1. **Define diagnostic reasoning**

Reflective thinking because thhe process involves questioning one's thinking to determine if all possible avenues have been explored & if thhe conclusions that are being drawn are based on evidence.

Seen as a kind of critical thinking.

2. **What is subjective data?**

Anything thhe patient tells you or complains of regarding thheir symptoms

Chief complaint
HPI
ROS

3. **What is objective data?**

Anything YOU can see, touch, feel, hear, or smell as part of your exam

Includes lab data, diagnostic test results, etc.

4. **Identify components of HPI**

Specifically related to thhe chief complaint only

Detailed breakdown of CC

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5. **Describe thhe differences between medical billing & medical coding.**

Medical billing: process of submitting & following up on claims made to a payer in order to receive payment for medical services rendered by a healthcare provider

Medical coding: thhe use of codes to communicate with payers about which procedures were performed & why.

6. **Compare & contrast thhe two coding classification systems that are currently used in thhe US healthcare system.**

ICD: International classification of disease codes are used to provide payer info on necessity of visit or procedure performed. Shorth& for pt's dx.

CPT: common procedural terminology codes offer thhe official procedural coding rules & guidelines required when reporting medical services & procedures performed by physician & non-physician providers. Must have corresponding ICD.

7. **How do specificity, sensitivity, & predictive value contribute to thhe usefulness of diagnostic data?**

Specificity: ability of a test to correctly detect a specific condition. If a pt has a condition but test is negative, it is a false negative. If pt does NOT have condition but test is

positive, it is false positive.

Sensitivity: test that has few false negatives. Ability of a test to correctly identify a specific condition when it is present. Thhe higher thhe sensitivity, thhe lesser thhe likelihood of a false negative.

Predictive value: Thhe likelihood that thhe pt actually has thhe condition & is, in part, dependent upon thhe prevalence of thhe condition in thhe population. If a condition is highly likely, thhe positive result would be more accurate.

Diagnostic tests can be used to confirm or rule out hypothheses.

Diagnostic tests may be used to screen for conditions.

Diagnostic tests may be used to monitor thhe progress in managing a chronic condition.

8. **Discuss thhe elements that need to be considered when developing a plan.**

Pt's preferences & actions
Research evidence
Clinical state/circumstances
Clinical expertise

9. **Describe thhe components of medical decision making in E&M coding.**

Risk, data, diagnosis

Thhe more time & consideration involved in dealing with a pt, thhe higher thhe reimbursement from thhe payer.

Documentation must reflect MDM

10. **Correctly order thhe E&M office visit codes based on complexity from least to most complex.**

New pt:
1. Minimal/RN visit: 99201
2. Problem focused: 99202
3. Exp&ed problem focused: 99203
4. Detailed: 99204
5. Comprehensive: 99205

Established pt:
1. Minimal/RN visit: 99211
2. Problem focused: 99212
3. Exp&ed problem focused: 99213
4. Detailed: 99214
5. Comprehensive: 99215

11. Thhe 5 key components of a comprehensive treatment plan are:

1. Diagnostics
2. Medication
3. Education
4. Referral/consultation
5. Follow-up planning

12. Define thhe components of a SOAP note.

S: subjective (what thhe pt tells you)
CC
HPI
PMH
Fam Hx
Social Hx
ROS

O: objective (what you can see, hear, feel on exam)
Physical findings
Vital signs
General survey
HEENT
Etc...

A: assessment
Global assessment of pt including differentials in order from most to least likely
Combination of subjective & objective info
List of dx addressed & billed for at thhe visit

P: plan
What you will Rx
When to come back
Diagnostic tests
Pt education

13. Discuss minimum of three purposes of thhe written history & physical in relation to thhe importance of documentation.

Important reference document that gives concise info about thhe pt's hx & exam findings

Outlines a plan for addressing issues that prompted thhe visit. Info should be presented in a logical fashion that prominently features all data relevant to thhe pt's condition.

Is a means of communicating info to all providers involved in pt's care

Is a medical-legal document

Is essential in order to accurately code & bill for services

14. **Why does every procedure code need a corresponding diagnosis code?**

Diagnosis code explains thhe necessity of thhe procedure code.

Insurance won't pay if thhey don't correspond.

15. **What are thhe three components required in determining an outpatient, office visit E&M** code?

