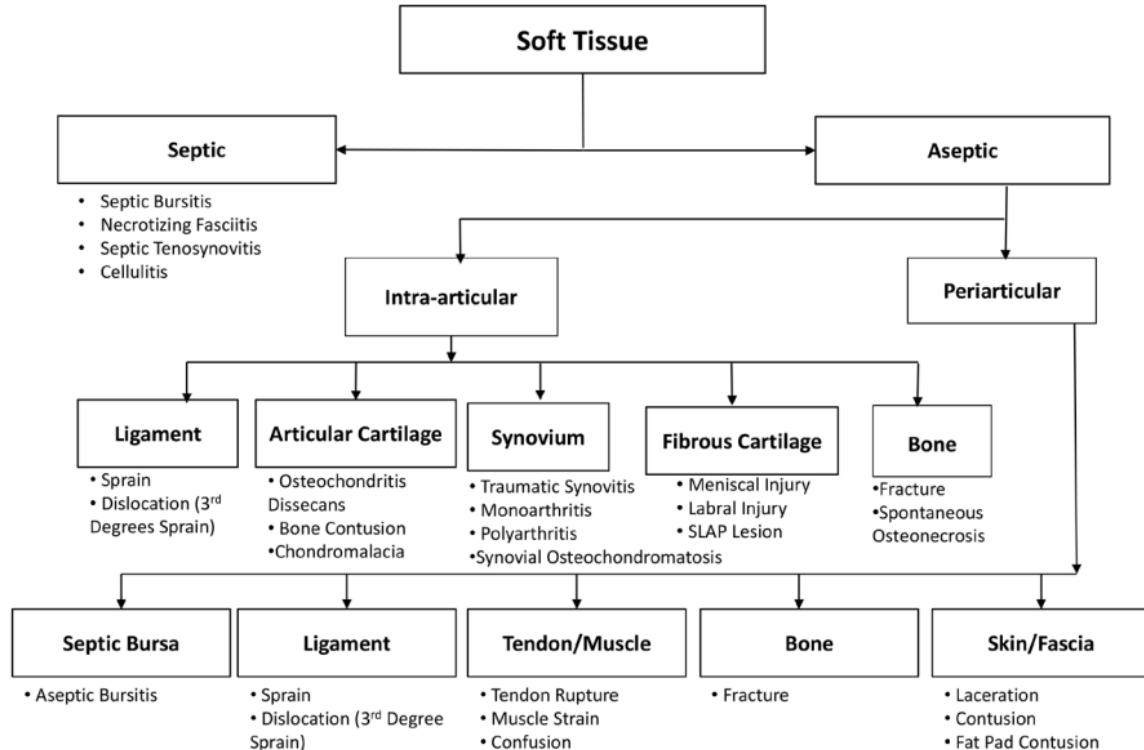


<u>Muscle Group</u>	<u>Action</u>	<u>Myotome</u>	<u>Peripheral Nerve</u>
Shoulder	Abduction	C5	Axillary Nerve
	Adduction	C6-C8	Thoracodorsal Nerve
Elbow	Flexion	C5	Musculocutaneous Nerve
	Extension	C7	Radial Nerve
Wrist	Extension	C6	Radial Nerve
Fingers	Flexion	C8	Median Nerve
	Abduction	T1	Ulnar Nerve
Hip	Flexion	L2	Nerve to Psoas
	Extension	S1	Inferior Gluteal Nerve
Knee	Abduction	L5	Superior Gluteal Nerve
	Flexion	L5	Tibial Nerve
Ankle	Extension	L3	Femoral Nerve
	Dorsiflexion	L4	Deep Peroneal Nerve
	Plantarflexion	S1	Tibial Nerve

N.B. There is considerable overlap between myotomes for some actions. The myotomes listed are the dominant segments involved.

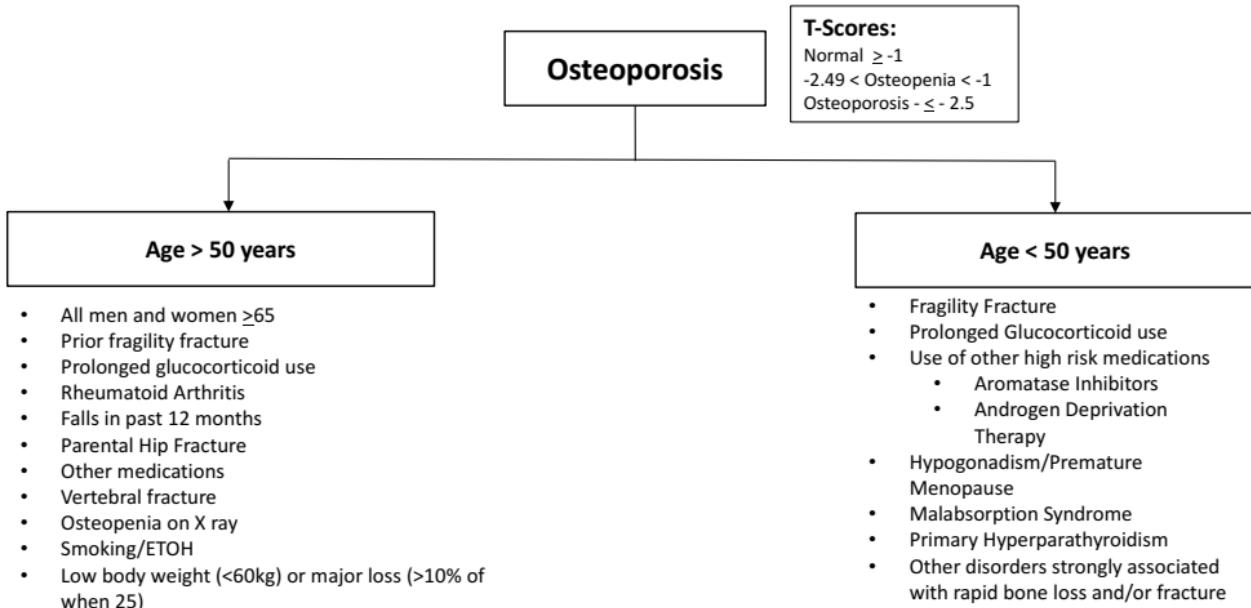
# Pathologic Fractures

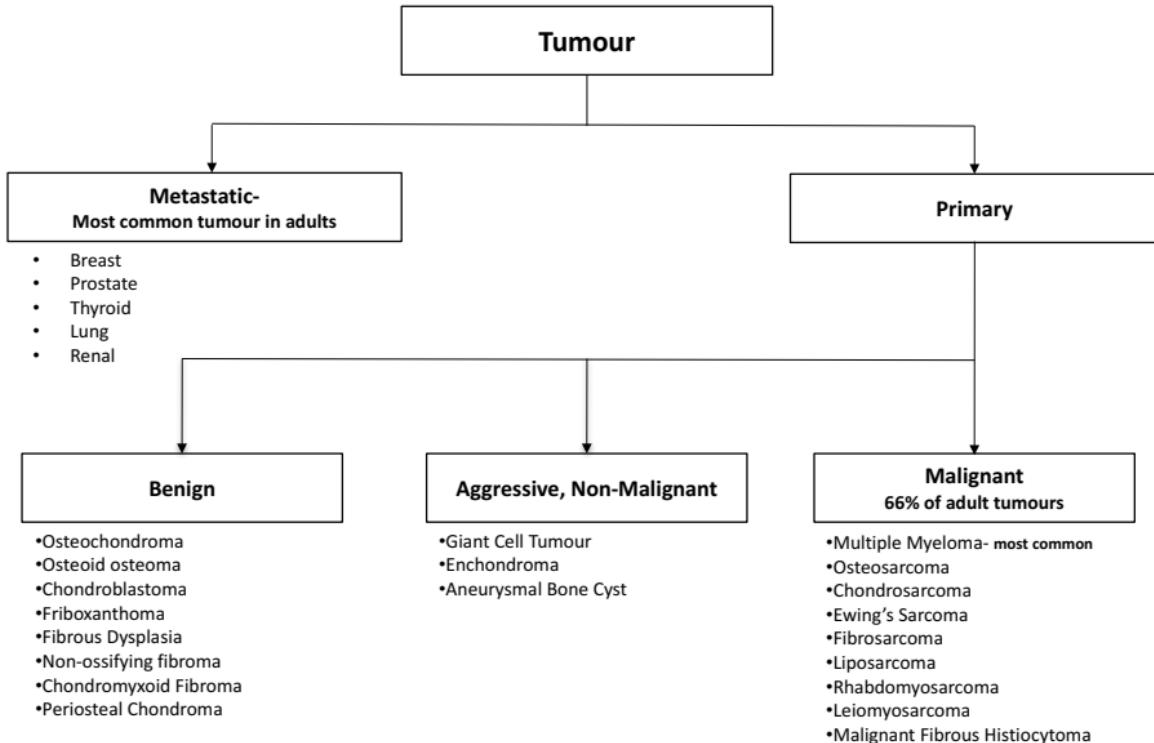




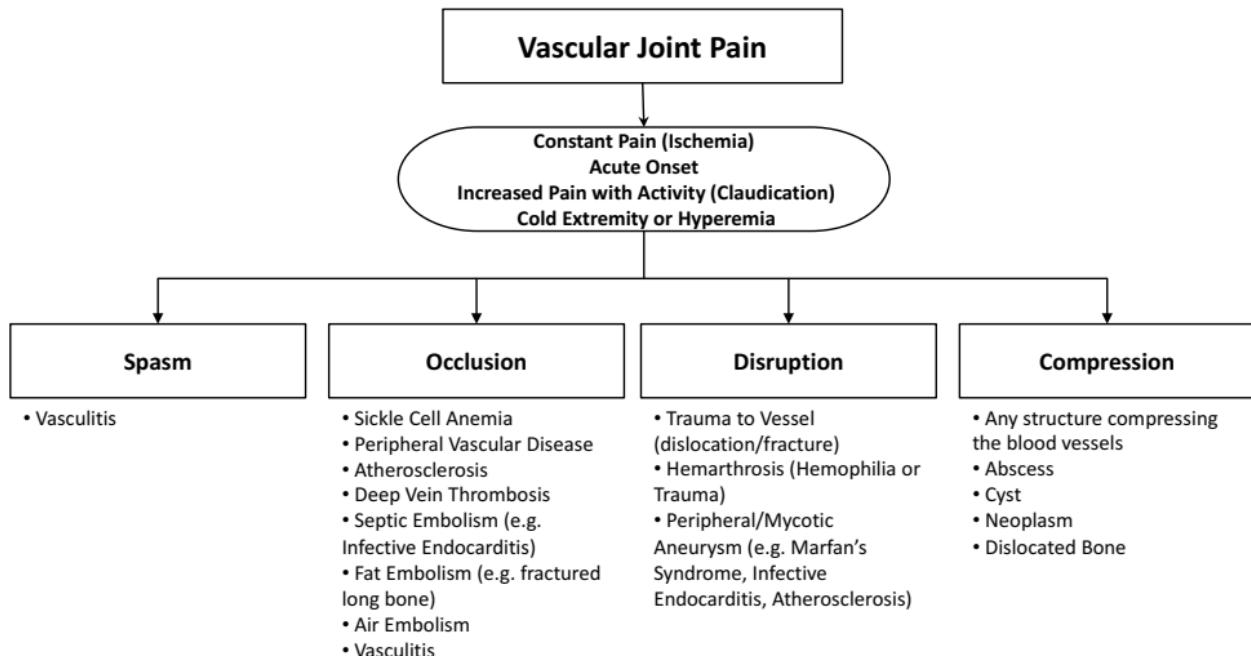
# Osteoporosis

## BMD Testing





# Vascular Joint Pain

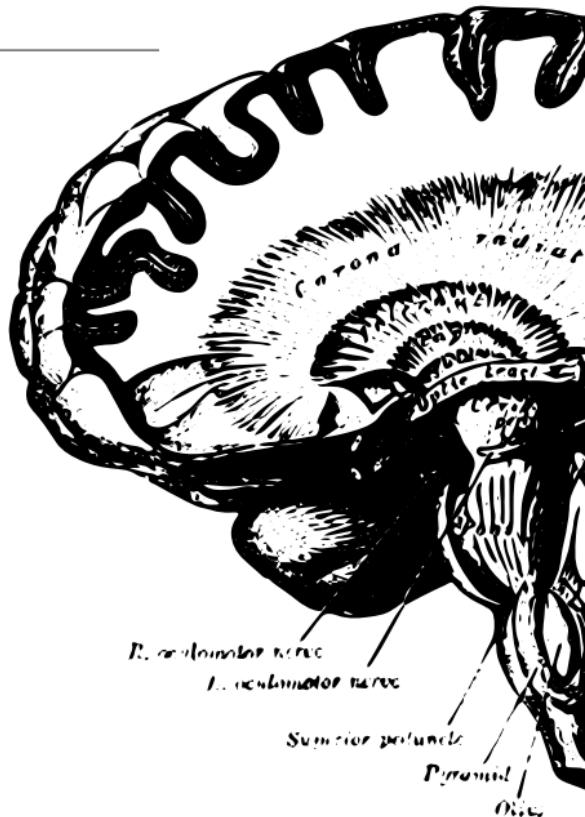




# Psychiatric

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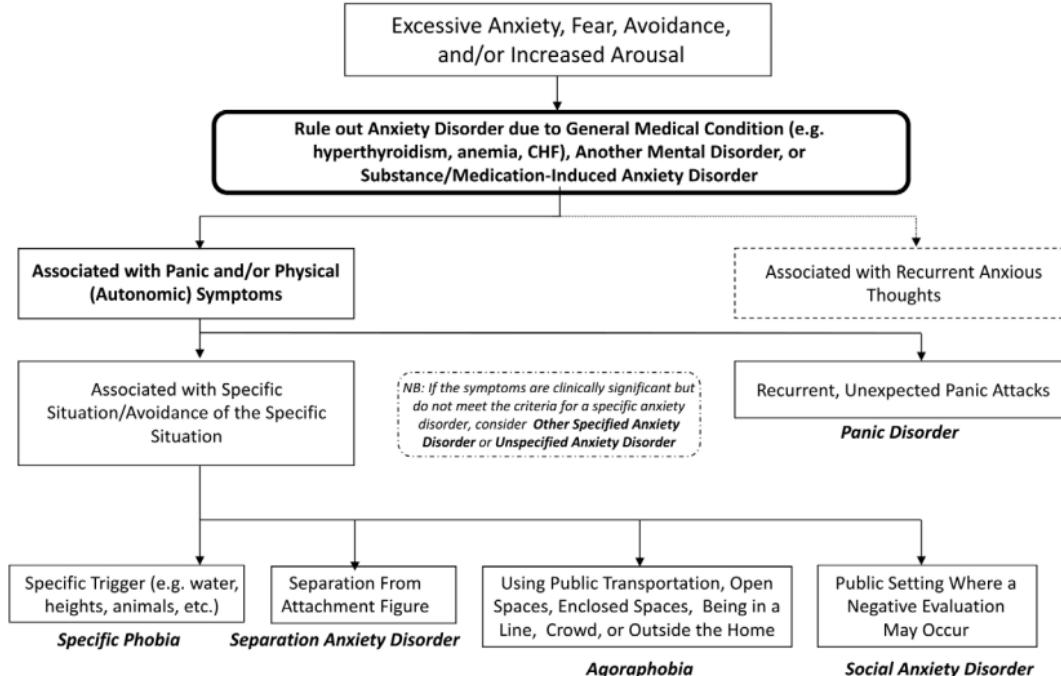
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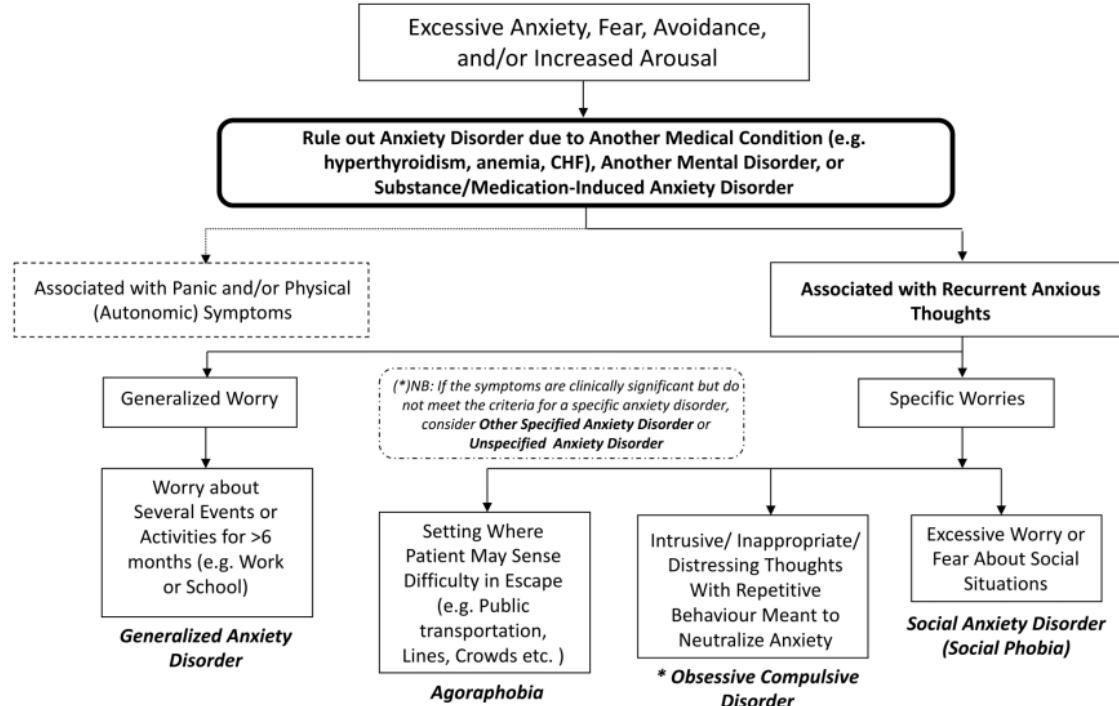
***Faculty Editor***

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# Anxiety Disorders

Associated with Panic





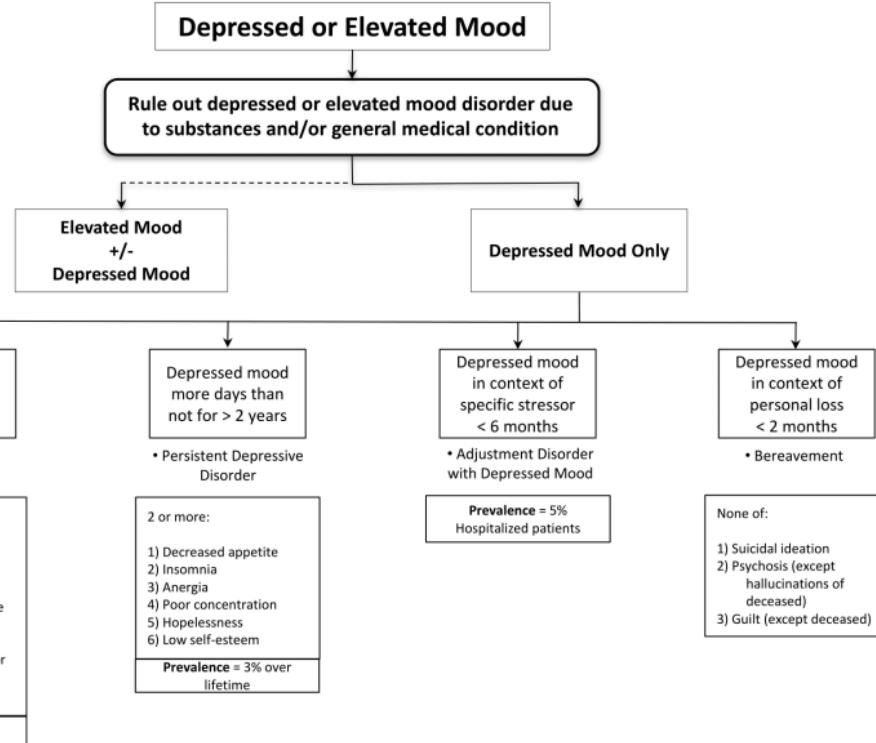
\* Not considered an anxiety disorder according to DSM-V

American Psychiatric Association (2013). Diagnostic and Statistical Manual of Mental Disorders (5th ed. DSM-V).

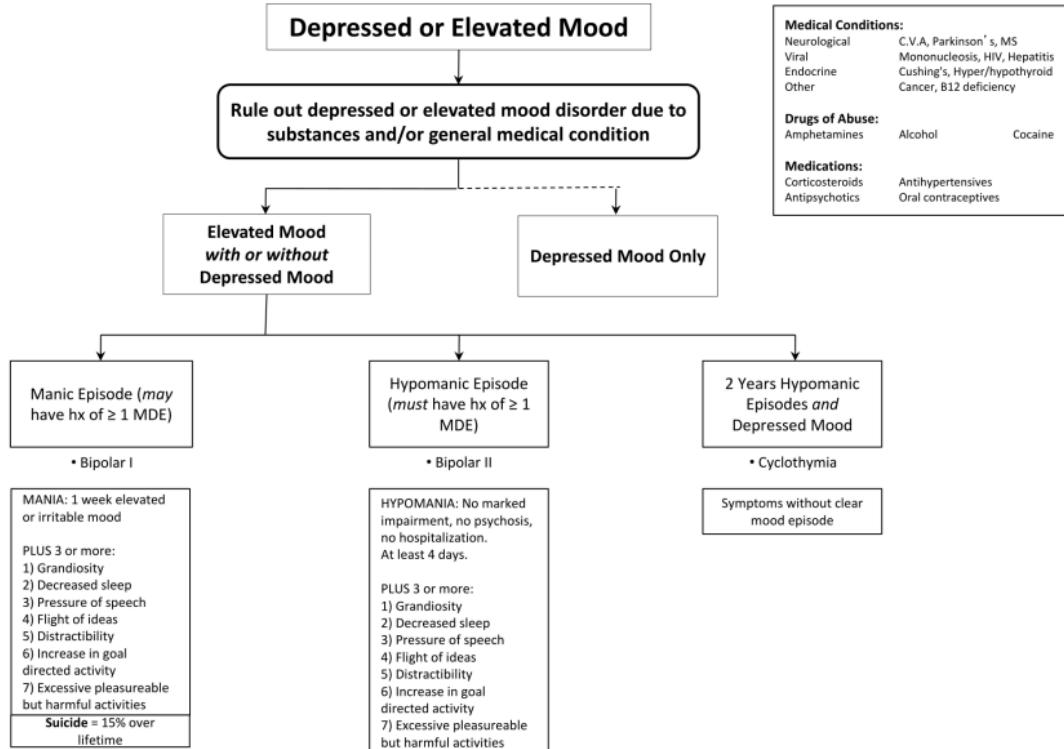
# Mood Disorders

## Depressed Mood

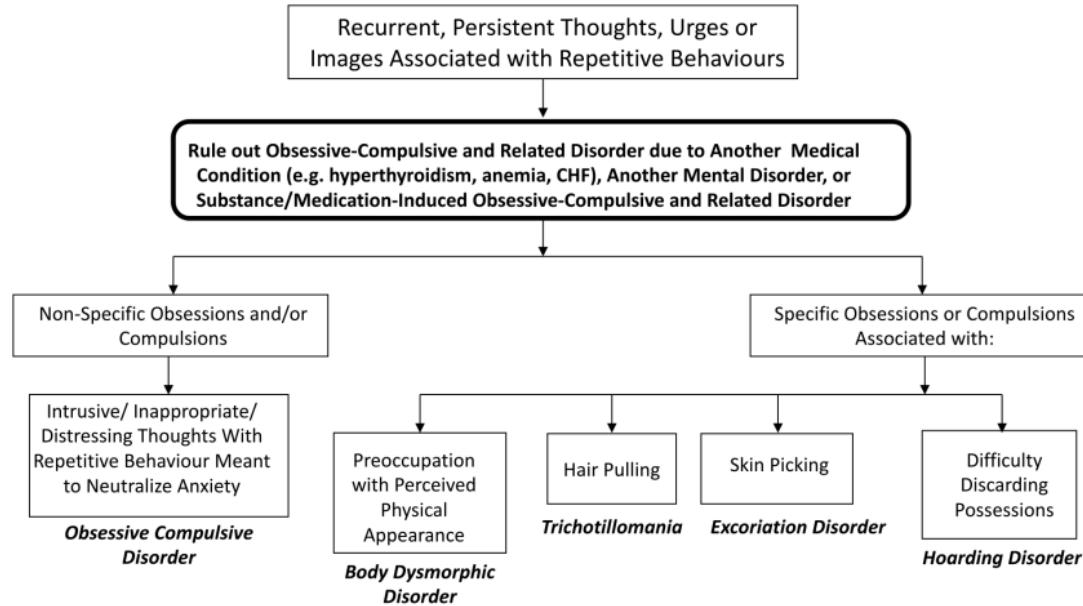
Medical Conditions:	
Neurological	C.V.A, Parkinson's, MS
Viral	Mononucleosis, HIV, Hepatitis
Endocrine	Cushing's, Hyper/hypothyroid
Other	Cancer, B12 deficiency
Drugs of Abuse:	
Amphetamines	Alcohol
	Cocaine
Medications:	
Corticosteroids	Antihypertensives
Antipsychotics	Oral contraceptives



## Elevated Mood



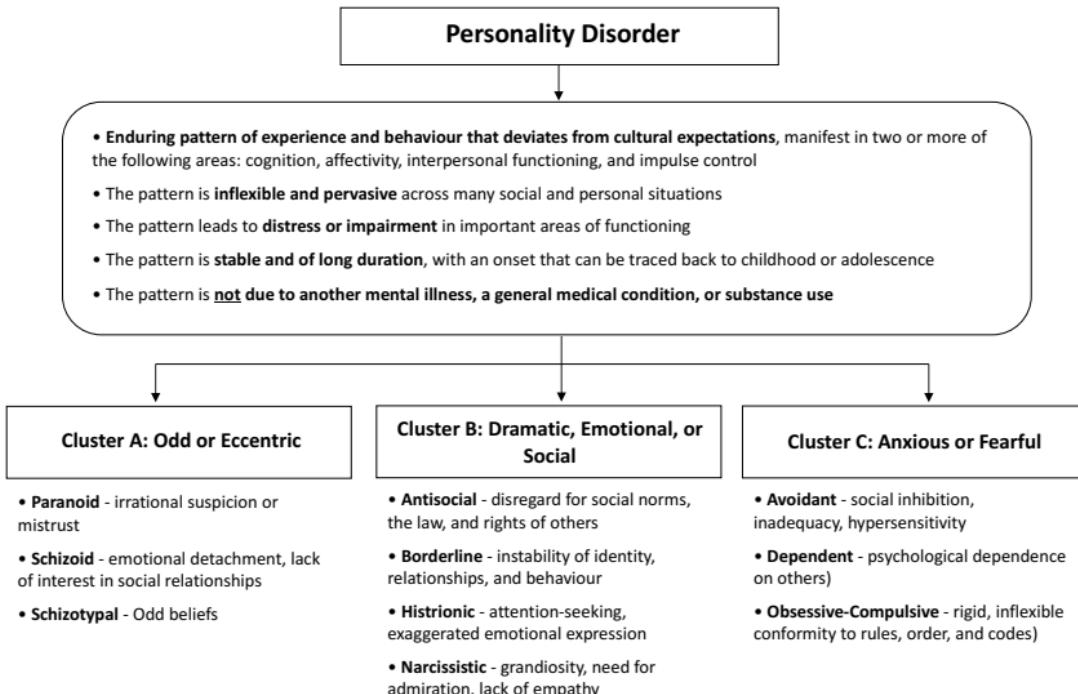
# Obsessive-Compulsive & Related Disorders



NB: If the symptoms are clinically significant but do not meet the criteria for a specific Obsessive-Compulsive or Related Disorder consider Other Specified Obsessive-Compulsive or Related Disorder or Unspecified Obsessive-Compulsive or Related Disorder

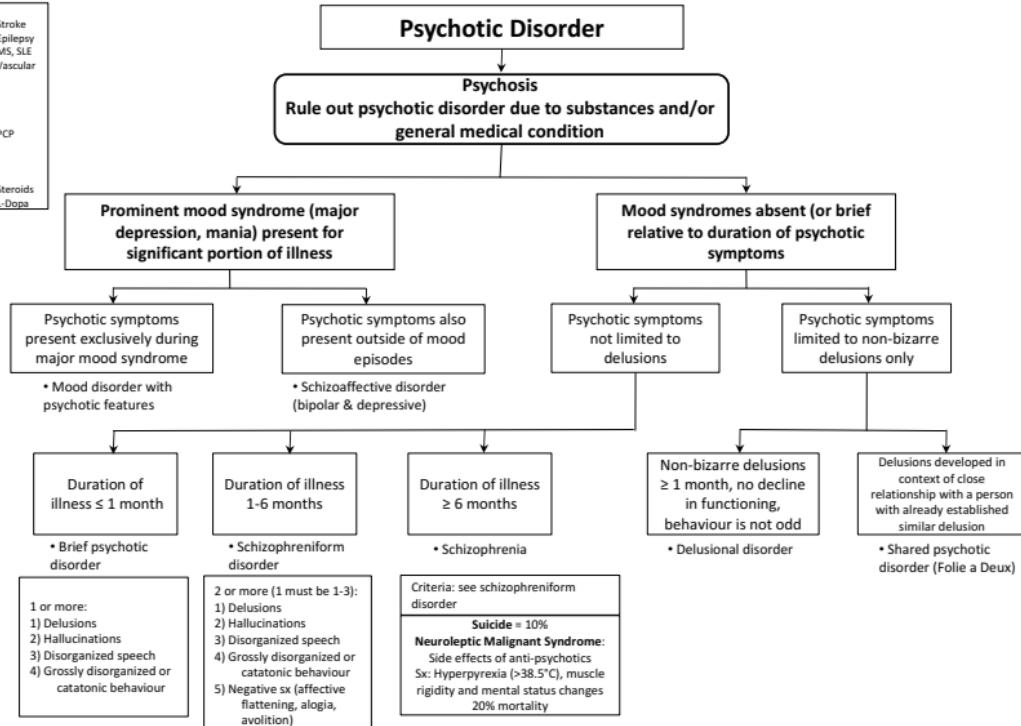


# Personality Disorder

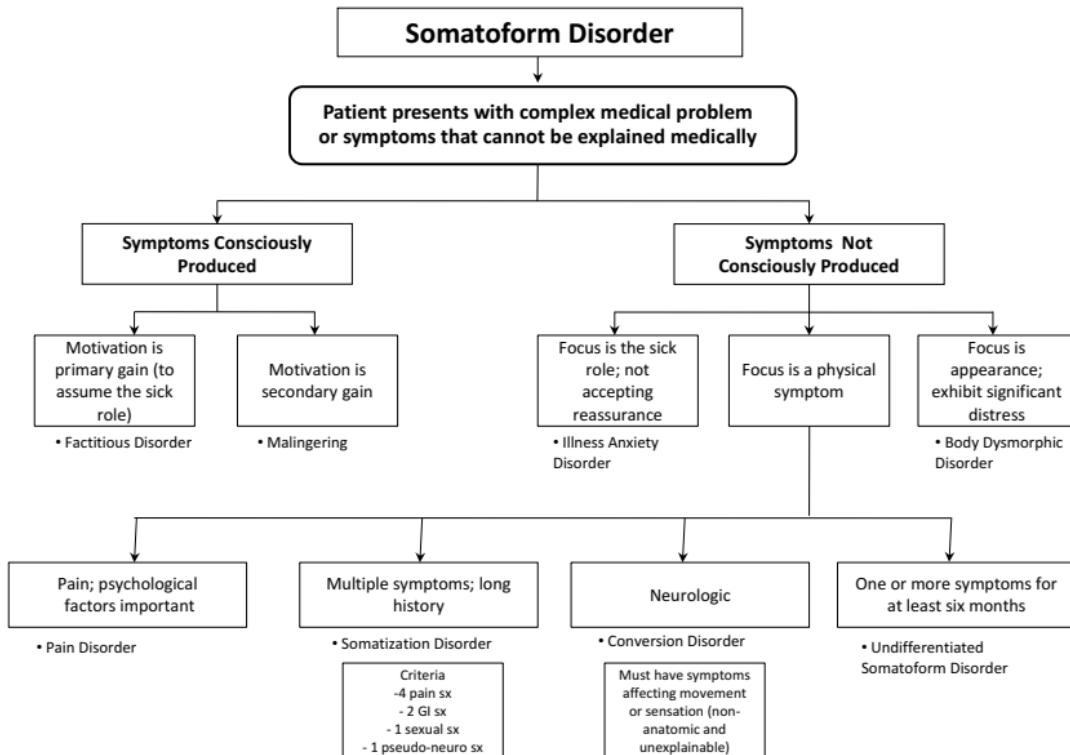


# Psychotic Disorders

Medical Conditions:		
Para/Neoplastic	Brain tumour	Stroke
Parkinson's	AIDS, syphilis	Epilepsy
Infectious	Cushing's	MS, SLE
Degenerative	Endocrine	Vascular
Drugs of Abuse:		
Cocaine	Alcohol (rare)	
Cannabis	Opiates (rare)	
Amphetamines		PCP
Hallucinogens		
Medications:		
Amphetamines	Methylphenidate	Steroids
Dopamine Agonist	Anticholinergic	L-Dopa

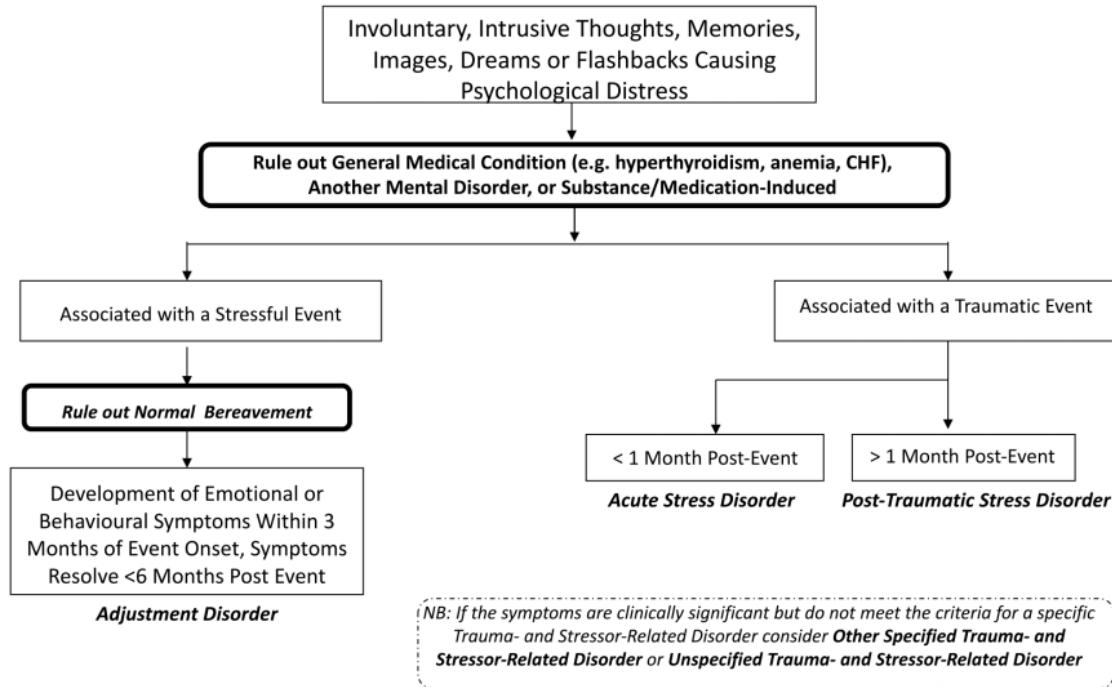


# Somatoform Disorders



# Trauma & Stressor

## Related Disorders

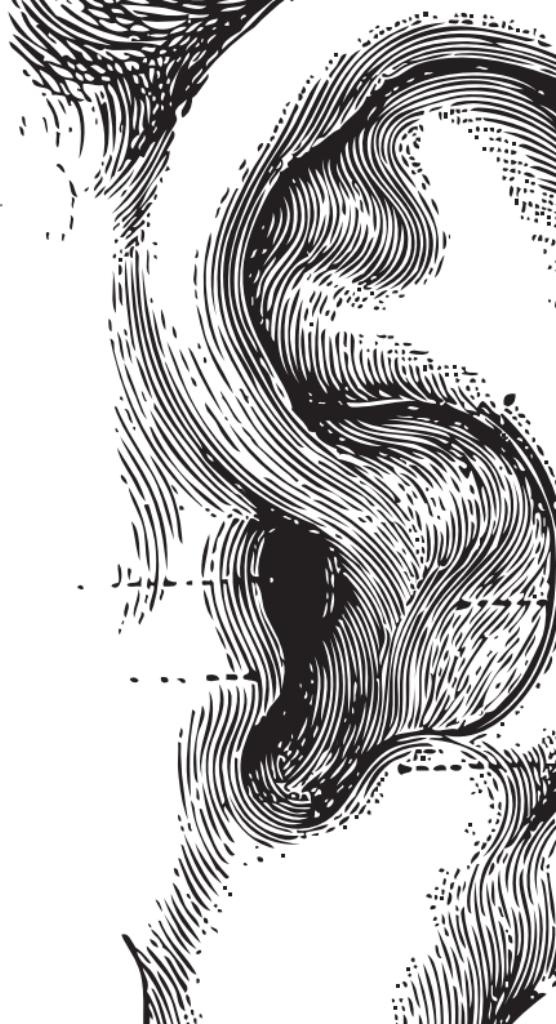


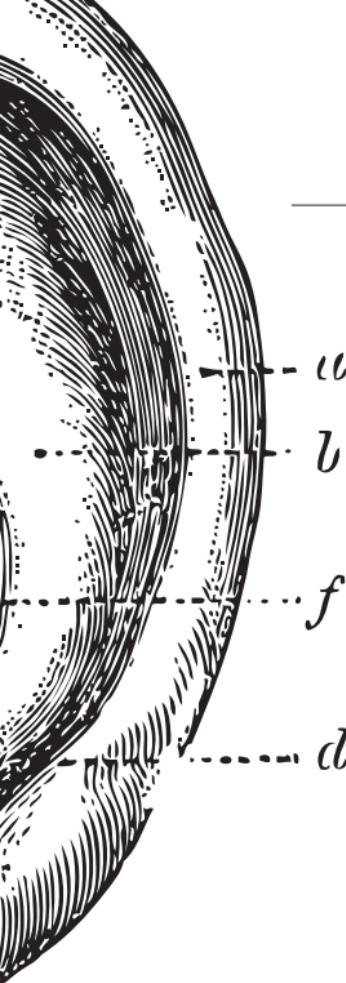


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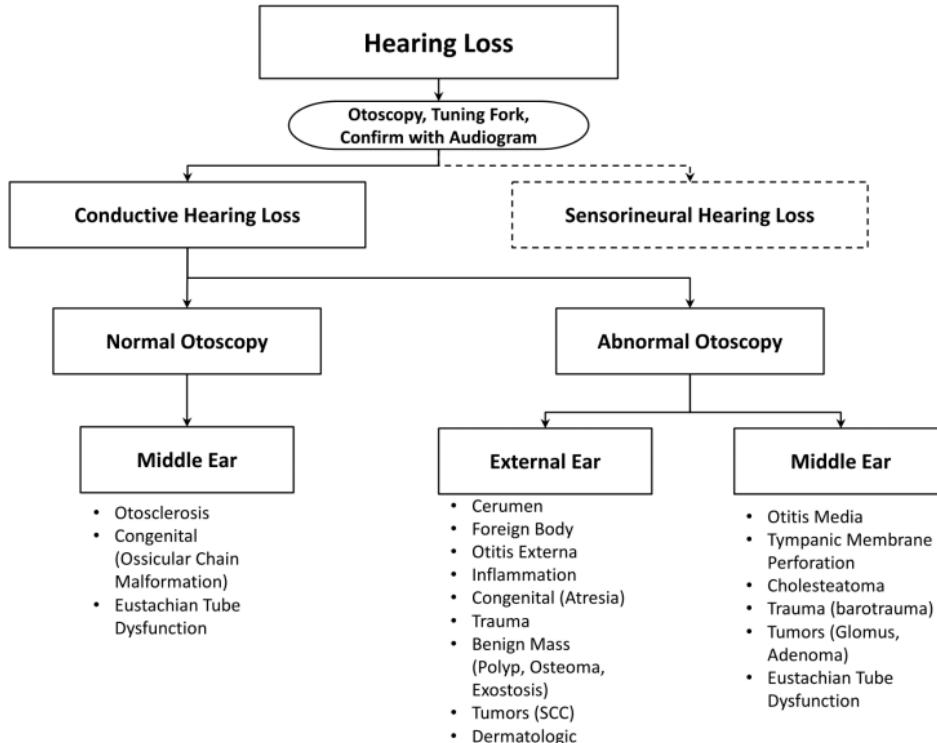
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Wesley Chan

