Medicine Keywords A

Some MS4
Introduction

- This first review set contains 137 keyword slides.

- The goal would be to spend a min or less per slide (some will take < 30s).

- Strongly encourage making notes with each slide. Study these notes for your shelf. Writing stuff down will help tremendously with retention.

- Designed to be a more comprehensive but HY medicine shelf review.

- Make sure you do all 4 practice NBMEs for the medicine shelf. If a topic is completely new to you, spend about 10 mins studying that topic as something similar may be tested on the shelf.

- The medicine shelf is surprisingly not a huge departure from a lot of the material tested from the organ systems on Step 1. We will review some of this pertinent stuff.
Opening snap with diastolic rumble at left 4th interspace. Tall jugular venous A waves. How can we increase the intensity of this murmur?
Elevated AST/ALT, blistering lesions on the dorsum of the hands, severe hirsutism. What is the enzyme deficiency? How is this disease treated?
Hypoglycemia, hypoglycemic sx, resolution with glucose administration. Differentiating 3 big causes of hypoglycemia based on labs. The acute treatment of hypoglycemia.
4A Diarrhea (Bugs, associations, treatment)

Pork consumption, Undercooked shellfish, Severe rice-water stools in a developing country, Bloody diarrhea with a super small inoculum, Bloody diarrhea after consuming eggs/poultry, Watery diarrhea 2 hrs after consuming potato salad, Bloody diarrhea with low plts/unconjugated hyperbilirubinemia/elevated creatinine.
4B Diarrhea (Bugs, associations, treatment)

Diarrhea upon return to the US from Mexico, Foul smelling watery diarrhea after recent treatment for an anaerobic bacterial pneumonia, Crampy abdominal pain after consumption of home canned veggies, Bloody diarrhea with ascending paralysis in a puppy owner, Watery diarrhea after eating fried rice at a Chinese restaurant.
Prussian blue staining of a bone marrow smear reveals basophilic inclusions around the nucleus in a 75 yo M that lives in a home built in the 1930s. What are the associated Fe lab values? How is this disease treated (+ potentially helpful vitamin supplementation)?
CXR showing diffuse, bilateral, ground glass infiltrates in a febrile patient taking high dose immunosuppressants. What is the bug? Relevant stain? Prophylaxis? Treatment? Who should get concomitant steroids? Diagnostic studies? Classically elevated marker from pulmonary fluid?
7 (Associations/Relevant Bugs/Risk factors)

Flank pain with gross hematuria. Envelope shaped? Coffin shaped? Radiolucent? Shaped like a hexagon? What is the best diagnostic testing modality? How is this presentation treated?
24 yo M presents with a painless, palpable bony mass on the left knee. Knee X ray reveals a contiguous mushroom shaped mass. What is the diagnosis?
66 yo F is found unconscious at home by her daughter in December. PE is notable for a cherry red appearance of the skin. Next best step in diagnosis? Treatment modalities? Pathophysiology and O2 delivery associations? Classic exam presentation and risk factors?
Elevated creatinine 24 hrs after getting a CT scan. How could this have been prevented? Skin fibrosis after getting a brain MRI. Is there a particular DM medication that should be held before getting a CT scan?
A common lower extremity side effect associated with hydralazine and Ca channel blockers. What is the pathophysiology? How is this condition treated? What is the pathophysiological mechanism?
HIV patient with a 3 day history of fever presents with targetoid skin lesions, lip/mouth ulcerations, and visual impairment. PE is notable for skin sloughing (8% BSA). Nikolsky sign is +ve. He was placed on Allopurinol 10 days ago for chronic gout. What is your diagnosis? > 30% BSA involvement?
30 yo F presents with 3 day hx of polydipsia and polyuria. Blood glucose is 650 mg/dl, Bicarb is 21, pH is 7.35. Diagnosis? Pathophysiology? Risk factors? Treatment? Na balance? K balance? What is your dx if the patient becomes altered/comatose with rapid treatment?
49 yo F presents with wheezing and flushing. PE is +ve for murmurs consistent with tricuspid regurgitation and pulmonic stenosis. Diagnosis? Diagnostic steps? Treatment (pharmacology)? Symptoms by location? Pellagra?
61 yo M presents with exertional dyspnea. CBC is notable for a Hct of 27%. What is the next best step in management? What would Fe studies dictate? What is our primary concern? When should transfusion be explored? What would your diagnosis be if the patient had a similar presentation and difficulty swallowing?
29 yo F with a recent trip to India (ate local foods). Returned 2 weeks ago and initially had fevers for 1 week. Now presents with severe abdominal pain and distension. PE is notable for salmon colored circular lesions on the trunk. Diagnosis? Treatment?
Septic arthritis -> what is the bug? (+most common cause, + in a sickle cell patient, + in a young F with purpuric skin lesions). Diagnostic step? Findings from diagnostic steps? Treatment (2 pronged approach). The Neisseria vs Chlamydia treatment difference.
Subconjunctival hemorrhage in a patient with nasty coughing episodes. Diagnosis? Treatment? Prophylaxis for close contacts? What would the next step in management be in a person that recently started Ramipril for the treatment of HTN who has a cough?
Reviewing first, second, and third degree AV blocks. Acute management in a symptomatic patient? Contraindicated medications? Who gets a pacemaker??
Reduced EF in a patient with coarse facial features and enlarging fingers. Diagnosis? Diagnostic steps (3)? Treatment options? Most common cause of death?
Dysphagia to solids and liquids in a patient with thick/thin blood smears (Giemsa) revealing what appears to be motile parasites. Diagnosis? Diagnostic steps (2)? Pathophysiology? Surgical/Non-Surgical treatment options? Potential sequelae of treatment/disease sequelae?
Reduced MCV in a patient with a long history of untreated rheumatoid arthritis. Diagnosis? What would the results of a CBC/Fe studies indicate? Pathophysiology?
25 yo M with nasal packing presents with a BP of 65/40, elevated Cr, respiratory distress, T of 104, and marginally elevated troponins. Diagnosis? Pathophysiology? Classic bug associations (2)? Treatment strategies?
Rb gene mutations, Paget’s disease, and Teriparatide administration increase risk of what primary bone malignancy? Associated radiological features?
Aspirin Exacerbated Respiratory Disease. Potential pathophysiology? Classic presentation? Treatment
### Classifying Asthma Severity and Initiating Treatment for Patients 12 Years and Older