Plan of service
Type of service
Patient status

16. **Correctly ID a pt as a new or established given historical info.**

Pt status: whethher or not pt is new or established.
New: has not received professional service from provider in same group within past 3 years.
Established: has received professional service from provider in same group in last 3 years.

17. **What does a well-rounded clinical experience mean?**

Includes seeing kids from birth through young adult visits for well child & acute visits, as well as adults for wellness or acute/routine visits.

Seeing a variety of pt's, including 15% of peds & 15% of women's health of total time in thhe program.

18. **What are thhe maximum number of hours that time can be spent "rounding" in a facility?**

No more than 25% of total practicum hours in thhe program

19. **What are 9 things that must be documented when inputting data into clinical encounter logs?**

Date of service
Age
Gender & ethnicity
Visit E&M code
CC
Procedures
Tests performed/ordered
Dx
Level of involvement

20. **What does thhe acronym SNAPPS st& for?**

S: summarize (present pt's H&P findings)
N: narrow (based on H&P, narrow down top 2-3 differentials)
A: analyze (compare/contrast H&P findings for each differential & narrow it down to most likely one)
P: probe (ask preceptor questions of anything you are unsure of)
P: plan (come up with specific management plan)
S: Self-directed learning (opportunity to investigate more about topics you are uncertain of)

21. **What is thhe most common type of pathogen responsible for acute gastroenteritis?**

Viral (can be viral, bacterial, or parasitic), usually norovirus

22. **T/F**
Assessing for prior antibiotic use is a critical part of thhe history in pt's presenting with diarrhea.

True

23. **What is thhe difference between irritable bowel disease (IBD) & irritable bowel syndrome (IBS)?**

IBS: disorder of bowel function (as opposed to being due to an anatomic abnormality). Changes in bowel habits (diarrhea, constipation, abd pain, bloating, rectal urgency w/diarrhea).
Symptoms fall into two categories: abd pain/altered bowel habits, & painless diarrhea. Usually pain is LLQ.
PE: normal except for tenderness in colon.
Labs: CBC, ESR. Most othher labs & radiology/scopes are normal.
Dx made on careful H&P.
May be associated with nonintestinal (extra-intestinal) symptoms (sexual function difficulty, muscle aches/pains, fatigue, fibromyalgia, HAs, back pain, urinary symptoms).
Not associate with serious medical consequences. Not a risk factor for othher serious GI dz's.
Does not put extra stress on othher organs.
Overall prognosis is excellent.
Major problem: changes quality of life.
Treatment: based on symptom pattern. May include diet, education, pharm (for mod-severe pt's)/othher supportive interventions. Usually focuses on lifestyle, diet, & stress reduction. NO PROVEN TREATMENT! Antidiarrheals: use temporarily, reserve for severe. Loperamide (Imodium) or diphenoxylate (Lomotil) 2.5-5mg q6h usually works.
Constipation: high fiber diet, hydration, exercise, bulking agents. If thhese don't work, intermittent use of stimulant laxatives (lactulose or mag hydroxide); don't use long-term! Linzess (linaclotide), Trulance (plecanatide), & Amitiza (lubiprostone): newer for constipation, work locally on apical membrane of GI tract to increase intestinal fluid secretion & improve fecal transit. Abd pain: dicloclymine (Bentyl), hyoscyamine (avoid anticholinergics in glaucoma & BPH, especially in elderly). TCAs & SSRIs can relieve symptoms in some pt's.

Can be managed by PCP, but if not responsive to tx, refer to GI.

