

## Diagnostic Checklists

1. The goal of these checklists is to prompt physicians to consider a broad differential diagnosis for diagnostically challenging patients in primary care and to help resist the most common cause of missing a diagnosis: the physician's failure to consider it. The lists are not exhaustive, but the goal is feasible because

- a. It is possible to cover 99% of diagnostically challenging complaints with a short list, whereas 100% coverage would require a long list.
- b. Similarly, for each complaint it is possible to cover 99% of the diseases that cause it with a short list.
- c. There are no checklists for complaints that rarely pose diagnostic challenges, either because the list of causes is short (e.g., constipation, rectal bleeding, breast lump, sore throat, nasal congestion), the diagnosis is obvious (e.g., minor trauma, wart), or there is a single cause that accounts for the overwhelming majority of cases (e.g., hypertension, obesity).
- d. The checklists do not include diagnoses that are exceedingly rare in North America, diagnoses that are obvious (e.g., major chest trauma as a cause of chest pain), or diagnoses where the symptom is a late manifestation rather than a presenting complaint (e.g., abnormal uterine bleeding caused by end-stage renal disease).

2. The diagnoses are listed in approximate order of decreasing prevalence (most common diseases at the top).

This ordering is based on limited published data and the authors' experience. (Cherry DK, Hing E, Woodwell DA, Rechsteiner EA. National Ambulatory Medical Care Survey: 2006 Summary. National Health Statistics Reports. Number 3. August 6, 2008.)

3. Unless otherwise specified, the checklists address complaints by adults rather than children.

4. These checklists may have four advantages over more traditional differential diagnoses:

- a. A shorter list, practical at the point of care
- b. An indication of disease prevalence in primary care
- c. Identification of "must-not-miss" diagnoses, designated by an ace of spades (♠)
- d. Identification of diagnoses that are, in fact, commonly missed (designated by an asterisk (\*)) and partly based on Schiff GD, Hasan O, Kim S, Abrams R, Cosby K, Lambert BL, et al. Diagnostic error in medicine: analysis of 583 physician-reported errors. Arch Intern Med. 2009;169:1881-7; and on Zwaan L, de Bruijne M, Wagner C, Thijs A, Smits M, van der Wal G, et al. Patient record review of the incidence, consequences, and causes of diagnostic adverse events. Arch Intern Med. 2010 Jun 28;170(12):1015-21).

5. The checklists are designed to be printed on 4x6 cards, two-sided, with a 3/4 inch metal binder ring. The lists could also be adapted for a handheld computer.

## Abdominal and pelvic pain

(6/29/10)

Peptic gastritis, esophagitis

Viral gastroenteritis

♠Fitz-Hugh-Curtis syndrome

Constipation

Familial Mediterranean Fever

\*Psychiatric (depression, sexual abuse)

Porphyria

Irritable bowel syndrome

Periarteritis nodosa

♠Diverticulitis

Black Widow Spider bite

♠Pancreatitis

♠Gallbladder disease

♠Bowel obstruction, partial small bowel obstruction

♠\*Pregnancy complication, ectopic pregnancy

Mesenteric adenitis

♠\*Appendicitis

♠\*Myocardial infarction

♠Kidney stone

♠Pelvic inflammatory disease

♠Ovarian cyst, ovarian torsion, endometriosis

Endometriosis

Abdominal wall pain (trigger point pain)

Herpes zoster

Celiac disease

♠Hepatitis, hepatic abscess

♠\*Pneumonia, empyema

Mittelschmerz

♠\*Intraabdominal tumor

Giardia

♠\*Diabetic ketoacidosis

♠\*Aortic dissection, ruptured aneurysm

♠Mesenteric ischemia, infarction

♠Hernia

♠Perforated viscus, peritonitis

Food poisoning

### Inflammatory bowel disease

- ♠Sickle cell crisis
- ♠Lead poisoning
- ♠Leukemia
- ♠Meckel's diverticulitis

## **Abnormal uterine bleeding**

(1/20/10)