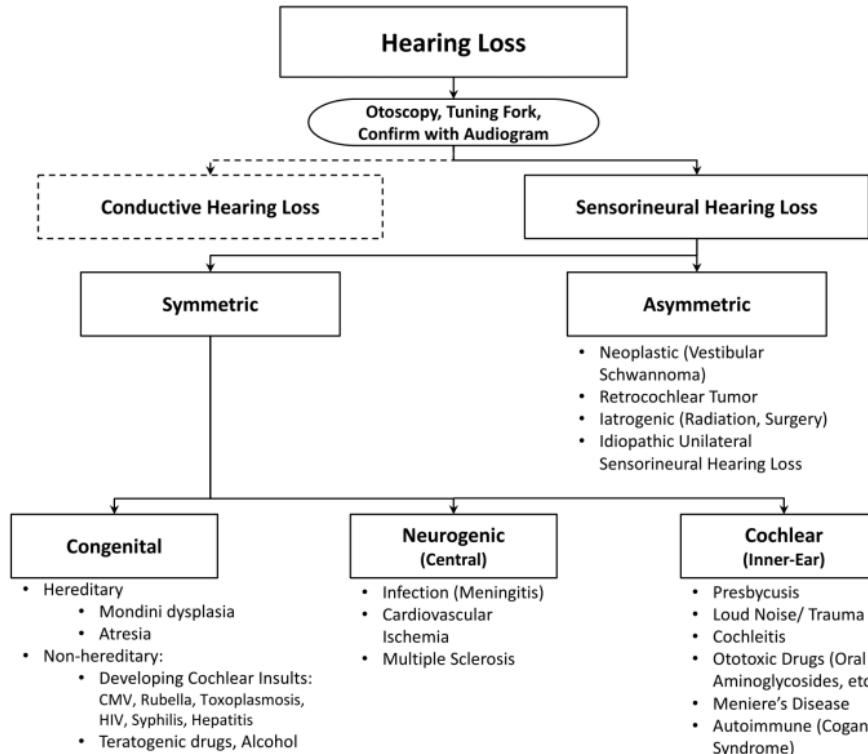
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# Hearing Loss

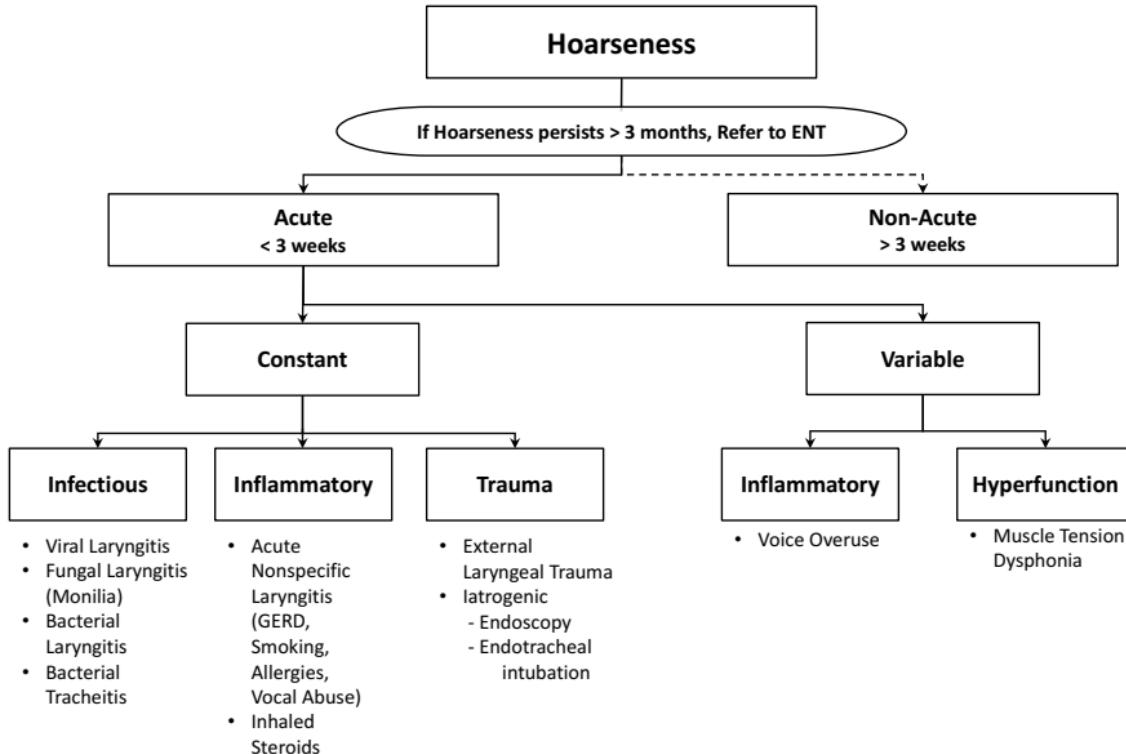
Conductive

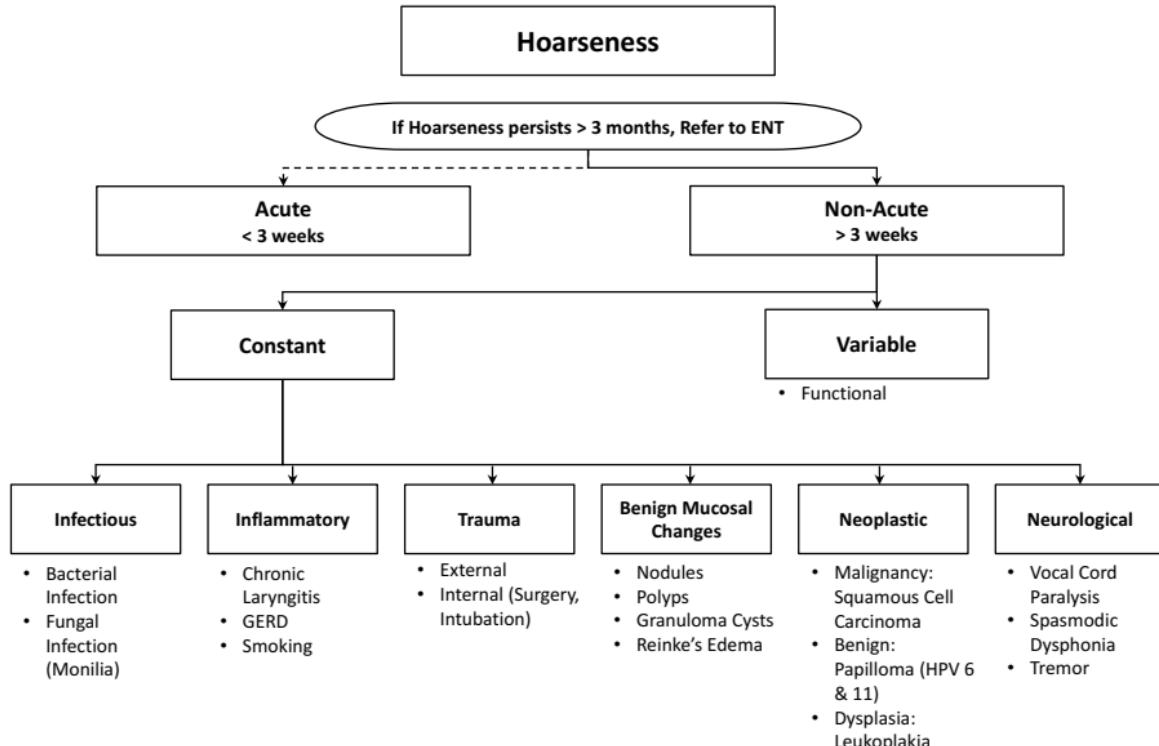




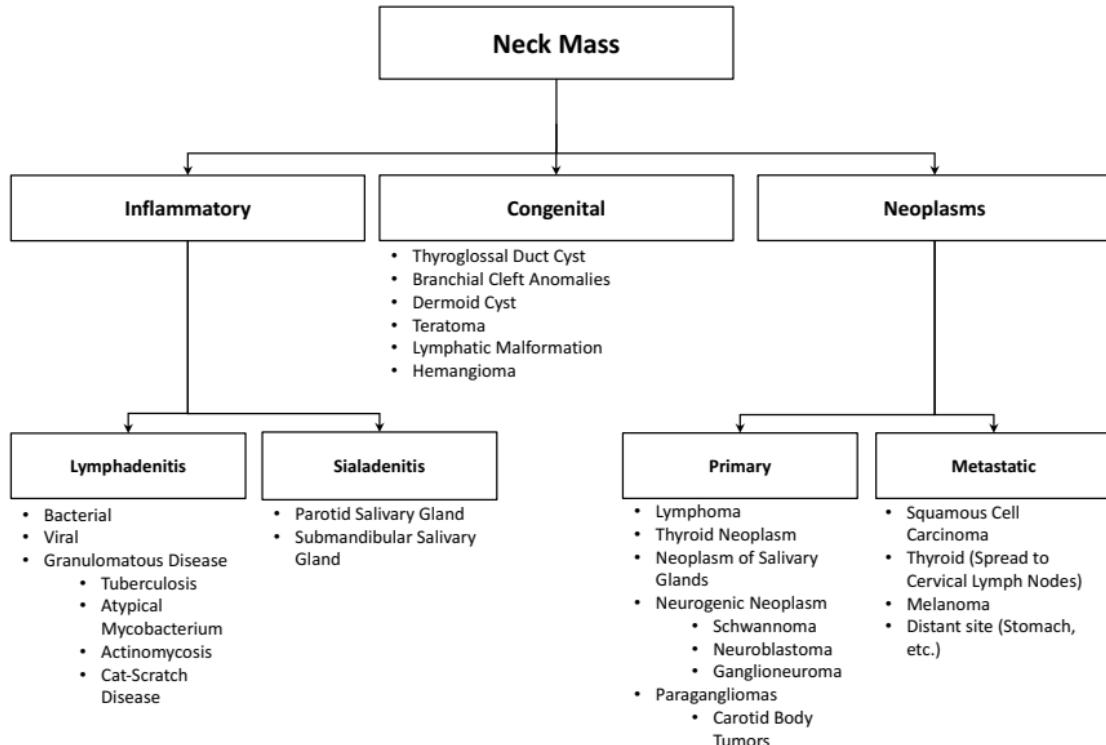
# Hoarseness

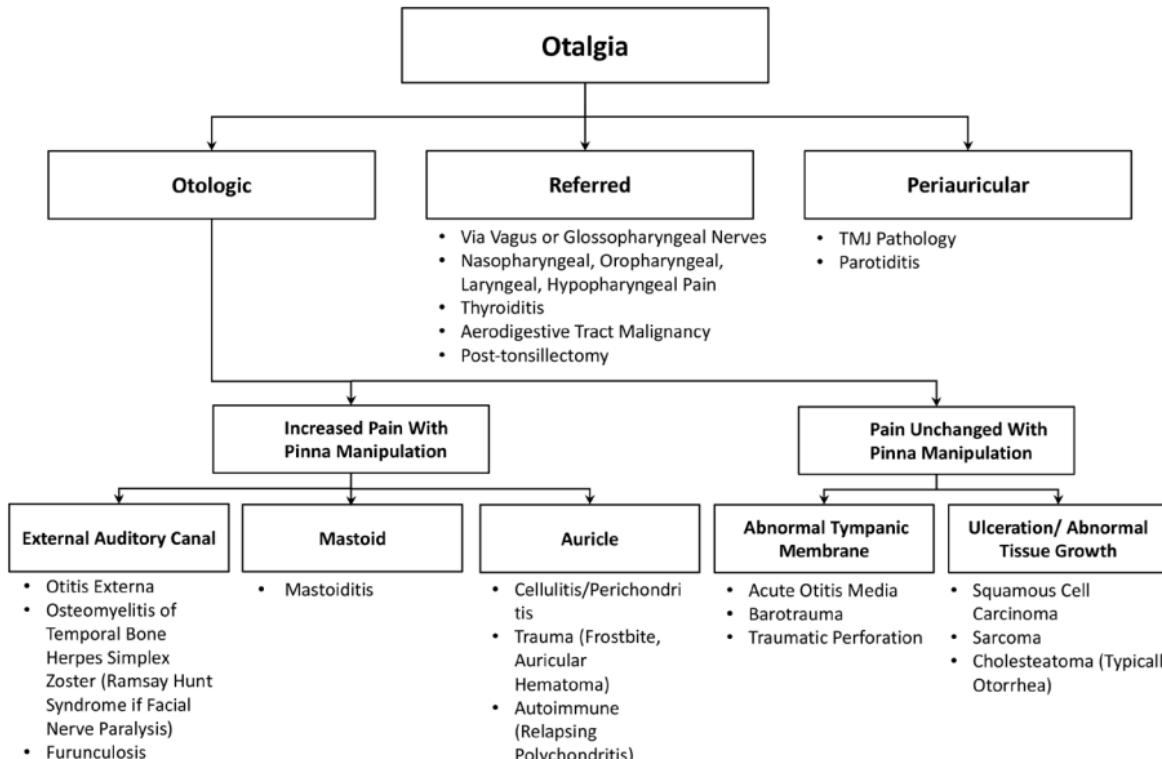
Acute



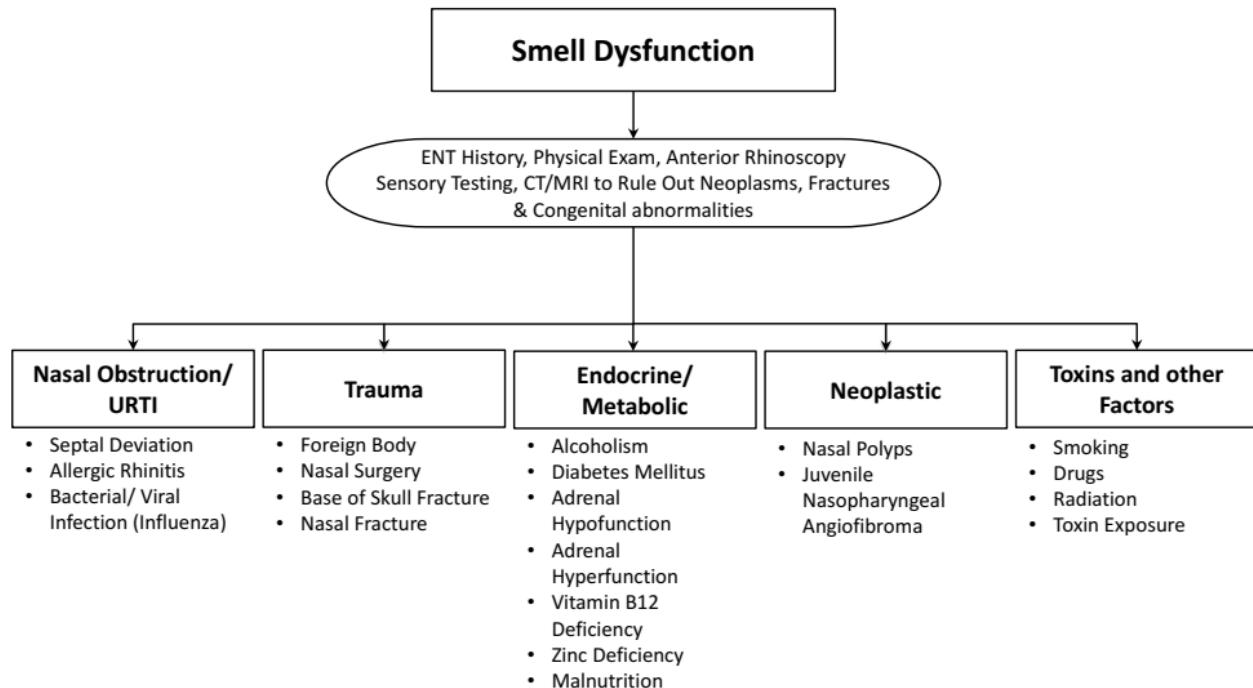


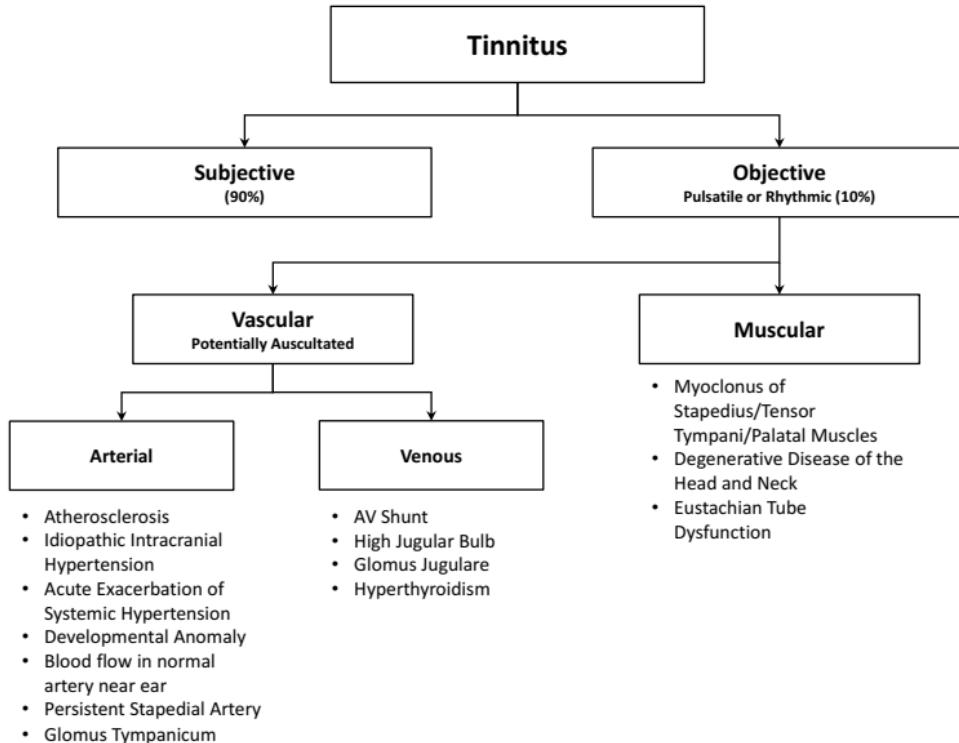
# Neck Mass





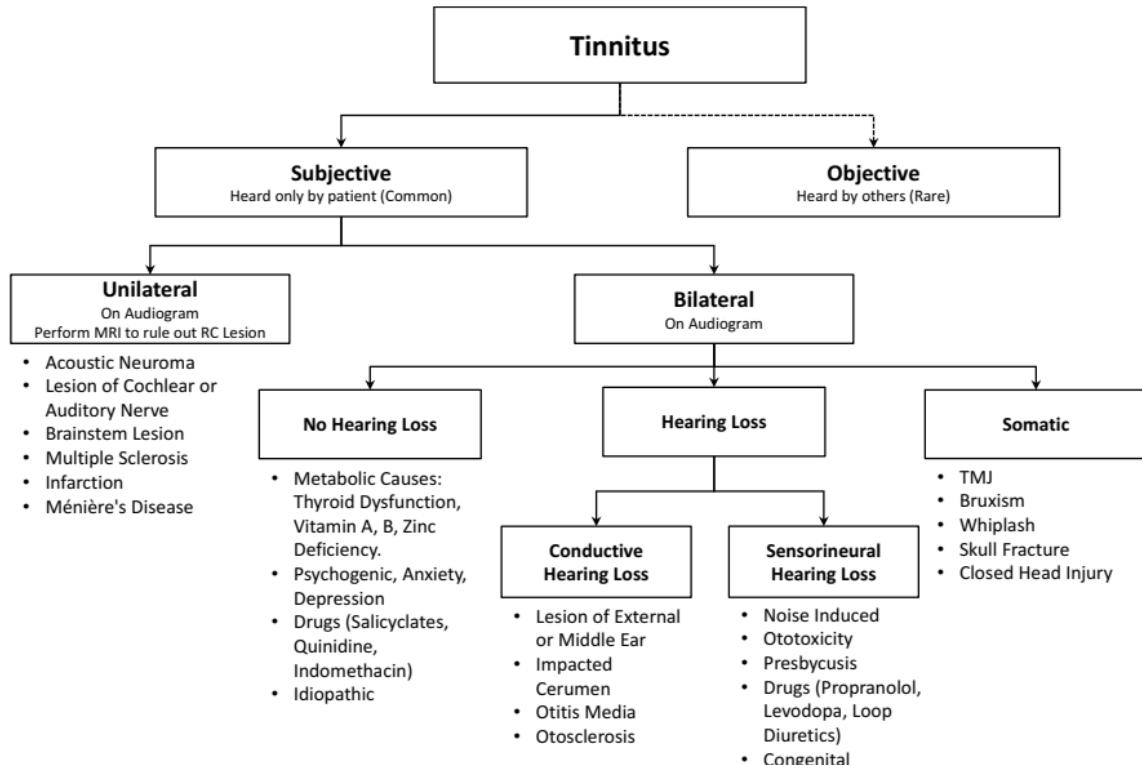
# Smell Dysfunction





# Tinnitus

Subjective

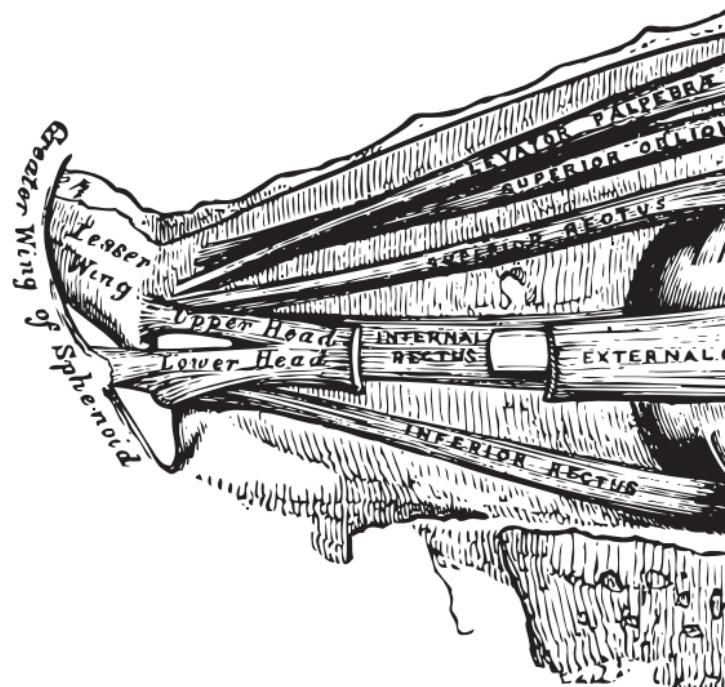


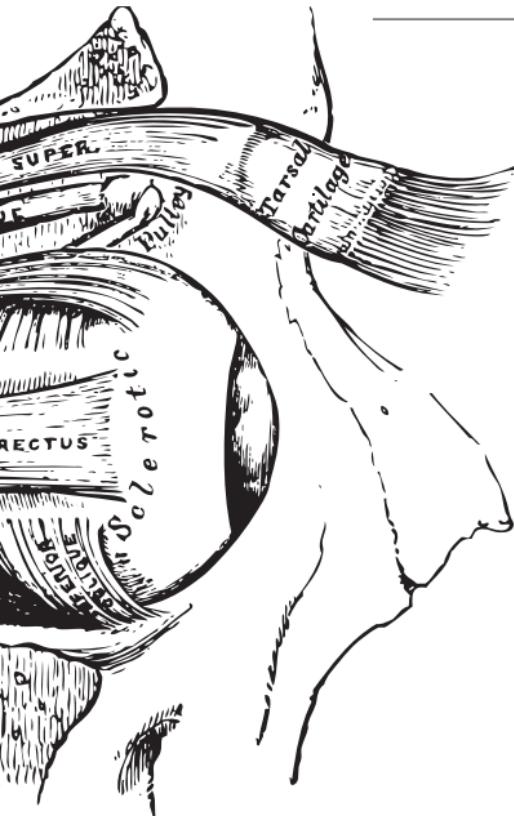


# Ophthalmologic

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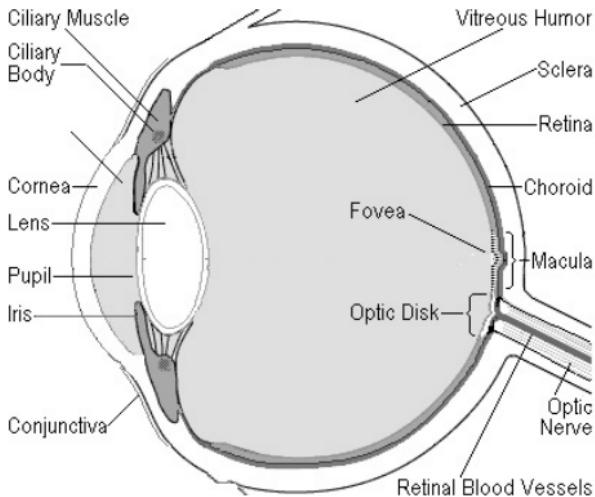
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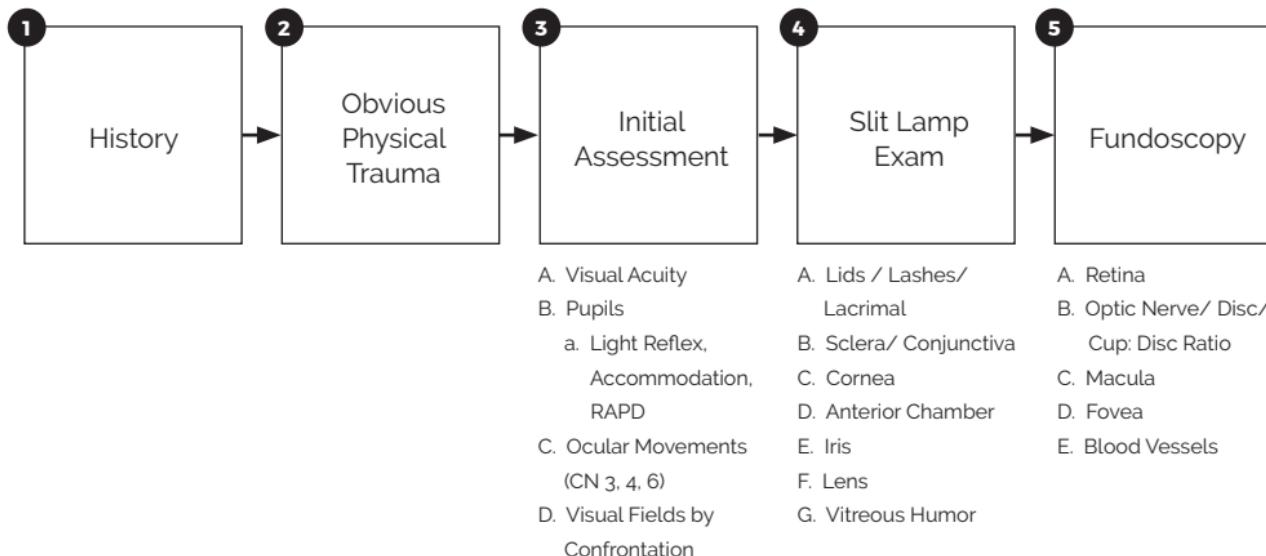
# Cross Section of the Eye & Acronyms



## Ophthalmology Acronyms

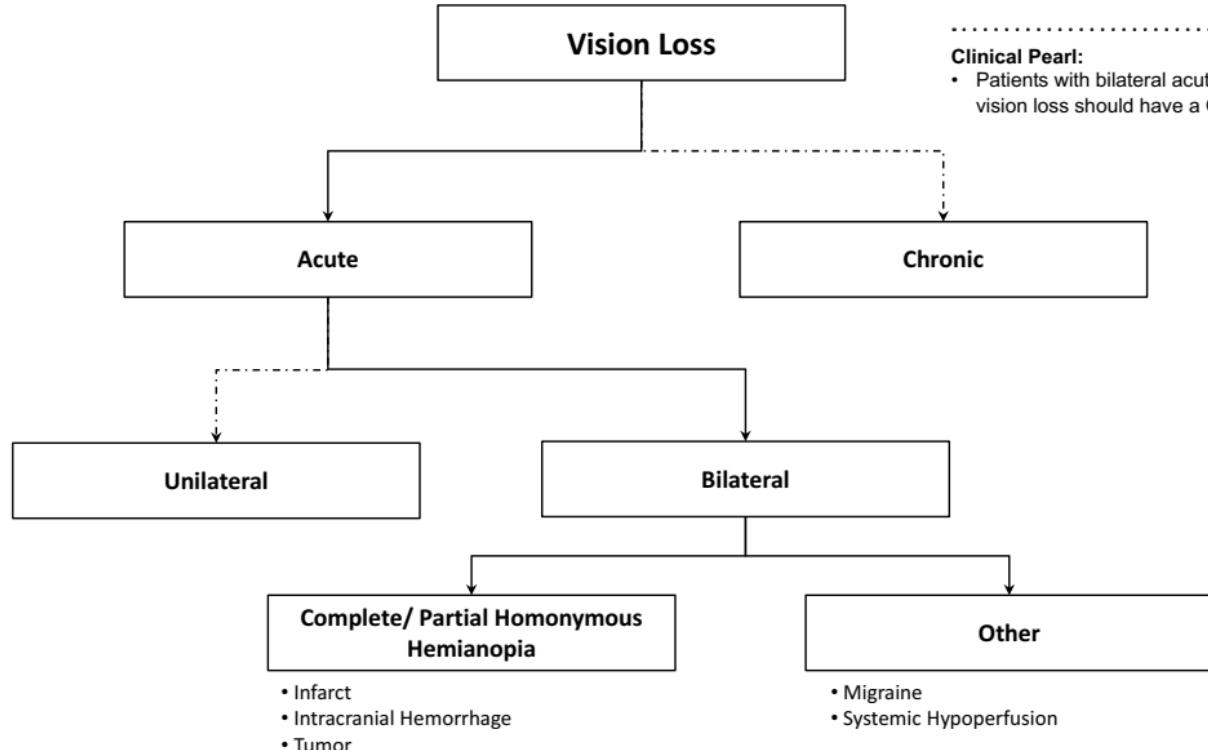
<b>EOM</b>	Extra ocular movements
<b>IOL</b>	Intraocular Lens
<b>IOP</b>	Intraocular Pressure
<b>OD</b>	Oculus Dexter (right eye)
<b>OS</b>	Oculus Sinister (left eye)
<b>OU</b>	Oculus Uterque (both eyes)
<b>PERRLA</b>	Pupils Equal, Round, Reactive to Light & Accommodation
<b>RAPD</b>	Relative Afferent pupillary defect
<b>SLE</b>	Slit Lamp Exam
<b>VA</b>	Visual Acuity

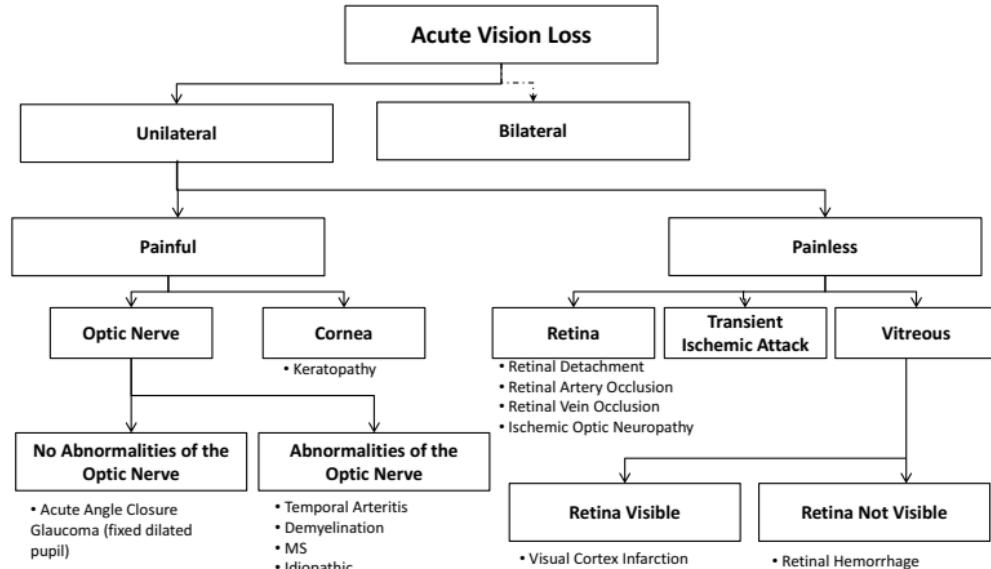
# Approach to an Eye Exam



# Acute Vision Loss

Bilateral



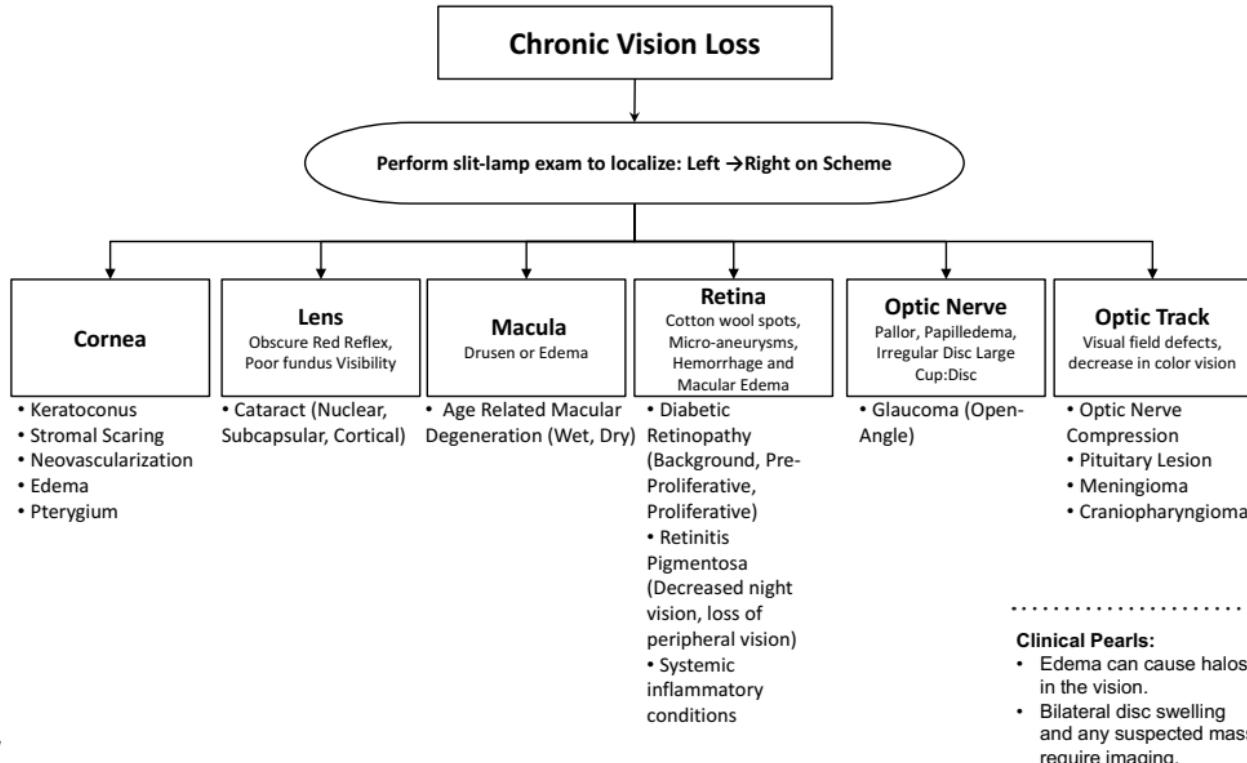
**Clinical Pearls:**

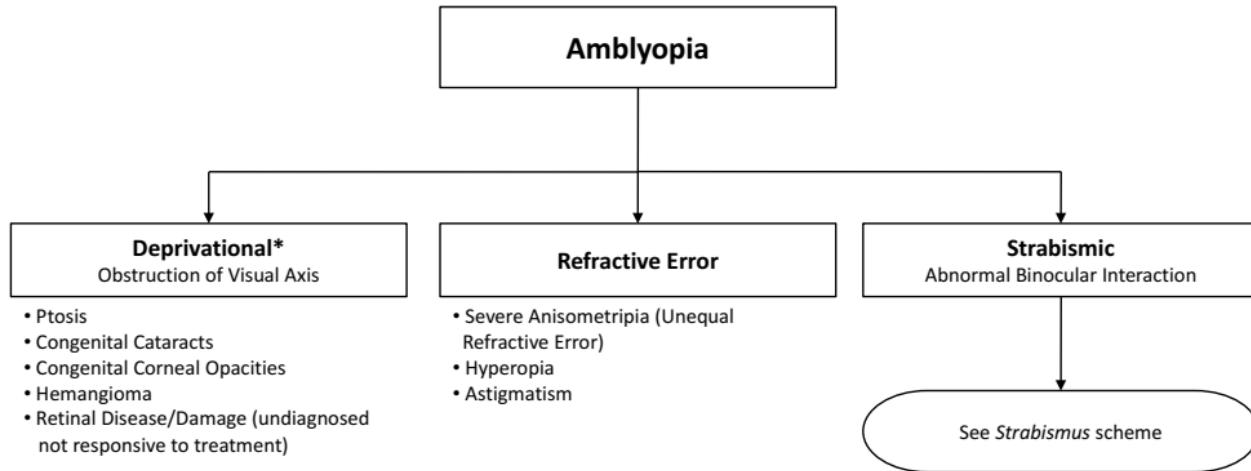
- Optic neuritis causes pain with EOM
- Temporal arteritis causes temporalis pain and pain with mastication
- Acute angle closure glaucoma causes high intraocular pressure, unilateral eye pain, mid-dilated pupil and n/v
- Retinal detachment can present as a veil over the vision and with flashes and floaters.
- TIA, vein or artery occlusion requires stroke work-up

# Chronic Vision Loss



Anatomic

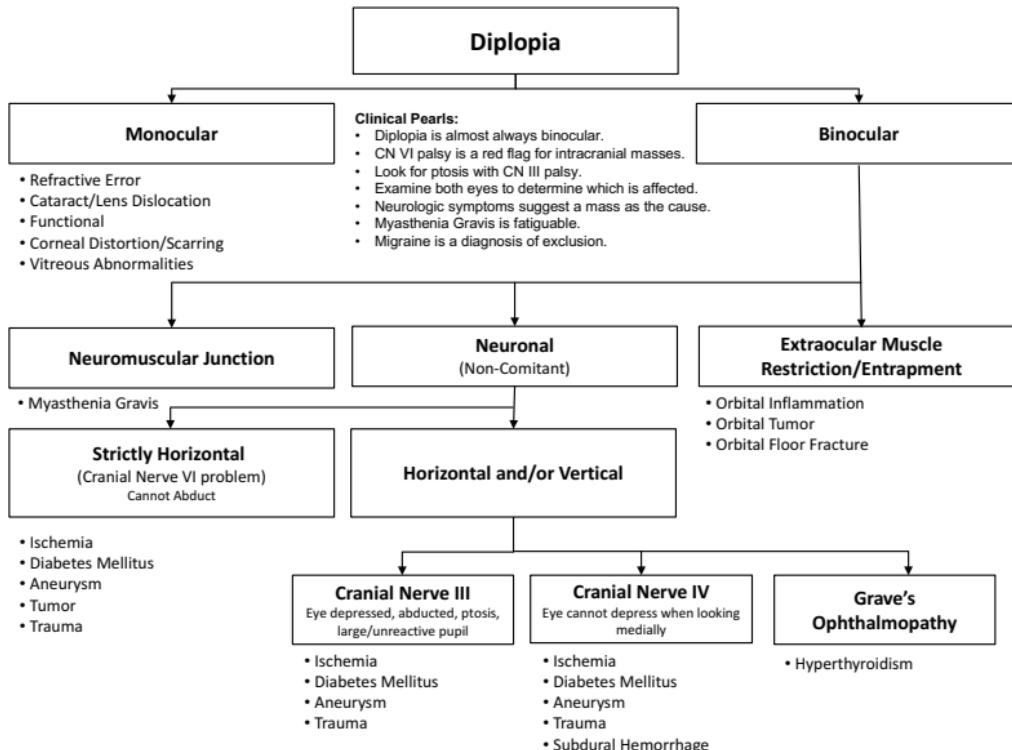


**Clinical Pearl:**

- Congenital cataracts and retinoblastoma's cause leukocoria and a decreased red reflex