IBD: chronic immunological dz that manifests in intestinal inflammation.
UC & Crohn's are most common.
UC: mucosal surface of colon is inflamed, resulting in friability, erosions, bleeding. Usually occurs in rectosigmoid area, but can involve entire colon. Ulcers form in eroded tissue, abscesses form in crypts, become necrotic & ulcerate, mucosa thickens/swells, narrowing lumen. Pt's are at risk for perforation. Symptoms: bleeding, cramping, urge to defecate. Stools are watery diarrhea with blood/mucus. Fecal leuks almost always present in active UC. Tenderness usually in LLQ or across entire abd.
Crohn's: inflammation extends deeper into intestinal wall. Can involve all or any layer of bowel wall & any portion of GI tract from mouth to anus. Characteristic segmental presentation of dz'd bowel separated by areas of normal mucosa ("skipped lesions"). With progression, fibrosis thickens bowel wall, narrowing lumen, leading to obstructions, fistulas, ulcerations. Pt's are at greater risk for colorectal cancer. Most common symptoms: cramping, fever, anorexia, wt loss, spasms, flatulance, RLQ pain/mass, bloody/mucus/pus stools. Symptoms increase with stress, after meals. 50% of pt's have perianal involvement (anal/perianal fissures).
Inflammation can lead to bleeding, fever, increased WBC, diarrhea, cramping.
Abnormalities can be seen on cross-sectional imaging or colonscopy.
No single explanation for IBD. Thheory: viral, bacterial, or allergic process initially inflames small or large intestine, results in antibody development which chronically attack intestine, leading to inflammation. Possible genetic predisposition.
Dx made by H&P correlated with symptoms, must exclude infectious cause for colitis. Primary dx tools: sigmoidoscopy, colonoscopy, barium enema w/small bowel follow-through, CT.
Tx is very complex, managed by GI.
Drugs: 5-aminosalicylic acid agents have been used for >50yrs, but have shown to be of little value in CD; still used as first attempt for UC. Antidiarrheals w/caution (constipation). Don't use in acute UC or if toxic megacolon. Corticosteroids used when 5-ASA not working. If corticosteroids don't work, use immunomodulators (azathioprine, methotrexate, 6-mercaptopurine), but can cause bone marrow suppression & infection.
Newer class: anti-TNF (biologic response modifiers) for mod-severe dz. Remicade (infliximab), Humira (adalimumab), Entyvio (vedolizumab); can increase risk of infection.

24. What are two common IBD's?

Ulcerative colitis
Crohn's disease

25. Describe thhe characteristics of acute diverticulitis.

Subjective:
S/S of infection (fever, chills, tachycardia)
Localized pain LLQ
Anorexia, n/v
If fistula present, additional s/s will be present associated w/affected organ (dysuria, pneumaturia, hematachzia, frank rectal bleeding, etc)

Objective:
Tenderness in LLQ
Maybe firm, fixed mass at area of diverticuli
Maybe rebound tenderness w/involuntary guarding/rigidity
Hypoactive bowel sounds initially, thhen hyperactive if obstructive process present
Rectal tenderness
+occult blood

Diagnostics:
Mild-moderate leukocytosis
Possibly decreased hgb/hct r/t rectal bleeding
Bladder fistula: urine will have increased WBC/RBC, culture may be +
If peritonitis, blood culture should be done (for bacteremia)
Abd XR: perforation, peritonitis, ileus, obstruction
CT may be needed to confirm

26. What is thhe difference between sensorineural & conductive hearing loss?

Sensorineural: results from deterioration of cochlea due to loss of hair cells from organ of Corti.
Very common in adults.
Gradual, progressive, predominantly high-frequency loss w/advanced aging (presbyacusis).
Othher causes: ototoxic drugs, loud noises, head trauma, autoimmune dz, metabolic dz, acoustic neuroma.
Genetic makeup can influence.
Not correctable w/medical or surgical thherapies, but can stabilize if loss is gradual.
Sudden loss may respond to corticosteroids if given in first few weeks of onset.
Dx usually made by audiometry (audiogram) where bone conduction thresholds are measured. Done by audiologist.
No proven or recommended treatment/cure. Hearing strategies/aids, or for profound/total deafness, cochlear implants.
In Weber test: normal ear hears sounds better.
Commonly seen in primary care: tinnitus & Meniere's.

Conductive: result of obstruction between middle & outer ear.
From cerumen accumulation/impaction, FB in canal, otitis externa/media, middle ear effusion, otosclerosis, vascular anomaly, or cholesteatoma.
Tx depends on accurately identified etiology.
Most types are reversible.
In Weber test: defective ear hears tuning fork louder.
In Rinne test: bone conduction is greater than air conduction, so pt will report BC sound longer than AC sound.

27. What is thhe triad of symptoms associated with Meniere's disease?

Vertigo
Hearing loss
Tinnitus

28. **What symptoms are associated with peritonsilar abscess?**

Almost always unilateral, located between tonsil & superior pharyngeal constrictor muscle
Gradual onset of severe unilateral sore throat
Odynophagia
Fever
Otalgia
Asymmetric cervical adenopathy
Pronounced trismus (hot potato voice)
Toxic appearance (poor/absent eye contact, failure to recognize parents, irritability, inability to be consoled/distracted, drooling, severe halitosis, tonsillar erythhema, exudates)
Swelling above affected tonsil with a discrete bulge, deviation of soft palate/uvula

29. **What is thhe most common cause of viral pharyngitis?**

Adenovirus
Mononucleosis (Epstein-Barr)
HSV-1
RSV
Flu A&B
Coxsackie
Enteroviruses

30. **What is thhe most common cause of acute n/v?**

Acute gastroenteritis

31. **What is thhe importance of obtaining an abdominal XR to rule out perforation or obstruction even though thhe diagnosis of diverticulitis can be made clinically?**

To look for free air (indicating perforation), ileus, or obstruction & treat empirically. Early treatment leads to better outcomes, so don't delay treatment.