Anovulatory bleeding, polycystic ovary syndrome

Menorrhagia

Contraceptive related abnormal bleeding (oral, depo-medroxyprogesterone, intrauterine device, progestin implant)

♣Ectopic pregnancy

♣Intrauterine pregnancy complication

♣Endometrial cancer, hyperplasia

Polyps

Fibroids

♣Endometritis

Hyperprolactinemia

Thyroid disease

Drugs (anticoagulants, psychotropics)

Normal variation (postmenarchal, perimenopausal, premenstrual spotting, postmenstrual spotting, midcycle ovulatory bleeding)

Coagulopathy (von Willebrand)

Organ failure (late manifestation: kidney failure, liver failure)

**Anxiety, depression**

(7/15/10)

- ♠ Depression, agitated depression, bipolar disorder
- Anxiety (situational, generalized anxiety disorder)
- Panic disorder
- Alcohol
- ♠ Hypoglycemia
- Medications
- ♠ Thyroid disorder
- Paraneoplastic syndrome
- ♠ Pulmonary embolus
- ♠ Hypoxemia
- ♠ Pheochromocytoma

## **Back pain**

(2/11/10)

Musculoskeletal, nonspecific

Herniated disk

Spinal stenosis

♣Gall bladder disease

Compression fracture

♣Pyelonephritis, kidney stone

♣Pancreatitis, pancreatic carcinoma

♣\*Pulmonary embolus

♣\*Pneumonia

Psychiatric

Herpes zoster

Vitamin D deficiency

♣Polymyalgia rheumatica

Prostatitis

♣\*Abdominal or thoracic aortic aneurysm

♣Metastatic tumor

♣Abdominal tumor

♣Penetrating ulcer

♣Infection (diskitis, osteomyelitis, spinal abscess)

## **Chest pain**

(6/17/10)

Chest wall pain

GERD

Pleurisy, pleuritis

\*Psychiatric

♠\*Coronary disease (myocardial infarction, angina)

♠\*Pulmonary embolus

Herpes zoster

♠\*Pneumonia, bronchitis

♠Pneumothorax

Esophageal spasm

Pericarditis, myocarditis

♠Aortic stenosis

♠\*Dissecting aortic aneurysm

♠\*Tumor

♠Esophageal rupture

♠\*Spinal cord compression

## **Cough**

(6/2/10)

- Viral upper respiratory infection
- Postnasal drip
- Postinfectious, postviral cough
- Bronchitis
- Asthma, chronic obstructive pulmonary disease
- Gastroesophageal reflux
- \*Drugs (angiotensin converting enzyme inhibitors, beta blockers, amiodarone)
- ♠\*Pneumonia
- External or middle ear disease
- Aspiration, recurrent
- ♠\*Pulmonary embolus
- ♠Pertussis
- Psychogenic
- ♠\*Heart failure
- ♠\*Tumor
- ♠Epiglottitis
- ♠Acute histoplasmosis
- Interstitial lung disease
- Bronchiectasis
- ♠Sarcoidosis
- ♠\*Tuberculosis
- ♠Cystic fibrosis
- ♠Laryngeal tumor
- ♠Mitral stenosis
- ♠Foreign body

**Cough, dyspnea (infant, newborn)**

(2/16/10)

- Viral upper respiratory infection
- Respiratory syncytial virus (RSV)
- Transient tachypnea
- ♠Sepsis
- Infant respiratory distress syndrome
- Metapneumovirus
- ♠Pneumothorax
- ♠Pneumonia
- Asthma
- ♠Heart disease

**Crying infant (Inconsolable)**

(6/1/10)

Idiopathic

Colic

♣Infections (otitis media, viral illness, urinary tract infection, herpes stomatitis)

♣Fracture

Corneal abrasion

Constipation

Immunization reaction

♣Hair tourniquet syndrome

## **Delirium**

(1/20/10)

