NUGGETS FROM THE 2019 NATIONAL ACP MEETING

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DISCLOSURES

I did not attend every single talk at the National ACP meeting.

I did download the slides from a large number of the talks at the National ACP meeting and reviewed 50 slide sets.

Because of the nature of this talk (small nuggets of information), I will not be reviewing data or details of studies but will cite both the studies from which the information comes if available and, *in italics*, the talk(s) from which I obtained the nuggets.

I am an outpatient doc (who does a lot of endocrinology, rheumatology and HIV care and a lot of consulting for FPs) which will be reflected in my choice of topics.

I have not included topics which I knew would be covered by other speakers at this meeting.

I have no conflicts of interest.

OBJECTIVES

- Identify and treat patients with elevated CV risk based on the 2019 AHA/ACC Guidelines
- Select therapy to decrease risk of UGI bleeds in patients requiring chronic anticoagulation
- Identify potential side effects of certain medications and supplements
- Test and treat osteoporosis appropriately based on age, risk factors, and severity.
- Identify and treat other common symptoms and diseases found in the outpatient setting

ORGANIZATION OF TOPICS

PREVENTION

MEDICATIONS AND SUPPLEMENTS

COMMON OUTPATIENT PROBLEMS

PREVENTION

CASE

55 yo woman presents to clinic with complaints of urinary frequency. She is a 1 ppd smoker and says she is interested in quitting but she wants to wait until she finishes the court ordered inpatient EtOH addiction program she is scheduled to start next week.

She takes no medications

PE—unremarkable except for the advanced aging caused by chronic EtOH and tobacco and mildly diffusely decreased breath sounds on lung exam.

U/A completely normal

QUESTION #1 Which of the following pieces of advice regarding smoking cessation is correct?

A) She is better off waiting to try to stop smoking until after she gets through her EtOH rehab.

B) She can use either a nicotine patch or a prn nicotine replacement such as gum or inhaler but not both if she wants to use nicotine replacement treatment (NRT).

C) The combination of bupropion and NRT is no more effective than either one used alone.

D) If she is going to use varenicline, she is most likely to be successful if she takes it for 1 week before quitting and continues taking it for 3 months after quitting.

E) Quitting smoking will help her with her urinary symptoms.

SMOKING CESSATION

For patients in addiction treatment, smoking cessation interventions are associated with significant increases in long term sobriety (from index substance).

Nicotine replacement (NRT) with patch + prn gum or inhaler is more effective than with patch or prn treatment alone.

Bupropion + NRT is more effective than either alone.

Taking varenicline for 4 weeks prior to quitting and using it for 6 months rather than 3 months is more efficacious.

Smoking is strongly associated with urinary urgency and frequency and smoking cessation can decrease these symptoms.

Prochaska, J Con Clin Psych, 2004. Arch Intern Med, 2011; 171 (8): 770-777/ *A Modern Approach to Tobacco Dependence, Leone, F*

Hajek, P et al, Arch Int Med 2011;171(8):770-777/ *A Modern Approach to Tobacco Dependence, Leone, F*

Obst Gynecol 2011 Sep, 118(3):643-8/*Clinical Triad: Sexual, Genitourinary Health in Women, Porter-Autry, C*

QUESTION #2A: Which of the these patients should be put on a statin without calculating a 10 year ASCVD risk score per the 2019 AHA/ACC Guidelines:

A) 31 yo man with LDL-C=200

B) 42 yo well-controlled, normotensive diabetic with LDL-C=80

C) Neither

D) Both

2019 AHA/ACC GUIDELINES

In patients age 20-75 with LDL-C levels >190 mg/dl begin high-intensity statin **without calculating 10 year ASCVD risk.**

In patients 40 to 75 years of age with diabetes and LDL-C>70 mg/dl, begin at least a moderate-intensity statin **without calculating 10 year ASCVD risk**. (For those with multiple risk factors, begin high intensity statin.)

In adults 40 to 75 years of age evaluated for primary ASCVD prevention, calculate the 10 year ASCVD risk and have a shared decision-making risk discussion before starting statin therapy.