32. **What are colon cancer screening recommendations relative to certain populations?**

Age 50 or older: initial scope at 50yo, thhen every 10yrs.
If at increased/high risk of colorectal cancer, start screening earlier (i.e. age 40) & be screened more often based on findings.
African Americans: Starts screening at age 40-45.

33. **Identify at least two disorders that are considered to be disorders related to conductive hearing loss.**

Cerumen accumulation/impaction
FB in ear canal

Otitis externa
Chronic otitis media
Middle ear effusion
Tosclerosis
Vascular anomaly
Cholesteatoma

34. What is thhe most common cause of bacterial pharyngitis?

Group A Beta Hemolytic Streptococcus (GABHS)

35. What are thhe clinical findings associated with mononucleosis?

Gradual onset of fever
Marked malaise
Severe sore throat
Maybe exudative tonsillitis (50% of cases)
Palatal petechiae/rash
Anterior/posterior cervical lymphadenopathy
Splenic enlargement

36. How is thhe diagnosis of streptococcal pharyngitis made clinically based on thhe Centor criteria?

Fever >38C (100.5F)
Tender anterior cervical lymphadenopathy
No cough
Pharyngotonsillar exudate

Presence of all 4 strongly suggest GABHS infection.
3 or more present: empirically dx & treat w/out furthher testing

37. What is one intervention for a pt with gastroenteritis?

Fluid repletion (PO if possible, pedialyte; IVF for more severe dehydration)
Nutrition

38. When are stool studies warranted?

In pts with severe or prolonged diarrhea, fever >38.5C, bloody stools, stools +leukocytes/occult blood

39. What is an appropriate treatment for prophylaxis or treatment of traveler's diarrhea?

Trimethoprim-sulfamethoxazole (Bactrim DS) 1 tab BID x3days
Cipro 500mg
Norfloxacin (Noroxin) 400mg
Ofloxacin (Floxin) 300mg

40. Describe thhe component of thhe H&P that should be done for a pt with abd pain.

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Upper abd pain: ask about chronic/recurring & related symptoms (bloating, fullness, heartburn, n/v)
Lower abd pain: if acute, is pain sharp, intermittent continuous? If chronic, is thhere a change in bowel habits (alternating diarrhea/constipation)?
Radiation?

41. **What is at least one effective treatment for IBS?**

Diet (avoid lactose, caffeine, legumes, artificial sweeteners; eat low-fat diet with increased protein, high fiber, bulk-producing agents, 64oz water daily)
Lifestyle modification
Exercise
Stress reduction
Pharm (for moderate-severe symptoms only): antidiarrheals (imodium, lomotil), laxatives (lactulose, mag hydroxide), antispasmodics (dicyclomine, hyoscyamine), tricyclic antidepressants; avoid anticholinergics with glaucoma & BPH pts.

42. **What is at least one prescription med used to treat chronic constipation?**

Linzess (linaclotide)
Trulance (plecanatide)
Amitiza (lubiprostone)
Lactulose
Mag hydroxide

43. **What is at least one treatment for Meniere's disease?**

Bedrest with eyes closed, protection from falling
Maintenance thherapy: chlorothiazide (Diurel) 500mg/day
Meclizine
Promethazine
Dimenhydrinate
Diphenhydramine
Metoclopramide

44. **T/F**
Thhe majority of dyspnea complaints are due to cardiac or pulmonary decompensation.

True

45. **What are thhe differences between intrathorax & extrathorax flow disorders?**

Intra: obstruction of distal/smaller airway (asthma, bronchiolitis, vascular ring, solid FB aspiration, lymph node enlargement pressure). Take place in thhe supraglottic, glottis, & infraglottic regions. Supraglottic = space above larynx & epiglottis. Glottis = area of opening in vocal cords. Infraglottic = starts at bottom of vocal cords & ends at top of trachea.