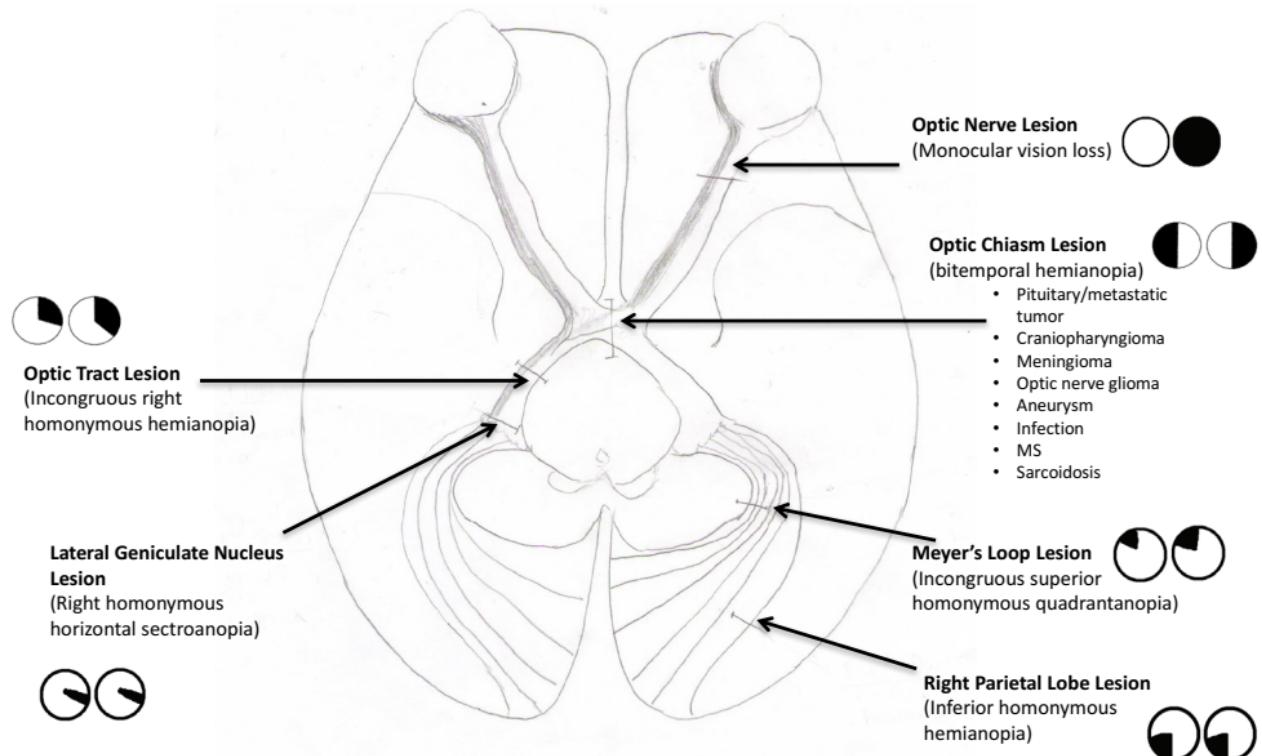
\* Can cause permanent visual impairment if not treated urgently in infancy

# Diplopia



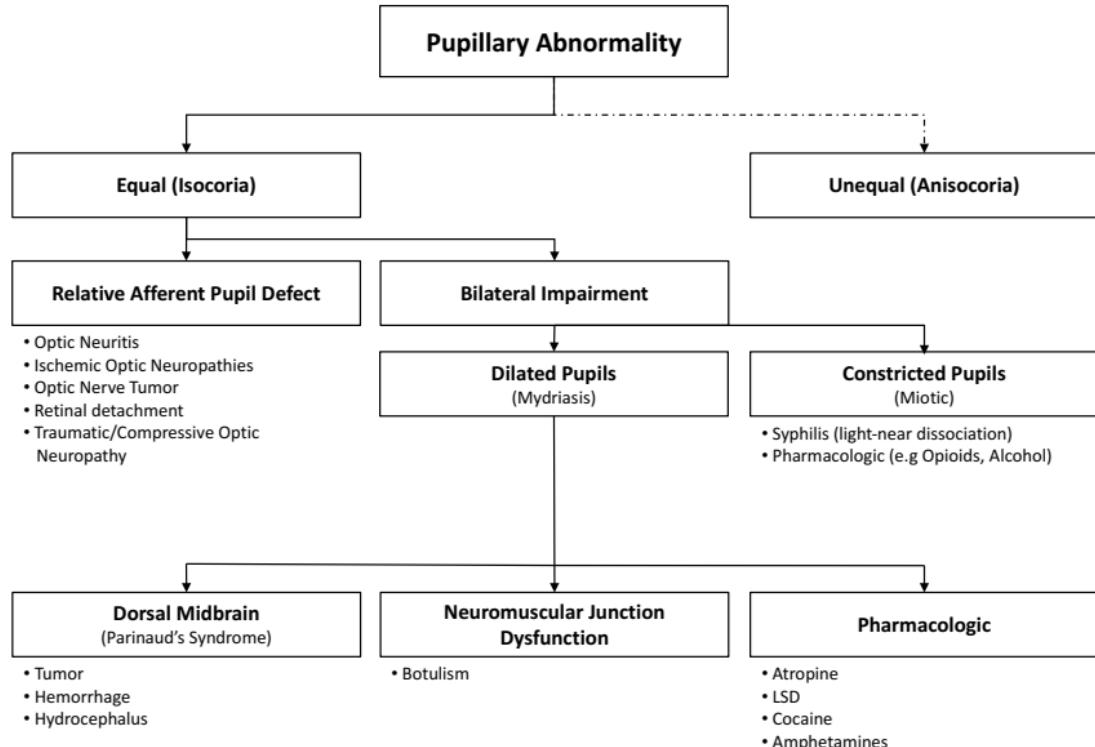
# Neuro-Ophthalmology

## Visual Field Defects



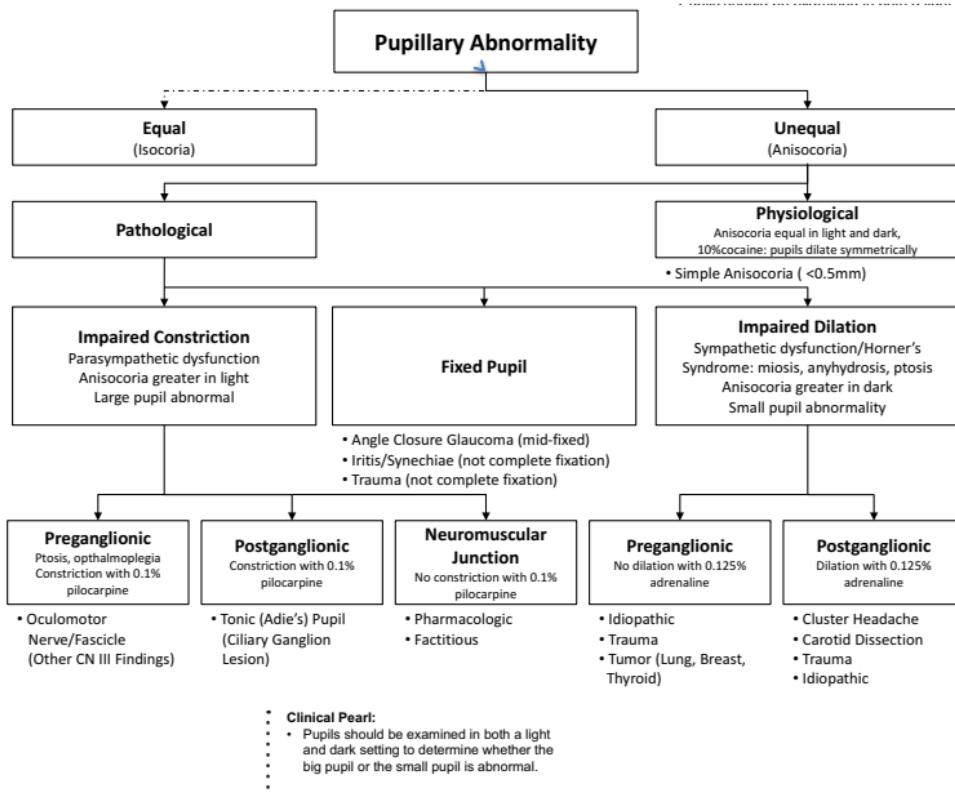
# Pupillary Abnormalities

## Isocoria



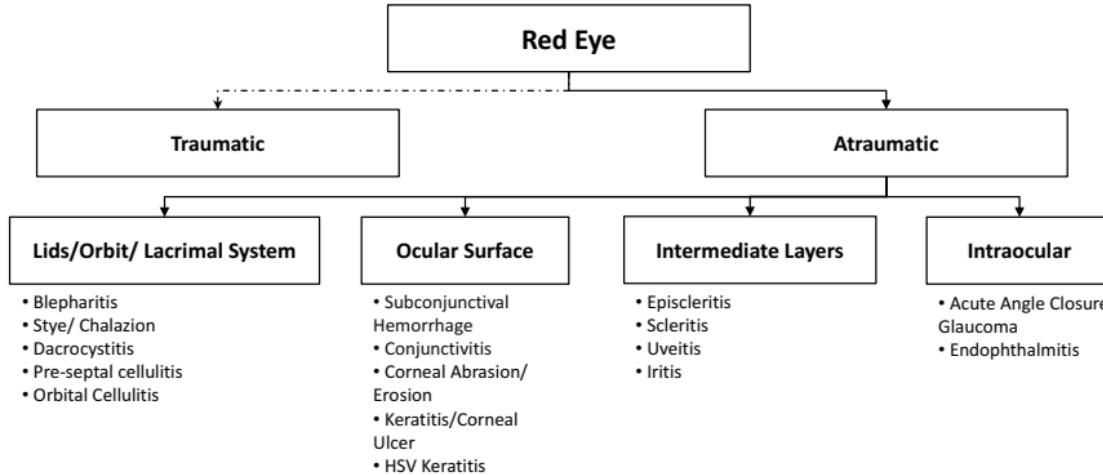
# Pupillary Abnormalities

Anisocoria



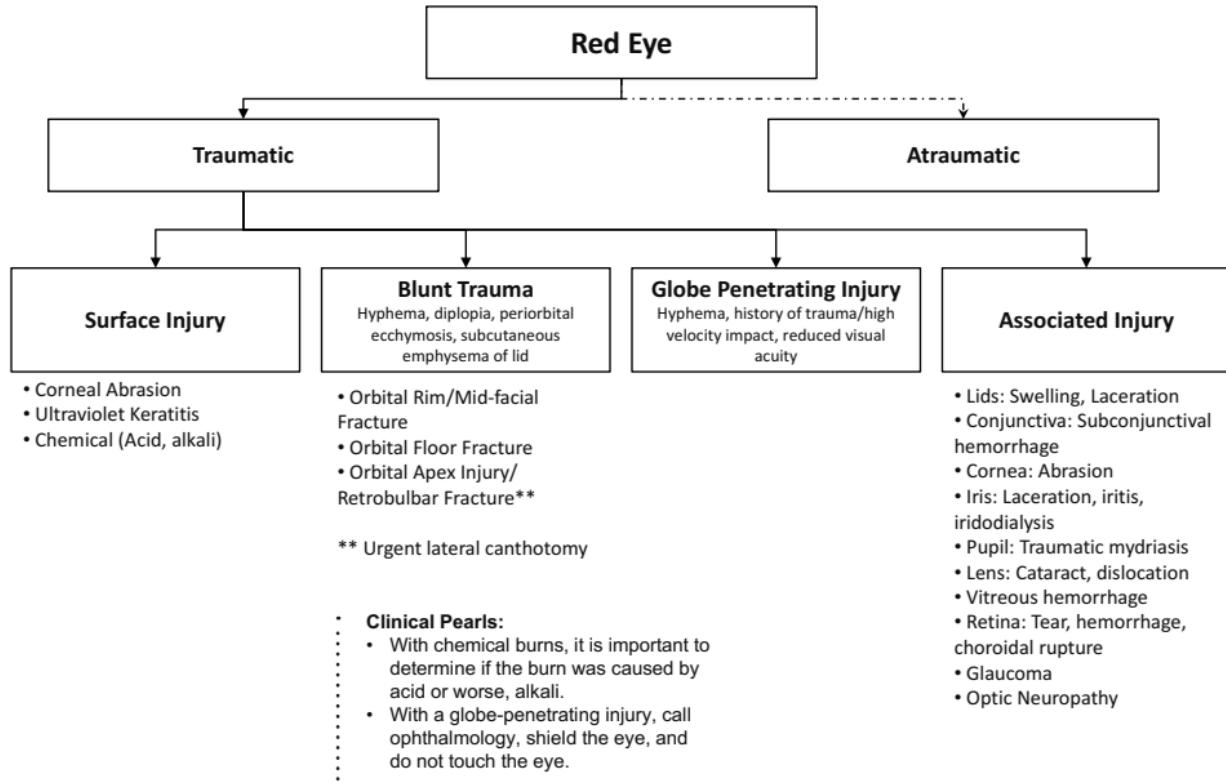
# Red Eye

Atraumatic



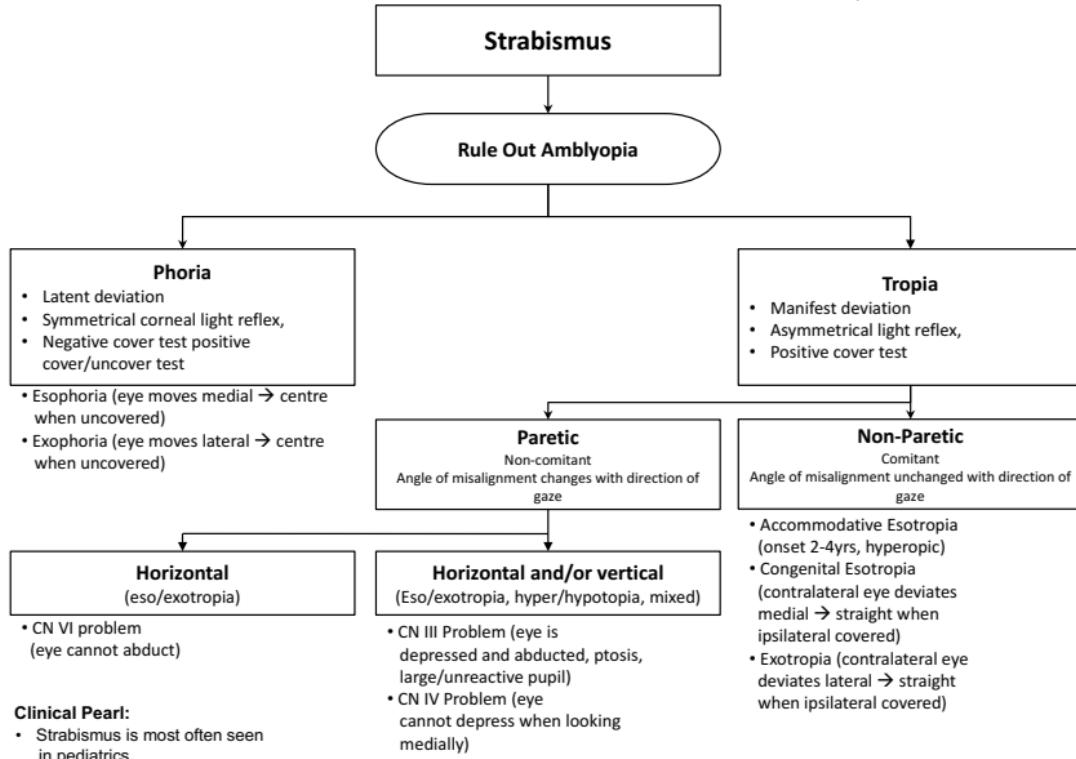
**Clinical Pearl:**

- Orbital cellulitis can present with pain on EOM and orbital signs of involvement



# Strabismus

## Ocular Misalignment





# Pediatric

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# Pediatric

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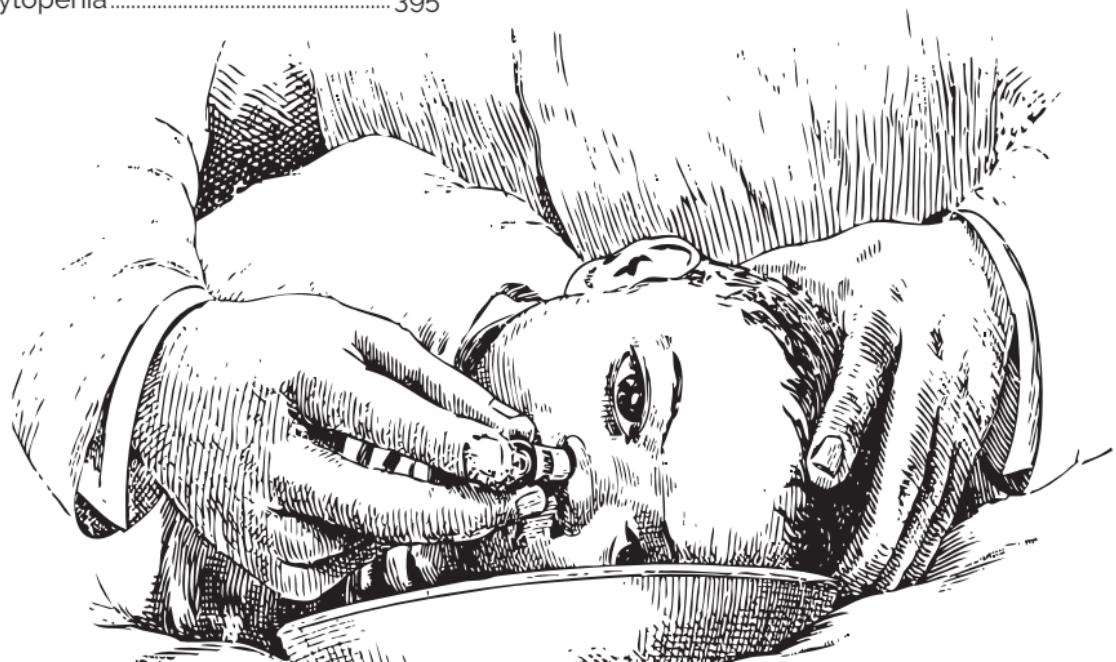
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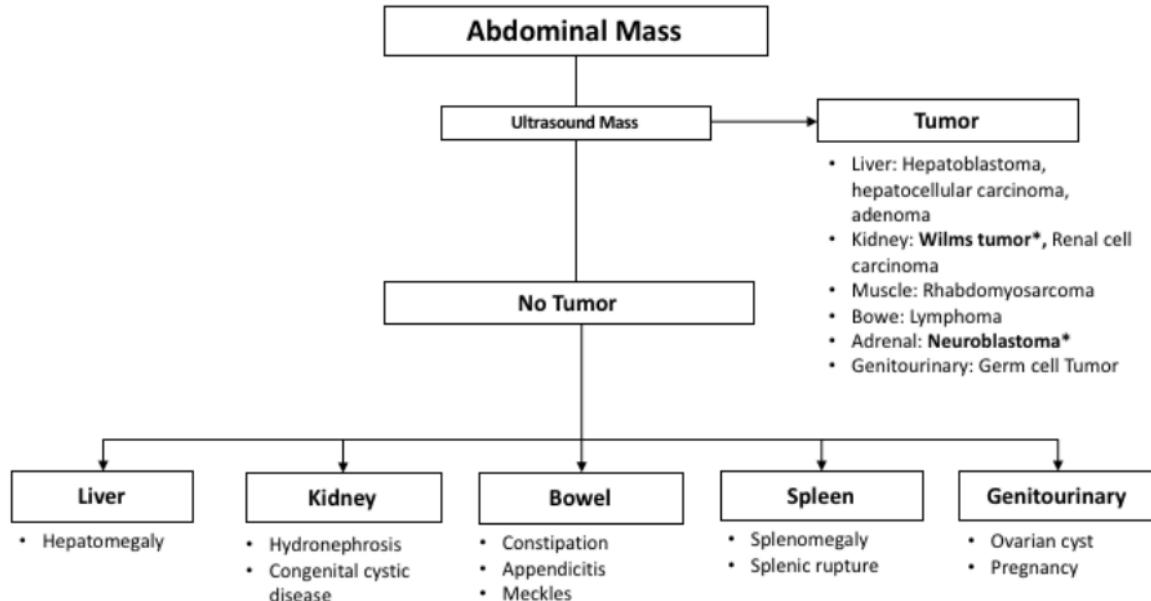
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# Abdominal Mass



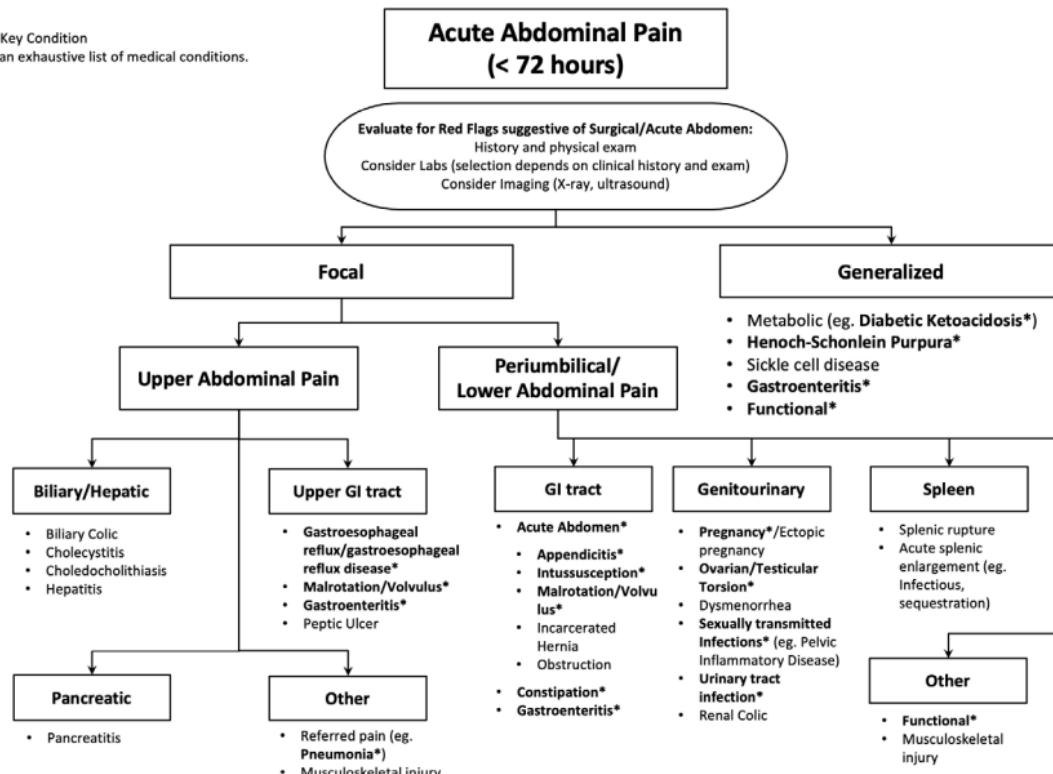
\*Indicates Key Condition

This is not an exhaustive list of medical conditions.

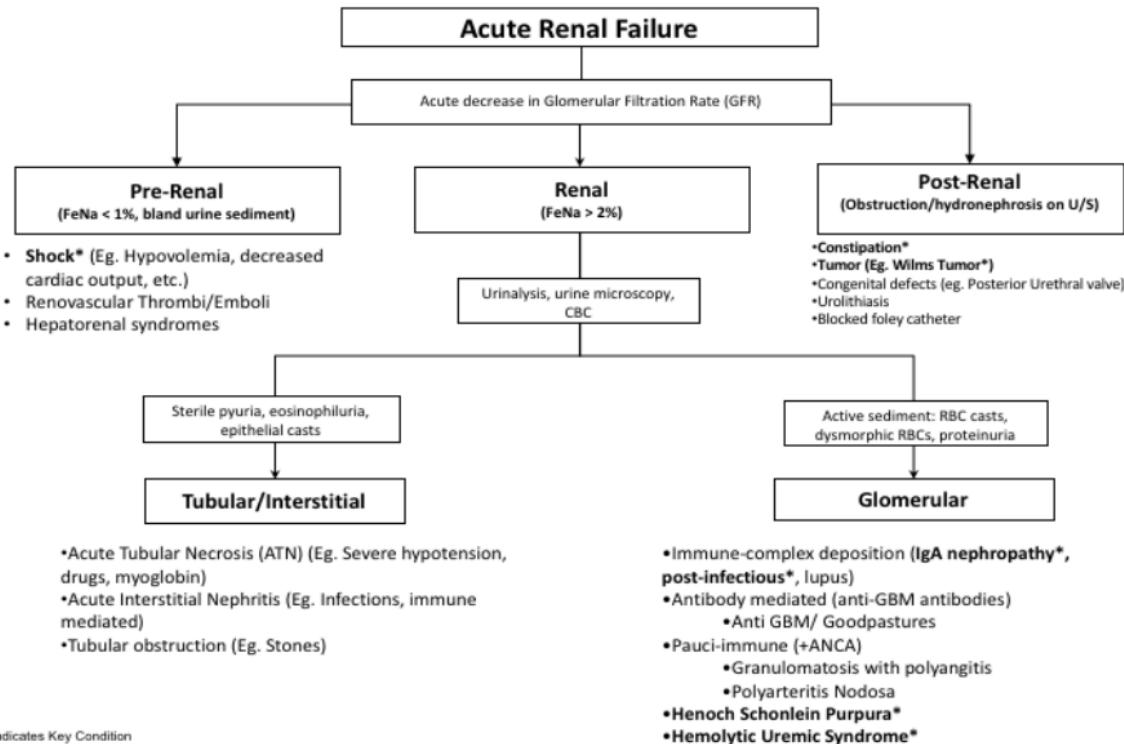
# Acute Abdominal Pain

\*Indicates Key Condition

This is not an exhaustive list of medical conditions.



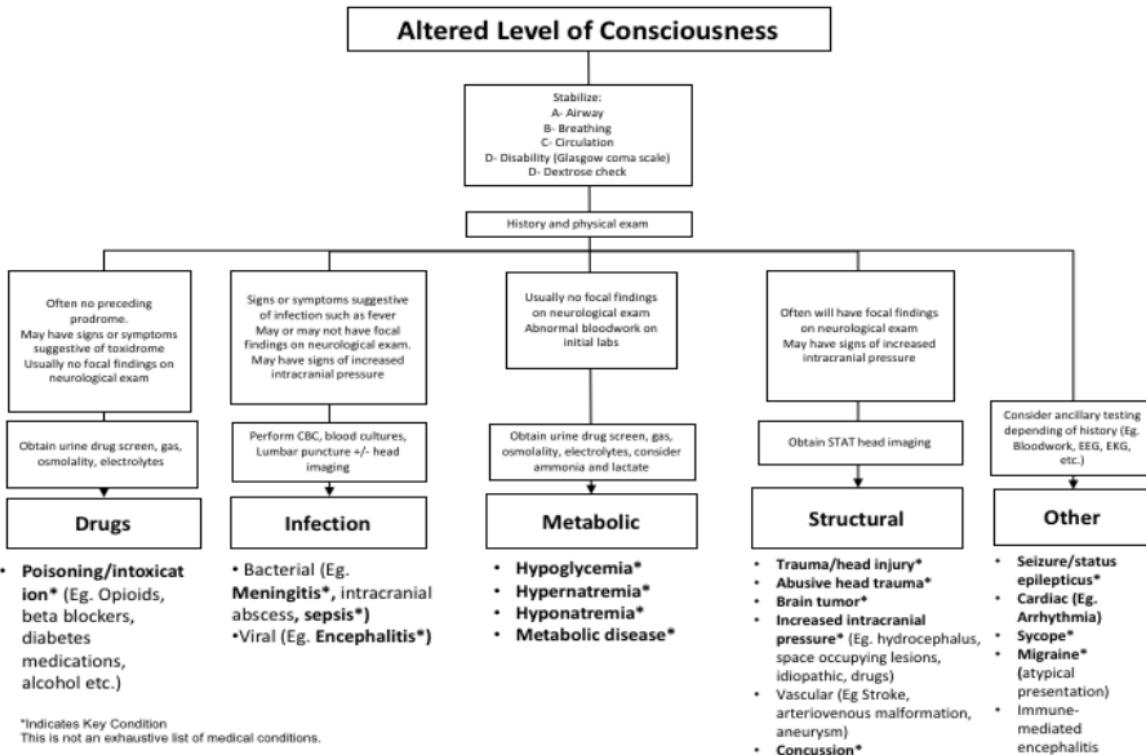
# Acute Renal Failure



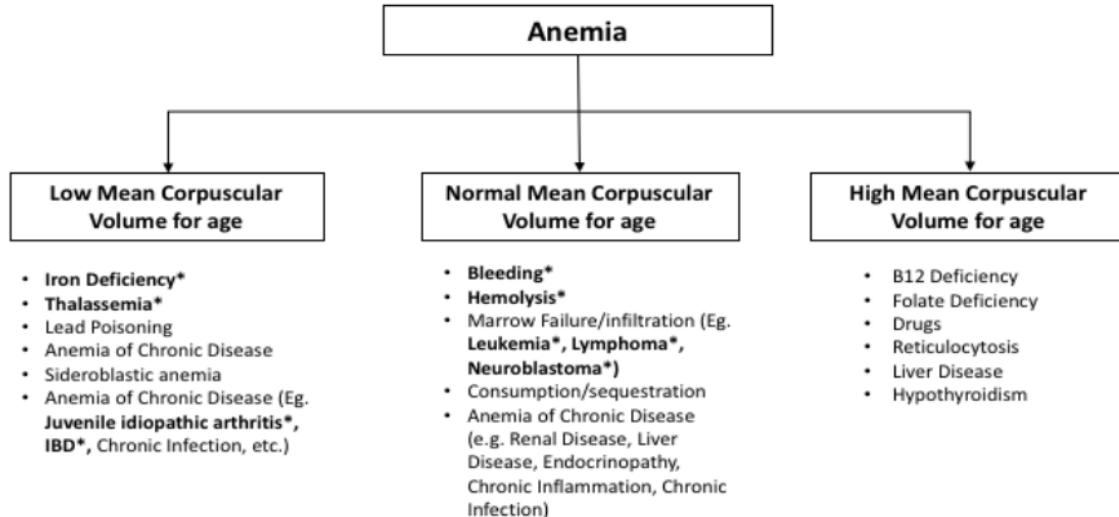
\*Indicates Key Condition

This is not an exhaustive list of medical conditions.

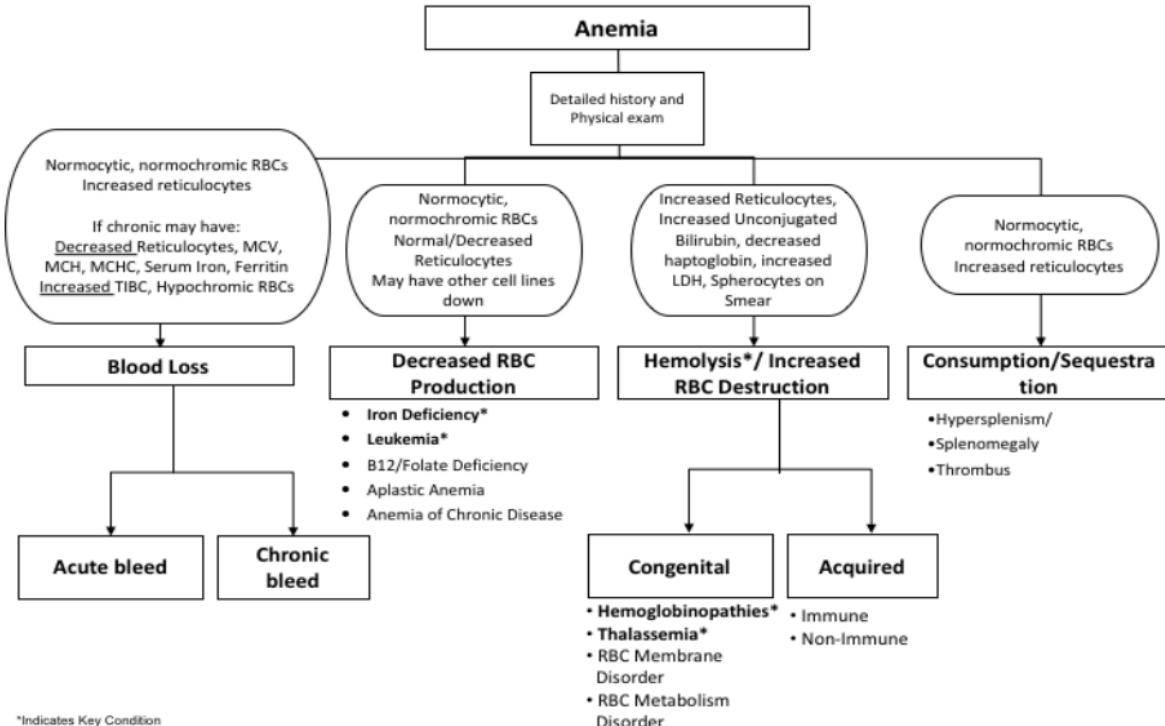
# Altered Level Of Consciousness



# Anemia By MCV



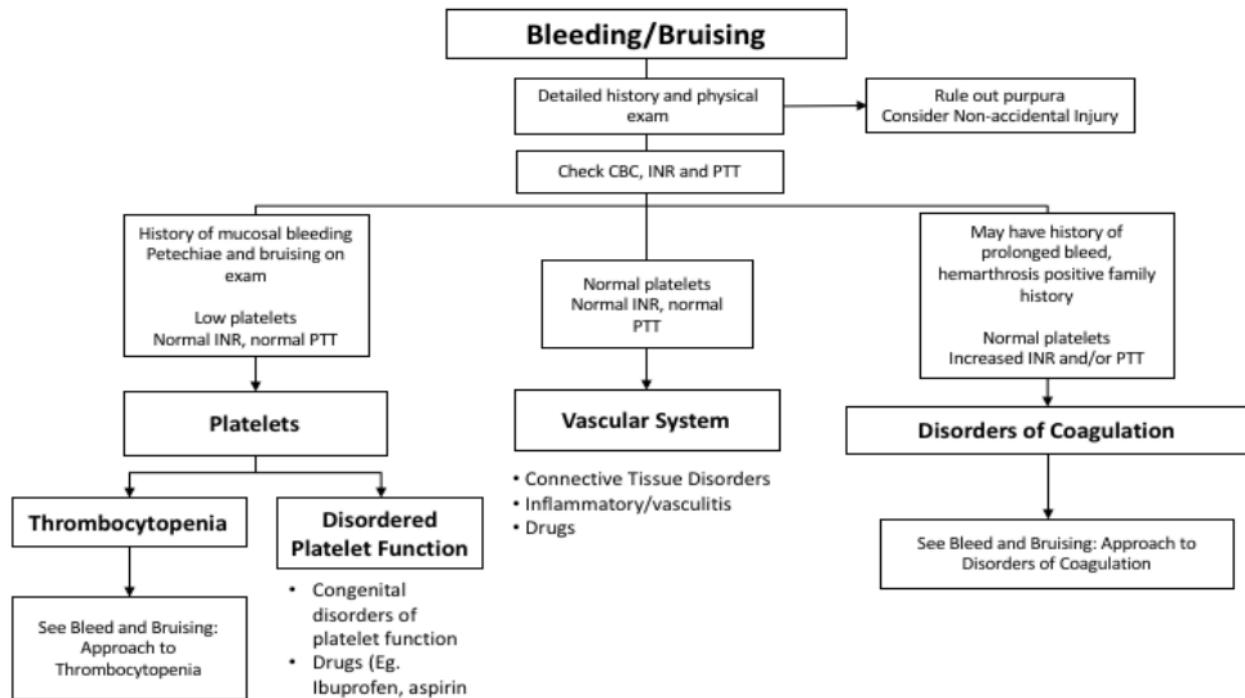
# Anemia By Mechanism



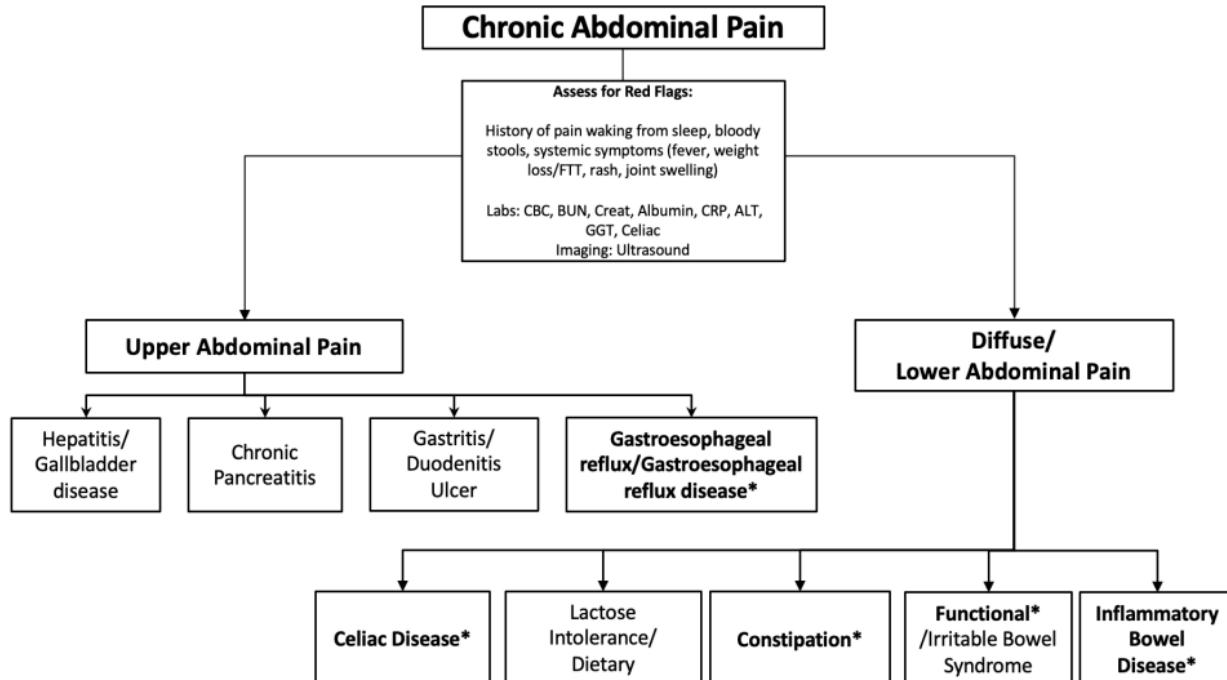
\*Indicates Key Condition

This is not an exhaustive list of medical conditions.