Case

60 yo woman with RA and HTN comes in to discuss her recent lipid profile which showed a total chol of 260 HDL 38 LDL 160. She is feeling well.

BP 135/80 PE normal except for some MCP damage due to RA

Following the new 2019 AHA/ACC Guidelines on cholesterol, you calculate her 10 year ASCVD risk score which is 7.7% and initiate a shared decision-making conversation about whether or not to start a statin

QUESTION #2B What pieces of the patient's history would be helpful in your shared decision-making conversation?

A) FH of early ASCVD

B) Age at menopause

C) History of rheumatoid arthritis

D) A and C

E) All of the above

2019 AHA/ACC GUIDELINES

Take risk enhancers into account in shared decision-making with patients with borderline (5-7.5%) or intermediate risk (7.5-19.9%)

--Women with h/o preeclampsia or gestational hypertension
--Women with premature menopause (< 40 yo)
--CKD
--Inflammatory disease (especially RA, psoriatic arthritis, HIV)
--Ethnicity (South Asian ancestry)
Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan, Sri Lanka

QUESTION #2C What testing might you consider ordering if needed to help with your shared decision-making per 2019 guidelines?

A) Exercise Treadmill Testing

B) Coronary Artery Calcium

C) Carotid and/or abdominal aortic ultrasound

D) ABI

E) None of the above

2019 AHA/ACC GUIDELINES

IN SHARED DECISION-MAKING CONSIDER USING CORONARY ARTERY CALCIUM SCORE

- Zero—no statin (unless DM, smoker, FH premature ASCVD)
- 1-99—consider statin, especially if > age 55
- >99—initiate statin

P.S. WE ARE BACK TO MEASURING LDL-C AFTER STATIN INITIATION (Some of us never stopped)

- Mod intensity statin goal: Reduce LDL-C >30%
- High intensity statin goal: Reduce LDL-C >50%

CASE

75 yo man with chronic nonvalvular atrial fibrillation with CHA2-DS2-VASc=3 anticoagulated with Rivaroxaban who comes in worried about his risk of GI bleeding because a friend of his also on anticoagulation for afib was just hospitalized with an UGI bleed. He does use periodic otc ibuprofen as that is the only thing that relieves his knee pain due to OA.

QUESTION #3 What evidence based steps can you take to decrease your chronically anticoagulated patient's risk of hospitalization for UGI bleeding?

A) Put him on a PPI

B) Switch him to warfarin

C) Switch him to Apixaban

D) Any of the above

E) None of the above

PREVENTION OF UGI BLEEDING IN PATIENTS ON CHRONIC ANTICOAGULATION

Hospitalization risk 115/10K patients (no PPI) vs 76/10K patients (with PPI)

Risk order: Rivaroxaban, Dabigatran, Warfarin, Apixaban

Rivaroxaban almost 2x more likely than Apixaban to result in hospitalization for UGI bleed

PPI reduced risk of hospitalization for UGI bleeding with all 4 medications*

*This does not mean you should put all patients on chronic anticoagulation on a PPI

JAMA DEC 4, 2018;320: 2221/*Update in Gastroenterology and Hepatology, Felice Scholl-Sussman, MD*

GASTROENTEROLOGY DEC 31, 2016/*Challenges in Geriatric Medication Management, Holland & Patel*

MEDICATIONS & SUPPLEMENTS

One of the first duties of the physician is to educate the masses not to take medicine.

William Osler

1849-1919

CASE

60 yo woman comes in complaining of recent hair loss, nail changes, nausea, diarrhea, and joint pain. When you ask, she reports that she started a supplement recommended by a friend to help with her memory about 6 weeks ago, but she can’t remember what it is.

On physical exam, her hair loss is obvious, several of her nails are about to fall off, her breath smells foul, and she has lost several pounds.

Routine lab work including TSH is normal.

QUESTION #4 Which of the following supplements is most likely to be the cause of your patient's symptoms?