- ♠\*Drugs
- \*Psychiatric disorders
- ♠Alcohol
- ♠\*Anemia
- ♠\*Glucose disturbances
- ♠Serotonin syndrome
- ♠Trauma
- ♠Head injury
- ♠\*Myocardial infarction
- ♠Carbon monoxide
- ♠Sepsis
- ♠Electrolyte disturbance, Na, Ca, Mg, P
- ♠Thyroid disease
- ♠Hypoxia
- ♠Hypertensive encephalopathy
- ♠CNS infections
- ♠Brain mass
- ♠Hypothermia
- ♠Hyperthermia
- ♠B12 deficiency
- ♠Folate deficiency
- ♠Thiamine deficiency
- ♠Liver failure
- ♠\*Heart failure
- ♠Renal failure
- Burns
- Postpartum psychosis
- ♠Adrenal disease
- ♠Porphyria
- ♠Nonconvulsive status epilepticus

**Dementia, memory loss**

(6/17/10)

Alzheimer disease

♣Pseudodementia (depression)

Mild cognitive impairment

♣Medications (antihistamines)

Alcohol

Vascular dementia

Dementia with Lewy bodies

Parkinson disease

♣Vitamin B12 deficiency

♣Hypothyroidism

♣Delirium

♣Anoxia

♣Hypoglycemia

♣Head injury

Transient global amnesia

Progressive supranuclear palsy

♣Structural brain disease

## **Diarrhea**

(2/24/10)

Viral gastroenteritis  
Irritable bowel syndrome  
Salmonella  
Shigella  
E. coli O157 H7  
Campylobacter  
Clostridium difficile  
Food poisoning  
Lactose intolerance  
Bacterial overgrowth  
Diabetes  
Drugs, laxatives  
Lactase deficiency  
Giardia  
Microscopic colitis  
Entamoeba histolytica  
Cryptosporidium  
Inflammatory bowel disease  
Celiac disease  
Yersinia  
Bypass operations  
Pancreatic insufficiency  
Blastocystis hominis  
Laxative abuse

## **Dysphagia**

(6/1/10)

Esophageal spasm

Lower esophageal ring

Peptic stricture

Functional dysphagia

Nutcracker esophagus

Achalasia

♠\*Stroke

♠Tumor (intrinsic or extrinsic)

Multiple sclerosis

Amyotrophic lateral sclerosis

Scleroderma

Myasthenia gravis

## **Dyspnea, tachypnea**

(2/11/10)

Asthma, chronic obstructive pulmonary disease

Fever

Deconditioning

♠\*Pneumonia

Physiologic dyspnea of pregnancy

Bronchitis

♠\*Heart failure

♠\*Pulmonary embolus

♠\*Myocardial infarction

\*Psychiatric, hyperventilation

♠Pneumothorax

♠Cardiomyopathy

♠Shock

♠\*Anemia

♠\*Tumor

♠Pleural effusion

♠Valvular heart disease

♠Pulmonary hypertension

Interstitial fibrosis

♠Metabolic acidosis

Drugs (ASA)

Arrhythmias, atrial fibrillation

Abdominal distension, obesity

♠Cardiac tamponade

♠Upper airway obstruction

Myasthenia gravis

♠Hyperthyroidism

♠Foreign body aspiration

♠Increased intracranial pressure

## **Ear pain, otalgia**

(6/23/10)

Acute otitis media, otitis media with effusion

TMJ syndrome

External otitis

Cerumen

Viral myringitis

Dental causes

Pharyngitis

Barotrauma

Foreign body

Idiopathic

Cervical adenopathy

Cellulitis, chondritis, perichondritis

♣Acoustic neuroma

♣\*Myocardial infarction

♣Nasopharyngeal tumor

♣Temporal arteritis

♣Cholesteotoma

Sinusitis

Carotidynia

Trauma

♣Mastoiditis

Gastroesophageal reflux

♣Tumors (ear, nasopharyngeal)

