**Morning Report Tips and Tricks**

**General Outline Example:**

* HPI
* ROS
* Histories
	+ PMHx
	+ Allergies
	+ Medicines
	+ PSH
	+ Family Hx
	+ Development
	+ Immunizations
	+ Birth Hx
	+ Maternal Hx
* Does the audience have questions?
* Physical Exam
* Summary (1 liner)
* DDX?
* ED Course
* Diagnosis
* Management
* Updates/Follow up

**General Tips:**

* Plan out how long each section should take. Ex: Case description 5 minutes, with questions. Plan to allow the most time for the section you are focusing on.
* Let them know you may go around the room with differentials or in answering a question. This way they are preparing to think and answer
* If there is a content expert there (or certain attendings in general) – plan for them to talk for some time – you can talk to them ahead of time to solicit their input and let them know what you are focusing on so they don’t steal your thunder. (ex: “Dr. X, I am going to focus on the differential for this patient. I’d love you to speak a little on the final diagnosis, towards the end.”

**Case #1 Example: Presentation and Differential Focus**

**HPI:**

Patient is an 18 year old female who presented to the ED due to headaches and acting strange per her college roommate. Patient was ill with fatigue, fevers, decreased appetite, headaches, body aches (particularly in her neck), for the last 3 days. Today, the patient slept through her morning classes and was found by her roommate in the afternoon. Her roommate was able to wake her, but she immediately vomited and was acting strange after getting out of bed. The patient stated multiple times her head was “killing her.”

*At this point, you may prompt the audience, and ask what they would like to know in addition regarding the HPI.*

A bit more background info…

 This patient presented to the ED in September. She just started her freshman year of college and is residing in the on-campus dormitories with her one roommate.

**Review of Systems:**

Constitutional symptoms: Fever, fatigue, bodyaches, no weight loss.

Skin symptoms: No jaundice, no petechiae, no rash.

Eye symptoms: Photophobia, No discharge or decrease in visual acuity.

ENMT symptoms: No sore throat, no nasal congestion.

Respiratory symptoms: No shortness of breath, no orthopnea, no cough.

Cardiovascular symptoms: No chest pain, no palpitations.

Gastrointestinal symptoms: Abdominal pain, vomiting, no diarrhea.

Genitourinary symptoms: No dysuria, no hematuria.

Musculoskeletal symptoms: Neck pain

Neurologic symptoms: Headache, altered level of consciousness.

*\*Pertinent positive highlighted! Emphasize these!*

**Histories:
 PMHx:** no chronic problems

 **Allergies:** NKDA

 **Medicines:** OCPs

 **PSHx:** none

 **Family Hx:** younger brother with asthma, mother and father no chronic issues

**Immunizations:** reportedly up to date with the shots “needed for school.” No flu shot this season

**Social Hx/ HEADSS:** Patient is from a rural area of upstate New York and recently started college at Stony Brook. Major undecided and seems to have adjusted well to college life and is keeping up with academic responsibilities. Participates on the college’s club volleyball team. Occasionally will drink 2-3 beers at parties on weekends. Tried vaping marijuana once during orientation, but didn’t like it. Denies other substance use. Sexually active one male partner in her lifetime and used condoms sporadically.

**Developmental Hx:** no issues, met all milestones, regular education classes, no services needed
**Birth/ Maternal Hx:** ex full term, no complications *(may not be particularly relevant for a case like this, but if you have it, great!)*

**Physical Exam:**

*Try and incorporate questions during and/or immediately following the physical exam…*

* *Can someone interpret the vitals IF ABNORMAL?*
* *Are you concerned? Why? Ask for specifics!*

**Vitals:** Wt 45kg, temp 39.3, HR 142, RR 22, BP 88/50, SpO2 93%

**General:** *What does the kid look like from the door?*Ill-appearing female who is intermittently responsive to questioning amd very fatigued

**Skin:** Warm, dry, pink, no rash.

**Head:** Normocephalic, atraumatic.

**Neck:** Supple, ROM limited secondary to pain with diffuse tenderness to palpation

**Eye:** Pupils are equal, round and reactive to light, extraocular movements are intact, normal conjunctiva.

**Ears, nose, mouth and throat:** Oral mucosa tacky, no pharyngeal erythema or exudate.

**Cardiovascular:** No edema, Tachycardia with regular rhythm and normal s1s2, No murmur, Arterial pulses: 2+, Capillary refill: 3 seconds.