A) Ginkgo biloba
B) Selenium
C) Vitamin E
D) Biotin
E) Iberogast

SUPPLEMENTS--SELENIUM

Selenium has a narrow therapeutic window

--Recommended dose is 50 mg/day

--Some otc supplements have >40,000 mg/day when taken as directed

Symptoms of toxicity:

--Nausea, vomiting, and diarrhea

--Hair and nail changes

--Visual loss

--Peripheral neuropathy

--Joint pain

--Foul breath odor (“garlic breath”)

Arch Intern Med. 2010 Feb 8;170(3):261-3/*Challenges in Geriatric Medication Management: An Interactive Case-Based Workshop, Holland, NW & Patel, BB*

BIOTIN (B7)

Used as supplement for hair, skin and nail health often as much as 20 mg/day

Prescribed in very high doses (300 mg) for multiple sclerosis and other conditions

Does not cause adverse events in doses between 5-600 mg/day BUT it can interfere with lab tests.

Lab tests that use the biotin-streptavidin format can be made falsely low or high by the presence of large amounts of biotin. Doses of 5 mg/day or more can do this.

Lab tests potentially effected include: troponin, BNP, procalcitonin, TFTs, PTH, FSH, LH, estrogen, testosterone, cortisol, folate, B12, PSA.

It can take a few days to a few weeks for biotin to clear once it is stopped depending on dose and chronicity of use.

ASK YOUR PATIENTS ABOUT BIOTIN SUPPLEMENTS!

Wonderling, R, Medical Laboratory Observer; Feb 22, 2018. A Closer Look at the Recent FDA Safet Communication about Biotin Interference

OTCs and SUPPLEMENTS

Iberogast which is used for IBS and functional dyspepsia is associated with hepatotoxicity. Am J Gastroenterol. 2016; 11(

Ginkgo increases bleeding risk and has been associated with CNS bleeds including subdurals Neurology; 1996;46:1775/*Challenges in Geriatric Medicine, Holland, NW; Patel, BB*

Vitamin E does NOT improve diabetic peripheral neuropathy symptoms JAMA Neurology, February 2018/*Challenges in Geriatric Medicine, Holland, NW; Patel, BB*

QUESTION #5 Which of the following is NOT a potential side effect of the fluoroquinolones?

A) Hypoglycemia

B) Peripheral Neuropathy

C) Worsening of Myasthenia Gravis

D) Enlargement/Dissection of AAA

E) None of the Above

FLUOROQUINOLONES

Tendonitis/Tendon Rupture (Achilles and others)

Increased risk of C diff

Increased risk of AAA formation and dissection

Peripheral Neuropathy

Memory/Confusion

Hypoglycemia

Worsening Myasthenia Gravis

Should not be used for bacterial conjunctivitis—too much resistance

Increased risk of aortic and mitral regurgitation

Etminan M, Sodhi M, Ganjizadeh-Zavareh S, et al. Oral fluoroquinolones and risk of mitral and aortic regurgitation. J Am Coll Cardiol. 2019;74:1444-50. 31514945

BMJ 2018;260;K678/ *Challenges in Geriatric Medicine, Holland, NW; Patel, BB*

Eye Conditions that Require Immediate Referral: What the Internist Needs to Know, Jones-Marioneaux, S

COMMON OUTPATIENT PROBLEMS

Bonus question: Who's home is this?

Alois Alzheimer (1864-1915), world famous neurologist, had his summer residence here

CASE

You follow an 80 yo woman with Alzheimer Disease on Lisinopril and Donepezil. She is still living at home under the care of her daughter with the assistance of a visiting nurse service and a private aide. The daughter calls you because her mother is having difficulty sleeping at night. She gets up and wanders the house, disrupting the daughter's sleep, and then is more confused and somnolent during the day. The daughter and the visiting nurse service have exhausted all nonpharmacologic measures. She needs a sleeping medication for her mother now!

QUESTION #6 Based on the low quality evidence available, which of the following medications would be most likely to have the greatest efficacy and fewest side effects in helping your patient with AD sleep after nonpharmacologic measures have been exhausted?