Bell's palsy

Wegener's granulomatosis

Cervical disc disease

Ramsey Hunt syndrome

Relapsing polychondritis

♣Malignant external otitis

♣Coronary disease

♣Thoracic aneurysm

- ♠\*Psychogenic (depression, anxiety)
- ♠Thyroid tumor
- Salivary gland disorder
- Neuralgias (trigeminal, glossopharyngeal)
- Eagle's syndrome

**Edema, leg**

(1/20/10)

Venous insufficiency, dependency, garments

Obstructive sleep apnea (resulting in pulmonary hypertension)

\*Drugs (NSAIDS, Ca channel blockers, steroids)

♠Deep vein thrombosis

♠\*Heart failure

Baker's cyst rupture

Ruptured gastrocnemius

Reflex sympathetic dystrophy

♠\*Pelvic Tumor

Idiopathic

Hypoalbuminemia

Cirrhosis

Lymphedema

Renal failure, nephrotic syndrome

♠Myxedema

## **Facial flushing**

(6/1/10)

Emotional

Menopause

Alcohol

Rosacea

Drugs (calcium-channel blockers, nicotinic acid, others)

Heat exposure

Exercise

♠Fever

Foods (spicy foods, cured meats, monosodium glutamate)

♠Carcinoid

Cluster headache

♠Serotonin syndrome

Dumping syndrome

♠Bronchogenic carcinoma

♠Medullary thyroid carcinoma

Systemic mastocytosis

♠Pheochromocytoma

**Facial pain**

(6/1/10)

Sinusitis

Dental pain

TMJ syndrome

Trigeminal neuralgia

Herpes zoster

Salivary gland disorders

Migraine

♠Coronary disease

♠Aortic aneurysm

**Fever (acute, uncertain source) (6/29/10)**

- ♠ Infections (pulmonary, gastrointestinal, urinary, sinusitis, skin, meningitis, bone, infectious mononucleosis, occult abscess)
- ♠ Polymyalgia rheumatica
- ♠ \*Malignancy, tumor lysis syndrome
- ♠ \*Myocardial infarction
- ♠ \*Pulmonary embolus, deep vein thrombosis
- Surgical site inflammation (seroma, hematoma)
- ♠ Transfusion reaction
- ♠ Stroke, subarachnoid hemorrhage, intracranial hemorrhage
- ♠ Serotonin syndrome
- ♠ Necrotizing fasciitis
- Gout
- ♠ Bowel ischemia, infarction
- ♠ Hyperthyroidism
- Connective tissue disorder
- Pancreatitis
- ♠ Endocarditis
- Drugs (antibiotics, heparin, phenytoin)
- Drug withdrawal (alcohol, opiates, barbituates, benzodiazepines)
- ♠ Malignant hyperthermia
- ♠ Neuroleptic malignant syndrome

**Flank pain**

(1/20/10)

Musculoskeletal

♣Kidney stone

♣Pyelonephritis

♣Diverticulitis

Herpes zoster

♣\*Pneumonia

Influenza

♣Ruptured aneurysm

**Genital skin lesion, genital ulcer**

(6/1/10)

Herpes simplex

Behcet's disease

♣Cancer

♣Syphilis

Chancroid

Lymphogranuloma venereum

## Headache

(4/10/10)

Daily withdrawal headaches

Migraine

Tension type headache

Caffeine withdrawal

\*Drug adverse effect

Sinusitis

Viral syndrome, febrile illness

Temporomandibular joint syndrome

Cervical arthritis

Spinal headache (post lumbar puncture)

♠Temporal arteritis

♠\*Subarachnoid hemorrhage

♠Carbon monoxide poisoning

Toxic exposures

Idiopathic thunderclap

♠Preeclampsia

♠Glaucoma

♠Meningitis/encephalitis/brain abscess

♠Cerebral aneurysm

♠Subdural hematoma

Neuralgias (e.g., trigeminal neuralgia)