# Bleeding / Bruising



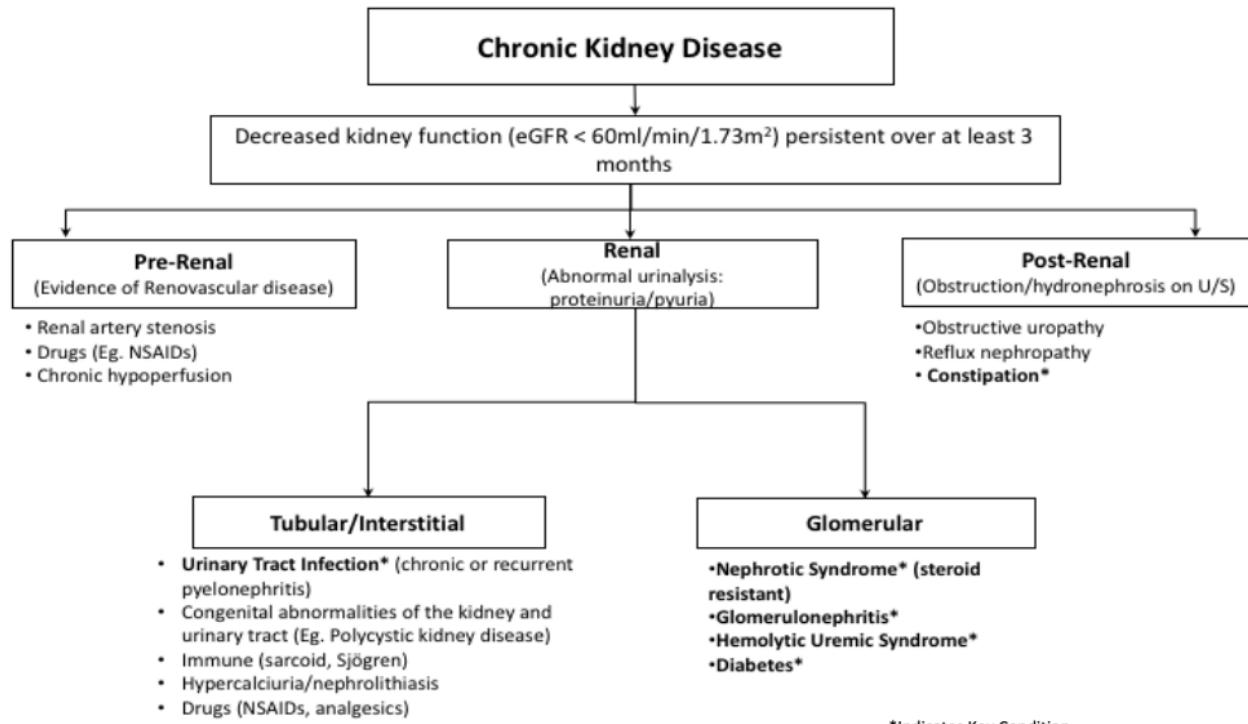
# Chronic Abdominal Pain



\*Indicates Key Condition

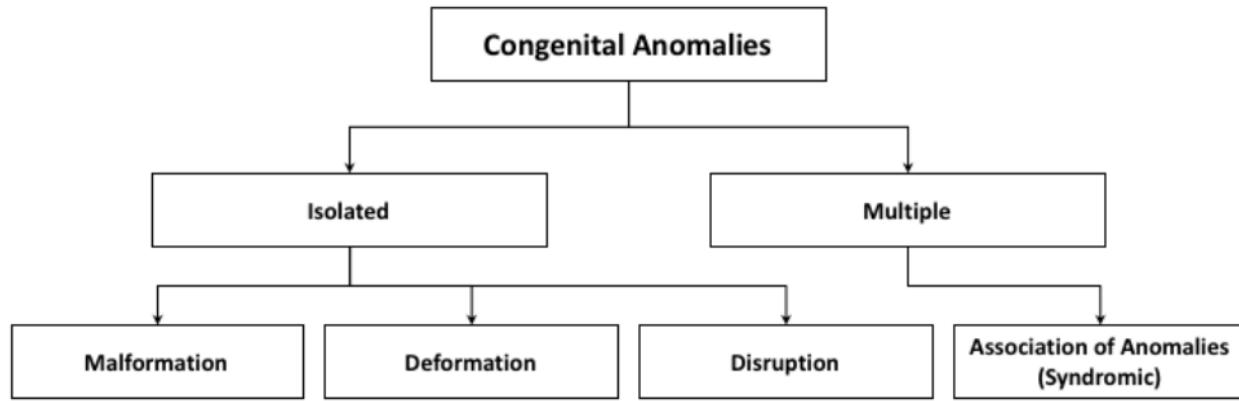
This is not an exhaustive list of medical conditions.

# Chronic Kidney Disease



\*Indicates Key Condition  
This is not an exhaustive list of medical conditions.

# Congenital Anomalies



- Embryonic development failure or inadequacy (often multifactorial)

- Abnormal mechanical forces distorting otherwise normal structures  
(e.g. exoligocephaly)

- Destruction/ Breakdown of previously normal tissue (e.g. ischemia)

- Chromosomal
- Single Gene
- Teratogenic
- Association (e.g. VACTERL)

**Things to Consider:**

**History** – Prenatal: maternal health, exposures, screening, ultrasounds; delivery; neonatal

**Family History** – Three Generations: prior malformations, stillbirths, recurrent miscarriages, consanguinity

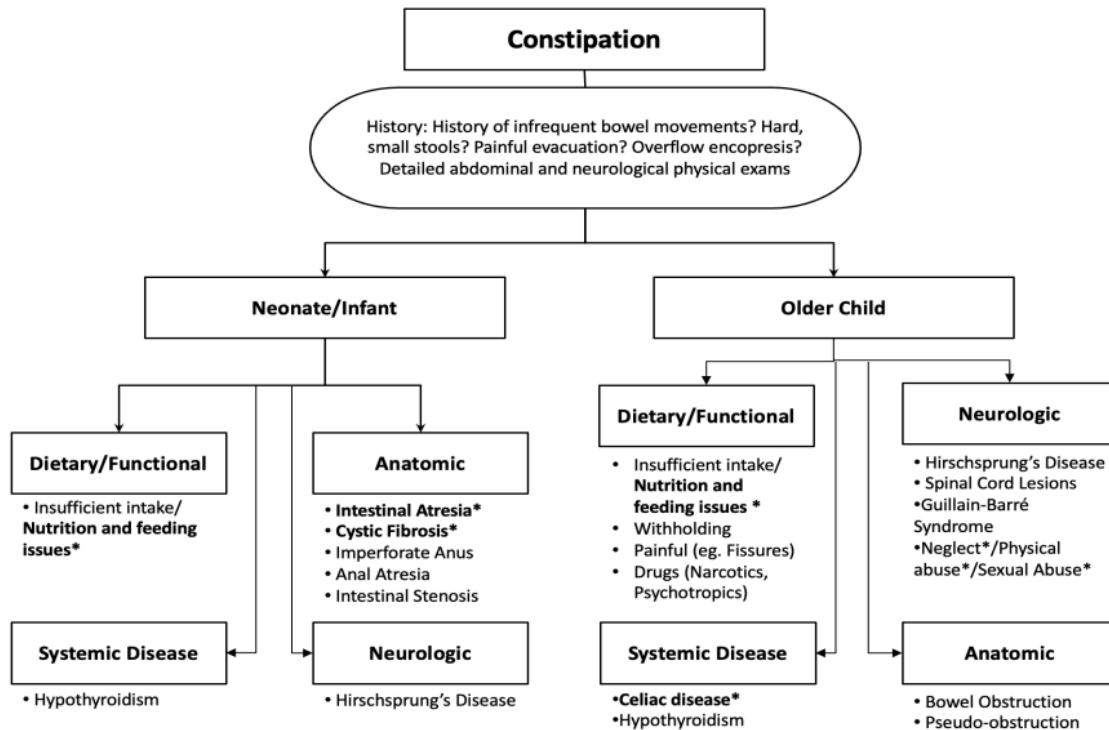
**Physical Exam** – Variants, minor anomalies, major malformation

**Diagnostic Procedures** – Chromosomes, molecular/DNA, radiology, photography, metabolic

**Diagnostic Evaluations** – Prognosis, recurrence, prenatal diagnosis, surveillance, treatment

# Constipation

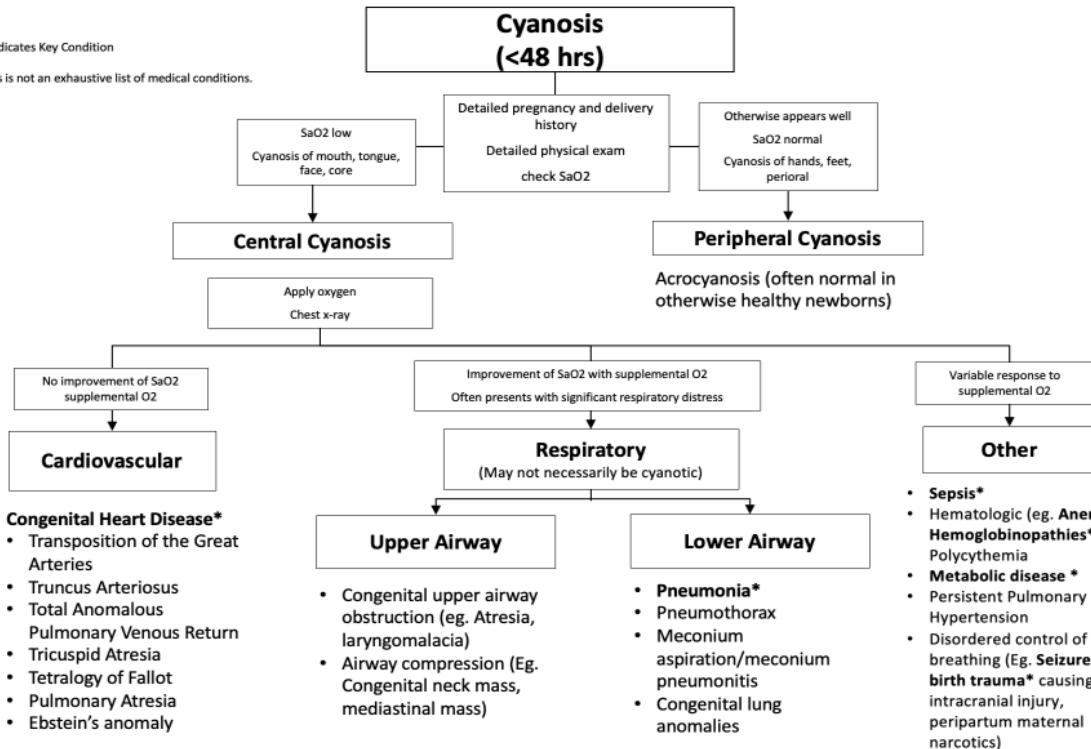
(Pediatric)



# Cyanosis in the Newborn

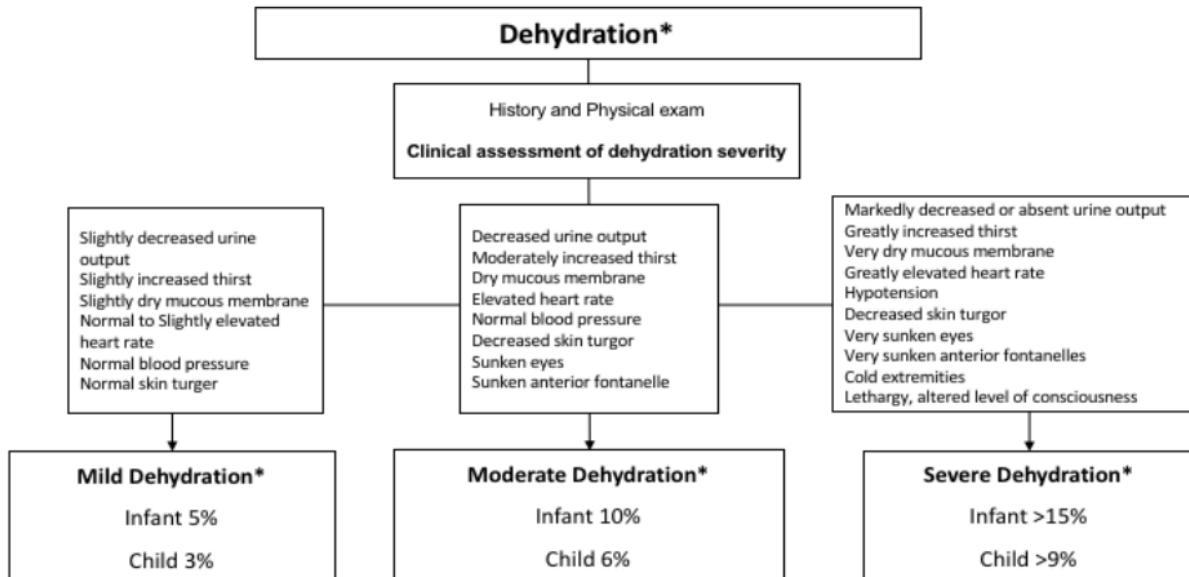
\*Indicates Key Condition

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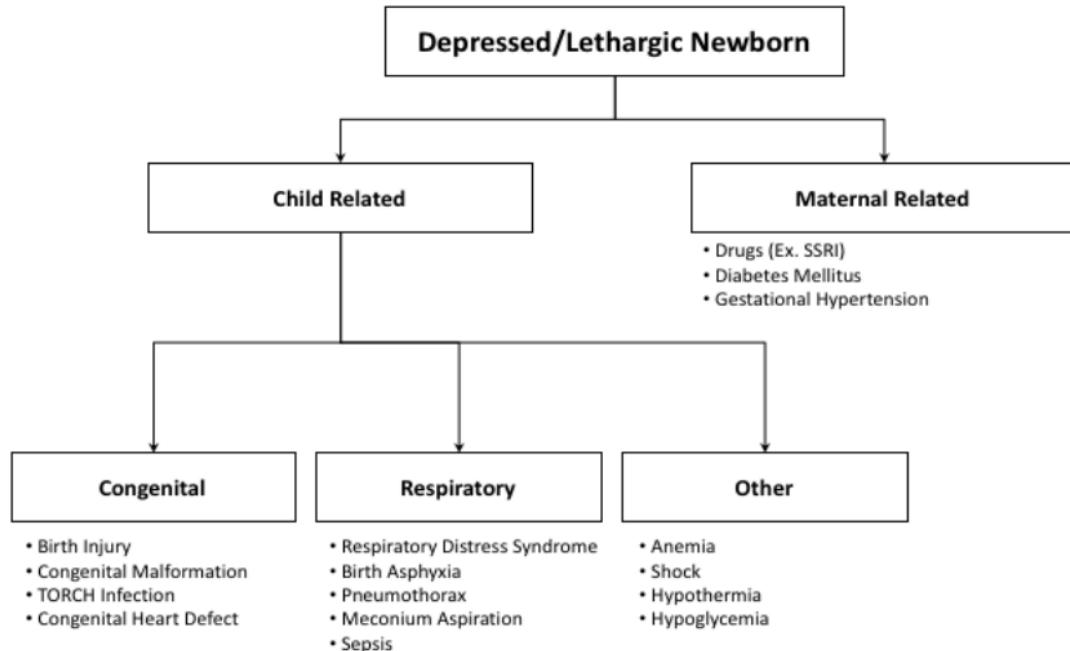


Potentially acutely life-threatening presentation

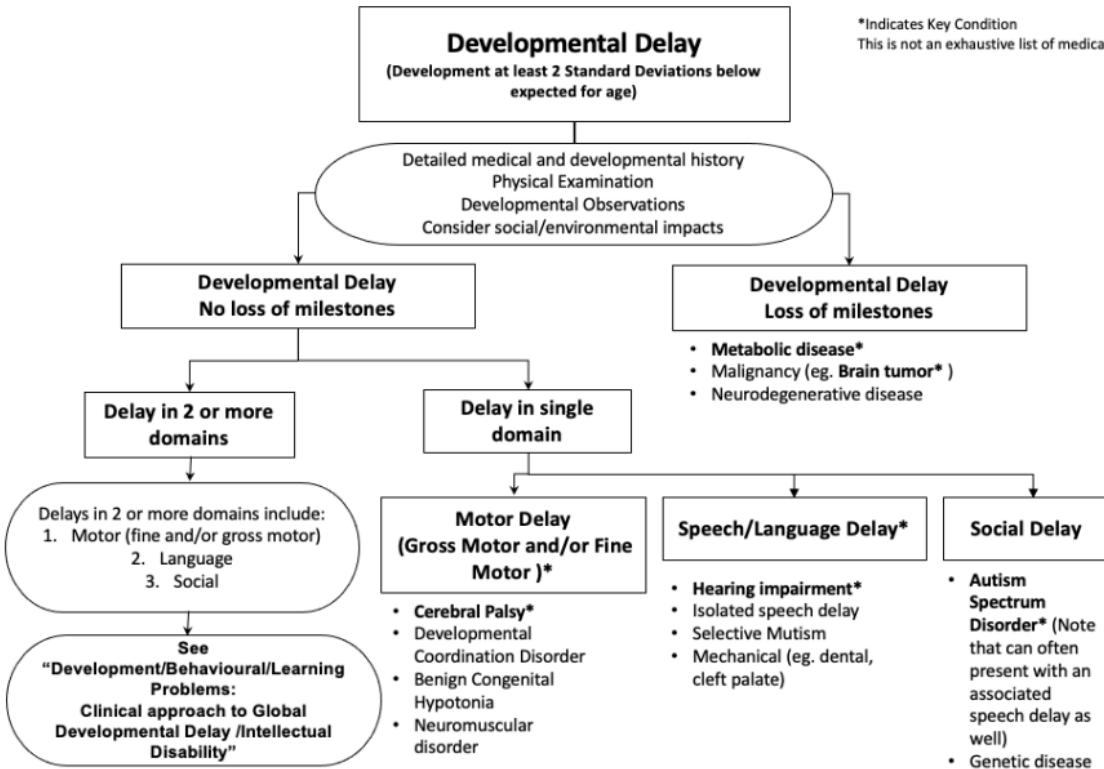
# Dehydration

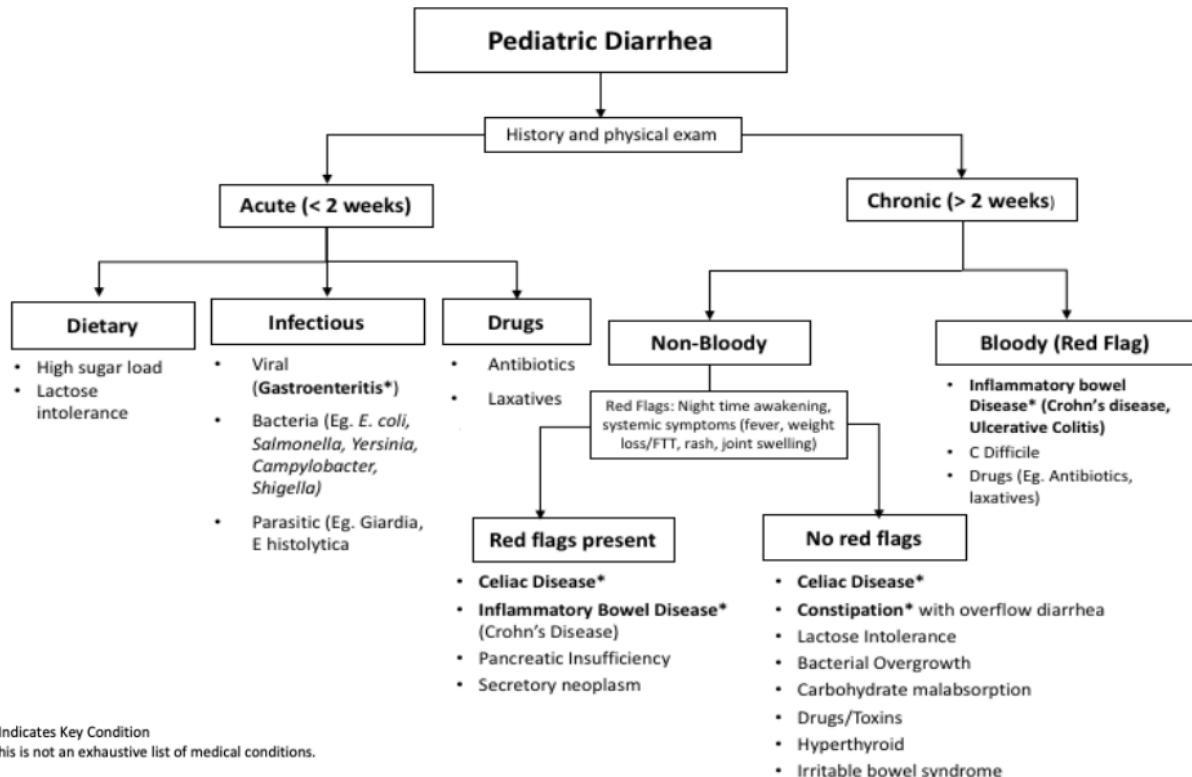


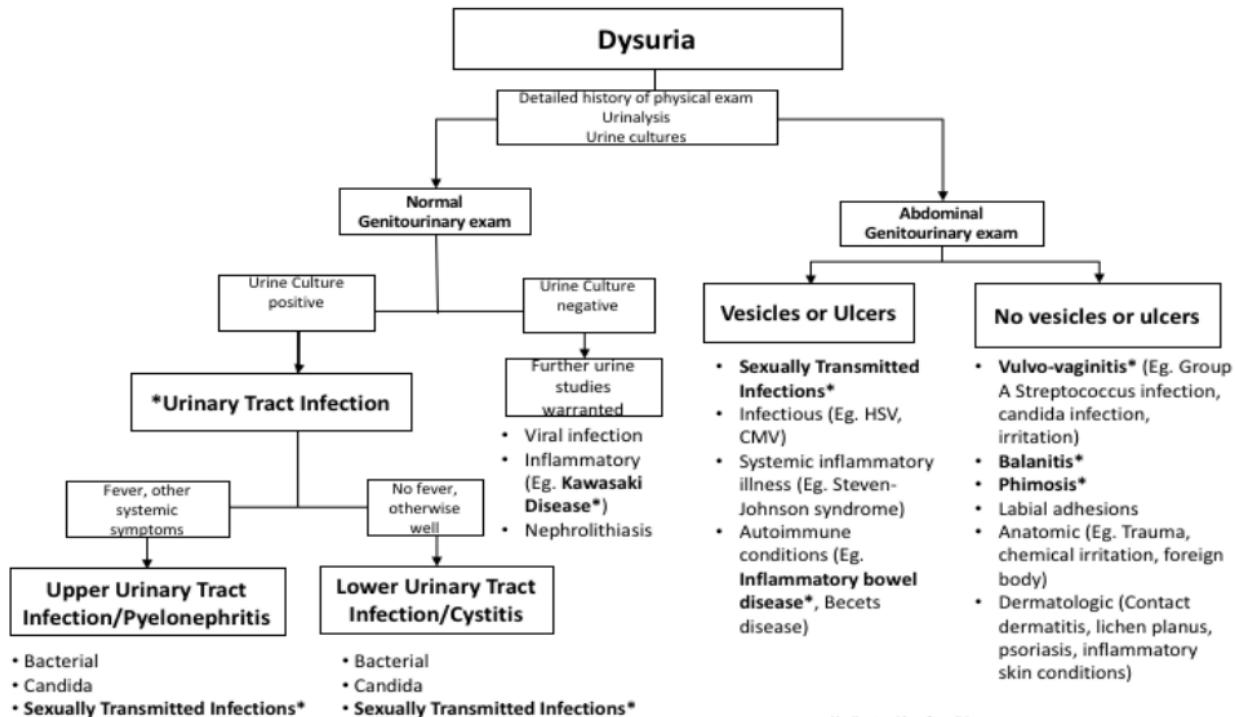
# Depressed / Lethargic Newborn



# Developmental Delay

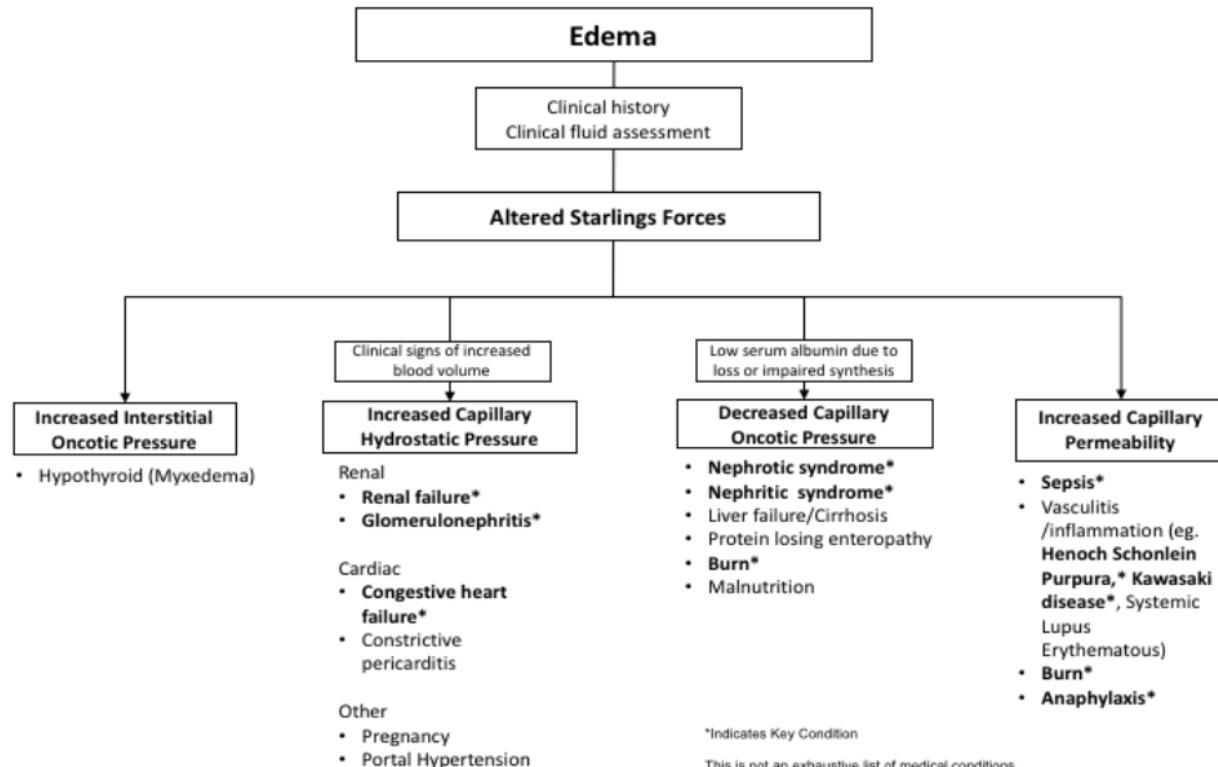




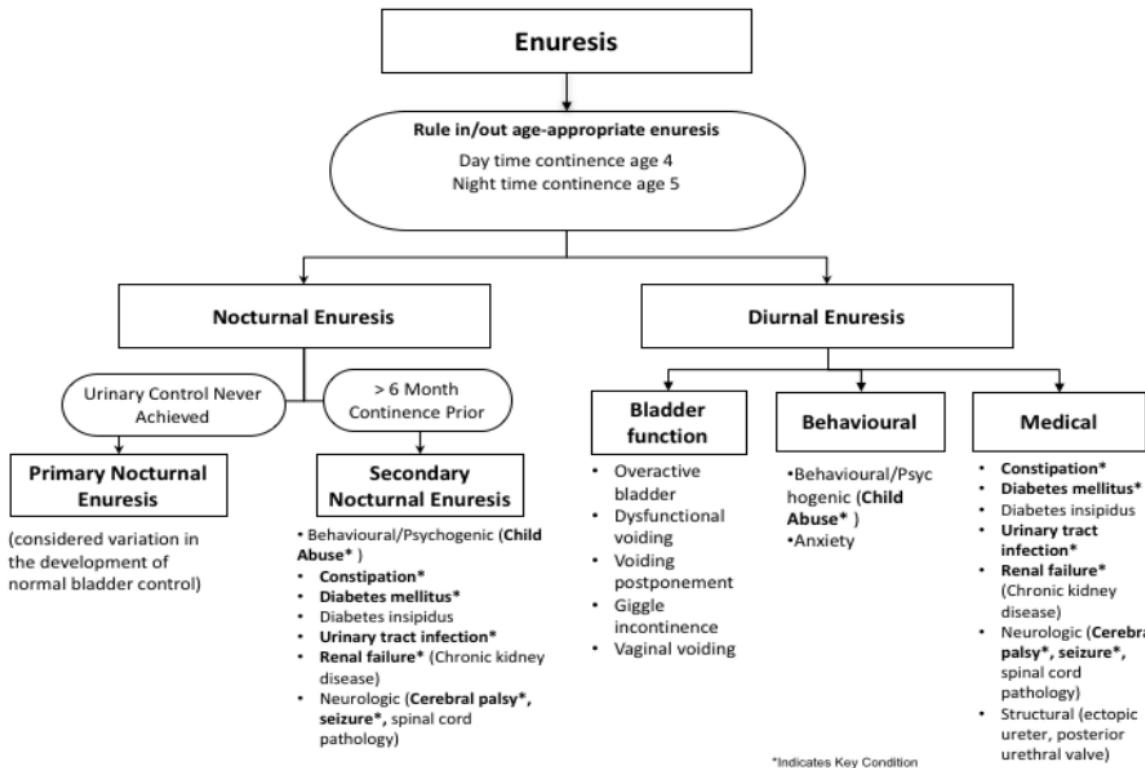


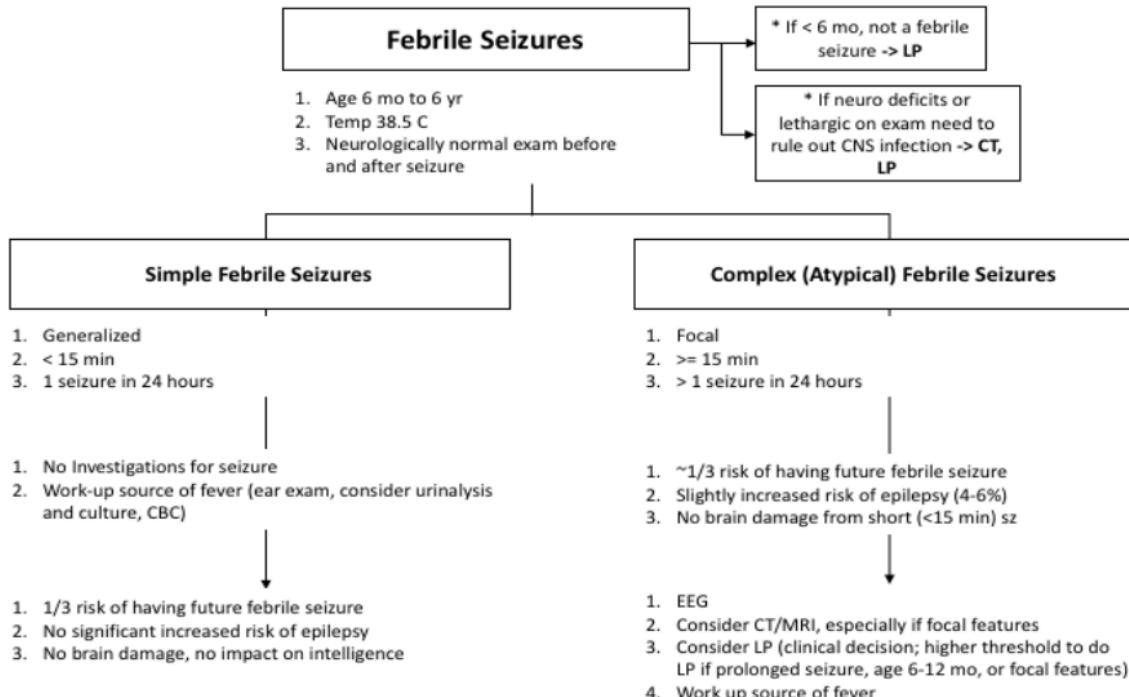
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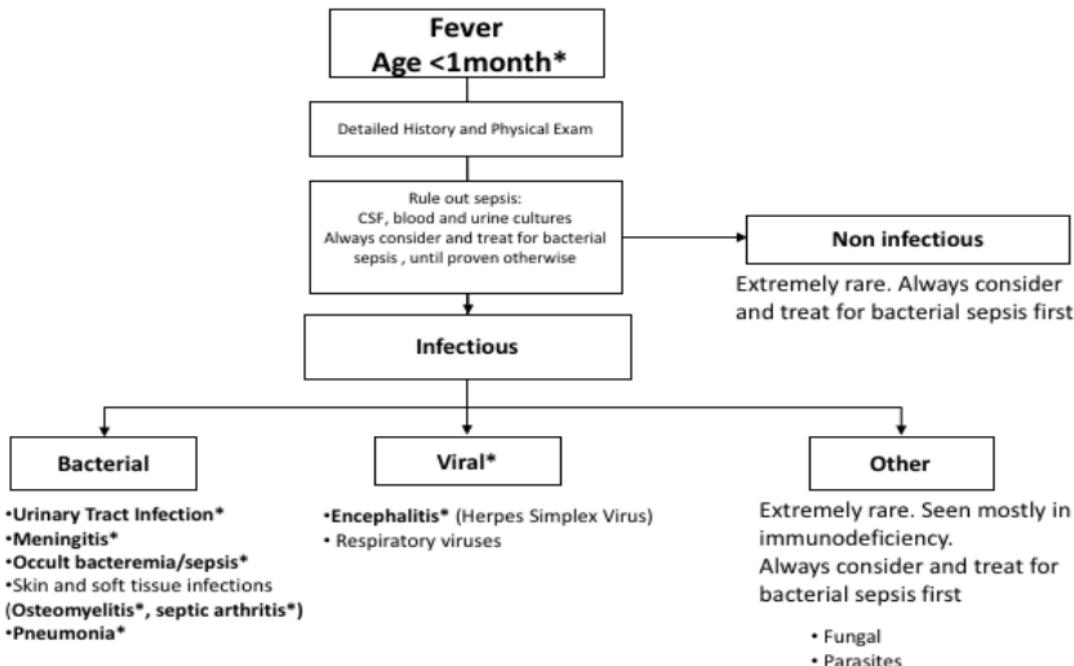
# Enuresis





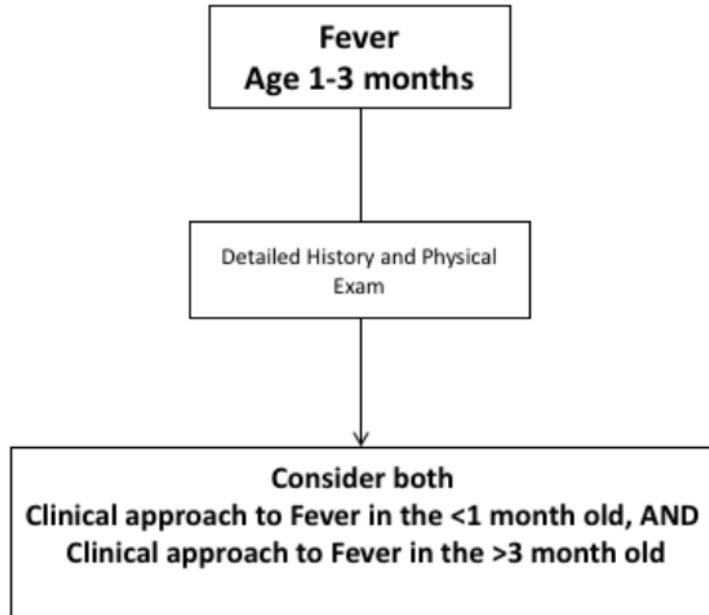
\*Indicates Key Condition  
This is not an exhaustive list of medical conditions.