A) Diphenhydramine 25 mg qhs

B) Melatonin 3 mg qhs

C) Trazadone 50 mg qhs

D) Lorazepam 0.5 mg qhs

INSOMNIA IN ALZHEIMER'S DISEASE

WHEN NONPHARMACOLOGIC MEASURES FAIL

Cochrane Data Base Systemic Review of Pharmacotherapies for Sleep Disturbances in Alzheimer's Disease (March 2014):

--Found insufficient evidence that either immediate or slow release melatonin improved sleep outcomes in Alzheimer's Disease

--Anticholinergics (Antihistamines) and benzodiazepines should be avoided due to increased risk of falls and worsening memory

--Trazadone 50 mg at bedtime improved total nocturnal sleep time and sleep efficiency. No effect was seen on daytime sleep or on ADLs. LOW QUALITY EVIDENCE (only 30 patients in study)

Challenges in Geriatric Medicine, Holland, NW; Patel, BB

CASE

58 yo woman comes in for her yearly physical and asks you about bone density screening.

She has a 15 pack year smoking history and quit 5 years ago. She drinks 2-3 glasses of wine per week.

Her LMP was 4 years ago.

No history of fractures.

She weighs 70 kg.

QUESTION #7 Should you order a DXA scan for this patient?

A) Yes, she is several years out from completing menopause so this is a good time to get a baseline.

B) No, only women age 65 and older should be screened

C) Maybe, what's her FRAX score?

D) Maybe, what's her OST score?

WHOM TO SCREEN FOR OSTEOPOROSIS USPSTF 2018 RECOMMENDATIONS

Women ≥ 65 years: Screen with DXA scan

Men: no recommendation

Postmenopausal Women <65 years old: Screen those at higher risk for osteoporosis as determined by a clinical risk assessment tool

Tools assessed: FRAX, ORAI, OSIRIS, SCORE and OST

US Preventive Task Force. JAMA 2018; 329: 3521-31/*Osteoporosis High-Value Care, Kristine E Ensrude and Update in Women's Health, Melissa McNeil and Deborah DiNardo*

WHICH CLINICAL SCREENING TOOL SHOULD I USE?

Osteoporotic Self Assessment Tool (OST) is the simplest

OST score= [weight (kg) – age (yrs)] x 0.2

- -28 to -4: high risk
- -3 to 1: moderate risk
- 1 to 20: low risk
- Cut off of <2 identifies women with T score <-2.5 with 90% sensitivity and 27-58% specificity

One study has suggested that FRAX is inferior to OST in predicting osteoporosis in younger women.

Crandall CJ et al. J Bone Miner Res 2014; 29: 1661-66

WARNINGS AGAINST OVERSCREENING IN YOUNGER WOMEN

Update in Women's Health

"For postmenopausal women <65 who have **at least one risk factor** for osteoporosis (parental hx hip fx, smoking, excessive EtOH, low weight) consider using a clinical risk assessment tool to determine who should be screened with bone density testing."

Osteoporosis High-Value Care

Absolute 5 yr risk of disabling fx in this age group is LOW

No data on benefit of drug treatment beginning at age 50-59

Early drug treatment leads to prolonged duration of use, increased risk of net harms and fewer options later in life

"Need a baseline" is not a strong rationale for BMD testing

If drug treatment will be initiated for T-score<-2.5, consider using OST to determine if BMD testing is warranted

CASE

85 yo admitted to assisted living where you are the medical director. Eight years ago, she suffered a R hip fracture while skiing. Three years ago she fractured her L wrist in a fall. Her last DXA was at age 66 and showed lowest T score -1.9.

Lab eval shows calcium 9.2

Vit D 32

GFR 50

DXA scan shows T score in LS spine -3.2

T score in L femoral neck -3.6

QUESTION #8 True or false: We now have data indicating that this woman's osteopenia should have been treated at age 66.

A) True

B) False

C) Maybe

TREATING OSTEOPENIA IN OLDER WOMEN

--JAMA 1998: Alendronate vs placebo did not reduce risk of clinical fracture or hip fracture in postmenopausal women with T score -2.5 to -1.6.