Pseudotumor cerebri (intracranial hypertension)

Cluster headache

♠HSV encephalitis

♠Brain tumor

♠Arterial dissections

♠Cerebral venous sinus thrombosis

Spontaneous intracranial hypotension

Pituitary apoplexy

**Hearing loss (deafness)**

(1/20/10)

Presbycusis

Cerumen

♣Otitis media, otitis externa

Noise exposure

♣Acoustic neuroma

Meniere's disease

Otosclerosis

♣Sudden sensorineural hearing loss

♣Drugs (aspirin, gentamicin, furosemide)

♣Stroke

♣Hereditary

Trauma

♣Neoplasm

## **Hematuria**

(6/1/10)

Transient unexplained hematuria

♣Urinary tract infection

Stones

Menstruation (contaminated urine)

Exercise

Trauma

Benign prostatic hypertrophy

♣Tumor

Prostatitis

Glomerular disease (IgA nephropathy, hereditary nephritis)

Hypercalciuria

Hyperuricosuria

♣Tuberculosis

## **Hypotension, shock**

(2/11/10)

- ♠ Hemorrhage (trauma, GI bleeding)
- Hypovolemia
- Vomiting, diarrhea
- ♠ Pancreatitis
- \*Drugs (e.g., antihypertensives)
- ♠ Cardiomyopathy
- ♠ \*Myocardial infarction
- ♠ Aortic stenosis
- ♠ Arrhythmias
- ♠ Peritonitis
- ♠ Anaphylaxis
- ♠ \*Pulmonary embolus
- ♠ \*Ruptured aneurysm
- ♠ \*Pneumothorax
- ♠ \*Sepsis
- ♠ Aortic stenosis
- ♠ Hypertrophic cardiomyopathy
- ♠ Hypothyroidism
- ♠ Cardiac tamponade
- ♠ Addison's disease/Adrenal insufficiency/ hemorrhage
- ♠ Atrial myxoma

**Leg pain, bone pain, extremity pain**

(2/11/10)

Arthritis

♠\*Fracture, trauma

♠Gout

Varicose veins

♠Cellulitis

♠Deep vein thrombosis

Lumbar disc disease

Neuropathy (e.g., diabetic)

Ruptured Baker's cyst

Ruptured plantaris muscle

Vitamin D deficiency

♠Compartment syndrome

♠Rhabdomyolysis

Shin splints

RSD, complex regional pain syndrome

♠Osteomyelitis

♠Arterial occlusion

Gastrocnemius tear

♠Sickle cell crisis

♠Leukemia

## **Limp in child**

(6/1/10)

Transient synovitis

♠Fractures (toddlers, stress, foot, abuse)

Soft tissue trauma

Osgood-Schlatter's disease

♠Slipped capital femoral epiphysis

Legg-Perthes

Osteochondritis dessicans

♠Hip dysplasia

♠Tumors

Conversion disorder

♠Leukemia

♠Septic arthritis

♠Osteomyelitis

♠Diskitis

Muscular dystrophy

## **Lymphadenopathy**

(1/20/10)

Viral syndrome

Infectious mononucleosis

Cat scratch disease

♠Malignancy (lymphoma, leukemia, metastases)

♠HIV

♠\*Tuberculosis, atypical mycobacteria

♠Tularemia

Lupus

♠Fungal infection (histoplasmosis, coccidiomycosis, cryptococcus)

Medications (phenytoin, serum sickness)