**Respiratory:** Lungs are clear to auscultation, respirations are mildly labored, breath sounds are equal.

**Chest wall:** No tenderness, No deformity.

**Back:** Nontender, no step-offs.

**Gastrointestinal:** Soft, Moderate tenderness to palpation in epigastric region, No guarding or rebound tenderness, No distention, No organomegaly

**Neurological:** Alert and oriented to person, +Kernig and Brudsinski signs, No focal neurological deficit observed.

*\*Remember to give the entire exam,*

*however, emphasize the pertinent positives/negatives (highlighted)!*

*Now, you as the presenter OR have someone from the audience give a one-liner…*

**Summary: 18 year old previously healthy female presenting with acute onset altered mental status, worsening headaches, and vomiting with concern for meningeal irritation and hemodynamic instability.**

*For a presentation focusing on presentation/differentials, appropriate questions to the audience may be…*

* *What makes you more or less concerned about this initial story?*
* *What are some pertinent positives and negatives?*
* *What if questions…*
	+ *What if she was unvaccinated?*
	+ *What is she likes to hike and was exposed to mosquitos and/or ticks?*
	+ *What if she was younger?*
	+ *What if she had a rash?*
	+ *What if there was a history of trauma?*
	+ *What if there was recent un-intentional weight loss?*
* *When/if the audience suggests this may be meningitis, prompt them for specifics… What part of the story is making them suggest this? What bugs would they be concerned about and why?*

*This is where you are talking with the audience and building a list of differentials!*

*Be prepared with a FULL list of differentials in case the audience does not come up with a complete list. If broad, should encourage participation by thinking about different diagnoses by systems. You can always organize your thoughts going from head to toe…*

*Neuro*

*HEENT*

*Cardio*

*Resp*

*GI*

*GU*

*Psych*

*Or this pneumonic may be helpful…*

 *VINDICATE*

 *V: Vascular*

 *I: Infectious*

 *N: Neoplastic*

*D: Degenerative or Developmental*

*I: Idiopathic or Intoxication or Iatrogenic*

*C: Congenital*

*A: Autoimmune*

*T: Traumatic*

*E: Endocrine/metabolic*

*\*The discussion generated from piling together this list of differentials will be the meat of such a talk. The following categories should be used to narrow the list down to the patient’s ultimate diagnosis. With each category, try to have a question or two ready to work in to engage the audience.*

**ED Course:**

* Consult, Labs, Images
	+ - *When consulting, ask what the resident’s question would be to the consultant*
		- *For labs, ask what information they would be looking for and if that would help you in this case*
* Interventions, Medications
	+ *Again, prompt the audience and ask why?*

This patient had a PIV placed and a cbc, chemistry, blood culture, lactic acid, and RVP drawn. Given a normal saline bolus as well as toradol x1. Labwork revealed a leukocytosis to 20 with a left shift. Chemistry had a mild bump in her BUN/Cr and acidosis with a bicarb of 17. STAT CT head without contrast was ordered for altered mental status. This study was normal. She then had a lumber puncture performed which was concerning due to elevated WBCs, protein, opening pressure, and low glucose. Due to concern for bacterial meningitis, she was given ceftriaxone and admitted for further care.

*\*Remember, as you give this information (which can be in slightly more detail than this), tie it back to your differential diagnosis list and continue to cross items off!*

**Diagnosis:**

The patient’s gram stain of her CSF fluid was positive for gram-negative cocci. CSF culture ultimately was positive for meningitis B.

**Management:**

Patient remained admitted for continued IV antibiotic treatment. ID is following the patient and plans to reassess the need for long-term IV antibiotic therapy versus transition to PO antibiotics.

**Case #2 Example: Management and Prognosis Focus**

**HPI:**

Patient is a 4 week old baby girl who parents brought in to the ED due to concern for the baby being very sleepy and not feeding well. The infant has been in her usual state of health up until about 2 days ago. At this time, she was significantly more fussy than usual and was beginning to refuse bottle and breast feeds. She was voiding as per usual on day one of illness, however, only had one wet diaper today. Parents report no one is sick around her, but she did feel very warm today and vomited twice. Temperature not checked with a thermometer. They brought her in because “all she wants to do is sleep” and they were unable to sufficiently wake her up for her last feed.