--NEJM 2018: Zoledronate 5 mg q18 months vs placebo in women >65 with T score in hip or femoral neck -1.0 to -2.5 reduced risk of clinical fracture and hip fracture

Cummings SR et al. JAMA 1998: 280: 2077-82/*Osteoporosis High-Value Care, Ensrud, Kristine*

Reid, IR et al, NEJM, 2018; 379(25); 2407-16/*Osteoporosis High-Value Care, Ensrud, Kristine ;Update in Women's Health, McNeill, M and DiNardo, D*

WHY DISCREPANT RCT RESULTS?

Women in zoledronate RCT at higher fracture risk

--Mean age 71 years (vs 68 years in alendronate trial)

--Included some women with “osteoporosis”

13% had existing radiographic vertebral fractures and 8% and ≥1 T score <-2.5

Zoledronate is a more potent antiresorptive agent

DRUG TREATMENT IN WOMEN WITH OSTEOPENIA: BOTTOM LINE

AVOID drug treatment in younger osteopenic women

Shared clinical decision-making in older osteopenic women at high fracture risk

--advanced osteopenia (T score < -2.0)

--multiple strong clinical risk factors for fracture

--10 year probability of major osteoporotic fx ≥20%

Osteoporosis High-Value Care, Ensrud, Kristine

QUESTION #9 How should our 85 yo woman's osteoporosis be treated now?

T score – 3.2 in LS spine and -3.6 in L femoral neck; h/o hip and wrist fxs; no previous treatment

A) Alendronate

B) Zoledronate

C) Denosumab

D) Anabolic agent (teriparatide or abaloparatide)

WHEN TO CONSIDER AN ALTERNATIVE TO A 5 YEAR COURSE OF ORAL BISPHOSPHONATE

- GI or other contraindication to an oral bisphosphonate
- Very high fracture risk
  - Severe osteoporosis (hip T score <-2.5 + fragility fx or T score < -3.5
  - Multiple fractures
  - Prior hip or vertebral fracture
  - >75 yo
  - Chronic glucocorticoids
- Suboptimal response to bisphosphonates
- GFR <35

Adler et al. JBMR, 09 Sept 2015/*Multiple Small Feedings of the Mind: Endocrinology, Stephanie B Mayer*

WHICH PATIENTS WITH OSTEOPOROSIS SHOULD RECEIVE ZOLEDRONATE

Patients with gi contraindications to oral bisphosphonates (achalasia, Barrett's esophagus, esophageal stricture, esophageal varices, Roux-en-y gastric bypass)

Patients with gi side effects on oral bisphosphonates

Patients who are likely to be low adherers to oral bisphosphonates

Osteoporosis High-Value Care, Ensrud, Kristine

DENOSUMAB

DRAWBACKS:

Causes ONJ and atypical femoral fracture just like bisphosphonates

Causes rebound bone loss and vertebral fracture when stopped

Cost (at least as much or more than iv zoledronate)

WHEN TO USE:

Patients with contraindication to oral AND iv bisphosphonates

Patients with osteoporosis and CrCl<35

Anastasilkis AD et al, J Bone Miner Res. 2017 Jun;32(6) 1291-96/*MSFM Endocrinology Aperitifs, Mayer, S*

HOW TO TREAT VERY HIGH FRACTURE RISK

FIRST: Anabolic agent for 2 years

THEN: 6 years of iv zoledronate

OR 10 years of oral bisphosphonate

Adler et al. JBMR, 09 Sept 2015/*Multiple Small Feedings of the Mind: Endocrinology, Stephanie B Mayer*

MONITORING BONE MINERAL DENSITY (BMD) DURING TREATMENT

Some guidelines recommend DXA monitoring 1 year after initiation of treatment and then q2 years (NOF, AACE)

No RCT data to support that DXA monitoring in the first few years after treatment initiation reduces fractures or improves adherence

Too much variation in DXA monitoring results within the first few years to make them helpful in monitoring treatment effect

Best way to assess adherence is to ASK

Dr Ensrud's conclusion: "Routine BMD monitoring 1-3 years after starting treatment is unnecessary, potentially harmful, and a waste of health resources."

CASE

26 yo woman presents to you with new onset hives which she woke up with this morning. She thinks the problem is an allergy either due to the recent change she made in her laundry soap or to something she ate last night at a Thai restaurant.