# Fever (Age <1 Month)

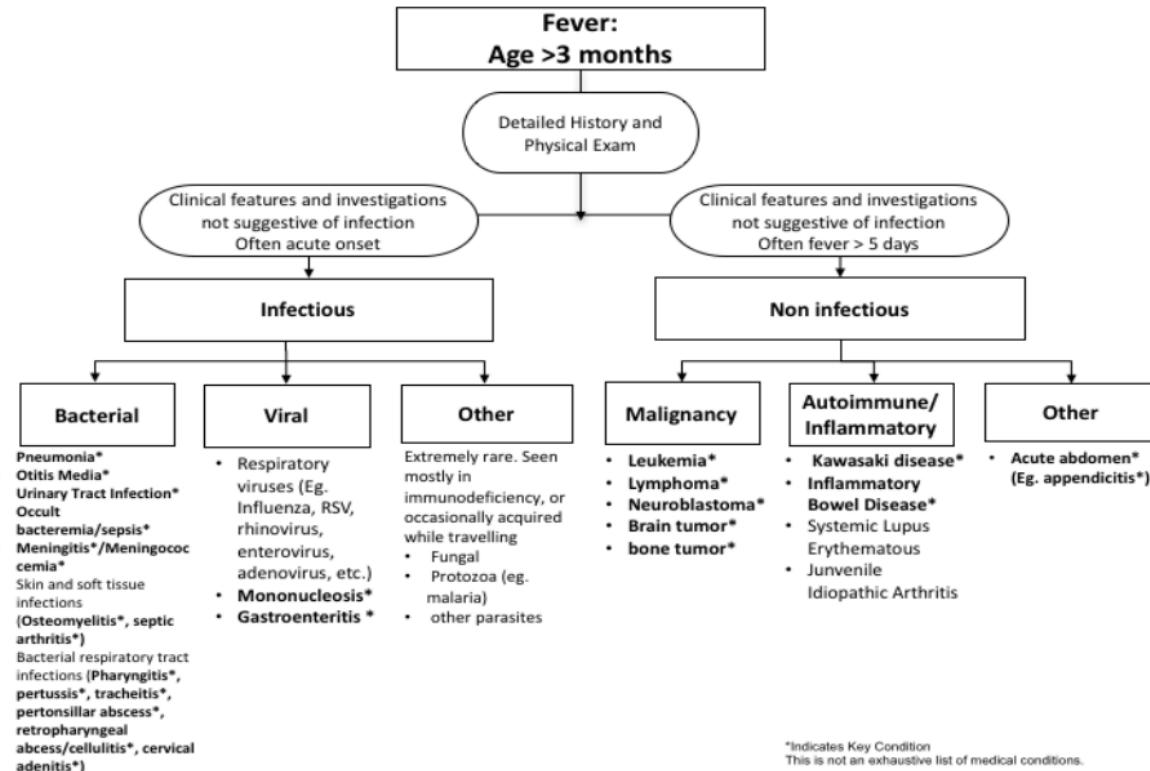


\*Indicates Key Condition  
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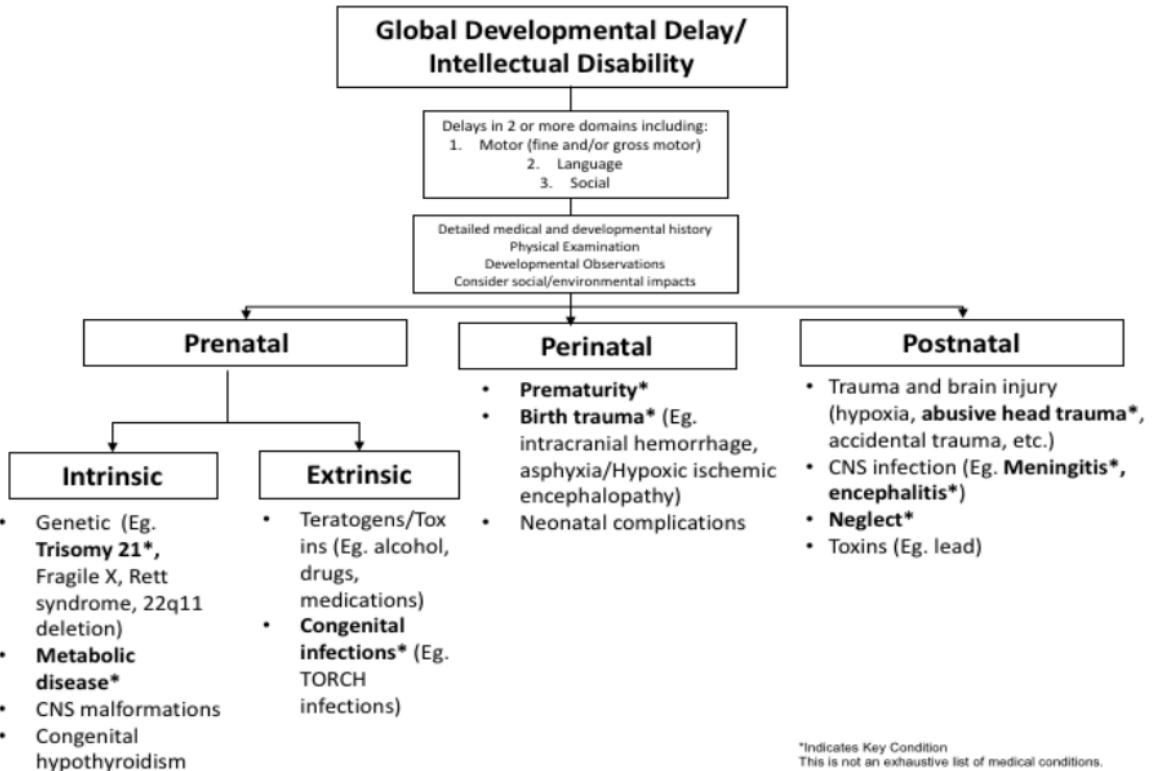
# Fever (Age 1-3 Months)



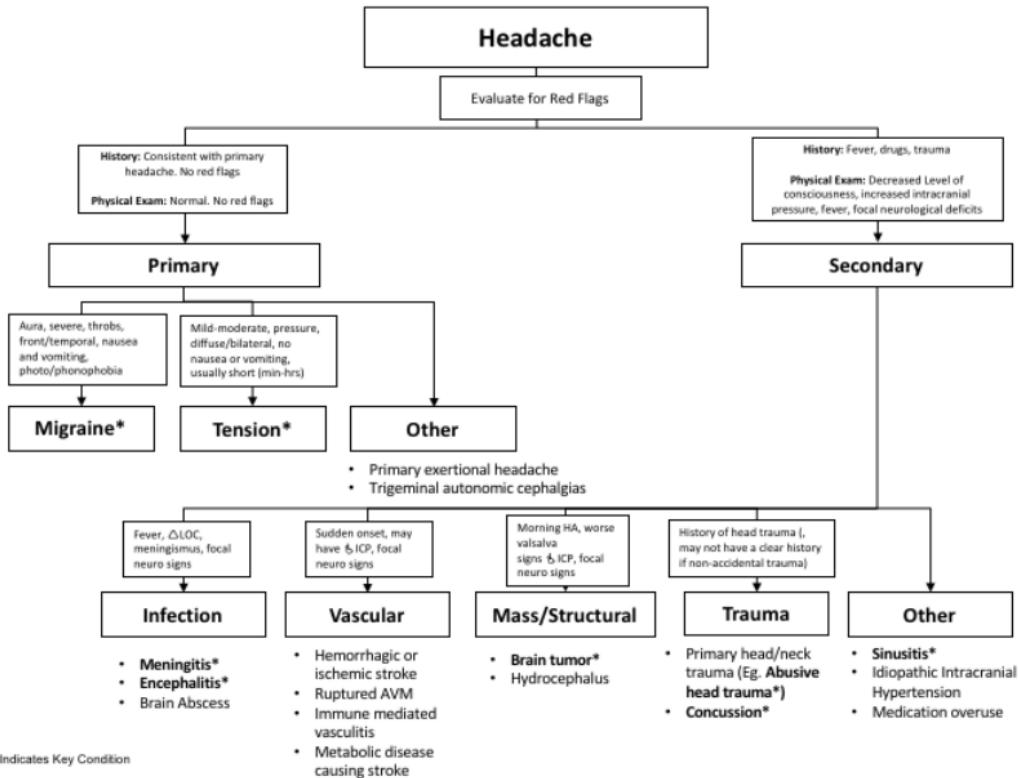
# Fever (Age >3 Months)

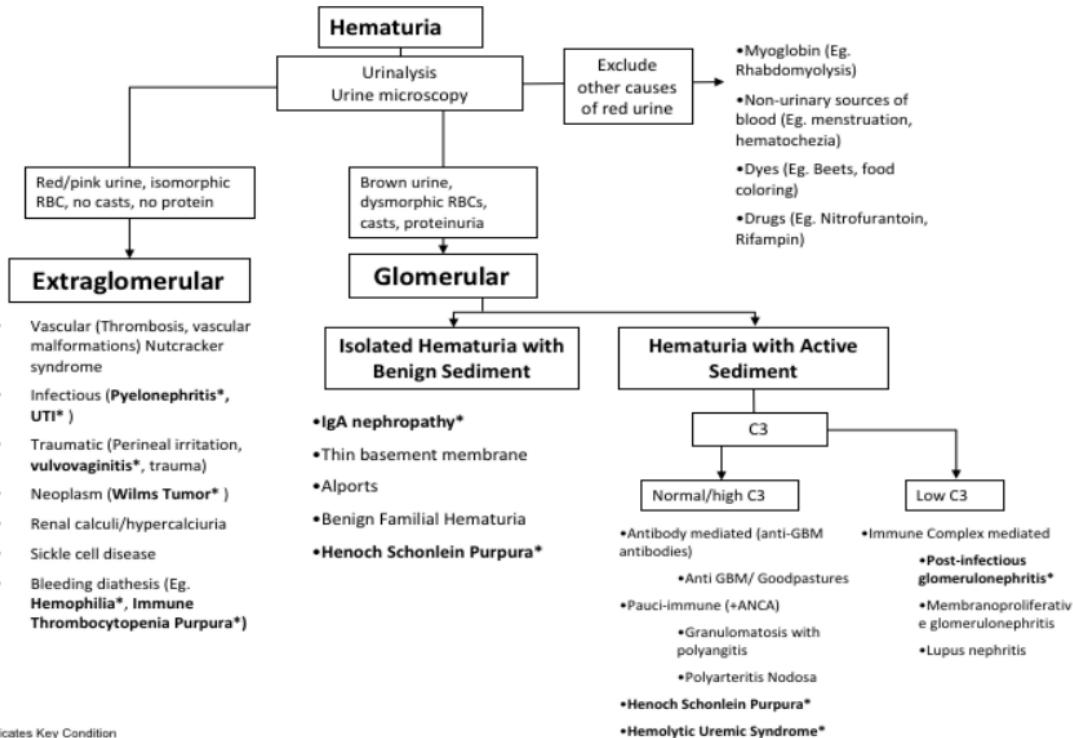


# Global Developmental Delay / Intellectual Disability



# Headache

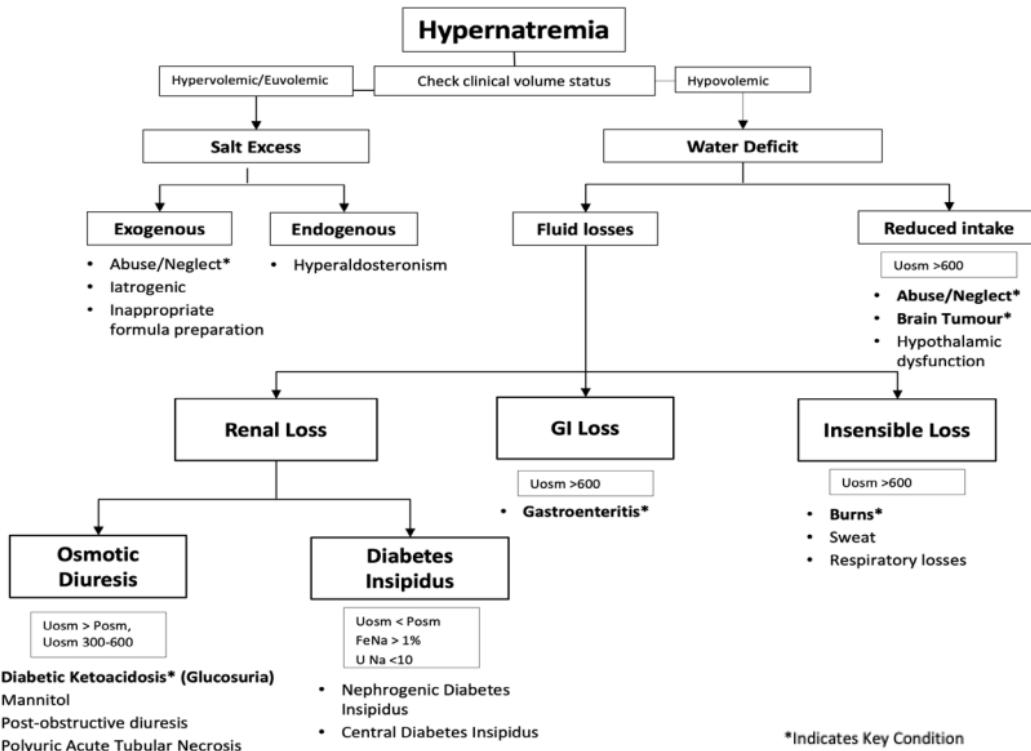


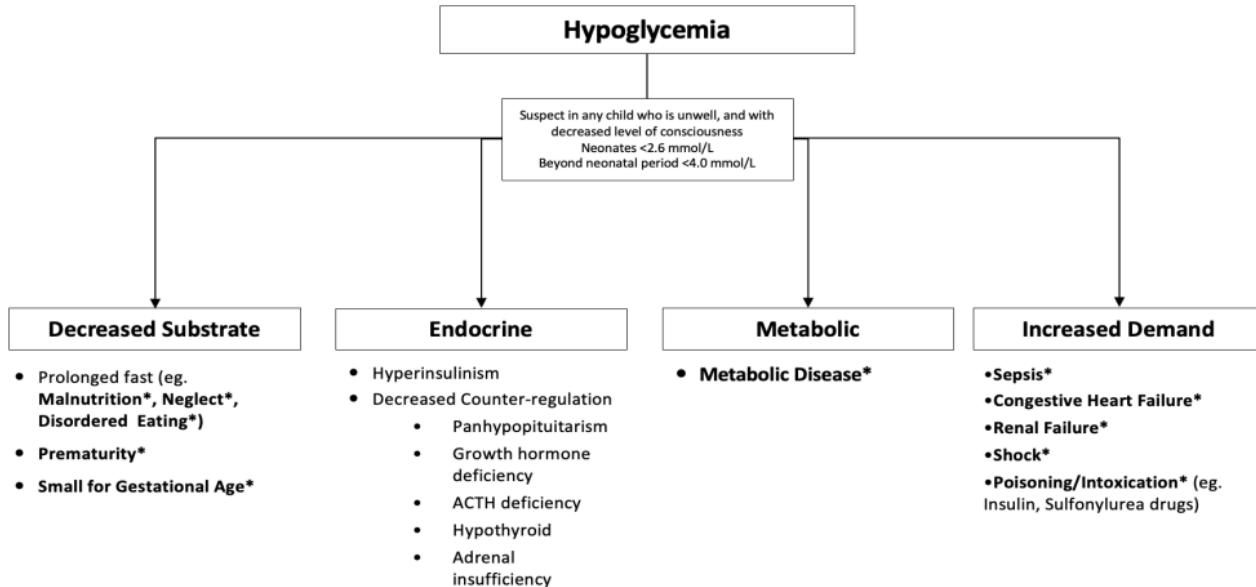


\*Indicates Key Condition

This is not an exhaustive list of medical conditions.

# Hypernatremia

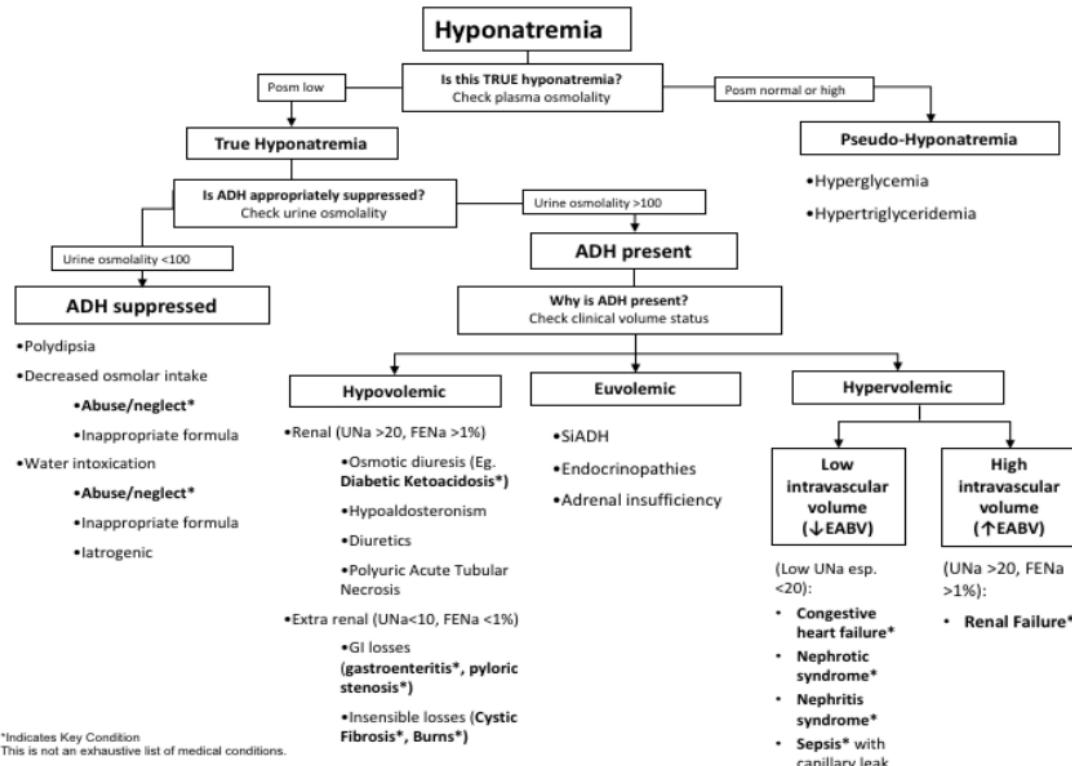




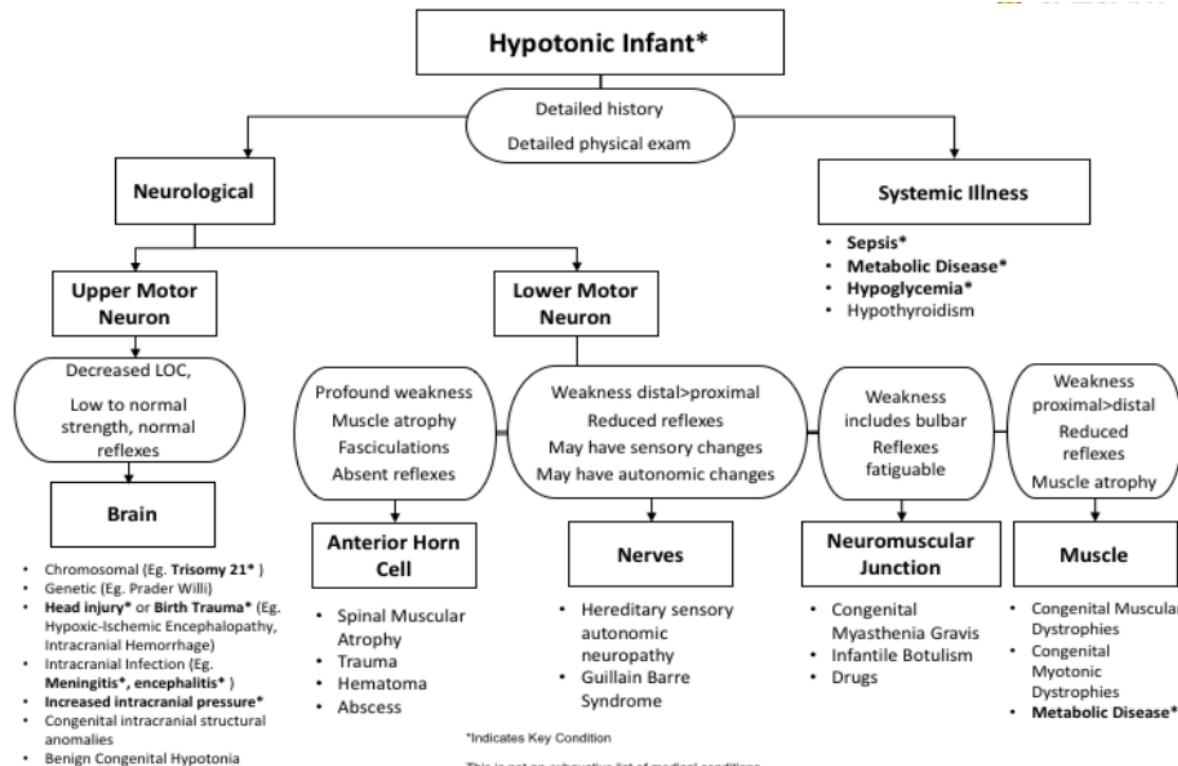
Potentially acutely life-threatening presentation

\*Indicates Key Condition  
This is not an exhaustive list of medical conditions.

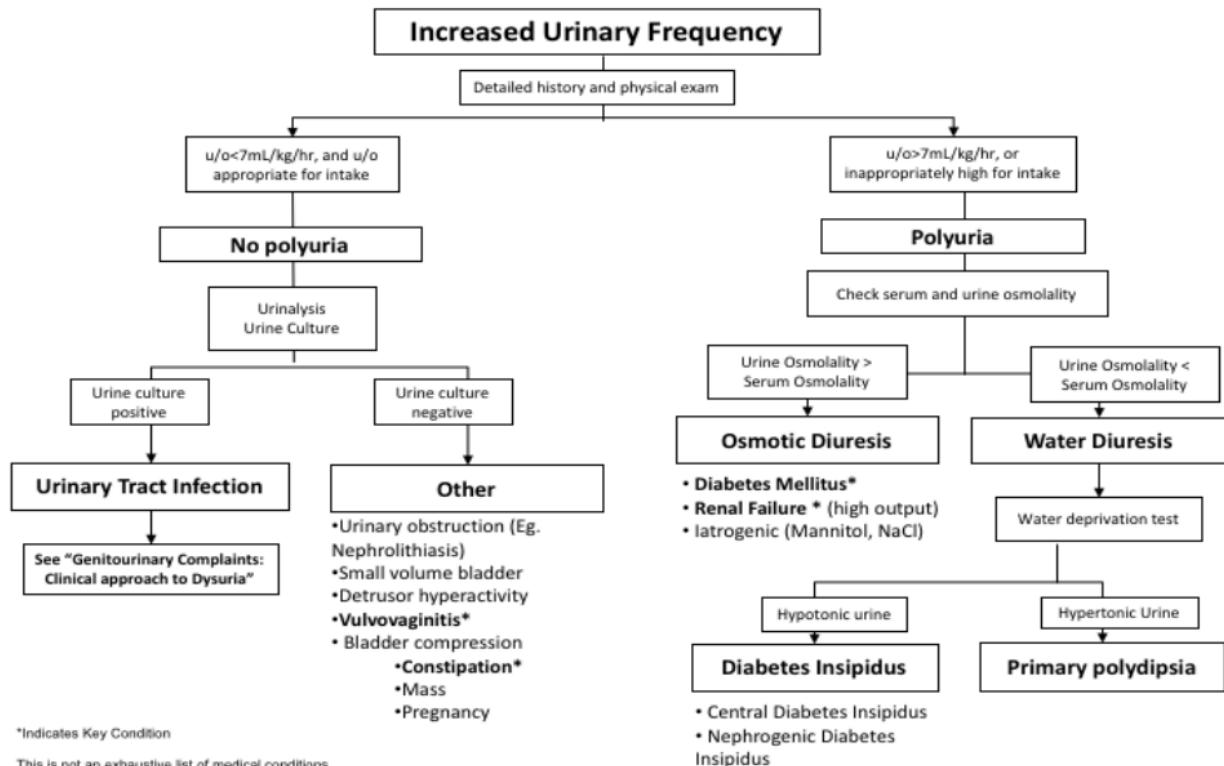
# Hyponatremia



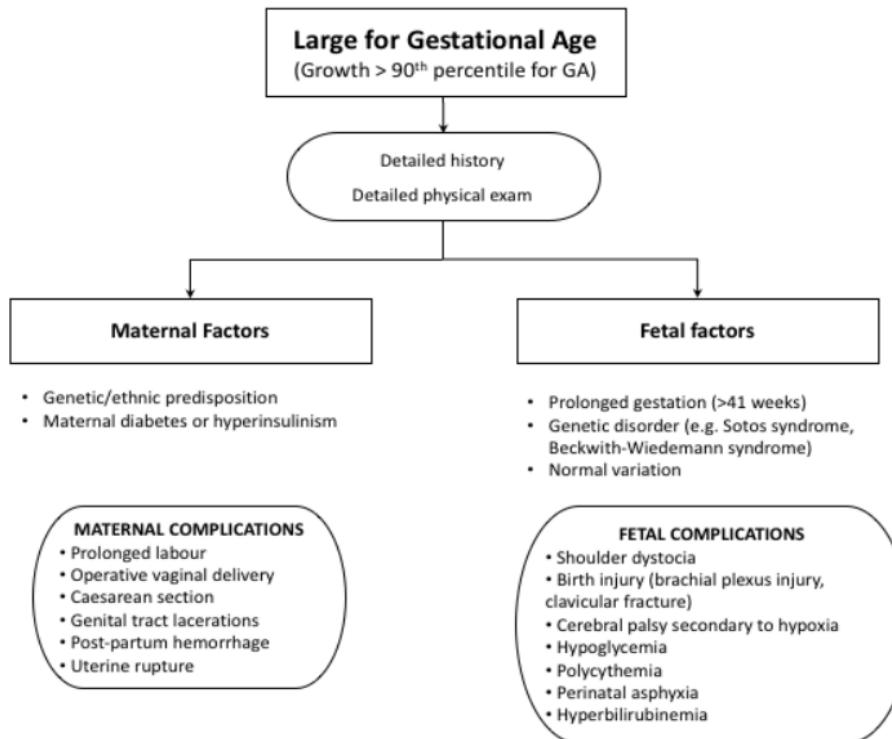
# Hypotonic Infant (Floppy Newborn)

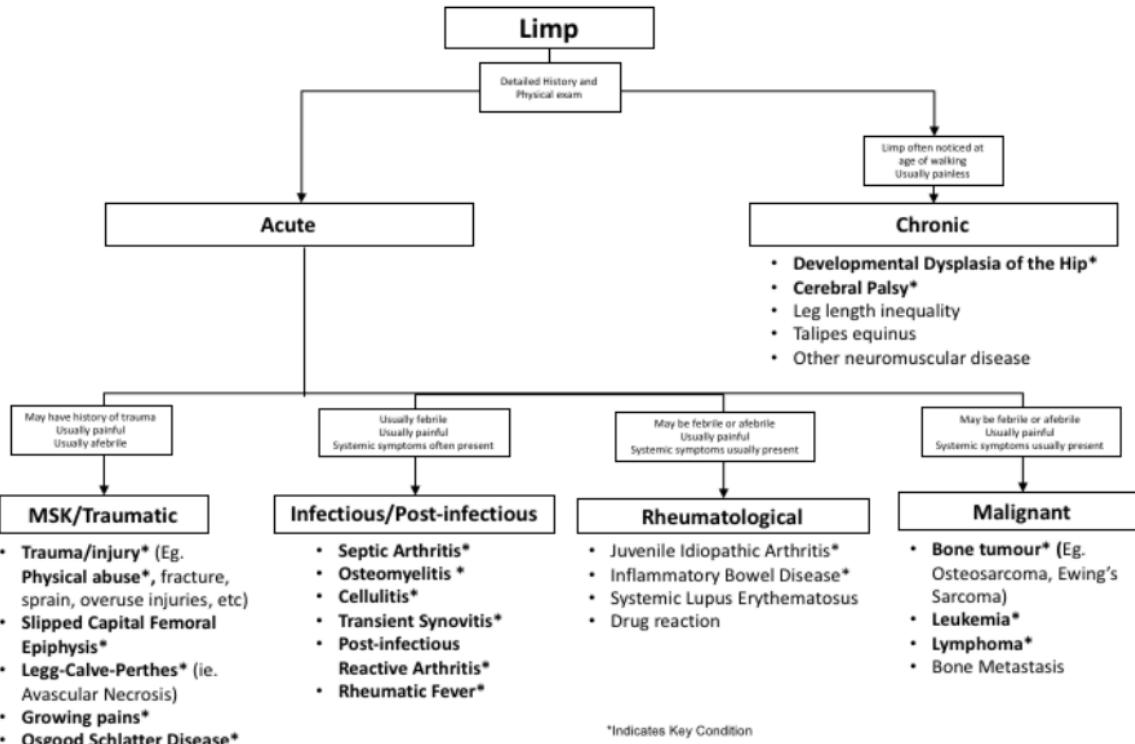


# Increased Urinary Frequency

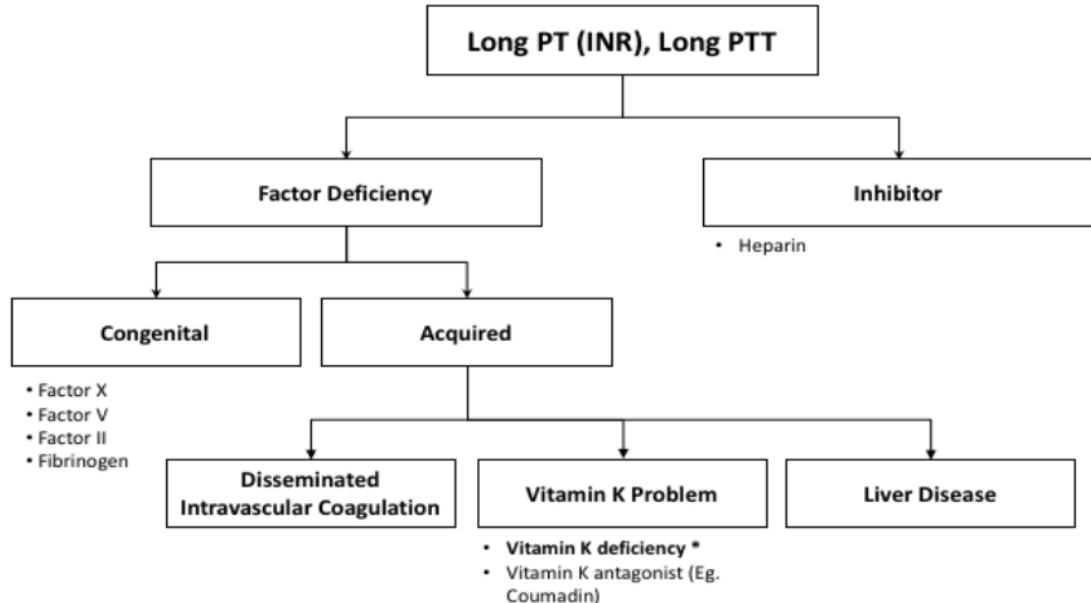


# Large for Gestational Age





# Long PT (INR), Long PTT

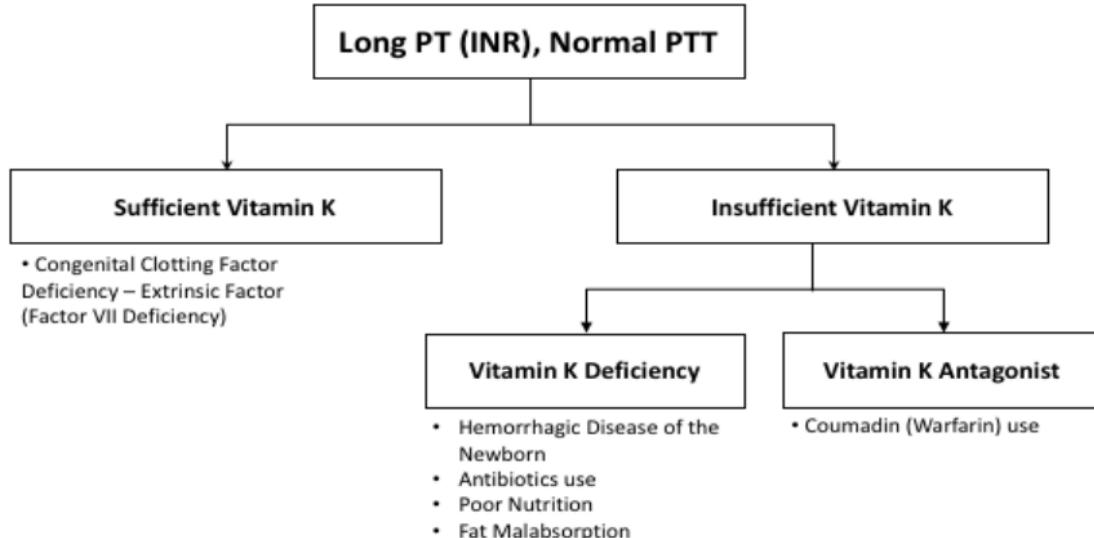


**Notes:**

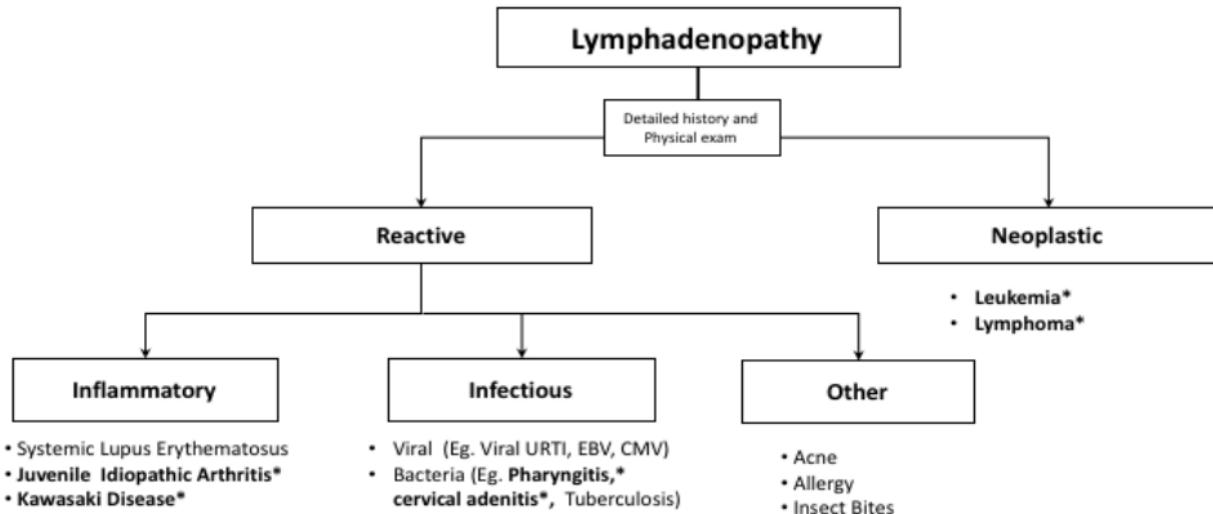
- PT more sensitive to Vitamin K deficiency; therefore PT used for monitoring Coumadin therapy (PTT only affected in very severe cases)
- PTT more sensitive to heparin; therefore PTT used for monitoring heparin therapy (PT only affected in very severe cases)

\*Indicates Key Condition  
This is not an exhaustive list of medical conditions.

# Long PT (INR), Normal PTT



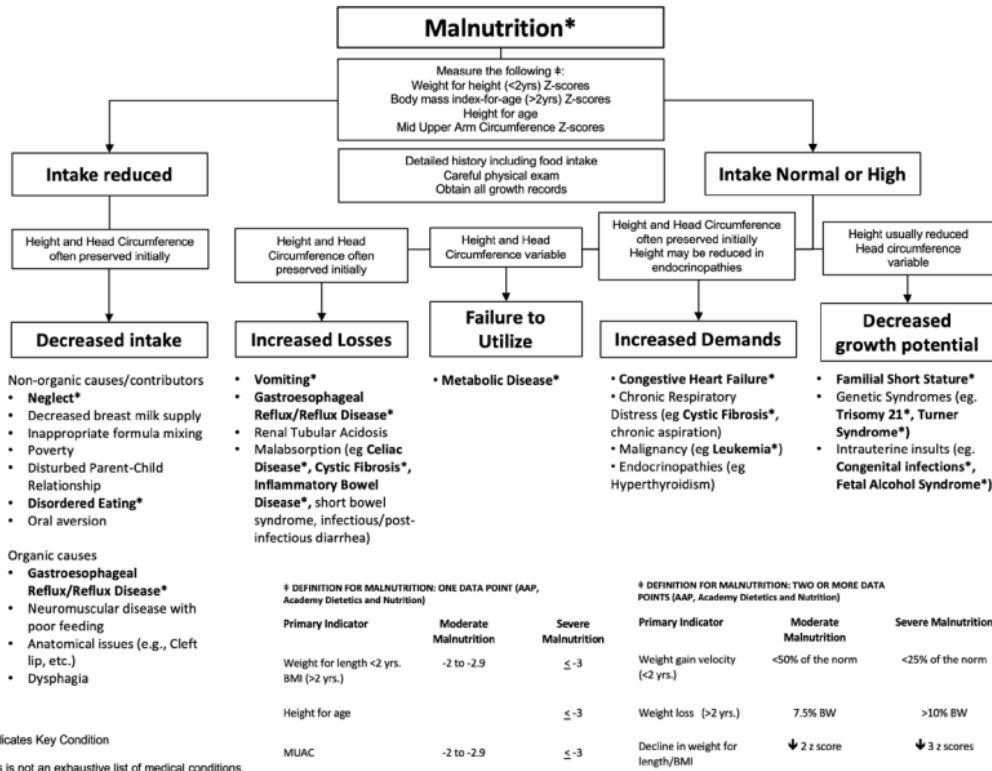
# Lymphadenopathy



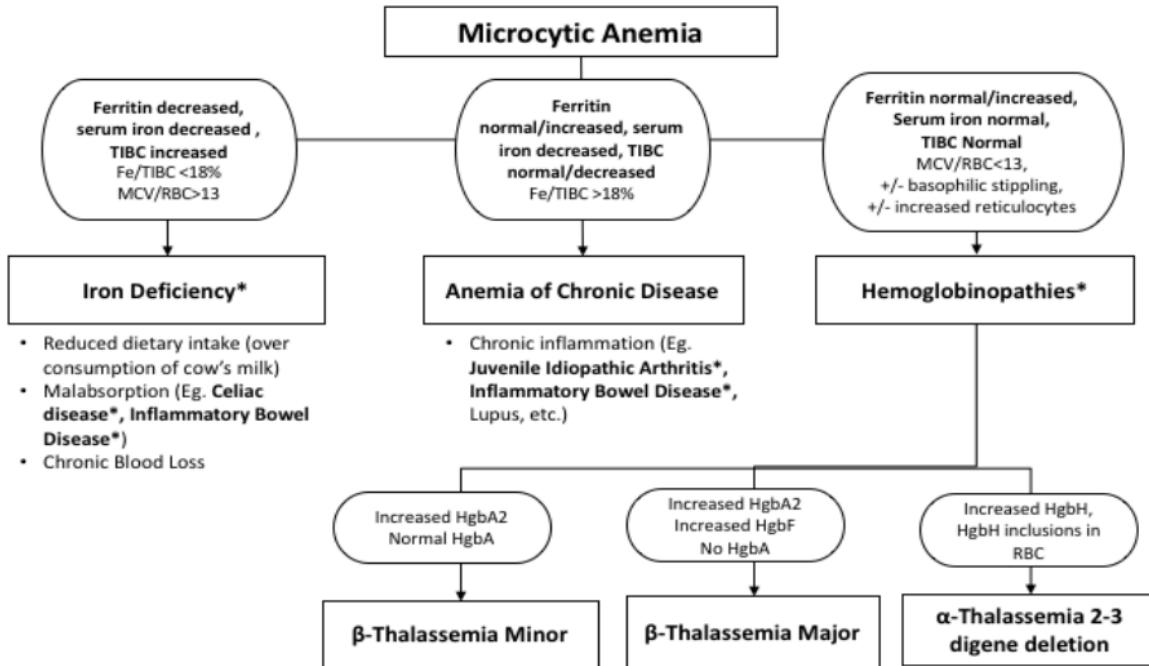
\*Indicates Key Condition

This is not an exhaustive list of medical conditions.