<table>
<thead>
<tr>
<th>COMPONENTS OF SEVERITY</th>
<th>CLASSIFICATION OF ASTHMA SEVERITY ≥ 12 YEARS OF AGE*</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>INTERMITTENT</td>
</tr>
<tr>
<td>Impairment</td>
<td></td>
</tr>
<tr>
<td>Symptoms</td>
<td>≤ 2 days per week</td>
</tr>
<tr>
<td>Nighttime awakenings</td>
<td>≤ 2 times per month</td>
</tr>
<tr>
<td>Short-acting beta agonist use for symptom control (not for prevention of exercise-induced bronchospasm)</td>
<td>≤ 2 days per week</td>
</tr>
<tr>
<td>Interference with normal activity</td>
<td>None</td>
</tr>
<tr>
<td>Lung function</td>
<td>Normal FEV$_1$ between exacerbations; FEV$_1$ &gt;80 percent of predicted; FEV$_1$/FVC normal</td>
</tr>
<tr>
<td>Risk</td>
<td>0 to 1 per year†</td>
</tr>
</tbody>
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Consider severity and interval since last exacerbation; frequency and severity may fluctuate over time for patients in any severity category; relative annual risk of exacerbations may be related to FEV$_1$. 

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*Note: FEV$_1$ is forced expiratory volume in one second; FVC is forced vital capacity.
Aspirin Exacerbated Respiratory Disease. Potential pathophysiology? Classic presentation? Treatment
Classic EKG presentation of a Supraventricular Tachycardia. Stepwise management of an SVT. What is the next best step in management if a patient has an SVT but is hemodynamically unstable? What is the most common EKG finding in a patient having a pulmonary embolus?
18 yo F presents with scaly, erythematous upper extremity lesions. She has a long history of allergic rhinitis. What is your diagnosis? How is this treated? What would your diagnosis be if these lesions also had umbilicated vesicles? How would this be treated? What is the classic CBC finding with these diagnoses?
A patient presents with the classic “stones, bones, groans, and psychic overtones”. PE is notable for skin tenting. What is the FIRST step in management? A quick overview of Ca pharmacology.
Alpha vs Beta Thalassemias. Pathophysiology. Compare and contrast (C/C) beta vs alpha thalassemia minor in terms of Hb electrophoresis results. C/C beta vs alpha thalassemia major in terms of presentation onset and Hb electrophoresis results. What is Hb H disease? What is Hb Barts? What is the classic smear finding in thalassemias?
Classic CBC findings in hemolytic anemias. Classic “gallbladder” pathology present in patients with hemolytic anemias. These patients are at risk of aplastic crises with what bug? Do thalassemias present as a microcytic, normocytic, or macrocytic anemia?
Periorbital edema, hematuria, and HTN in a patient with a recent history of cellulitis. BUN and Cr are elevated. Diagnosis? Pathophysiology? Associated antibodies? This disease reflects what kind of hypersensitivity reaction?
11:22 translocation, X-Ray imaging reveals an “onion skin like” periosteal reaction, bone biopsy with histology reveals small, round, blue cells. What is your diagnosis?
What is a parapneumonic effusion (PNE)? Describe the following—Uncomplicated PNE, Complicated PNE, Empyema. What are the pH, LDH, glucose, and micro criteria that typify a “high risk” PNE? How do the available treatment modalities help you differentiate between the different parapneumonic effusion types?
For Keyword 39 (next slide)