*For this sort of discussion focusing on management, prognosis, complications, etc, you will give all of the components as outlined above. You will likely probe the audience LESS than you would if the focus was differential diagnoses (not not at all though) and simply give the information!*

**Review of Systems:**

Constitutional symptoms: Fever, decreased activity

Skin symptoms: No jaundice, no petechiae, no rash.

Eye symptoms: No discharge.

ENMT symptoms: No nasal congestion.

Respiratory symptoms: No shortness of breath, no cough.

Gastrointestinal symptoms: Vomiting, no diarrhea.

Genitourinary symptoms: Decreased urine output

Neurologic symptoms: Altered level of consciousness.

**Histories:
 PMHx:** no chronic problems

**Birth/ Maternal Hx:** ex full term, no complications – NSVD, AGA, APGARs 9/9, passed hearing/CCHD screens, newborn screen negative, mother is 29 years old G2P2 with uneventful pregnancy other than being GBS positive and not treated

 **Allergies:** NKDA

 **Medicines:** none

 **PSHx:** none

 **Family Hx:** mother and father no chronic issues, healthy 2 year old sister

**Immunizations:** received hepatitis B vaccine prior to discharge from newborn nursery

**Social Hx:** lives with mother, father, and older sibling, no smoke exposure or pets

**Developmental Hx:** appropriate thus far, gaining weight appropriately

**Physical Exam:**

**Vitals:** Wt 5kg, temp 40.1, HR 172, RR 35, BP 70/50, SpO2 93%

**General:** Irritable and inconsolable infant in mother’s arms

**Skin:** Warm, dry, pink, no rash.

**Head:** Normocephalic, atraumatic, anterior fontanelle budging

**Neck:** Supple, no cervical LAD

**Eye:** Pupils are equal, round and reactive to light, extraocular movements are intact, normal conjunctiva.

**Ears, nose, mouth and throat:** Oral mucosa tacky, no pharyngeal erythema or exudate.

**Cardiovascular:** No edema, Tachycardia with regular rhythm and normal s1s2, No murmur, Arterial pulses: 2+, Capillary refill: 4 seconds.

**Respiratory:** Lungs are clear to auscultation, respirations rapid, breath sounds are equal.

**Gastrointestinal:** Soft, Nontender, No distention, No organomegaly

**GU:** normal external female genitalia

**Neurological:** Alert and inconsolable, no focal deficits appreciated

**ED Course:** Upon arrival to the ED, a full sepsis workup was initiated. A CBC, chemistry, blood culture, UA, urine culture, CSF studies, and CSF culture were drawn. As those results were pending, the baby was given a dose of ceftriaxone and acyclovir. A normal saline bolus was also started. Labwork resulted and was significant for a leukocytosis to 22 with 15% bandemia. UA and chemistry were nonconcerning. Baby was admitted to the general pediatric floor for further care.

**Peds Acute Course:** Shortly upon arrival to the floor, the baby began exhibiting generalized tonic clonic movements. She was given Ativan and transferred to the PICU. Neurology was consulted and a video EEG was started and confirmed seizure activity. Blood and urine cultures were ultimately negative, however, CSF cultures were positive for group B strep.

**Diagnosis: GBS meningitis**

*You will promptly arrive at the patient’s diagnosis and this is where the meat of the talk will be. There will be multiple components to the management and questions to be answered. Here are some examples of the topics to be discussed and questions to be answered.*

**Management:**

Antibiotics/ ID considerations

* *Which antibiotics are considered first line?*
* *What if the baby develops anaphylaxis to first line therapy? What would a second line choice be?*
* *How long will this baby need antibiotics and can they eventually be transitioned to po therapy?*
* *Will the baby need a repeat LP? What purpose would this serve?*
* *When will they need to be seen by ID as an outpatient?*

Antiepileptics

* *Will this kid need long term antiepileptic therapy?*
* *What drug would be first line?*
* *When would neurology want to see them as an outpatient?*

Developmental considerations

* *Would you refer this baby to early intervention?*
* *What deficits may you expect as a result of this diagnosis?*
* *Would you consider a hearing screen despite a normal newborn hearing screen? Why?*

**Prognosis:**

* *What do you tell the family to expect?*
* *Is the child going to develop and grow normally?*
* *How long will they need these therapies?*
* *What are the long-term sequelae of GBS meningitis in the newborn period?*

**\*Please note, these are guidelines! Each morning report will be unique, but use this as a resource with extra ideas to go off of. As always, let us know if you have any questions!**