# Malnutrition



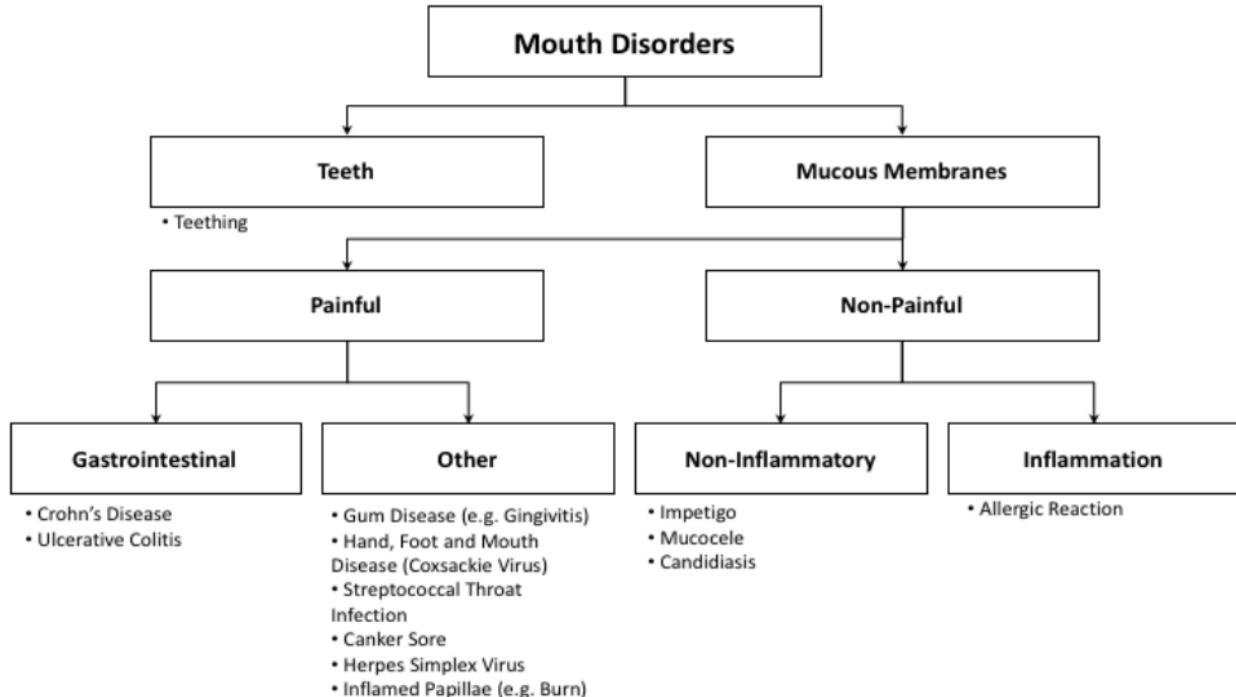
# Microcytic Anemia



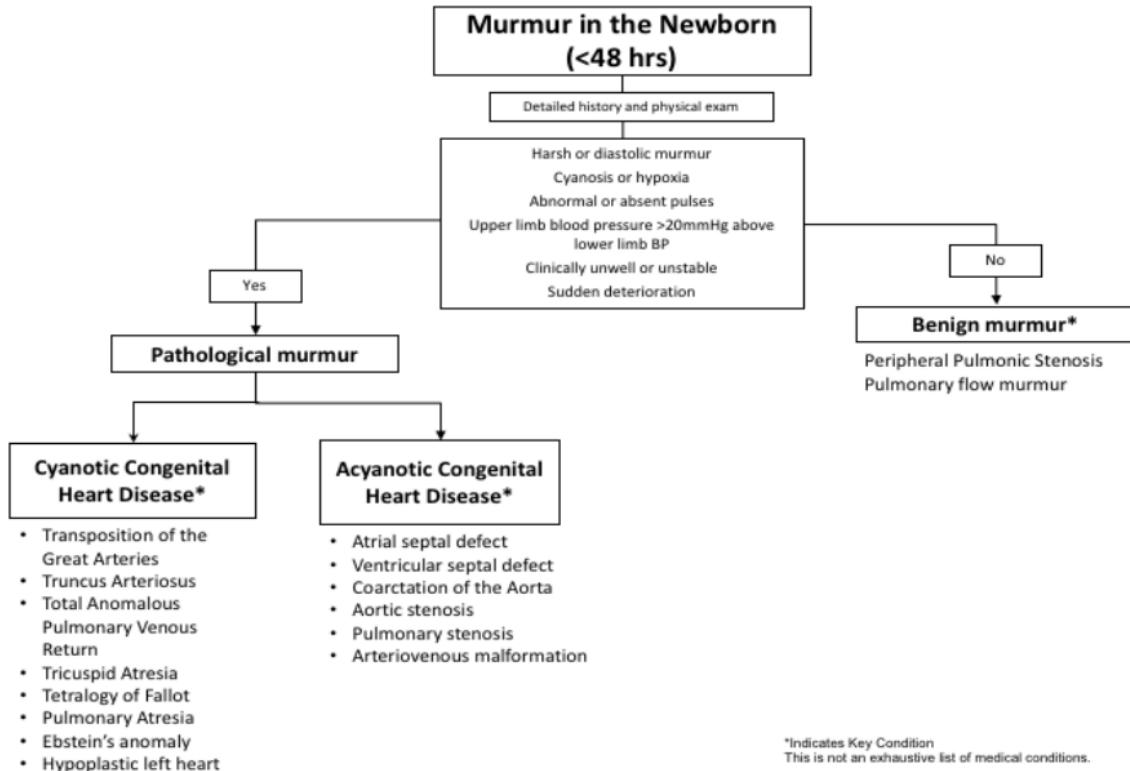
\*Indicates Key Condition

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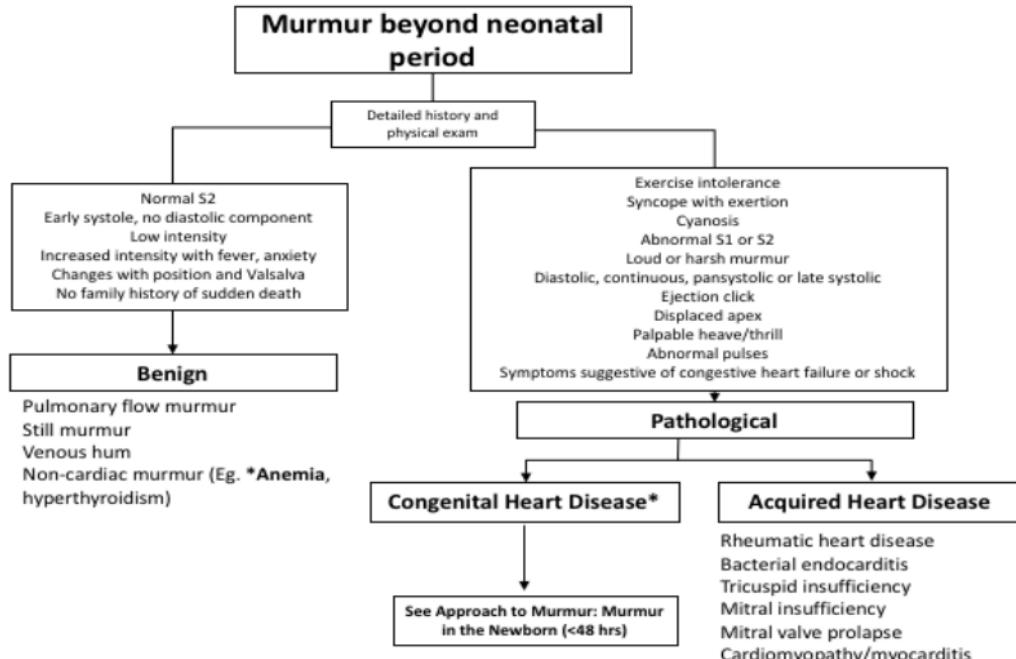
# Mouth Disorders (Pediatric)



# Murmur In The Newborn (<48 Hours)



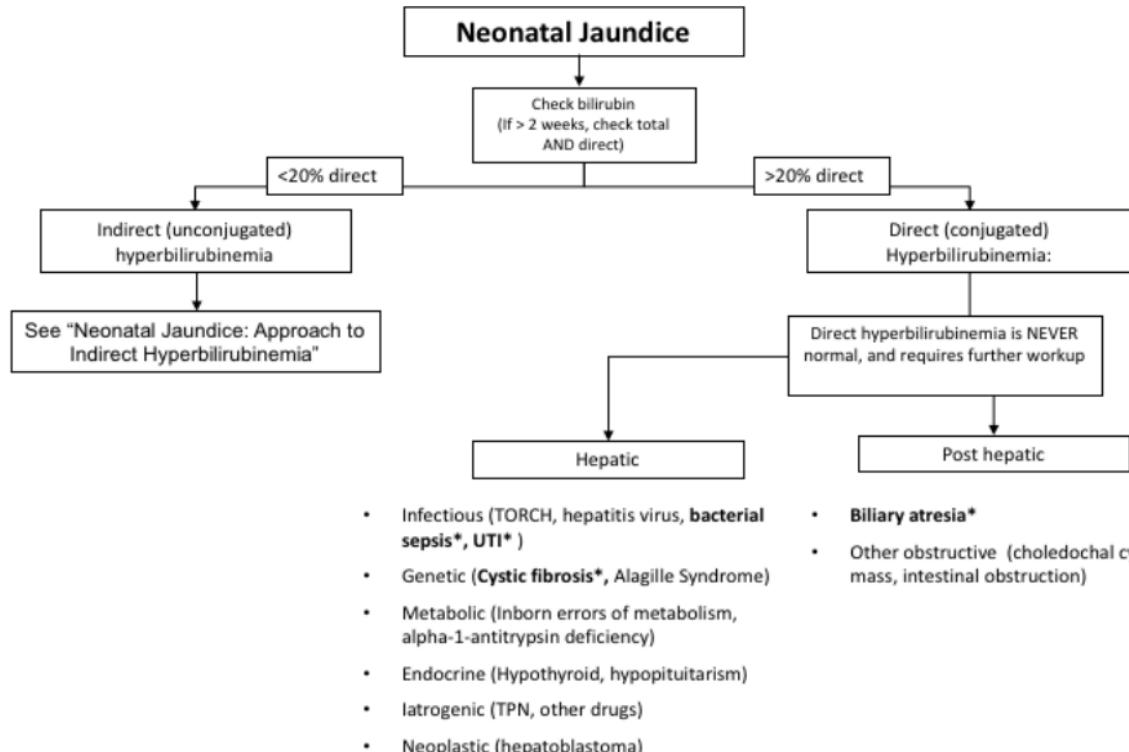
# Murmur In The Newborn Beyond Neonatal Period



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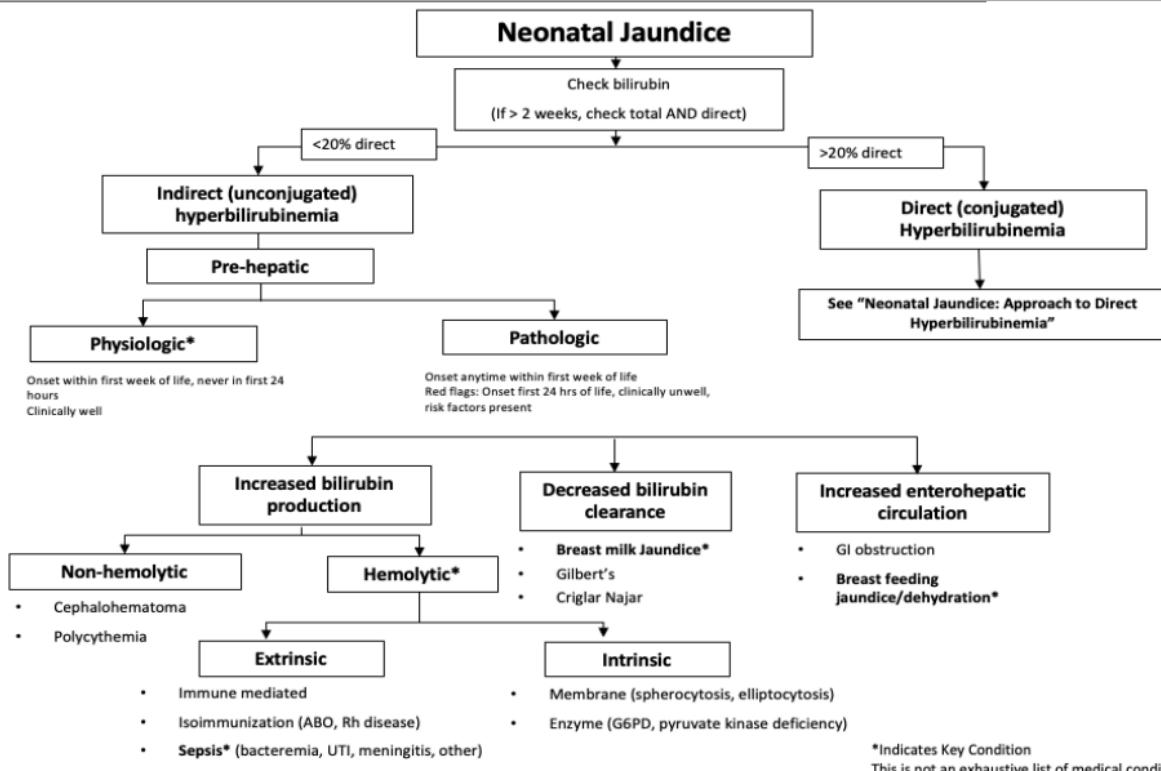
# Neonatal Jaundice

## Approach To Direct Hyperbilirubinemia



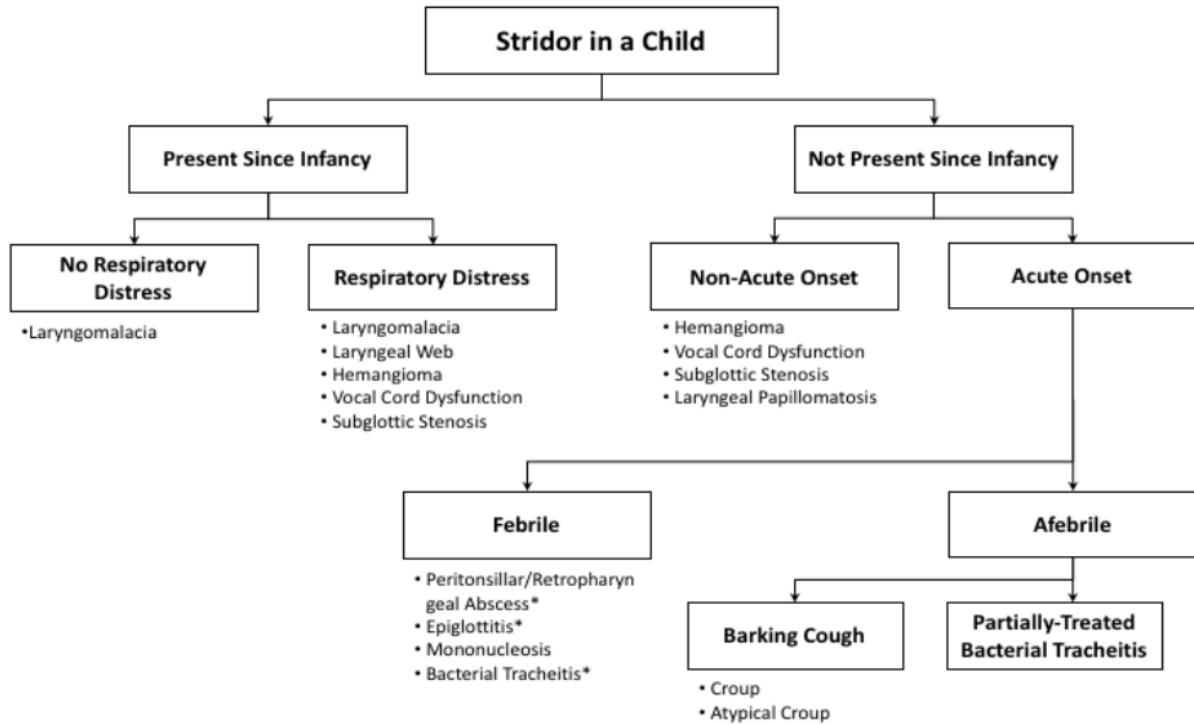
# Neonatal Jaundice

## Approach To Indirect Hyperbilirubinemia



# Noisy Breathing

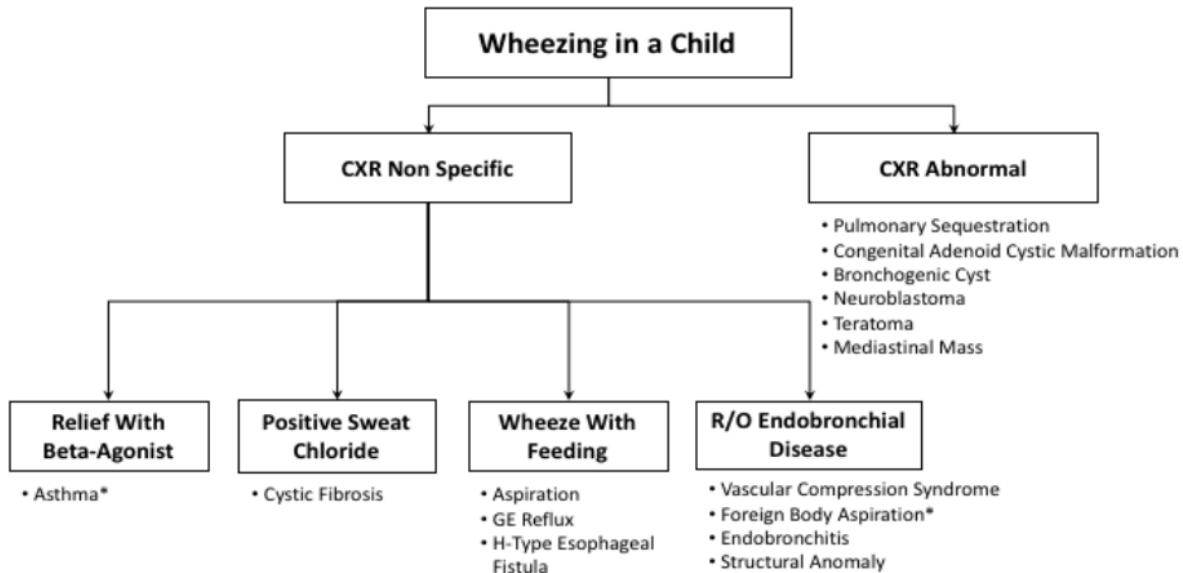
## Pediatric Stridor



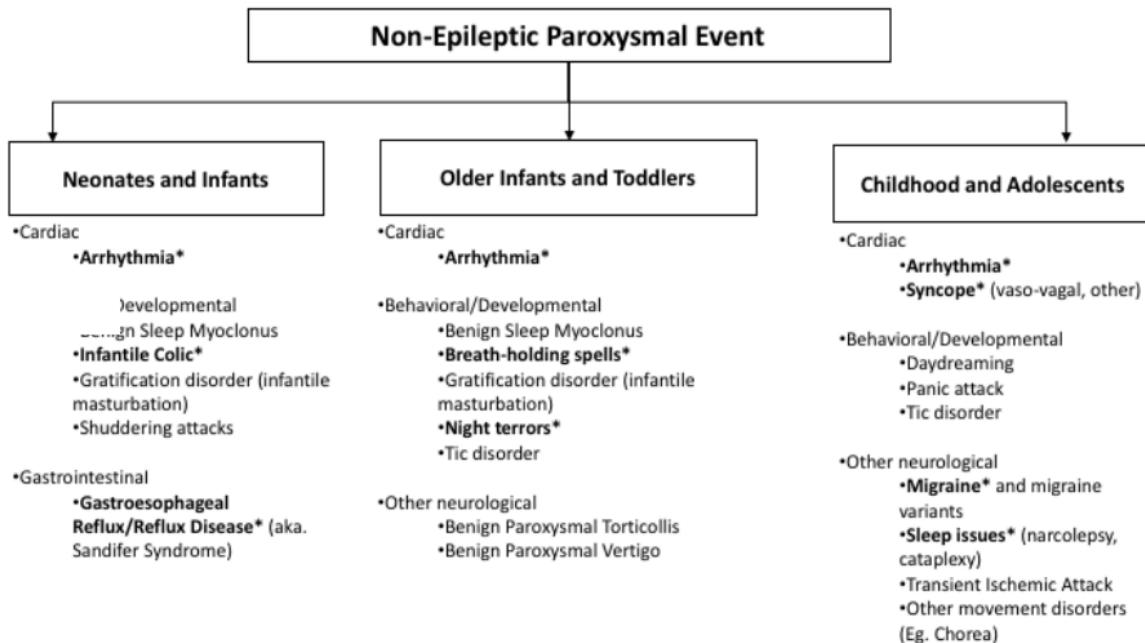
\* Denotes acutely life-threatening causes

# Noisy Breathing

## Pediatric Wheezing

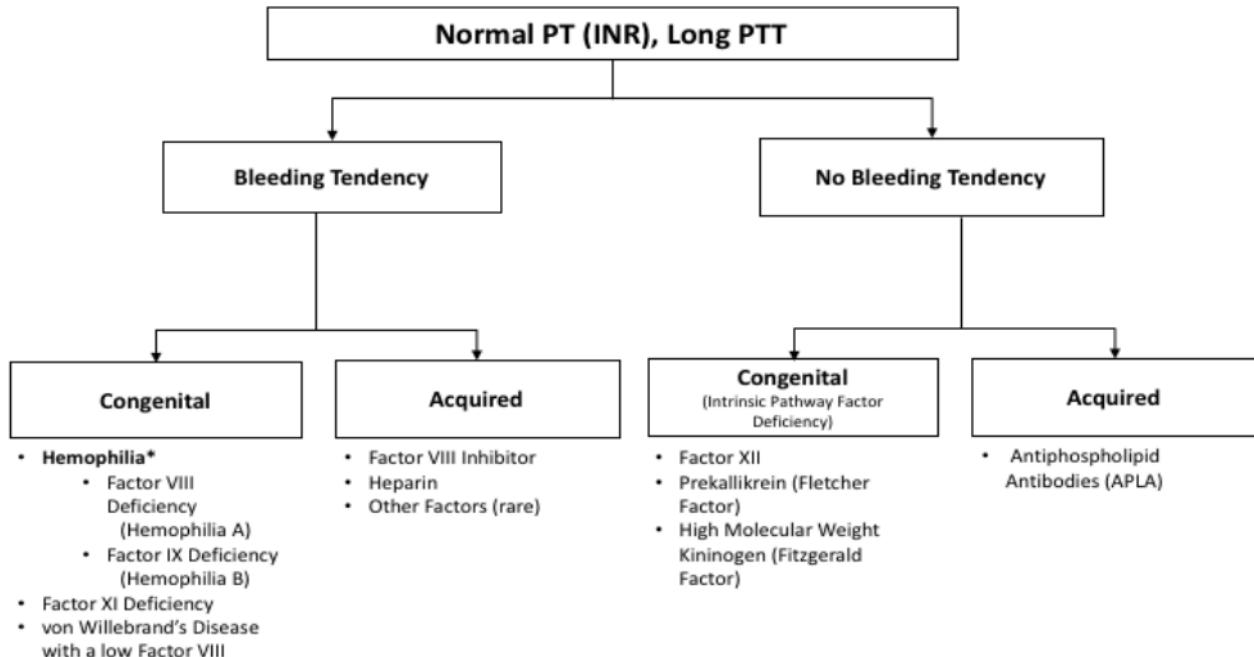


# Non-Epileptic Paroxysmal Event



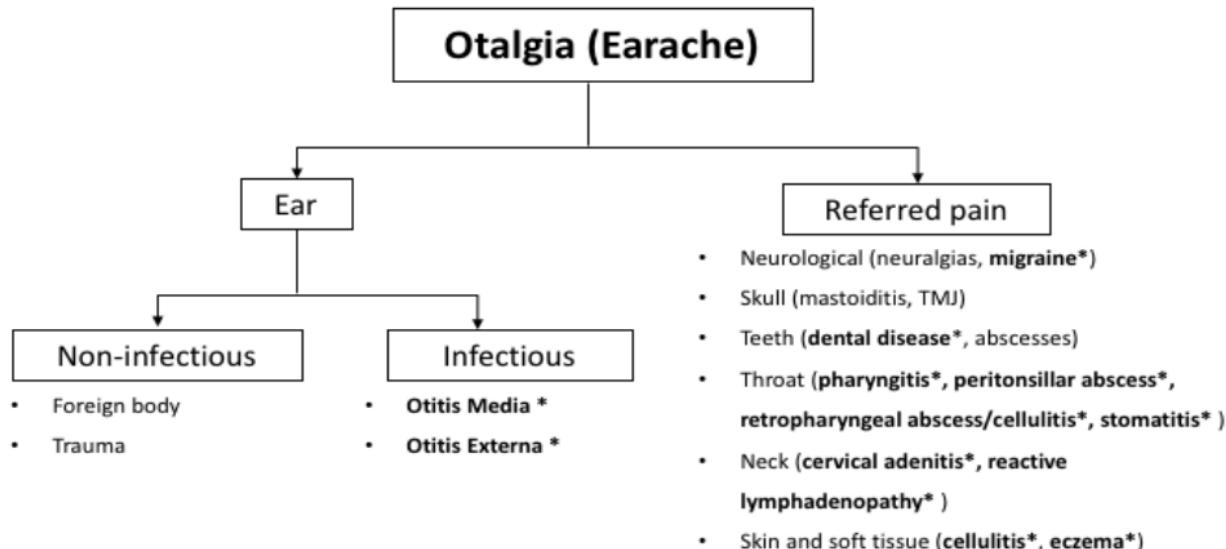
\*Indicates Key Condition  
This is not an exhaustive list of medical conditions.

# Normal PT (INR), Long PTT



\*Indicates Key Condition  
This is not an exhaustive list of medical conditions.

# Otalgia (Earache)

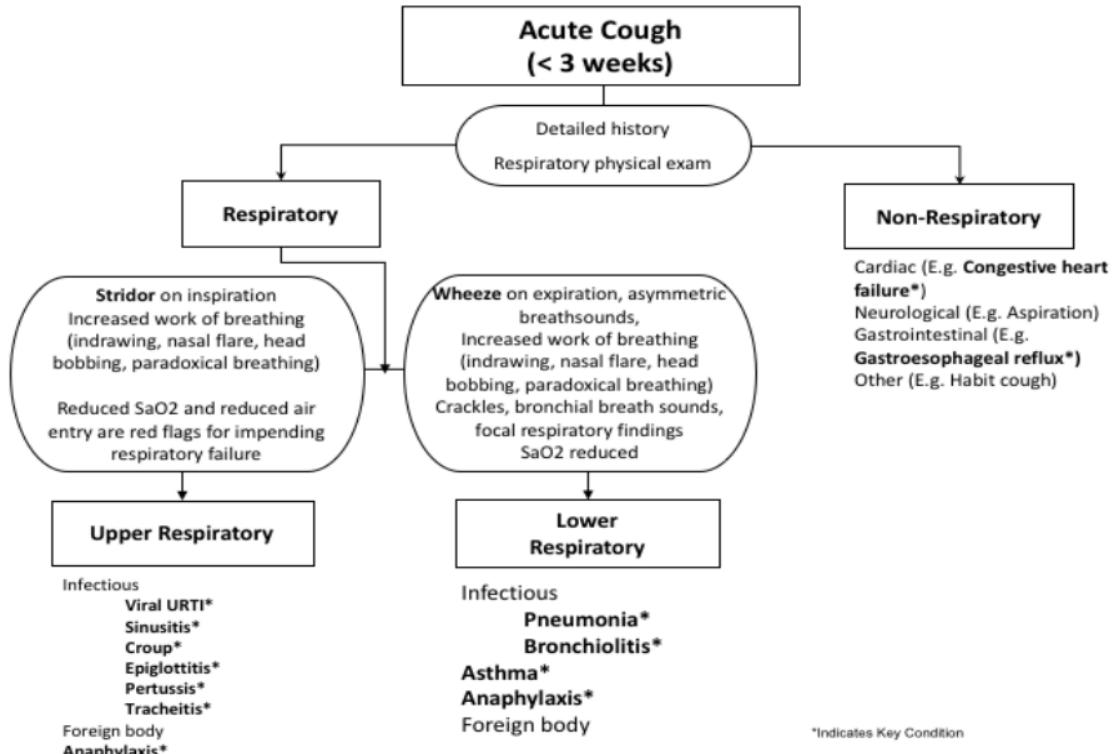


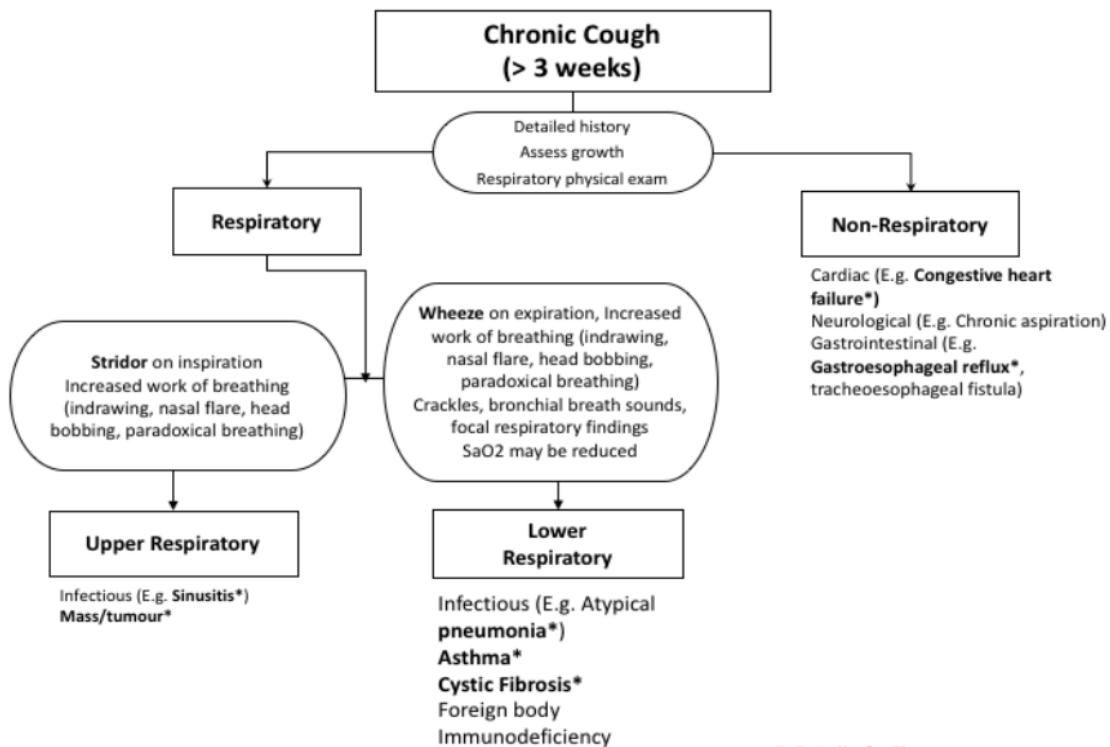
\*Indicates Key Condition

This is not an exhaustive list of medical conditions.

# Pediatric Cough

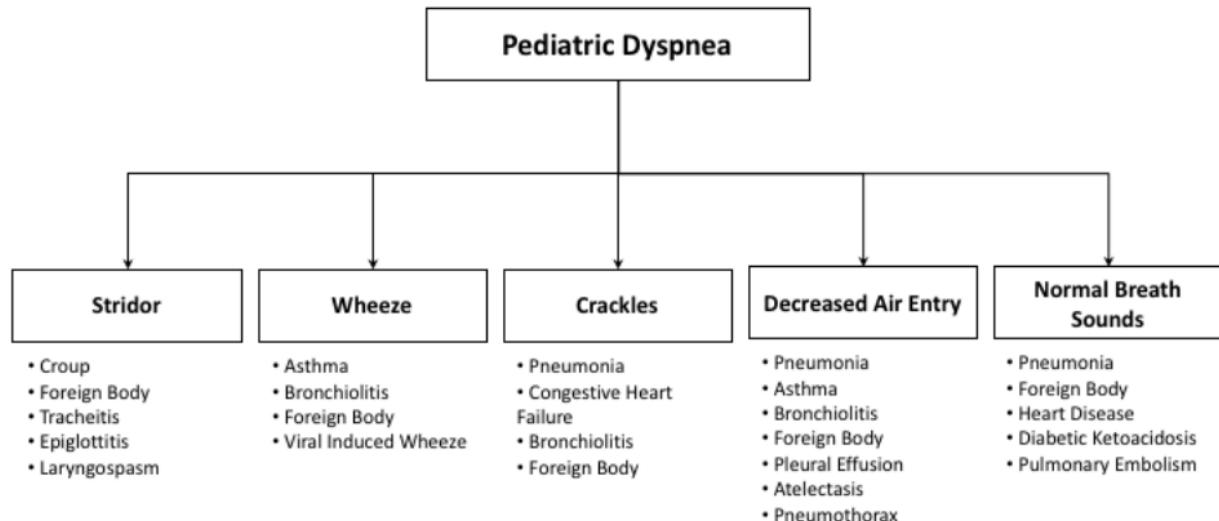
Acute



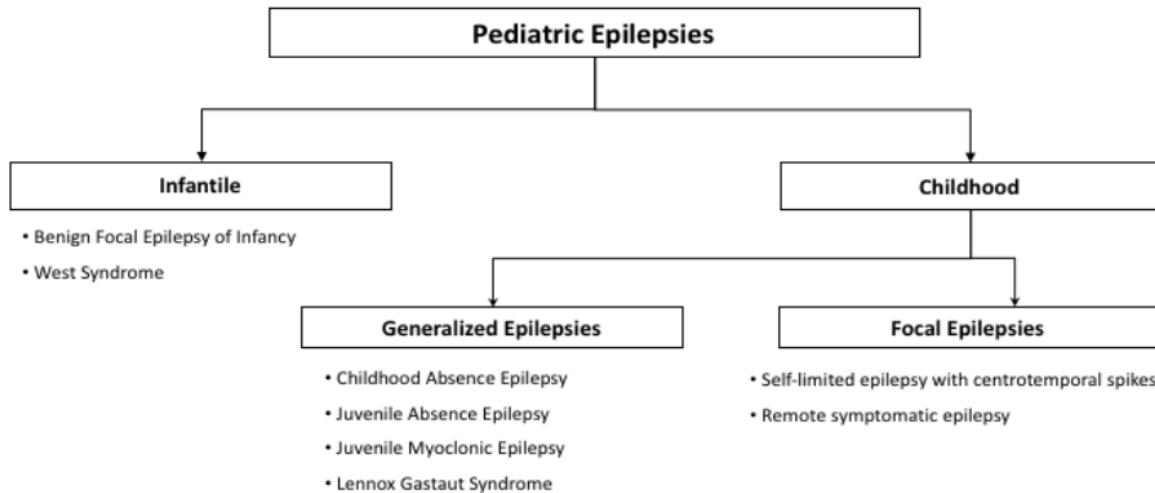


\*Indicates Key Condition  
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# Pediatric Dyspnea

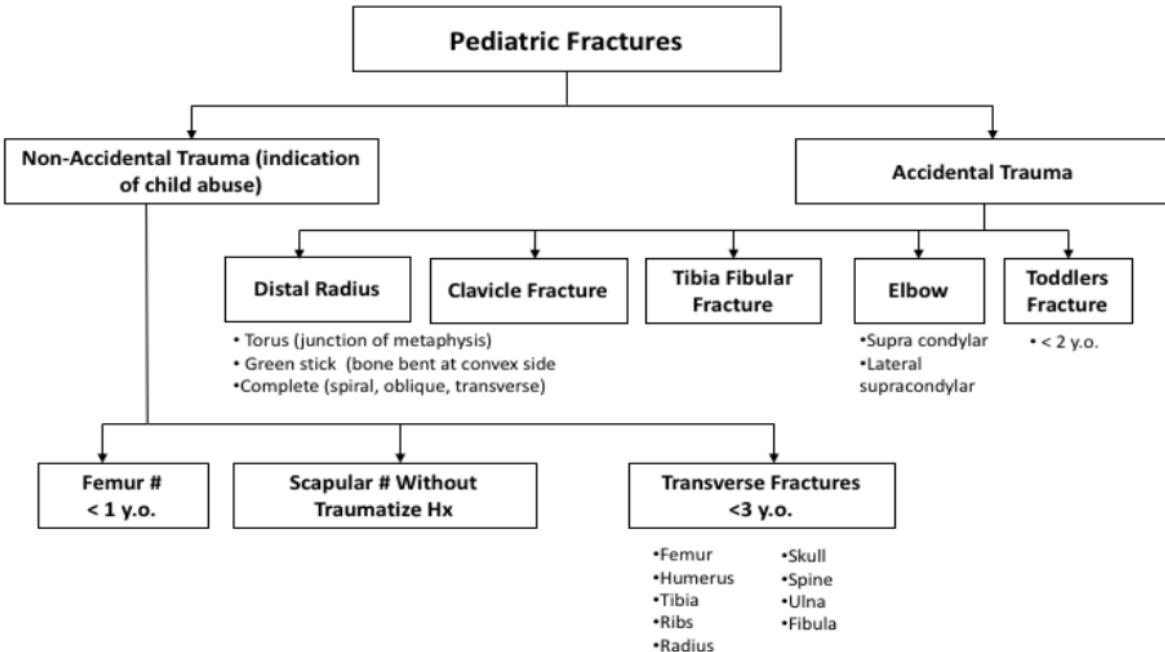


# Pediatric Epilepsies



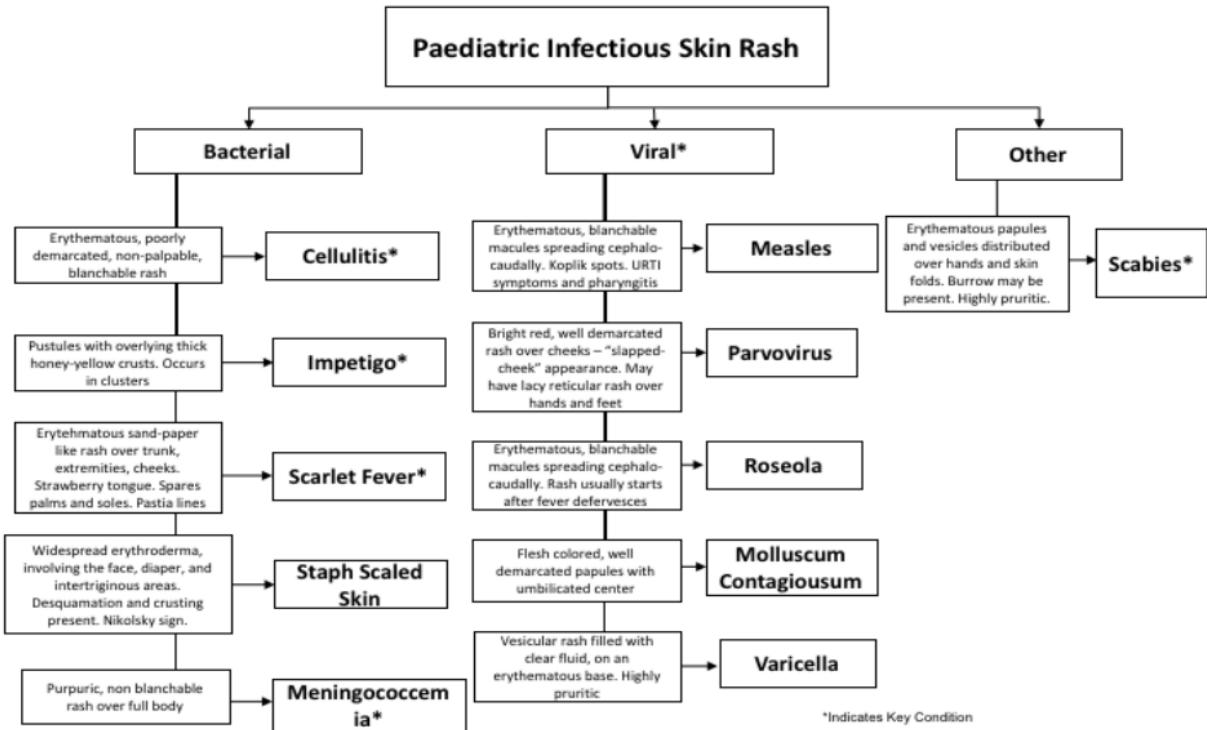
\*Indicates Key Condition  
This is not an exhaustive list of medical conditions.

# Pediatric Fractures

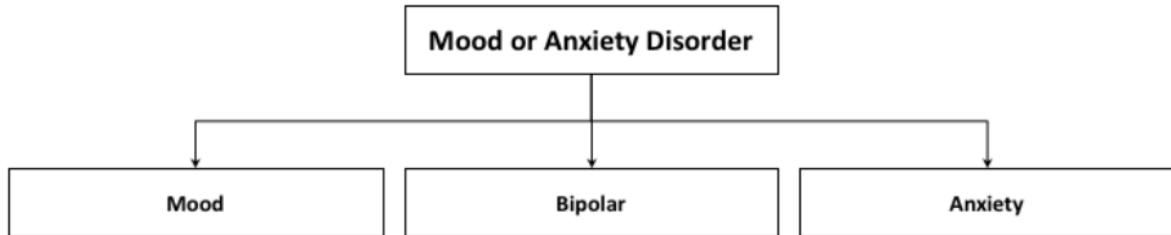


\*Indicates Key Condition  
This is not an exhaustive list of medical conditions.