What is your diagnosis? How would you describe the rhythm? How would you treat this rhythm in a patient that is stable/asymptomatic vs a patient that is hemodynamically unstable vs a patient that lacks a pulse? What is the most common cause of death in the immediate period following an MI?
Oral mucosal ulcerations + +ve Nikolsky sign (flaccid skin blisters) in a 45 yo M. Diagnosis? Pathophysiology? Type of hypersensitivity reaction? Diagnostic testing modality (super HY)? Treatment strategy?
Cold vs Warm Agglutinins (classic antibodies, bug associations). Treatment differences b/w warm and cold agglutinin disease. LDH, Bilirubin, and Haptoglobin levels in hemolytic anemia.
Sypharyngitic glomerulonephritis. Compare and contrast with Post Infectious Glomerulonephritis wrt to->Timeline to onset of symptoms, complement levels, etc. Treatment strategies. Classic urine findings with the nephritic syndromes.
70 yo M with leg pain that is worsened by a back held in extension (but better when held in flexion). Diagnosis? Diagnostic testing? Treatment strategies?
Opening snap with a diastolic rumble heard best in the 4th intercostal space in the midclavicular line. Diagnosis? #1 risk factor? Diagnostic testing? Treatment strategies?
No oral mucosal lesions + Pruritus + Negative Nikolsky sign. Diagnosis? Pathophysiology? Best diagnostic test? Treatment strategies (contrast with initial management of the somewhat analogous Nikolsky +ve disease)?
Compare and contrast primary and secondary adrenal insufficiency (by classic cause, skin findings, levels of ACTH/Aldosterone/Renin, Cosyntropin testing, treatment strategy). Key labs/CBC findings in AI. AI with a history of nuchal rigidity and purpuric skin lesions. Discussion of adrenal physiology. Stress Steroid Dosing.
69 yo M with fever, leukocytosis, and LLQ pain. Diagnosis? Pathophysiology? Diagnostic testing? Contraindicated initial studies? GI Antibiotic strategies on the NBME (2)? What is your diagnosis if this patient presents weeks later with recurrent UTIs with urinalysis revealing air and fecal material?
CD4 cutoffs and pharmacologic prophylaxis in HIV+ patients (Pneumocystis Jirovecii, Toxoplasmosis, Mycobacterium Avium Intracellulare, Coccidioides Immitis, Histoplasma Capsulatum).
Central vs Nephrogenic DI. The water deprivation test. Common causes of DI. Treatment strategies for normovolemic vs hypovolemic hypernatremia in terms of fluid replacement. Fixing hypernatremia too quickly.
Scaly, itchy skin with yellowish crusting in the winter. Diagnosis? Treatment strategies. Classic disease distribution.
Most common cause of a LGIB in the elderly. Diagnostic testing. Prevention/prophylaxis strategies.
Classic CMV presentations -> esophagitis, colitis, retinitis. Classic CMV patient populations. CNS distribution of calcifications in congenital CMV. Classic histologic findings. Treatment strategies.
CD4 < 200 + severe peripheral edema + frothy urine. Diagnosis? Treatment strategies (3)? The high yield side effect of Indinavir. What is your diagnosis given the triad of fever, rash, and eosinophiluria? What is the common drug association? How is this condition treated?
Vitamin D metabolism. Common causes of Vitamin D deficiency. Osteomalacia vs Rickets. Treatment strategies. Vit D/Alkaline phosphatase/Ca/P/PTH levels in osteomalacia/rickets.
Pharmacological management of pulmonary arterial HTN
Periumbilical pain that migrates to the right lower quadrant. Diagnosis? Classic physical exam signs? Imaging modalities by population? Treatment options.
73-What is the bug?