QUESTION #10 Which of the following statements about urticaria is correct?

A) 90% of urticaria is due to allergy

B) Evaluation should include a CBC with eosinophil count and a sed rate

C) Treatment is with a long-acting non-sedating antihistamine administered up to qid

D) NSAIDs can be helpful in the treatment of urticaria

URTICARIA PEARLS
Is it allergy?

Contact urticaria is very rare and does not occur on dry, intact skin

If urticaria is due to an allergic cause, it's food or drugs delivered to mast cells via systemic circulation.

If it's a food allergy, it is an almost immediate reaction, not d/t something the patient ate last night.

If a medication, requires previous exposure. Should be obvious by history.

If not d/t food or medication, urticaria is not allergic.

Commonly Missed Diagnoses in Allergy and Immunology; John Kelso, MD

URTICARIA PEARLS
What's the cause?

90% of urticaria is not due to allergy.

Physical causes of urticaria: heat, cold, pressure or, more rarely, sun, vibration, or water. (This means heat is the only cause, not just a source of exacerbation.)

Autoimmune urticaria: 50% of urticaria, IgG mediated, tends to wane over time.

Lab evaluation of urticaria: NONE

Commonly Missed Diagnoses in Allergy and Immunology; John Kelso, MD

URTICARIA PEARLS
Treatment

Long acting antihistamine (Cetirizine, loratadine, fexofenadine). May need higher doses than normal, up to qid.

Treat for 1-4 weeks, then try off. If hives return, resume.

Avoid heat and NSAIDs which may exacerbate.

Refer to allergist if:

- Suspected allergy
- Not responsive to antihistamines
- Patient doesn't believe you that it's not allergic

Commonly Missed Diagnoses in Allergy and Immunology; John Kelso, MD

CASE/QUESTION #11: A 52 yo man has 2+ blood on urine dip stick done as part of HTN eval. What is your best next step?

A) Refer to urology.

B) Order a renal U/S.

C) Order a complete U/A with microscopy, creatinine, PSA, and urine culture.

D) Order a CT hematuria protocol

HEMATURIA

Diagnosis is made with complete U/A with microscopy, NOT with urine dip.

The cancer risk with gross hematuria (even self-limited) >>>asymptomatic microscopic hematuria.

Rule out medical disease with urine culture, creatinine, and, in men, PSA (Do not do urine cytology.)

Urology work up: CT (vs U/S for low risk patients) and cystoscopy

If urologic w/u is negative, refer to nephrology, especially if positive proteinuria.

Halpern, J et al, Cost-effectiveness of Common Diagnostic Approaches for Evaluation of Asymptomatic Microscopic Hematuria, JAMA internal med 2017; 177(6):800-807/*News You Can Use: Hematuria, Nielson, ME*

Clincal Triad: Hematuria, ED, and Testosterone Replacement, Mydlo, JH

CASE

34 yo woman comes in c/o sinus headaches. She reports that she gets the HAs every time there is a change in the barometric pressure and that the HA is bilateral around her eyes extending into her frontal region and her maxillary sinus area. She sometimes gets nasal congestion and tearing with the HAs. When she gets a HA, she takes a Benadryl, goes into a dark room and goes to sleep and usually wakes up feeling better. She endorses getting some nausea with the HAs.

QUESTION #12 What is the most likely etiology of this patient's headaches.

A) sinus headache
B) brain tumor
C) tension headache
D) migraine

MIGRAINE

By far the most commonly seen headache type in primary care

Strongest clinical predictors of migraine diagnosis:

- Nausea
- Photophobia
- Disability (Headache limits activity)

Migraine can be misdiagnosed as sinus headache:

- Migraine pain is often located over the sinuses
- Migraine frequently triggered by barometric/weather changes
- Tearing and nasal congestion common during migraine attacks
- Sinus medications like antihistamines can be helpful for migraine

Lipton RB et al, Neurology, 2003/*What Internists Need to Know about Diagnosing and Managing Headaches, Cutrer, M.*

CASE/QUESTION #13

26 yo man with HIV needs treatment for recently diagnosed secondary syphilis. He is listed as being allergic to PCN. On further questioning about his reaction, he tells you that when he was given Amoxicillin for a pharyngitis, he developed a nonpruritic red rash all over his body. He has not used PCN since. How should you proceed?