# Pediatric Infectious Skin Rash

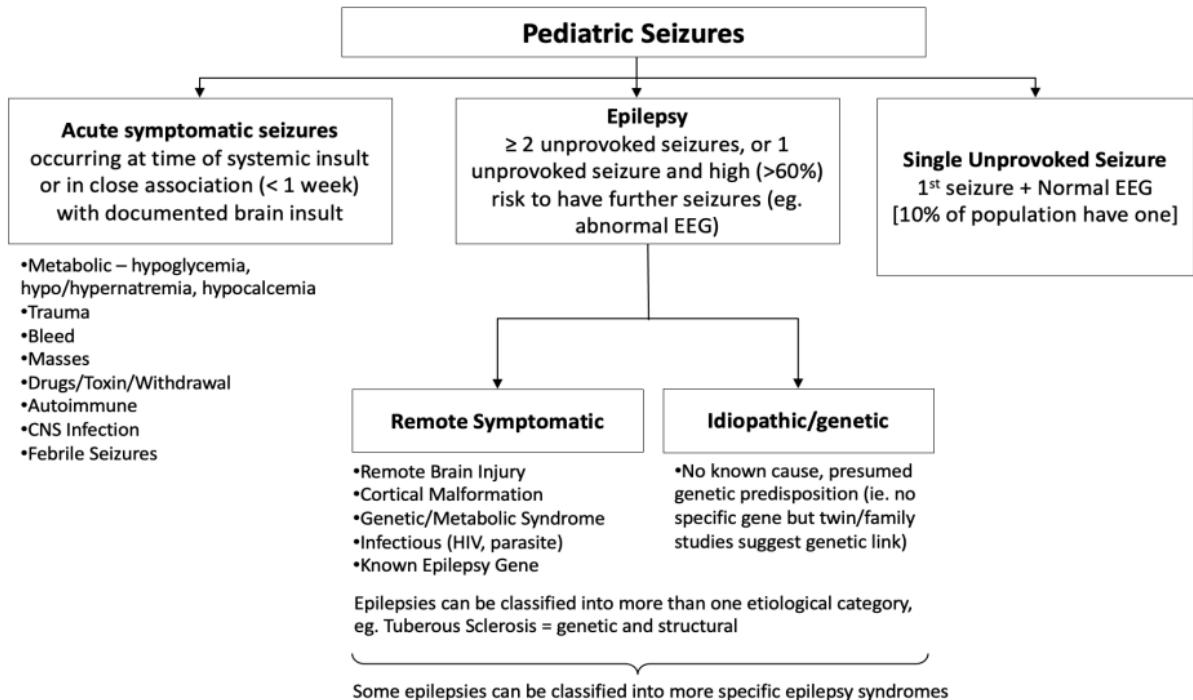


# Pediatric Mood And Anxiety Disorders



- Major Depressive Disorder
- Persistent Depressive Disorder
- Disruptive Mood Dysregulation Disorder\*

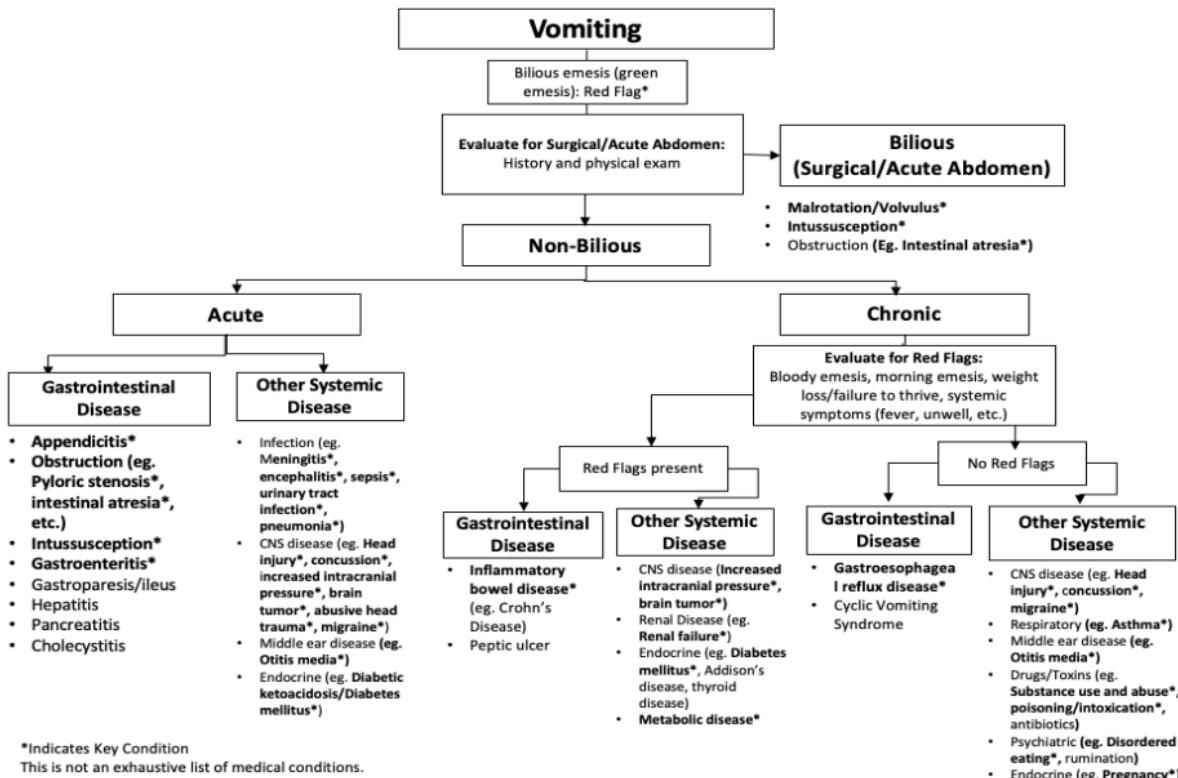
- Panic Disorder and Agoraphobia
- Specific Phobia
- Social Phobia
- Generalized Anxiety Disorder
- Selective Mutism\*
- Separation Anxiety Disorder\*



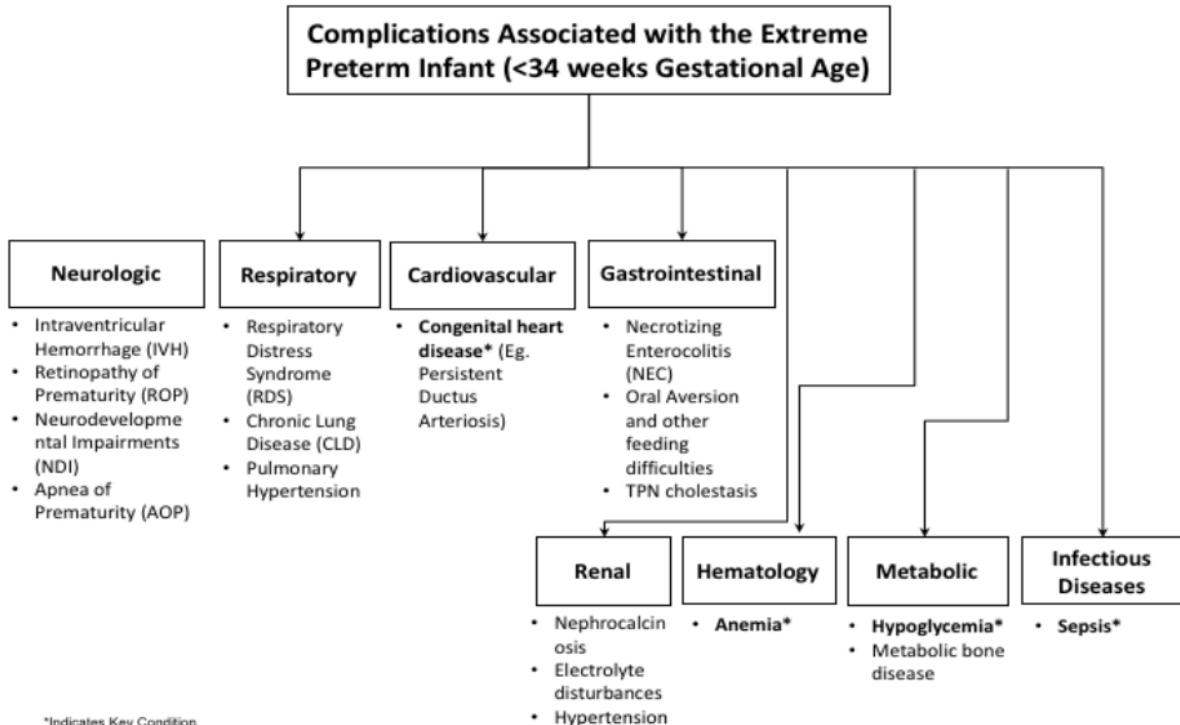
 Potentially acutely life-threatening presentation

\*Indicates Key Condition  
This is not an exhaustive list of medical conditions.

# Pediatric Vomiting



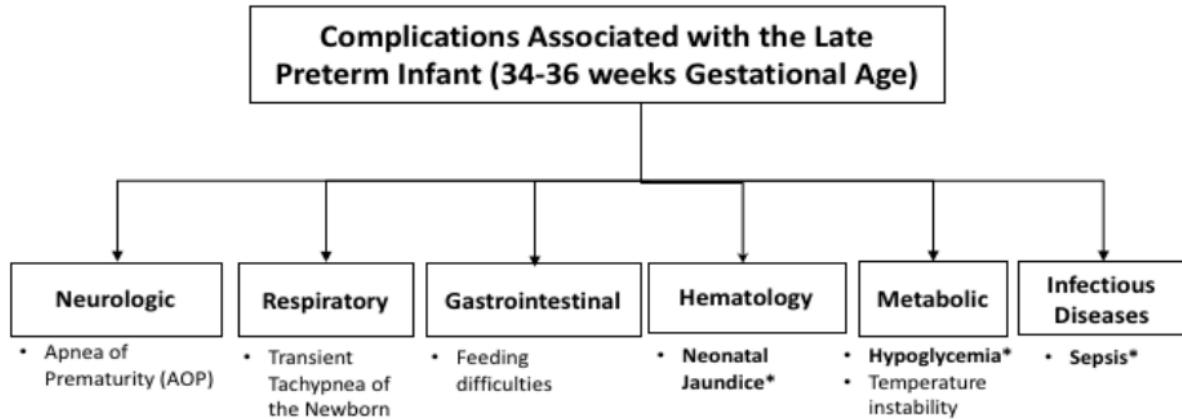
# Preterm Infant Complications (<34 Weeks)



This is not an exhaustive list of medical conditions.

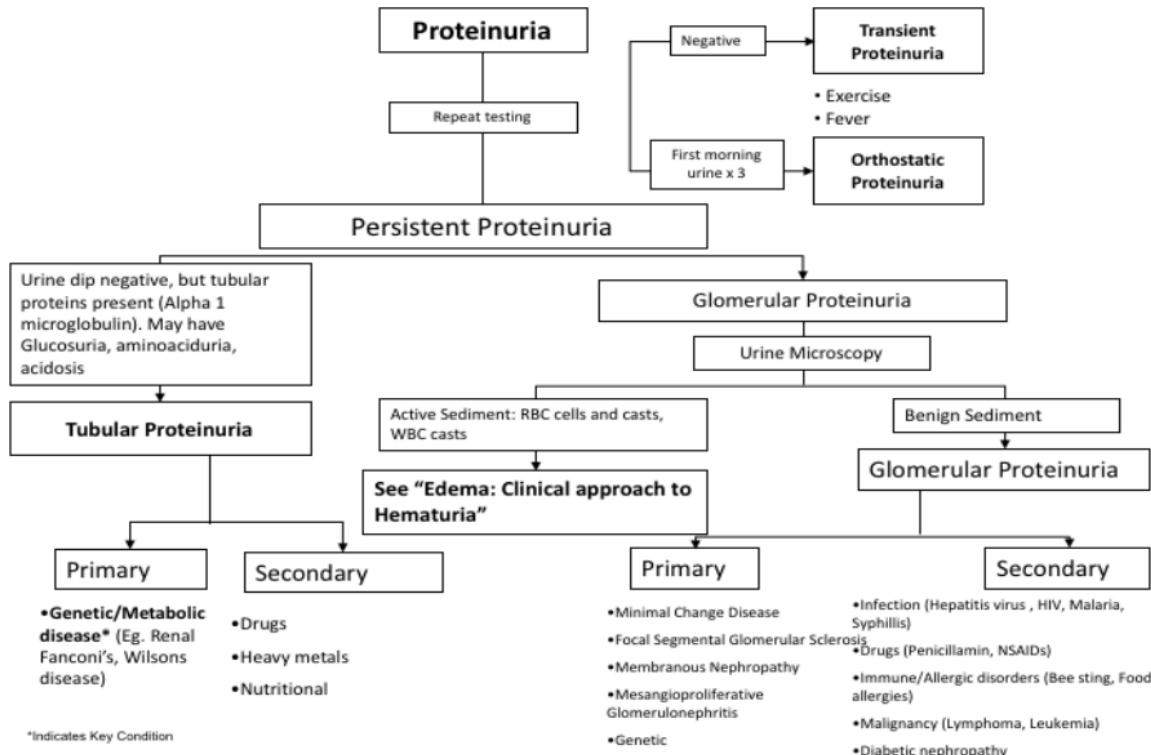
# Preterm Infant Complications

## (34-36 Weeks)

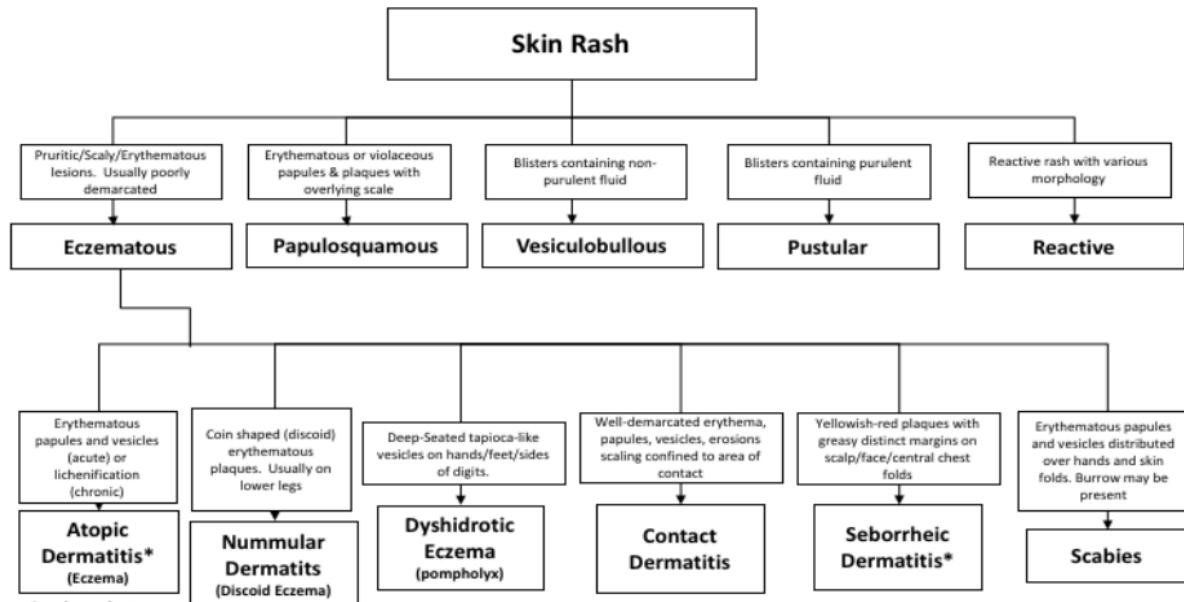


\*Indicates Key Condition

This is not an exhaustive list of medical conditions.



# Rash (Eczematous)

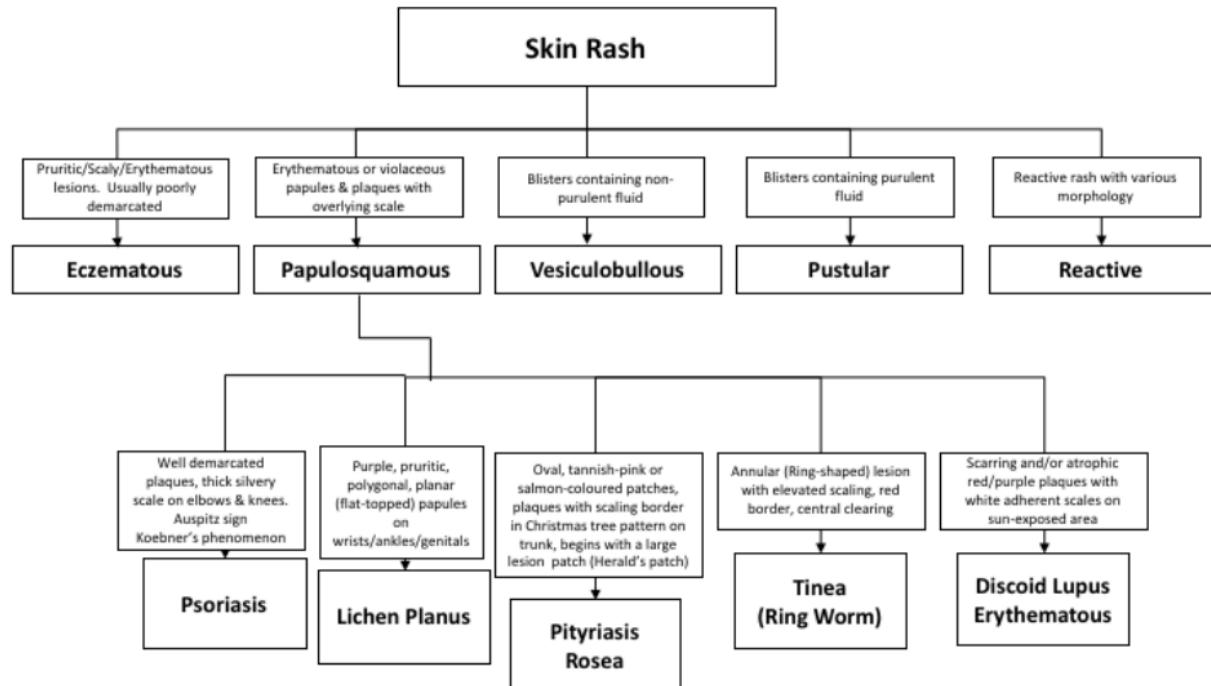


**Age dependent distribution:**  
Infants: scalp, face, extensor extremities  
Children: flexural areas  
Adults: flexural areas/hands/face/nipples

\*Indicates Key Condition

This is not an exhaustive list of medical conditions.

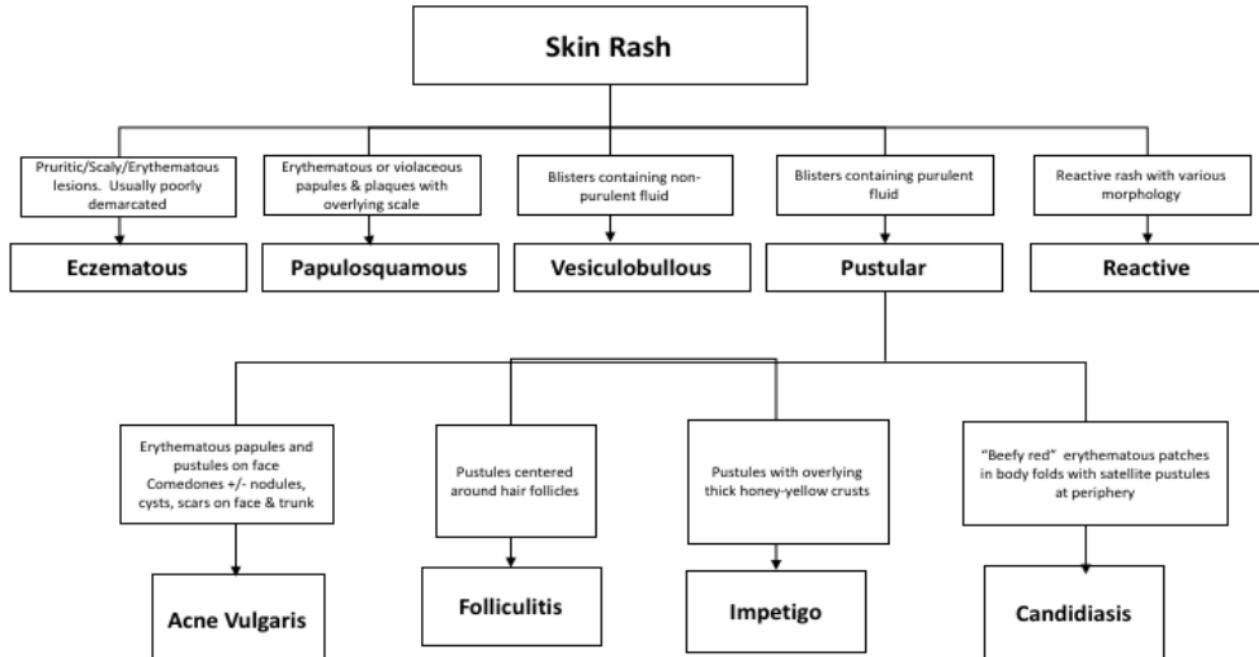
# Rash (Papulosquamous)



\*Indicates Key Condition

This is not an exhaustive list of medical conditions.

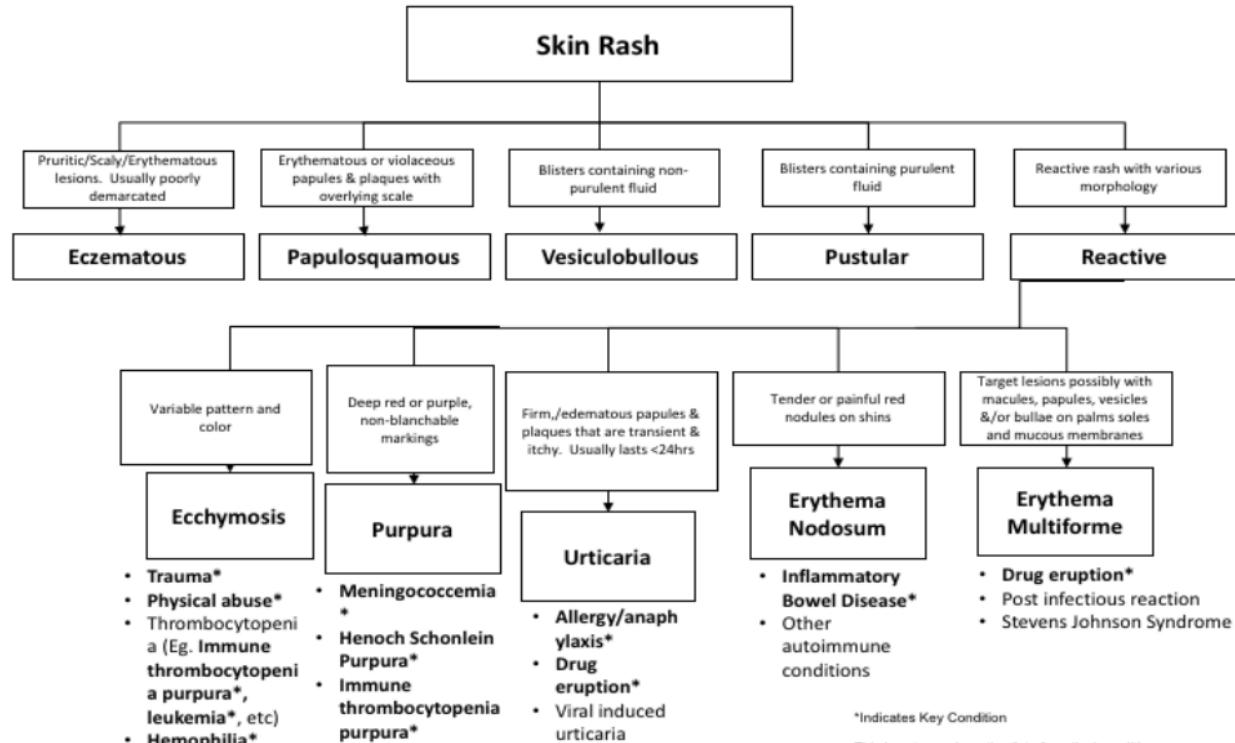
# Rash (Pustular)



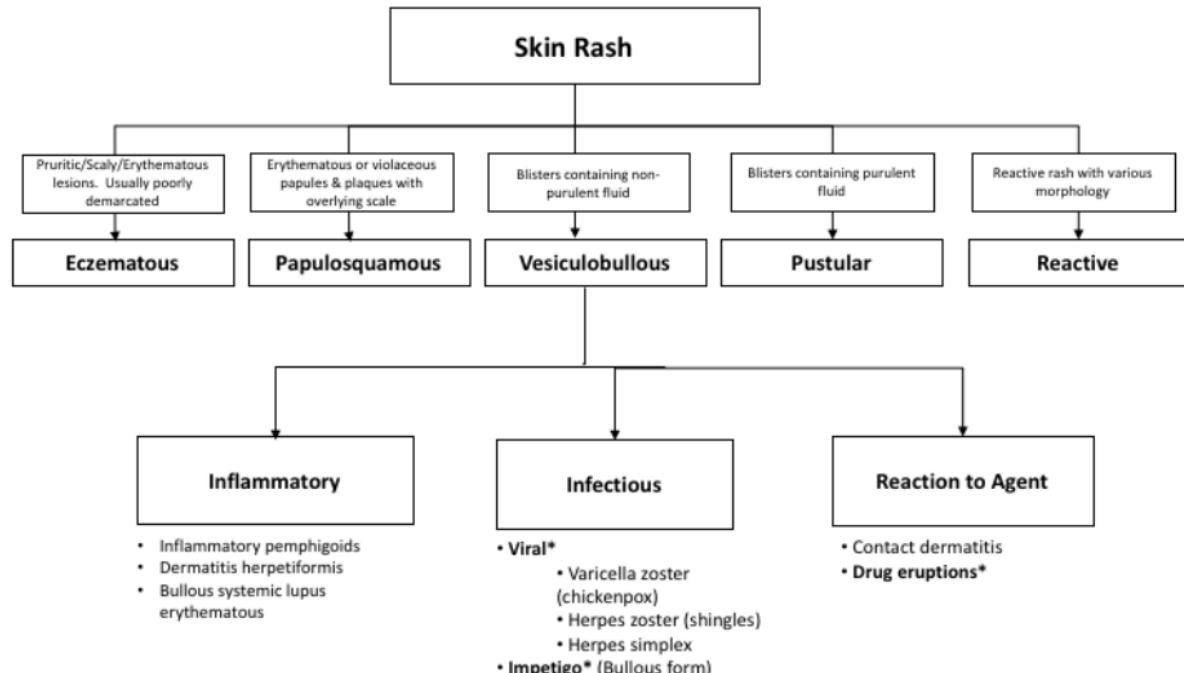
\*Indicates Key Condition

This is not an exhaustive list of medical conditions.

# Rash (Reactive)



# Rash (Vesiculobullous)



\*Indicates Key Condition

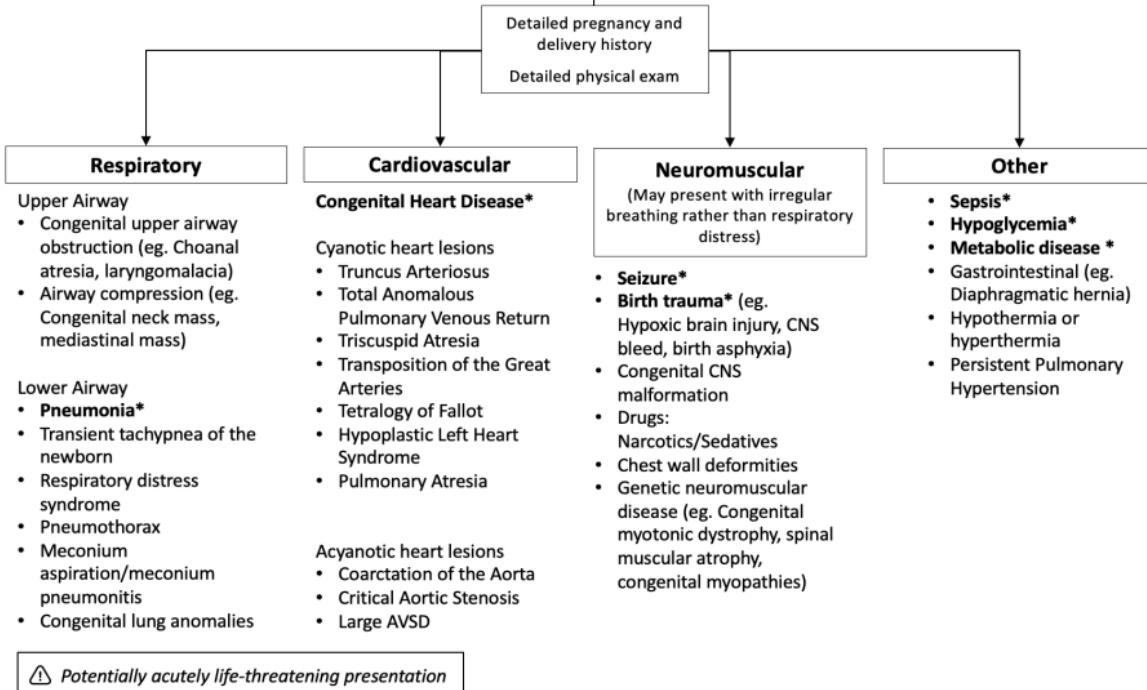
This is not an exhaustive list of medical conditions.

# Respiratory Distress In The Newborn

\*Indicates Key Condition

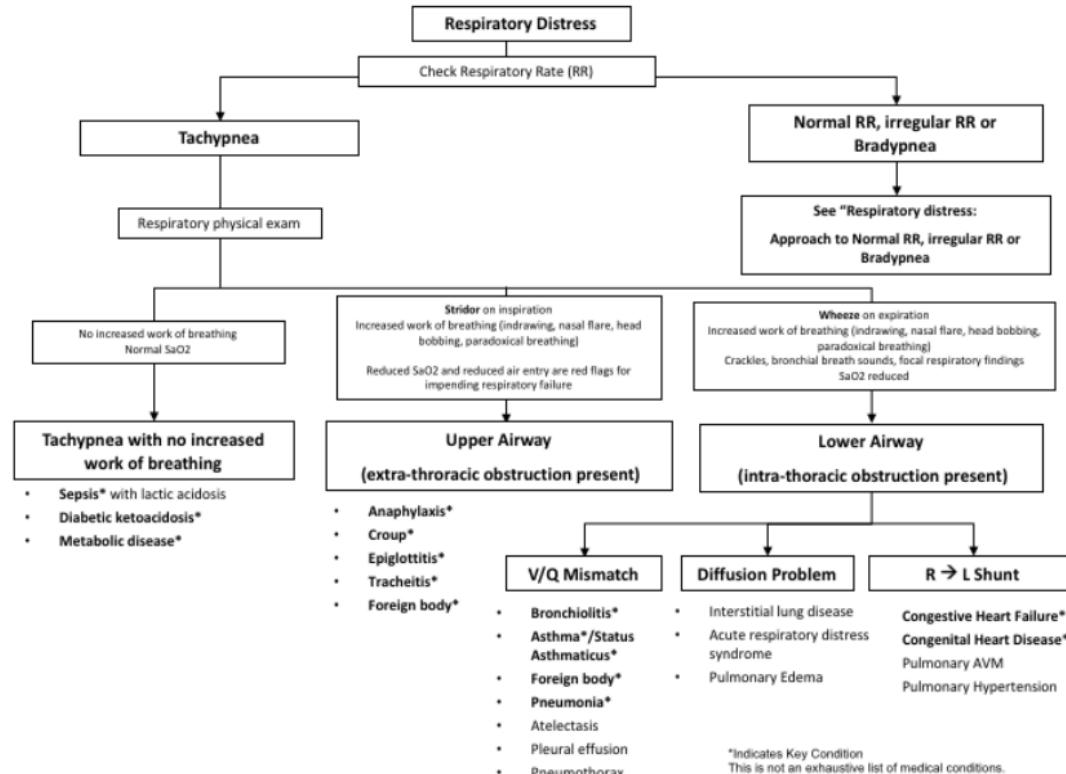
This is not an exhaustive list of medical conditions.

## Respiratory Distress in the Newborn (<48 hrs)



# Respiratory Distress In The Newborn

## Tachypnea

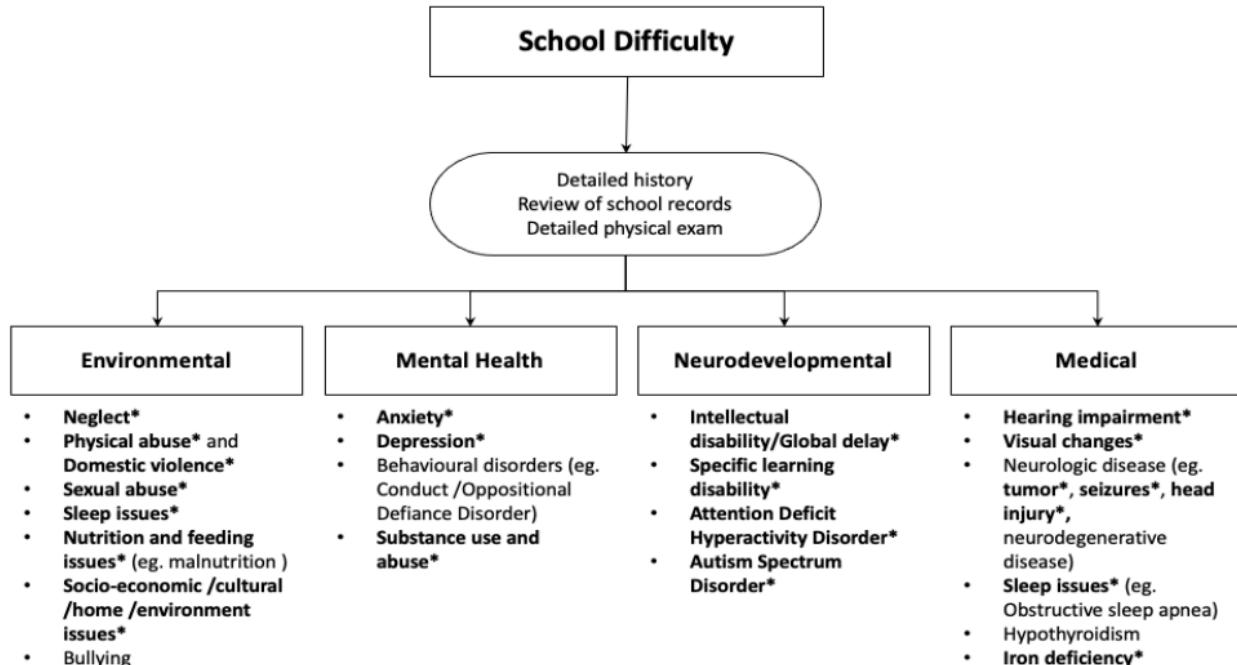


# Salter Harris Physeal Injury Classification

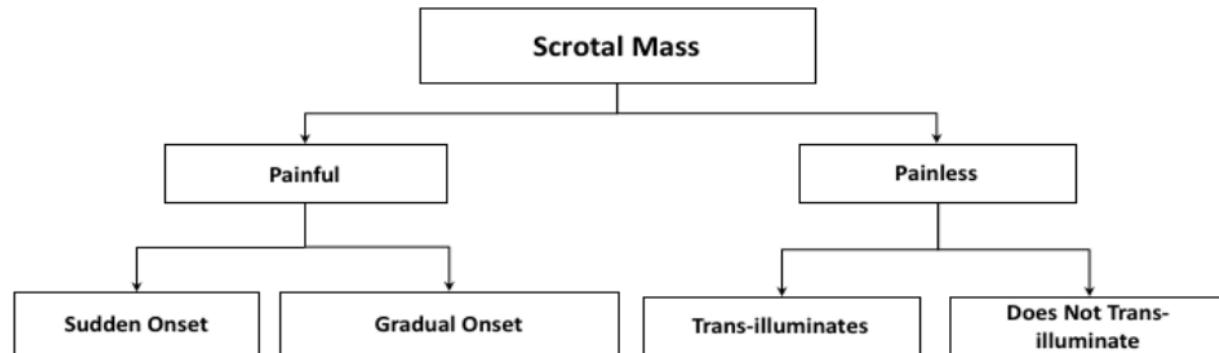


Type	Population	Features	
I	Younger Children	Separation through the physis	S Straight through
II	Older Children (75%)	Fracture through a portion of the physis that extends through the metaphyses	A Above
III	Older Children (75%)	Fracture line goes below the physis through the epiphysis, and into the joint	L Lower
IV		Fracture Line through the metaphysis, physis and epiphysis	T Through
V		Compression fracture of the growth plate	R Crush

# School Difficulties



\*Indicates Key Condition  
This is not an exhaustive list of medical conditions.



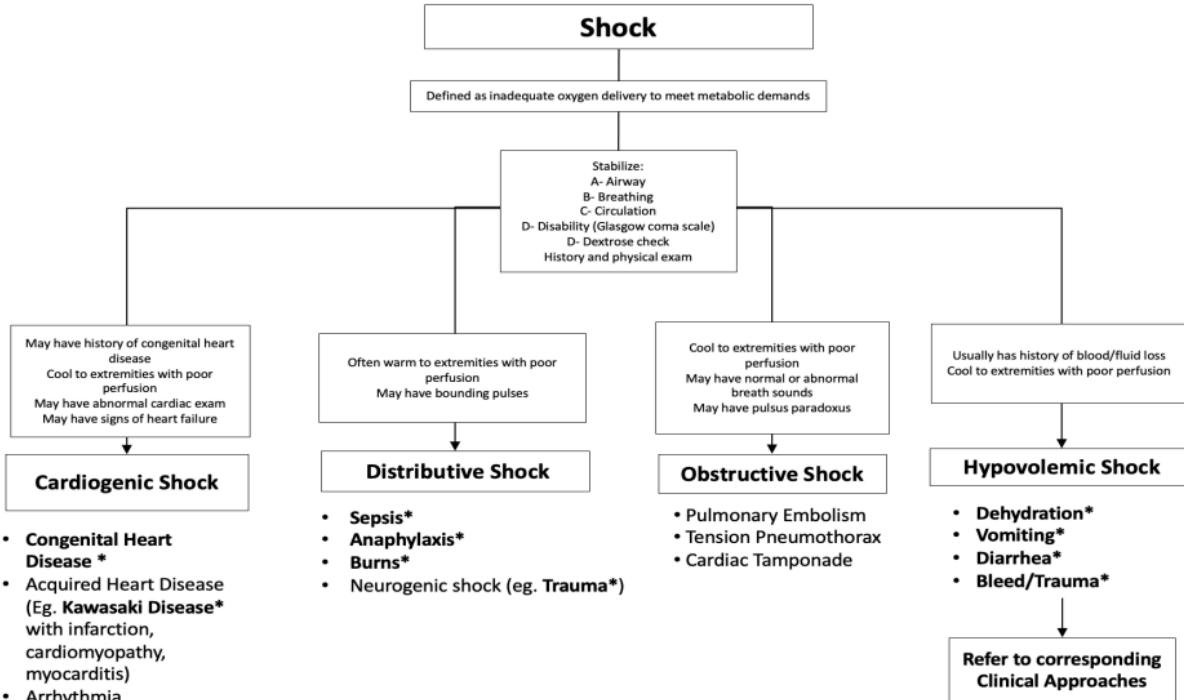
- **Testicular Torsion\***
- Torsion of the Testicular Appendix
- Trauma
- Incarcerated Hernia

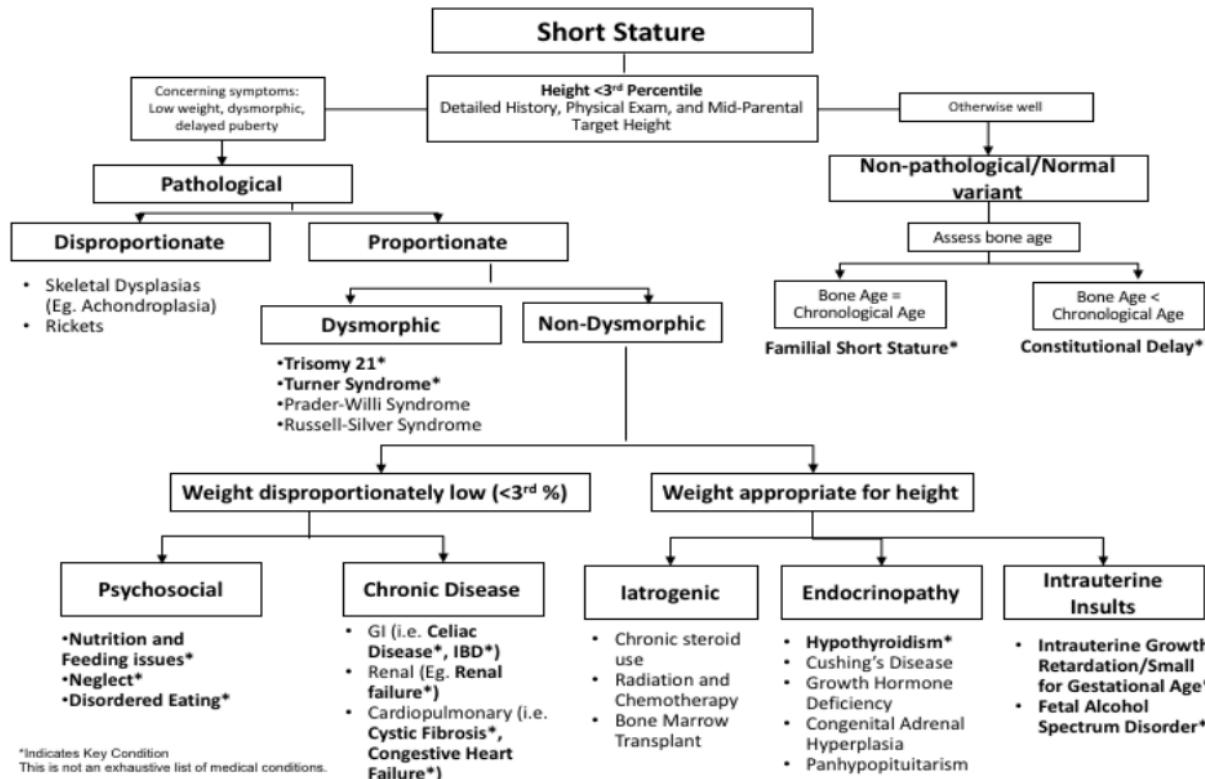
- Acute Epididymitis
- Epididymo-orchitis
- Trauma (Eg. Hematoma)