♠Brucellosis

♠Leptospirosis

♠Syphilis

♠Lyme disease

Sarcoidosis

Amyloidosis

Rubella

**Mental status, acute change (coma, lethargy)** (1/20/10)

- ♠ Delirium
- Alcohol
- Psychosis
- Drug overdose
- ♠ Hypoglycemia
- ♠ \*Intracranial hemorrhage
- Seizure (postictal)
- ♠ Urinary Retention
- ♠ Hypoxia
- ♠ CO<sub>2</sub> narcosis
- ♠ \*Pneumonia
- ♠ Head trauma
- ♠ Sepsis
- ♠ Meningitis, encephalitis
- ♠ Electrolyte abnormality
- Psychiatric
- ♠ \*Heart failure
- ♠ Hypotension
- ♠ Brain stem stroke
- ♠ Disturbance of Ca, Mg, Na, K, P
- ♠ Thyroid disease
- ♠ Hypothermia
- ♠ Liver failure
- ♠ Renal failure
- ♠ Brain tumor with herniation

## **Muscle cramps**

(1/20/10)

Idiopathic, ordinary, nocturnal

Heat-induced (volume depletion, hyponatremia)

\*Drug induced (nifedipine, beta blockers)

Hemodialysis (volume and electrolyte shifts)

Lower motor neuron (injury, ALS, compression)

Writer's cramp

Hypocalcemia

Hypomagnesemia

Respiratory alkalosis

Hypokalemia

Thyroid disease

McArdle's disease (glycogen storage disease)

**Myalgias, arthralgias (generalized)**

(6/22/10)

Influenza

Viral syndrome, infections

Fibromyalgia

♠\*Statins

Vitamin D deficiency

♠Hypothyroidism

♠Polymyalgia rheumatica

♠Rhabdomyolysis

Polymyositis, dermatomyositis

\*Psychiatric

♠Lyme disease

♠Hypophosphatemia

Lupus, rheumatoid arthritis

## **Nausea, vomiting**

(1/20/10)

Gastroenteritis, gastritis

Drugs (opioids, iron, chemo)

Acute intermittent porphyria

♠Pregnancy

Migraine

♠\*Appendicitis

♠Bowel obstruction

Gastroparesis (diabetes)

Eating disorder

♠Pyelonephritis

Irritable bowel syndrome

Peptic ulcer disease

Psychogenic vomiting, anxiety, depression

Pain (esp. visceral)

Severe coughing

♠\*Pancreatic carcinoma

♠Cholecystitis

♠Brain tumor

Pseudotumor cerebri

♠Pancreatitis

♠Hepatitis

♠\*Myocardial infarction

Crohn's disease

♠Glaucoma

Mesenteric ischemia

♠\*Intracranial hemorrhage

♠Intracranial abscess, meningitis

Inner ear (e.g., labyrinthitis, Meniere's)

♠Uremia

♠\*Diabetic ketoacidosis

Food poisoning

♠Thyroid disorders

♠\*Congestive heart failure

Parathyroid disorders

Cyclic vomiting syndrome

♠Addison's disease, adrenal insufficiency

♠Serotonin syndrome

**Numbness, sensory loss**

(4/24/10)

- Peripheral neuropathy, Diabetes
- Compression neuropathy
- Disk disease
- Carpal tunnel syndrome
- Meralgia paresthetica
- Herpes Zoster
- ♠\*Stroke
- Multiple sclerosis
- Alcoholism
- Drugs (vincristine, amiodarone, lithium, others)
- ♠ Brain or cord tumor
- Idiopathic
- Amyloidosis
- ♠HIV
- ♠Heavy metal poisoning (lead, mercury)
- Paraneoplastic syndrome
- ♠Hypocalcemia
- Chronic liver disease
- ♠Lyme disease
- ♠B12 deficiency, Vitamin B6 deficiency
- Porphyria

## **Pruritus**

(6/17/10)

Dry skin

Atopic dermatitis

Contact dermatitis

Urticaria

Lichen simplex chronicus

Scabies

Diabetes

Drugs (narcotics, allergic reaction, cholestasis)

Pregnancy, third trimester

Psychiatric (delusional parasitosis)

Cholestasis

Lichen planus

Dermatitis herpetiformis

Renal disease

♠HIV

♠Malignancy (Hodgkins lymphoma, polycythemia vera)