A) Treat his syphilis with benzathine PCN

B) Treat with another antibiotic

C) Refer to an allergist

PENICILLIN ALLERGY

True PCN allergy is an IgE mediated, immediate, hypersensitivity type rxn causing urticaria or anaphylaxis.

10% of patients are reported to be allergic to PCN

Only 5-10% *of those* have positive skin tests

Remainder either never had IgE mediated allergy or the allergy was lost over time

Drug Allergies: Predicting, Desensitizing, and Managing Them, John M Kelso

AMOXICILLIN/AMPICILLIN RASH

5-10% of courses

Higher % with CMV, EBV

Small red spots, non-pruritic, non-urticarial, no associated sxs

Not PCN allergic

Drug Allergies: Predicting, Desensitizing, and Managing Them, John M Kelso

WHY NOT JUST USE ANOTHER ANTIBIOTIC?

Use of alternative antibiotics:

--suboptimal treatment

--more side effects (e.g. Clostridium difficile)

--higher costs

--promote antibiotic resistance

Drug Allergies: Predicting, Desensitizing, and Managing Them, John M Kelso

INDICATIONS FOR PENICILLIN SKIN TESTING

Patient with a history of possible immediate-type penicillin allergy

--Current infection for which penicillin is the treatment of choice

--Future antibiotic needs

--After questionable reactions, especially late onset hives

--”De-labeling”

Drug Allergies: Predicting, Desensitizing, and Managing Them, John M Kelso

CASE/QUESTION #14

32 yo woman presents with Hb 8, MCV 72, ferritin 4 ng/ml. What is the best way to replace her iron?

A) parenteral iron sucrose

B) FeSO4 325 mg tid

C) FeSO4 325 mg daily

D) FeSO4 325 mg every other day

Optimized Oral Iron Absorption

- Hepcidin is the major regulator of iron absorption in the gut
- Decreased Hepcidin leads to increased iron absorption
- Hepcidin levels are regulated by
  - Iron regulator--TF saturation with higher saturation leading to higher hepcidin
  - Erythroid regulator—anemia leads to lower hepcidin
  - Inflammatory regulator—inflammation leads to higher hepcidin
  - Hypoxia regulator—hypoxia leads to lower hepcidin
- Hepcidin kinetics are such that qod iron dosing is ideal for absorption

Lancet Heaematol. 2017;4:e524-e533 and Blood, 2015;126:1981/*Blood Disorders: A High Value Care Approach, Kahn, M*

HIGHEST YIELD WORK UP FOR LENGTH DEPENDENT PERIPHERAL NEUROPATHY

Fasting glucose 11%/HbA1C 26%

Serum protein immunofixation (more sensitive than SPEP) 3-9%

B12 2%, improves to 9% if add MMA

Family History (hammertoes, high arches, distal symmetric motor>sensory neuropathy)

Further down the list: TSH, inflammatory (RA) or infectious (HIV, Lyme) disorder

Common Neurologic Conundrums for the Internist: Peripheral Neuropathy, Tremors, and Vertigo; James C. Watson, MD

MEDICATION TIDBITS/SIDE EFFECTS

Olmesartan can cause a small bowel enteropathy similar to celiac

Mayo Clin Proc. 2012;87(8):732-8/*Clinical Pearls: Gastroenterology, Oxtenko, Amy*

Trimethoprim-sulfamethoxazole can cause acute renal failure as well as hyperkalemia, especially in the elderly

J Antimicrob Chemother. 2012, May; BMJ 2018:360/*Challenges in Geriatric Medication Management, Holland, NW and Patel, BB*

The risk of tardive dyskinesia in patients on metoclopramide is highest in people<20 yo, on higher doses, and with >3 months of use

Am J Gastroenterol. 2013; 108(6):866-72/*Clinical Pearls: Gastroenterology, Oxtenko, Amy*