Red currant jelly sputum. Rust colored sputum. PNA in an alcoholic. Post viral PNA with a cavitary CXR lesion. PNA in a patient that has chronically been on a ventilator. Most common cause of CAP. Pharmacological management of MRSA. Pharmacological management of Pseudomonas.
Massive skin sloughing (45% BSA) in a patient that was recently started on a gout medication. Diagnosis? Treatment strategies.
Classic presentation of acute pancreatitis. Common causes of acute pancreatitis. Diagnostic testing (more sensitive???). Physical exam signs in pancreatitis. General management of pancreatitis. Management of gallstone pancreatitis. What is your diagnosis if the patient becomes severely hypoxic with a CXR revealing a “white out” lung?
20 yo M with red urine in the morning + hepatic vein thrombosis + CBC findings of hemolytic anemia. Diagnosis? Pathophysiology (including genetics)? Treatment. Diagnostic testing? Additional microbiological considerations with treatment.
Muddy brown casts on urinalysis in a patient with recent CT contrast administration (or Gentamicin administration for a life threatening gram -ve infection).
Differentiating Strep pharyngitis from Infectious Mononucleosis (LND distribution, disease onset, organ involvement). The amoxicillin story. CENTOR criteria and treatment decisions. Who gets treated (3)? Treatment options (+ PCN allergic considerations). Potential disease sequelae (which is treatment preventable???)
Erythematous salmon colored patch with silvery scale on the elbows and knees. Diagnosis? Treatment options? What is your diagnosis if this patient presents with joint pain (especially in the fingers)?
Biopsy revealing tennis racket shaped structures in cells of immune origin.
Fever + rash + eosinophiluria 10 days after a patient started an antistaphylococcal penicillin. Diagnosis? Treatment strategies.
Common causes of pulmonary abscesses. Classic exam scenarios. Most common location of aspiration pneumonia.
Chest pain worsened by deep inspiration and relieved by sitting up in a patient with a recent MI or elevated creatinine or URI or RA/SLE. Diagnosis? Classic EKG findings? Classic physical exam finding? Treatment strategies. What is the triad of cardiac tamponade? What are the classic EKG findings? How is tamponade treated?
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Pearly lesion with telangiectasias on the ear in a farmer. Diagnosis? Classical relationship to the lip. Treatment?
Cold intolerance in a 35 yo white F. Diagnosis? Most common cause (+ classic findings on histology)? Thyroid studies in these patients. Associated autoantibodies and HLA associations. Treatment. Things to watch out for in the future.
Holosystolic murmur heard best at the apex with radiation to the axilla in a patient with a recent MI. Diagnosis? Acute vs Chronic presentations of disease. Diagnostic testing. Why might a wide S2 split be observed with this diagnosis? Maneuvers/meds to increase/decrease murmur intensity.
101-The GI Bleed Algorithm

GI Bleed (Place 2 large bore IVs, ABC)

NG Lavage (clear fluid)? → Go deeper.