♠Thyroid disease

Iron deficiency anemia

**Rash, generalized**

(7/23/10)

Eczema, atopic

♣\*Drug reaction

♣Toxic shock syndrome

Contact dermatitis

Rubella

Insect bites

Measles

Viral exanthem

♣Rocky Mountain Spotted Fever

Urticaria

Poison ivy

Folliculitis

Seborrheic dermatitis

Psoriasis

Tinea corporis

Guttate psoriasis

Candida

Keratosis pilaris

Pityriasis rosea

Lichen planus

Roseola

Scabies

Numular eczema

♣Fifth Disease

♣Lyme disease

Miliaria rubra (prickly heat)

♣Mycosis fungoides

♣Erythema multiforme

Dermatitis herpetiformis

Id reaction

♣Scarlet Fever

♣Stevens-Johnson syndrome

♣Kawasaki's disease

Unilateral lateral thoracic syndrome

Chicken pox (Varicella)

HIV acute exanthem

Lupus (subacute cutaneous)

Sweet's syndrome

♣Secondary syphilis

♣Meningococemia

## **Red eye**

(2/11/10)

Viral conjunctivitis

Allergic conjunctivitis

Stye (hordeolum)

Chalazion

Blepharitis

Dry eye syndrome

Subconjunctival hemorrhage

Contact lens over wear

♣Episcleritis, scleritis

♣Foreign body

Trauma

♣Bacterial conjunctivitis

♣Acute angle closure glaucoma

♣Iritis

♣Keratitis, bacterial, viral

♣Hyperthyroidism

**Scrotal pain**

(1/20/10)

Idiopathic orchialgia

Inguinal hernia

Ureteral stone

Epididymitis, orchitis

♠ Testicular torsion

Torsion of appendix testis

♠ Fournier's gangrene

♠ Testicular cancer

## **Seizure**

(6/1/10)

Imitators (vasovagal syncope, pseudoseizures, transient ischemic attack)

Epilepsy

Alcohol and drug withdrawal

♣Head trauma

♣Hypoglycemia

♣Hyponatremia

♣Hypoxia

♣\*Stroke

♣Brain tumor

♣Intracranial infection

♣Drug intoxication

♣Hypomagnesemia

♣Hypocalcemia

## **Shoulder pain**

(2/11/10)

Shoulder joint disease

Cervical radiculopathy

Biliary disease

♠\*Myocardial infarction

♠Intra-abdominal bleeding (ectopic, ruptured ovarian cyst)

♠\*Pneumonia

♠Polymyalgia rheumatica

♠\*Lung tumor

♠Ruptured abdominal viscus

♠Ruptured spleen

♠Abdominal malignancy

Pericarditis

## **Sinus tachycardia**

(1/20/10)

Anxiety, emotional stress

Pain

Recent physical exertion

COPD

♠Infections, fever

Pregnancy (10 to 20 BPM at term)

\*Drugs (alcohol, amitriptyline, amphetamines, amyl nitrite, anticholinergics, atropine, beta blocker withdrawal, bupropion, caffeine, cilostazol, cocaine, ephedrine, epinephrine, isoproterenol, nicotine, tobacco)

Diabetic cardiovascular autonomic neuropathy

♠\*Myocardial infarction

♠\*Pulmonary embolus

♠\*Pneumonia

♠\*Anemia

♠Hemorrhage

♠Hypotension, shock

♠Hypovolemia, dehydration

♠Hyperthyroidism

♠Hypoglycemia

♠Heart failure, pulmonary edema

♠Cardiomyopathy, myocarditis

♠Pericarditis

♠Acute mitral regurgitation

♠Pneumothorax

♠Aortic insufficiency

♠Hypoxia

♠Serotonin syndrome

Inappropriate sinus tachycardia

Postural orthostatic tachycardia syndrome (POTS)

Chronic nonparoxysmal sinus tachycardia

## ♣Pheochromocytoma

## **Syncope**

(2/11/10)