- Hydrocele
- Indirect hernia

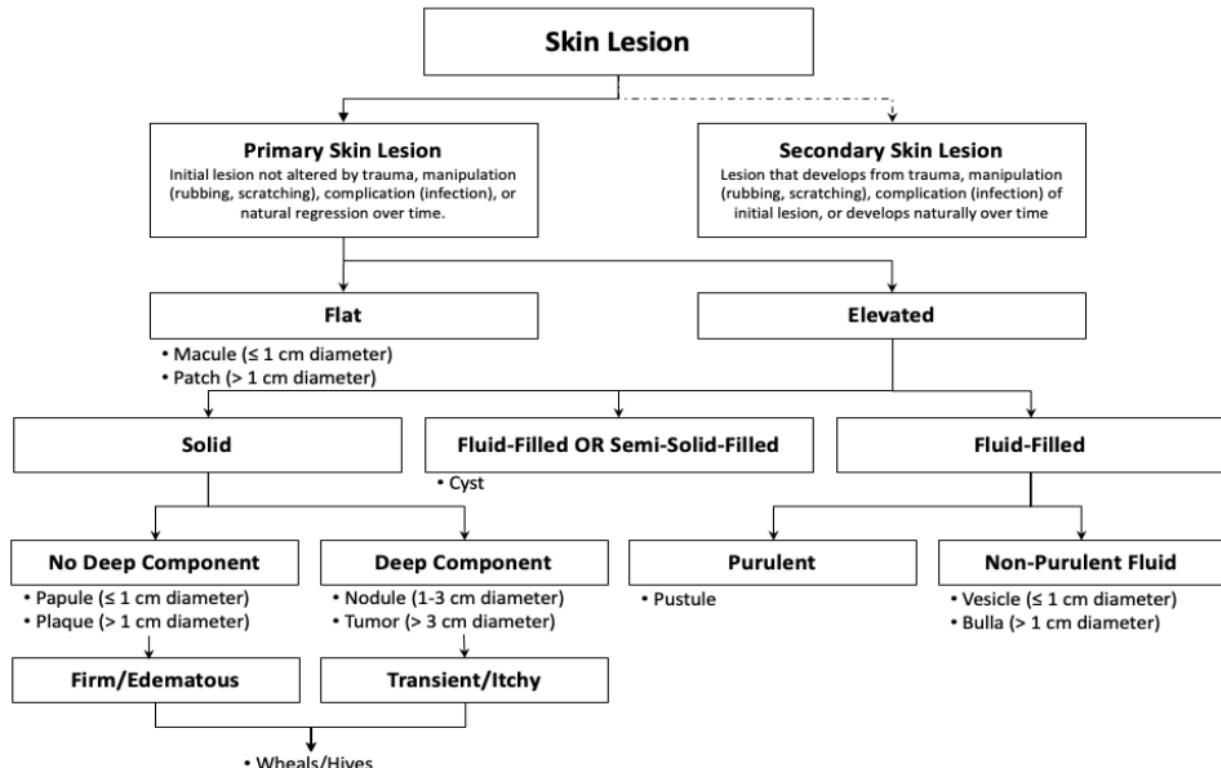
- Tumor (Eg. Leukemia\*)

# Shock

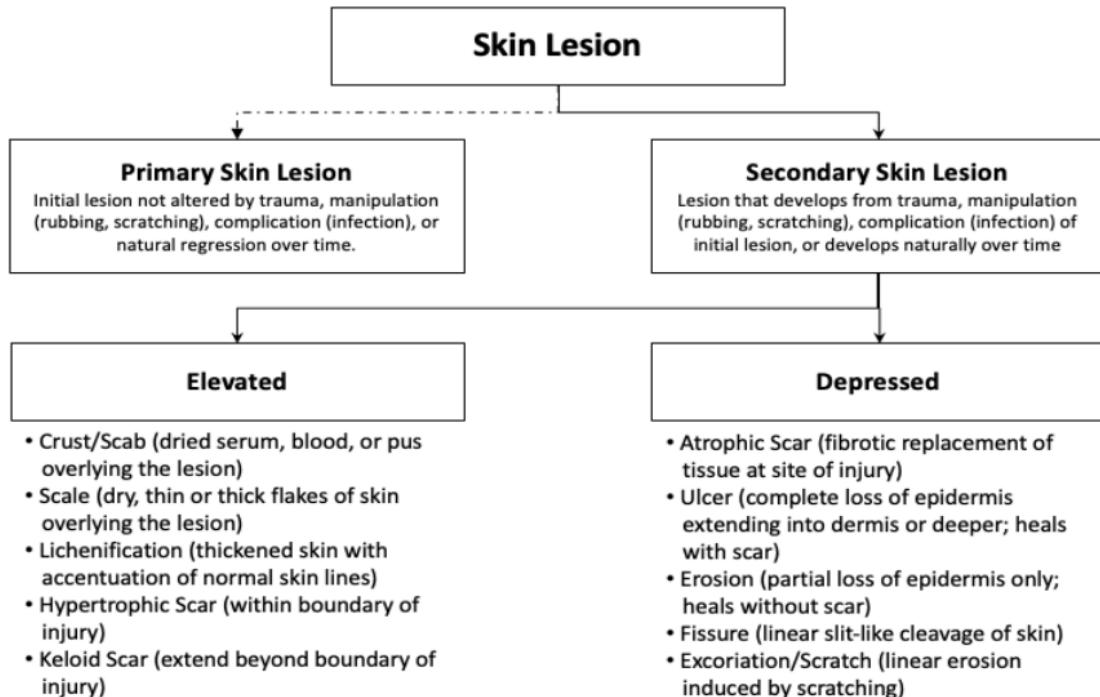




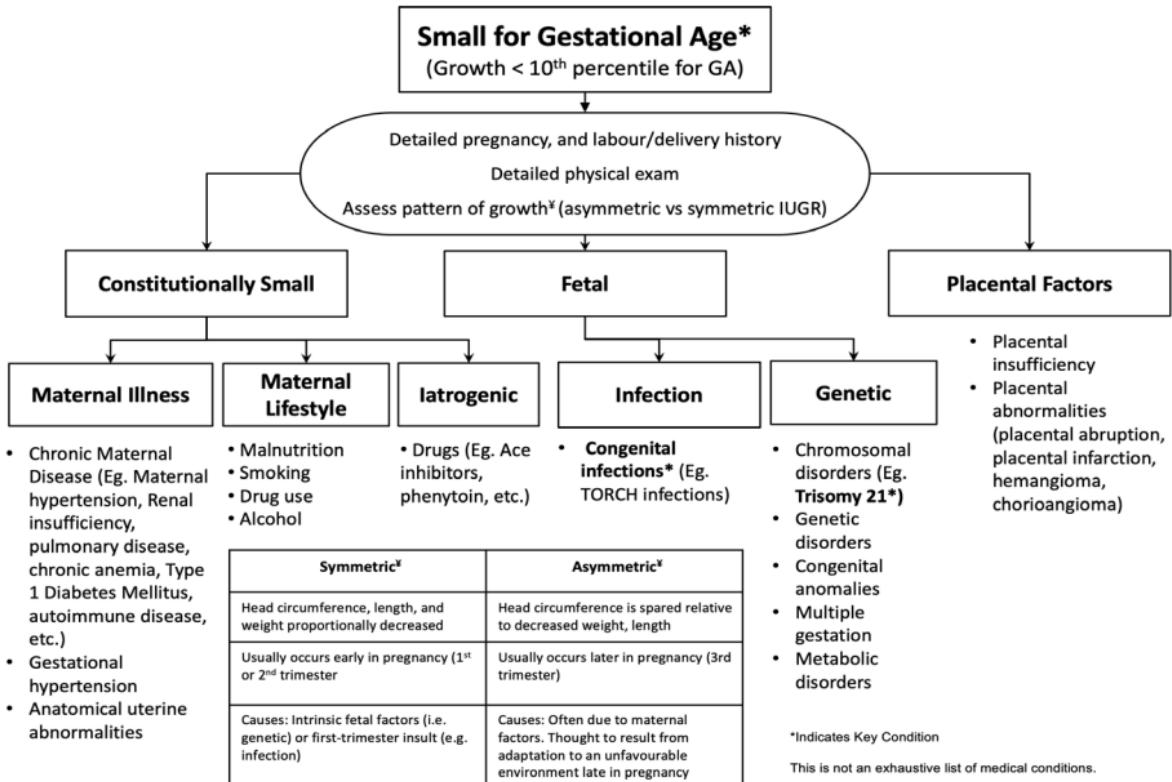
# Skin Lesion (Primary Skin)



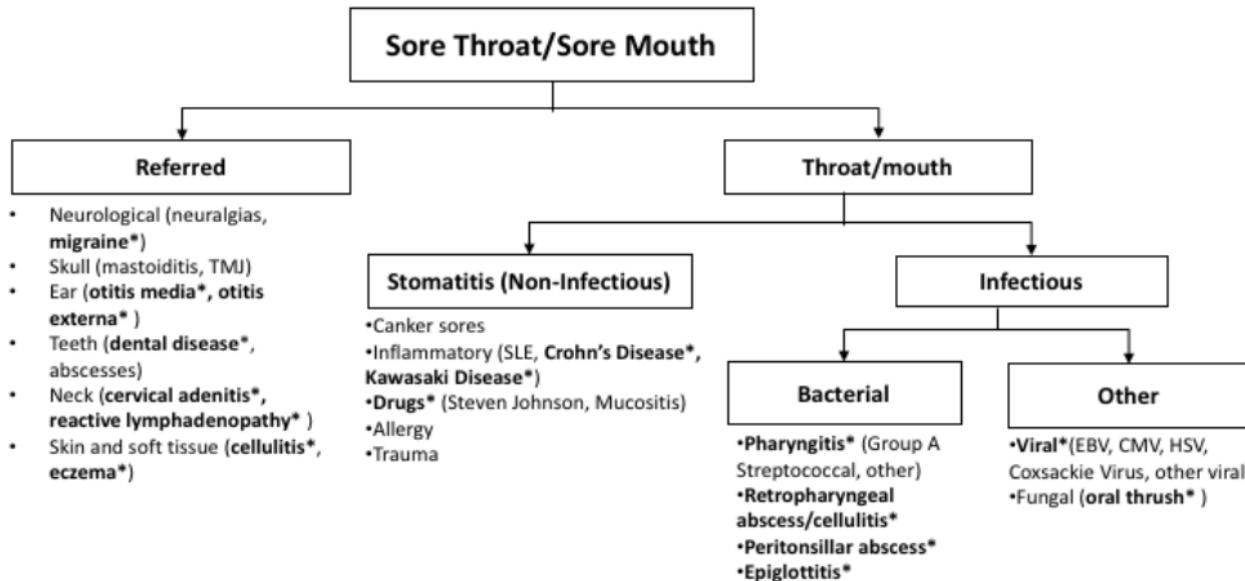
# Skin Lesion (Secondary Skin)



# Small for Gestational Age



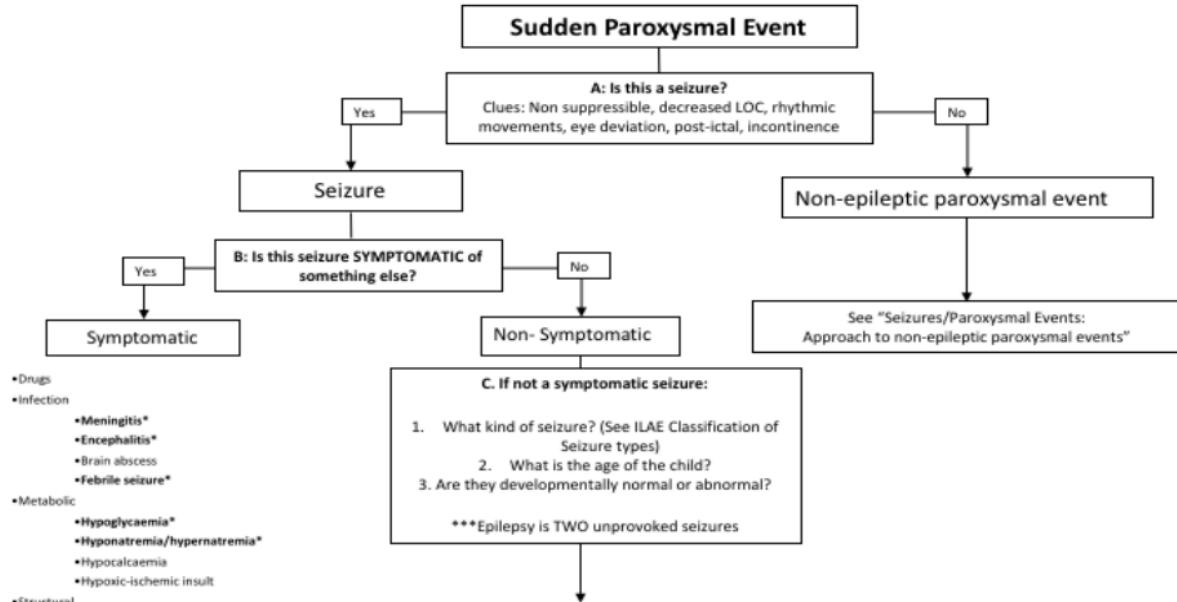
# Sore Throat/Sore Mouth



\*Indicates Key Condition

This is not an exhaustive list of medical conditions.

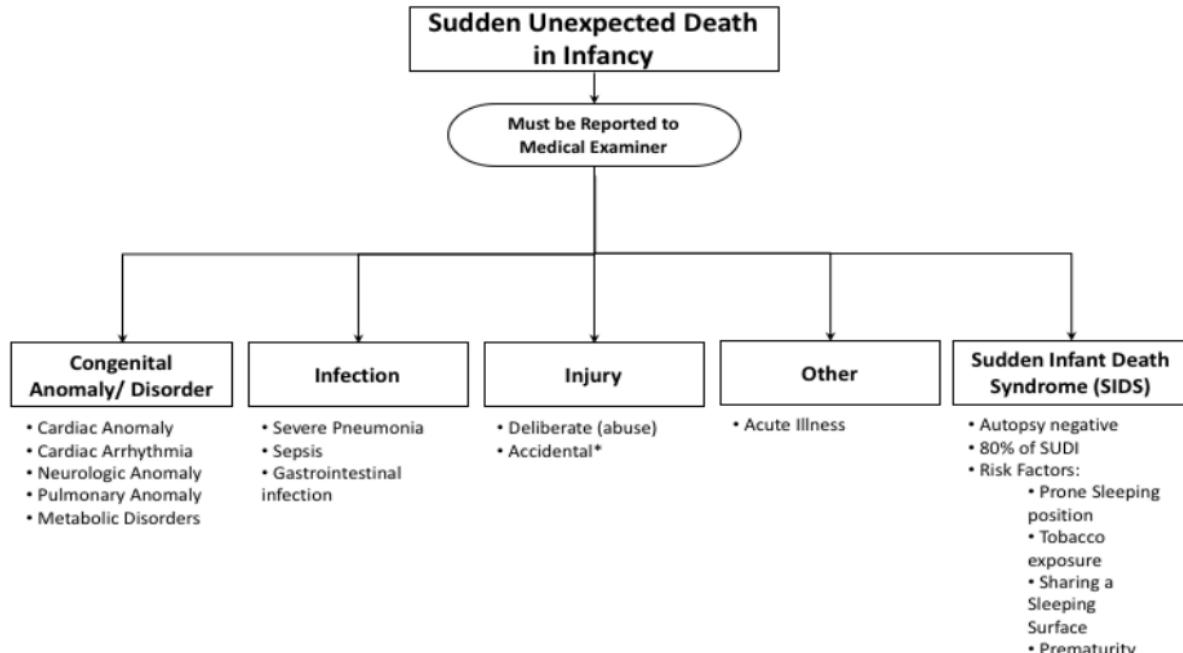
# Sudden Paroxysmal Event



- Drugs
- Infection
  - Meningitis\*
  - Encephalitis\*
  - Brain abscess
  - Febrile seizure\*
- Metabolic
  - Hypoglycaemia\*
  - Hyponatremia/hypernatremia\*
  - Hypocalcaemia
  - Hypoxic-ischemic insult
- Structural
  - Brain tumour\*, other space occupying lesion
  - Congenital structural anomalies [eg. Tuberous Sclerosis, Sturge-Weber Syndrome]
  - Abusive head trauma\*, other traumatic brain injury
  - Stroke/intracranial bleed

\*Indicates Key Condition  
This is not an exhaustive list of medical conditions.

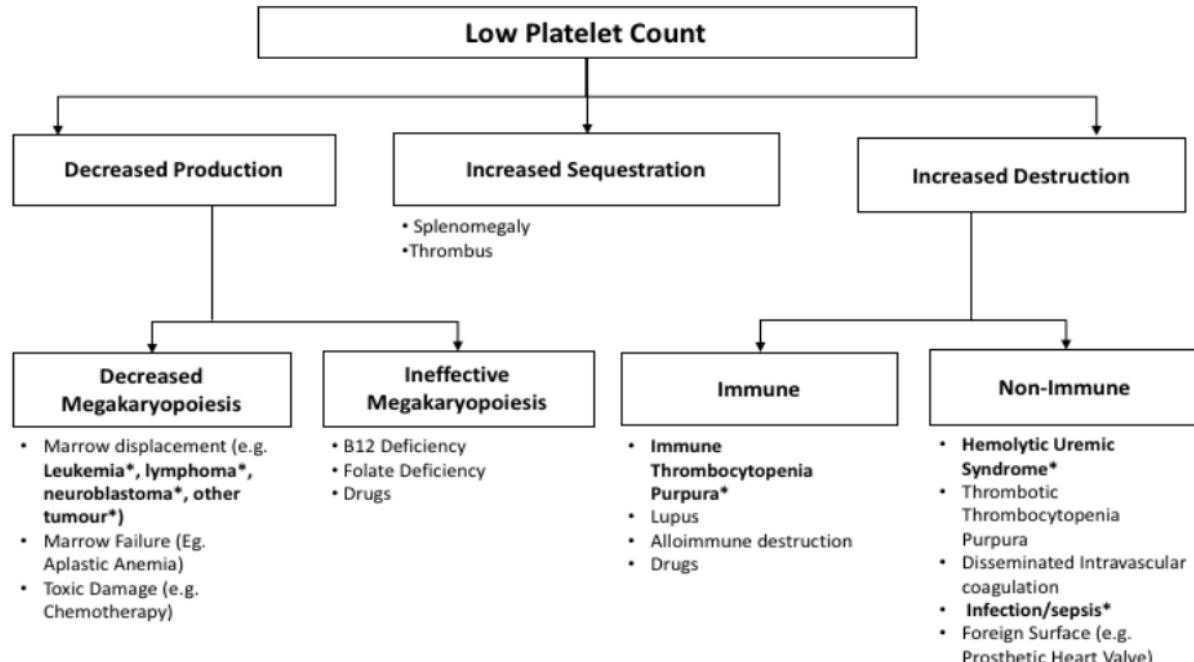
# Sudden Unexpected Death In Infancy (SUDI)



\* SUDI with negative investigations and infant found in prone position or in bed with parent may be called either SIDS or injury (new ideas evolving)

\*Indicates Key Condition  
This is not an exhaustive list of medical conditions.

# Thrombocytopenia



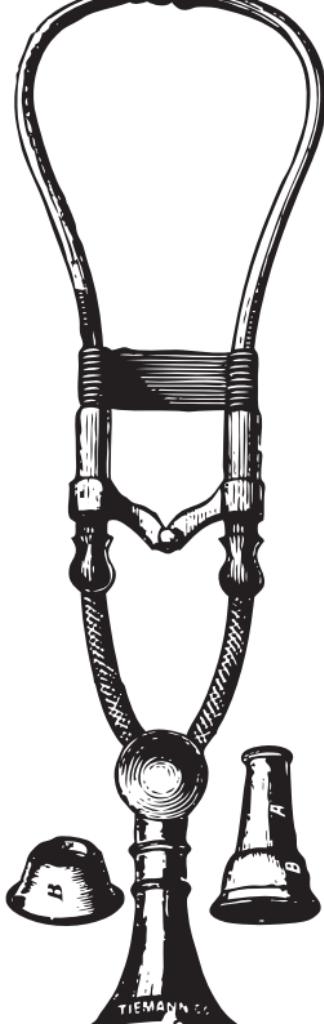
\*Indicates Key Condition  
This is not an exhaustive list of medical conditions.



# General Presentations

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Acute Fever .....	400
Fever of Unknown Origin / Chronic Fever..	401
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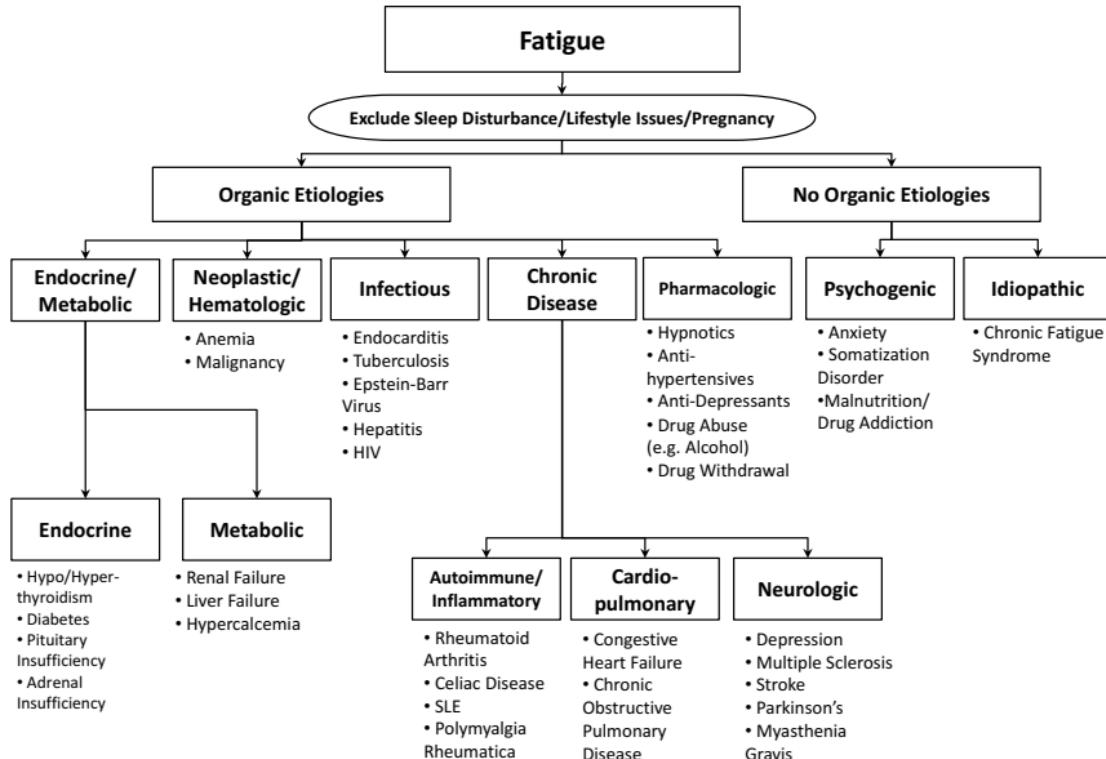
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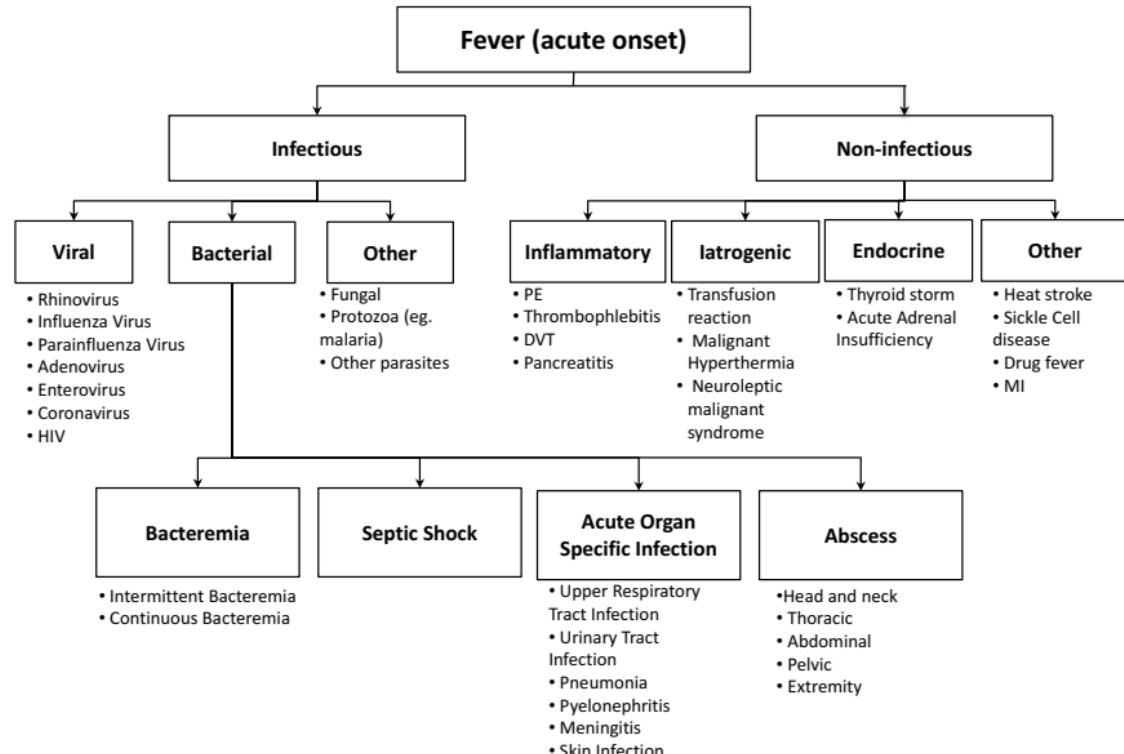
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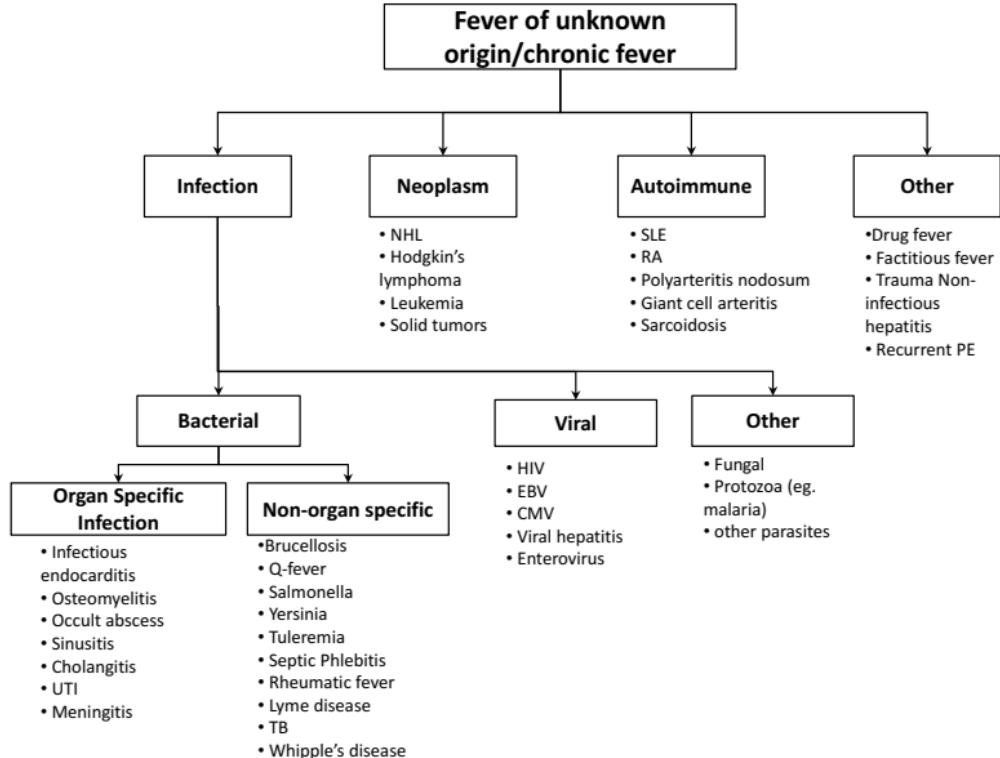
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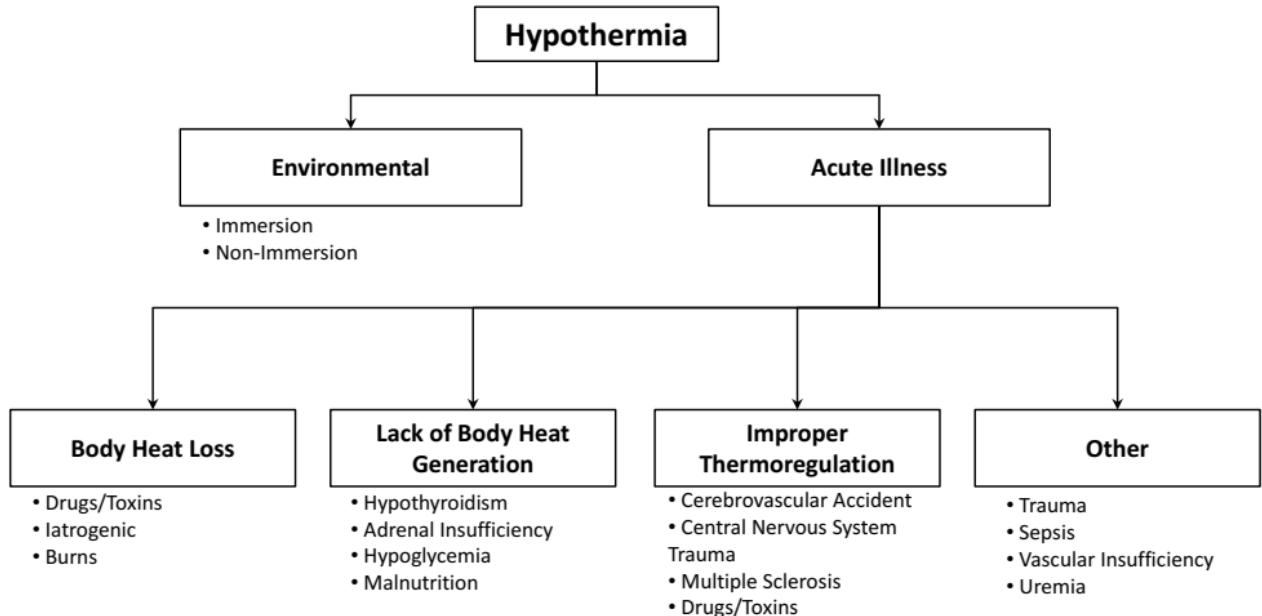
# Fatigue



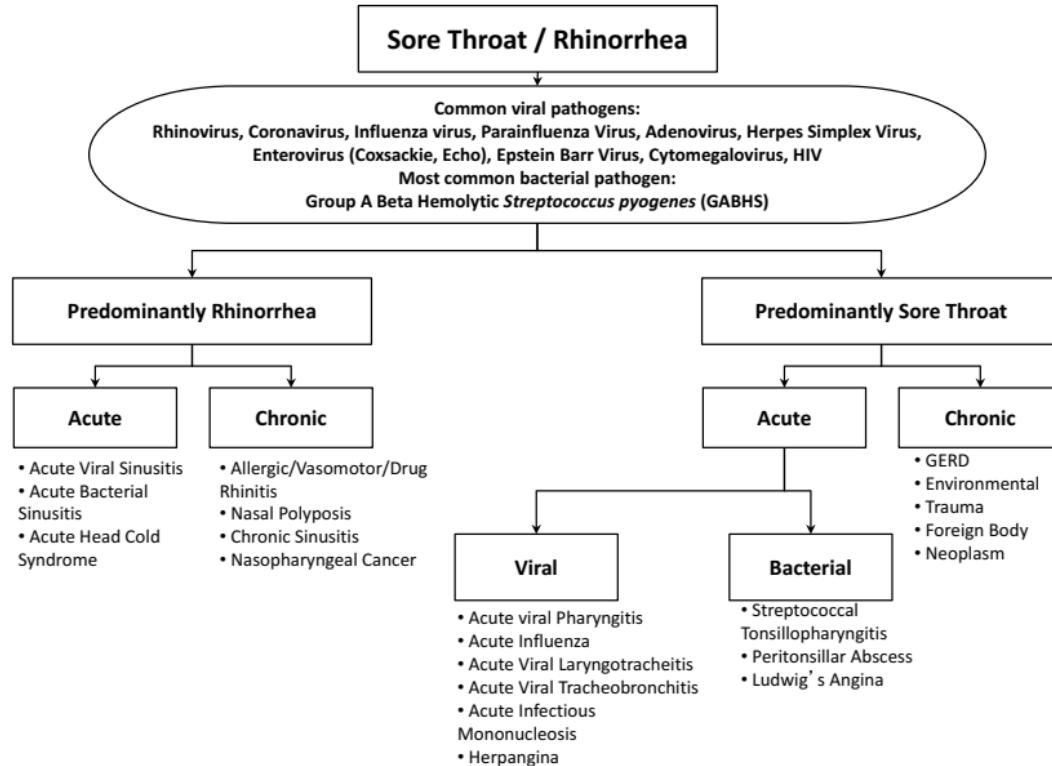


# Fever of Unknown Origin / Chronic Fever





# Sore Throat / Rhinorrhea





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# Abbreviations

<b>AAA</b>	Abdominal Aortic Aneurysm	<b>DKA</b>	Diabetic Ketoacidosis
<b>ACE</b>	Angiotensin-Converting Enzyme	<b>DRE</b>	Digital Rectal Exam
<b>ACTH</b>	Adrenocorticotrophic Hormone	<b>DVT</b>	Deep Vein Thrombosis
<b>ADPKD</b>	Autosomal Dominant Polycystic Kidney Disease	<b>EABV</b>	Effective Arterial Blood Volume
<b>ADH</b>	Antidiuretic Hormone	<b>ECF</b>	Extracellular Fluid
<b>AIN</b>	Acute Interstitial Nephritis	<b>ENaC</b>	Epithelial Sodium Channel
<b>ALS</b>	Amyotrophic Lateral Sclerosis	<b>FEV<sub>1</sub></b>	Forced Expiratory Volume in One Second
<b>ARB</b>	Angiotensin Receptor Blocker	<b>FJN</b>	Familial Juvenile Nephronophthisis
<b>ARF</b>	Acute Renal Failure	<b>FSGS</b>	Focal Segmental Glomerulosclerosis
<b>ARPKD</b>	Autosomal Recessive Polycystic Kidney Disease	<b>FSH</b>	Follicle Stimulating Hormone
<b>BPH</b>	Benign Prostatic Hypertrophy	<b>FVC</b>	Forced Vital Capacity
<b>CCD</b>	Cortical Collecting Duct	<b>GBM</b>	Glomerular Basement Membrane
<b>CHF</b>	Congestive Heart Failure	<b>GERD</b>	Gastrointestinal Esophageal Reflux Disease
<b>CIN</b>	Chronic Interstitial Nephritis	<b>GFR</b>	Glomerular Filtration Rate
<b>CLL</b>	Chronic Lymphocytic Leukemia	<b>GHRH</b>	Growth Hormone Releasing Hormone
<b>CNS</b>	Central Nervous System	<b>GH</b>	Growth Hormone
<b>COPD</b>	Chronic Obstructive Pulmonary Disease	<b>GI</b>	Gastrointestinal
<b>CRF</b>	Chronic Renal Failure	<b>GN</b>	Glomerulonephritis
<b>CRH</b>	Corticotrophic Releasing Hormone	<b>GnRH</b>	Gonadotropin Releasing Hormone
<b>CT</b>	Computed Tomography	<b>GPA</b>	Granulomatosis with Polyangiitis
<b>DCIS</b>	Ductal Carcinoma In Situ	<b>GRA</b>	Glucocorticoid
<b>DHEA</b>	Dehydroepiandrosterone	<b>GTN</b>	Gestational Trophoblastic Neoplasm
<b>DHEA-S</b>	Dehydroepiandrosterone Sulfate	<b>H<sup>+</sup></b>	Hydrogen
<b>DIC</b>	Disseminated Intravascular Coagulation	<b>HCG</b>	Human Chorionic Gonadotropin

<b>HDL</b>	High Density Lipoprotein	<b>LPL</b>	Lipoprotein Lipase
<b>HELLP</b>	Hemolysis, Elevated Liver Enzymes, Low Platelets	<b>MCD</b>	Minimal Change Disease
<b>HIV</b>	Human Immunodeficiency Virus	<b>MCH</b>	Mean Corpuscular Hemoglobin
<b>HPL-1a</b>	Human Peripheral Lung Epithelial Cell Line 1a	<b>MCHC</b>	Mean Corpuscular Hemoglobin Concentration
<b>HRT</b>	Hormone Replacement Therapy	<b>MCV</b>	Mean Corpuscular Volume
<b>HSP</b>	Henoch-Schönlein Purpura	<b>MEN</b>	Multiple Endocrine Neoplasma
<b>HSV</b>	Herpes Simplex Virus	<b>MI</b>	Myocardian Infarction
<b>HUS</b>	Hemolytic-Uremic Syndrome	<b>MPA</b>	Microscopic Polyangiitis
<b>IBD</b>	Irritable Bowel Disease	<b>MPGN</b>	Membranoproliferative Glomerulonephritis
<b>IBS</b>	Irritable Bowel Syndrome	<b>MS</b>	Multiple Sclerosis
<b>ICP</b>	Increased Intracranial Pressure	<b>MSK</b>	Musculoskeletal
<b>ICU</b>	Intensive Care Unit	<b>Na<sup>+</sup></b>	Sodium
<b>IGF</b>	Insulin-like Growth Factor	<b>NSAIDs</b>	Non-Steroidal Anti-Inflammatories
<b>INR</b>	International Normalized Ratio	<b>OCP</b>	Oral Contraceptive Pill
<b>ITP</b>	Idiopathic Thrombocytopenic Purpura	<b>OSM</b>	Osmolality
<b>IUGR</b>	Intrauterine Growth Restriction	<b>PE</b>	Pulmonary Embolism
<b>IV</b>	Intravenous	<b>PID</b>	Pelvic Inflammatory Disease
<b>IVP</b>	Intravenous Pyelogram	<b>PMN</b>	Polymorphic Neutrophils
<b>JVP</b>	Jugular Venous Pyelogram	<b>POSM</b>	Plasma Osmolality
<b>K<sup>+</sup></b>	Potassium	<b>PPROM</b>	Preterm Premature Rupture of Membranes
<b>KUB</b>	Kidney, Ureter, Bladder	<b>PROM</b>	Premature Rupture of Membranes
<b>LCIS</b>	Lobular Carcinoma In Situ	<b>PT</b>	Prothrombin Time
<b>LDL</b>	Low Density Lipoprotein	<b>PTH</b>	Parathyroid Hormone
<b>LGA</b>	Large for Gestational Age	<b>PTT</b>	Partial Thromboplastin Time
<b>LH</b>	Luteinizing Hormone	<b>PUD</b>	Peptic Ulcer Disease
<b>LLN</b>	Lower Limit of Normal	<b>PUJ</b>	Pelviureteric Junction
<b>LOC</b>	Level of Consciousness	<b>RAPD</b>	Right Afferent Pupillary Defect

<b>RAS</b>	Renal Artery Stenosis
<b>RBC</b>	Red Blood Cell
<b>RTA</b>	Renal Tubular Acidosis
<b>SGA</b>	Small for Gestational Age
<b>SLE</b>	Systemic Lupus Erythematosus
<b>TORCH</b>	Toxoplasmosis, Other (Hepatitis B, Syphilis, Varicella-Zoster virus, HIV, Parvovirus B19), Rubella, Cytomegalovirus, Herpes Simplex Virus
<b>TSH</b>	Thyroid Stimulating Hormone
<b>TSHR</b>	Thyroid Stimulating Hormone Receptor
<b>TTKG</b>	Transtubular Potassium Gradient
<b>TPP</b>	Thrombotic Thrombocytopenic Purpura
<b>UTI</b>	Urinary Tract Infection
<b>US</b>	Ultrasound
<b>VACTERL</b>	Vertebral Anomalies, Anal Atresia, Cardiovascular Anomalies, Tracheoesophageal Fistula, Esophageal Atresia, Renal Anomalies, Limb Anomalies
<b>VSD</b>	Ventricular Septal Defect
<b>VUJ</b>	Vesicoureteral Junction

# **Notes**









Superficially resembling flowcharts, schemes are a way to ease the memorization of differential diagnoses by breaking large lists into sets of smaller, conceptually-intuitive information packets. using the Medical Council of Canada's Clinical Presentation List,

*Blackbook* organizes the most common medical presentations of patients into diagnostic schemes. As a tool for medical students, residents, allied health trainees, and health care educators, medical presentation schemes will ease the learning of the volume of medical diagnoses, and will facilitate recall when needed.

Based on the medical presentation schemes used in the University of Calgary Medical curriculum, *Blackbook* is a joint production of the students and the Cumming School of Medicine at the University of Calgary.

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