Lavage blood? → Upper GI Bleed → Endoscopy → Treat

Bilious fluid? → No UGIB

Colonoscopy → UGIB? → Intervene PRH

Tagged RBC scan Tiny? Still not identified Large → Consider Angiography
Antiplatelet Pharmacology. 2 causes of an abnormal ristocetin cofactor assay. Ristocetin cofactor assay results in Glanzmann Thrombasthenia. Von Willebrand disease effects on PTT. Treatment of VWD.
Can’t see, can’t pee, can’t climb a tree. Diagnosis? HLA association? Classic bug associations (which is most commonly tested on NBMEs?)? Treatment strategies. Antibiotic coverage and N. Gonorrhea and Chlamydia infections.
The ABCDE mnemonic with melanomas. Diagnostic strategies. Most important prognostic factor.
T1DM vs T2DM. DM pharmacology (MOAs and HY side effects). Biggest risk of hypoglycemia? Contraindications to the use of Metformin.
Differentiating between squamous cell carcinoma and adenocarcinoma of the esophagus (risk factors, location in the esophagus, epidemiology in the US vs worldwide). Clinical presentation. Diagnostic testing.
Factor 5 Leiden (+ dx testing). Patient needs super large doses of heparin to record any changes in PTT. 35 yo with a hypercoagulable disorder that does not correct with mixing studies. Anaphylaxis in a patient with a long history of Hemophilia A. Skin necrosis with Warfarin. Prothrombin G20210 mutation.
Classic presentation of VZV infection. Contraindications to VZV vaccination. Shingles vaccination guidelines. Pharmacological management of VZV infection. Classic microbiological description of HHV 1/2/3 on a Tzanck smear.
#1 cause of ESRD in the US. #2 cause of ESRD in the US. Classic histological finding in DKD. BP reduction thresholds in a hypertensive crisis. Renal protective medications in patients with DKD or hypertensive nephropathy.
Anemia + Cranial Nerve deficits + Thick bones + Carbonic Anhydrase 2 deficiency + Increased TRAP + Increased Alkaline Phosphatase. Diagnosis? Pathophysiology? Treatment?
Clinical diagnostic criteria for Chronic Bronchitis. PFT findings in chronic bronchitis (FEV1, FEV1/FVC ratio, RV, TLC). What is the 1 HY PFT marker that can differentiate CB from Emphysema? Treatment strategies in an acute exacerbation. Preventive strategies.
Most important risk factor for Afib. Most common arrhythmia in hyperthyroidism. Most common site of ectopic foci in Afib. Classic EKG description of Afib. Most common location of emboli formation in patients with Afib. Who should be cardioverted back to sinus rhythm (3)? Q on T phenomenon.
Pharmacological management of Afib (rate vs rhythm control). Reducing stroke risk in Afib (CHA2DS2VASc). Who gets Warfarin only? Who gets Warfarin or some other kind of anticoagulant (like apixaban, dabigatran)? Reversing Warfarin and dabigatran.
Potential cancerous sequelae of Actinic Keratosis and a Marjolin’s ulcer. Is this lesion classically below the lower lip or above the upper lip? This lesion is often described as a crusty, scaly, ulcerating lesion with heaped up borders.
Hypothermia + hypercapnia + non pitting edema + hyponatremia + HR of 35 + hypotension in a patient with a history of papillary thyroid cancer. Diagnosis? Associated thyroid labs? Treatment strategies. Lipid balance in hypothyroidism.
Acute onset “dermatologic” breakout in a patient with a recent history of weight loss and epigastric pain. Diagnosis? Exam worthy lymph node associations? What are mets to the ovaries called? Classic bug associated with this diagnosis. Classic histological finding in the diffuse type of this diagnosis.
RBCs without central pallor + elevated MCHC + anemia. Diagnosis? Pathophysiology (including genetic defects and mode of inheritance)? Intravascular or extravascular hemolysis? Diagnostic testing (3)? Treatment. Post treatment care to prevent life threatening infections.
Kidney “labs” in the 3 types of acute renal failure. Common causes.
Cor Pulmonale. Most common cause of right heart failure.
Papillary thyroid cancer (2 common histological findings). Follicular thyroid cancer (method of spread). Medullary thyroid cancer (Tumor marker, what accumulates in the thyroid?, genetic disease associations + mutation). General diagnostic testing strategies in thyroid cancer. Which has the worst prognosis? Seizures after total thyroidectomy.
What is the one commonly tested vitamin that should be routinely replenished in patients with hemolytic anemia?
27 yo M was found down by his friend 13 hrs after they left a bar the night before. EKG is notable for peaked T waves. Creatinine is 4.5. Diagnosis? Pathophysiology?
Life threatening sinusitis in a patient with a HbA1C of 9%. Bug? Treatment?
25 yo F with a history of T1DM presents with a history of recurrent abscesses in the axillary and perineal region. Diagnosis? What is the most common cause of skin abscesses (bug)? Treatment options.
Gradations in the neoplastic potential of colonic polyps. Adenoma-Carcinoma sequence. Peutz Jeghers syndrome.
Worst headache of a patient’s life. PE is notable for palpable bilateral flank masses. Diagnosis? Pathophysiology (genetics)? Associations (cardiac, brain, etc).
Sudden BP drop to 40/palpable in a patient who was recently placed on a ventilator with a PEEP of 15 cm H2O. Diagnosis? Treatment? Basic ventilator strategies-> Reducing hypercarbia, improving hypoxia.
First degree/Mobitz 1 blocks generally require no treatment. Mobitz 2/3rd degree blocks often require pacemaker placement. In unstable patients with heart blocks, consider some sort of pacing.
HY differences between cellulitis and erysipelas (by causative organisms, by involved layer of skin, by acuity of symptoms, by skin/systemic presentation). Treatment strategies.
References

- Toronto Notes

- AAFP Asthma Management Guidelines