Vasovagal

Hyperventilation

\*Drugs

Panic attack

Orthostatic hypotension

Autonomic insufficiency

Valsalva

♠\*Anemia

♠Arrhythmias

♠Hypoglycemia

♠Seizure, pseudoseizure

♠GI bleeding

♠Valvular heart disease, aortic stenosis

♠\*Pulmonary embolus

♠\*Myocardial infarction

♠Hypoxia

♠Aortic dissection

♠Adrenal insufficiency, Addison's disease

Cough syncope

Micturition syncope

♠Hypertrophic cardiomyopathy

♠Cardiac tamponade

♠\*Cerebrovascular (TIA, stroke)

Atrial myxoma

## **Tinnitus**

(1/20/10)

Idiopathic

Presbycusis

Noise-induced hearing loss

Meniere's disease

Drugs (aspirin, antibiotics, loop diuretics, chemotherapy)

♣Acoustic neuroma

Congenital hearing loss

Cochlear trauma

♣Vascular, pulsatile (arteriovenous malformation, bruit, fistula)

## **Tremor**

(1/20/10)

Physiologic tremor

Essential tremor, familial tremor

Parkinson 's disease

♠Hyperthyroidism

♠Tardive dyskinesia

Anxiety

Medications (bronchodilators, caffeine, steroids, lithium)

Drug withdrawal

Orthostatic tremor

♠Cerebellar disease

♠Midbrain stroke

Multiple sclerosis

♠Serotonin syndrome

♠Carcinoid

♠Wilson's disease

♠Pheochromocytoma

**Urinary symptoms (dysuria, frequency, urgency) 6/17/10**

♠Urinary tract infection

♠Urethritis (chlamydia, gonococcus, unknown)

Vaginitis

Atrophic vaginitis

Genital herpes

Interstitial cystitis

Irritant urethritis

Daytime frequency of childhood syndrome

♠Prostatitis

Reactive arthritis (Reiter's syndrome)

Hypercalciuria

Psychiatric

## **Vertigo**

(2/11/10)

Benign Positional Vertigo

Meniere's disease

Vestibular neuronitis, acute labyrinthitis

♠Acoustic neuroma

Post-concussion syndrome

♠Otitis media

Barotrauma, ruptured oval window, perilymph leak

Migrainous vertigo

Otosclerosis

♠Vertebral artery dissection

♠\*Brain stem stroke

Psychiatric

♠Drugs (gentamicin, furosemide)

**Weakness, fatigue, malaise, vague symptoms** (3/2/10)

Obstructive sleep apnea

♠Depression, anxiety

Deconditioning

\*Drugs (beta blocker, clonidine, alcohol)

Chronic fatigue syndrome, fibromyalgia

♠\*Infections, infectious mononucleosis, hepatitis, pneumonia

♠Pregnancy

♠\*Anemia

Vitamin D deficiency

♠Hypothyroidism, hyperthyroidism

♠Hypokalemia, hyponatremia

♠\*Myocardial infarction

♠Celiac disease

♠Disturbance of calcium, phosphorus, magnesium

♠Polymyalgia rheumatica/Temporal arteritis

Parkinson disease

Hypogonadism

Myasthenia gravis

♠\*Heart failure, myocarditis

Pulmonary, hepatic, renal failure

Multiple sclerosis

♠Adrenal insufficiency, Addison's disease

B12 deficiency

♠Botulism

Black widow spider bite

## **Weight loss**

(1/20/10)

- ♠Depression
- Chronic obstructive pulmonary disease
- Drugs
- Dementia
- ♠\*Malignancy
- Eating disorder
- Anorexia of aging
- \*Diabetes
- ♠Hyperthyroidism
- ♠HIV
- ♠\*Tuberculosis
- ♠Adrenal insufficiency
- ♠Uremia
- Liver disease
- Intestinal parasites
- Malabsorption
- Inflammatory bowel disease