

Agenda



STRATEGIES FOR SHIFTING AN EXPERIENTIAL ROTATION TO ONLINE FORMAT



ONLINE/VIRTUAL
ACTIVITIES AND
RESOURCES THAT
CAN BE UTILIZED TO
EMPHASIZE PATIENT
CARE
COMPETENCIES



CREATING UNIQUE LEARNING OPPORTUNITIES FOR STUDENTS WHILE WORKING IN A VIRTUAL SETTING



OVERCOMING
CHALLENGES
ASSOCIATED WITH
REMOTE PRECEPTING
OF STUDENTS



Experiential Education

- Introductory Pharmacy Practice Experiences (IPPEs)
 - Community and Hospital settings
- Advanced Pharmacy Practice Experiences (APPEs)
 - Seven rotations
 - Six weeks in duration
 - Four required experiences
 - Ambulatory patient care
 - Community pharmacy
 - Hospital/health system pharmacy
 - Inpatient general medicine
 - Three elective experiences



Ambulatory Care Rotation

- Outpatient primary care provider office
 - 1 physician, 1 nurse practitioner
- Comprehensive medication management
 - Multidisciplinary
- Student experience:
 - 4-5 patients per day
 - Patient work-up (EMR)
 - Patient interviews
 - Developing therapeutic care plans
 - Interactions with prescribers
 - Assignments/projects topic discussions, drug information questions, journal club presentations, disease state presentations, etc.

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
2/17 – Clinic – Columbia Medical	2/18 – Clinic - Columbia Medical	2/19 – Campus/Project	2/20 – Campus/Project	2/21 – Campus/Project
Topic Discussion – Diabetes		Rucha @ ASHP event CM – insulin discussion	Rucha @ ASHP event Ellen- Off for residency interview	Journal Club # 1 article selection due Rucha- Teaching certificate Ellen- Call center
2/24 – Clinic – Columbia Medical	2/25 – Clinic - Columbia Medical	2/26 – Clinic – Columbia Medical	2/27 – Campus/Project	2/28 – Campus/Project
Topic Discussion – Hypertension		Topic Discussion- Academia		Rucha- Off Ellen- Call center
Formal DI Questions Due (5:00 pm) – Diabetes focus				Formal DI Questions Due (5:00 pm) — Hypertension
3/2 <u>— Clinic</u> – Columbia Medical Journal Club # 1 presentation	3/3 – Clinic – Columbia Medical	3/4 – Clinic – Columbia Medical Topic Discussion- Heart Failure	3/5 – Campus/Project	3/6 – Campus/Project Rucha- Last day Ellen- Call center
3/9 – Clinic – Columbia Medical	3/10 – Clinic - Columbia Medical	3/11 – Clinic – Columbia Medical	3/12- Campus/Project	3/13 – Campus/Project
Valerie- First day			Valerie- PCM Lab	Valerie- PCM Lab
Topic Discussion – Dyslipidemia				Ellen- Call center
Journal Club # 2 article selection due				Formal DI Questions Due (5:00 pm) – Dyslipidemia focus

The problem

- Transition to online learning in mid-March 2020
- Clinical settings stop allowing students on-site
- March May 2020:
 - Affected graduating students (class of 2020)
- May 2020 current:
 - Affecting fourth-year students



https://www.furman.edu/covid-19/



https://www.medscape.com/viewarticle/918137?src=sap

Ambulatory Care – Gone Virtual



Ambulatory Care - Gone Virtual

Topic discussions



Disease state presentations

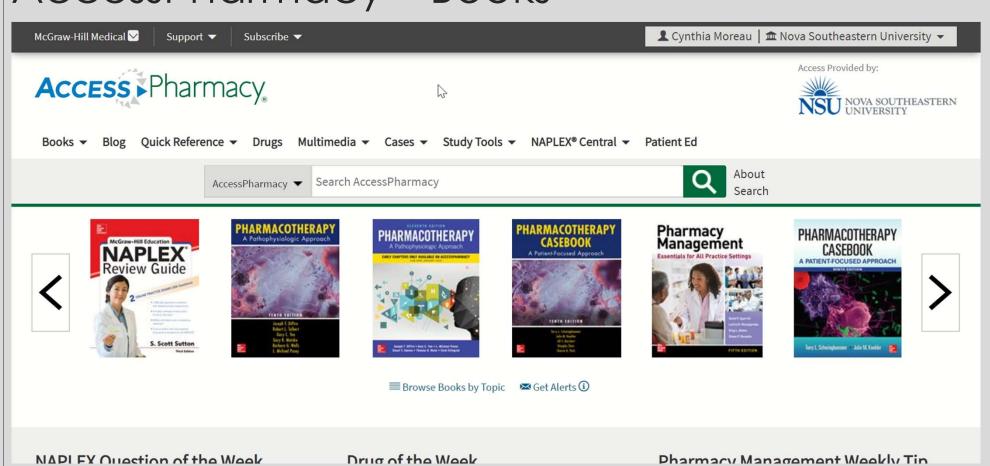
Disease State Presentations

- Each week = 1 disease state/topic
- Students work as a team to develop and present presentation
- Each presentation covers:
 - Pathophysiology
 - Risk factors
 - Diagnosis/clinical presentation
 - Treatment pharmacological and non-pharmacological
 - Including evidence-based/treatment guideline recommendations
 - Treatment goals/monitoring
 - Complications

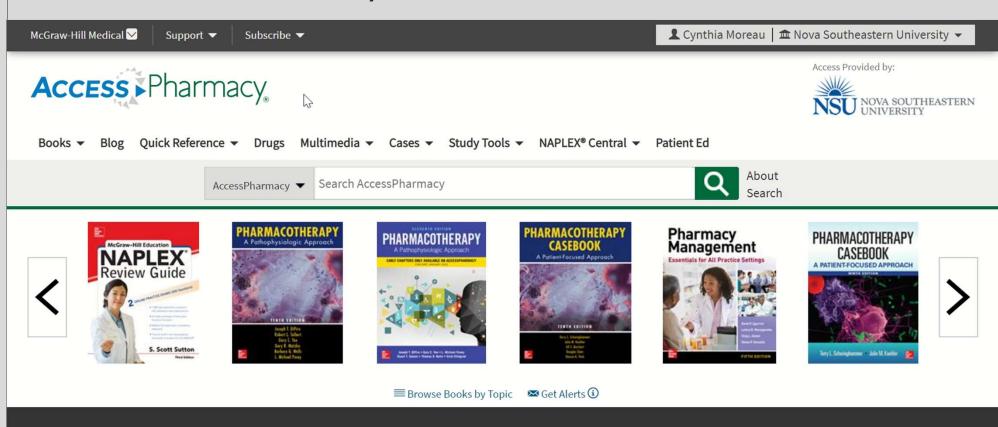
Resources

- Pharmacotherapy: A Pathophysiologic Approach (DiPiro)
- Quick Answers: Pharmacy
- Other
 - Treatment guidelines
 - UpToDate
 - Etc.

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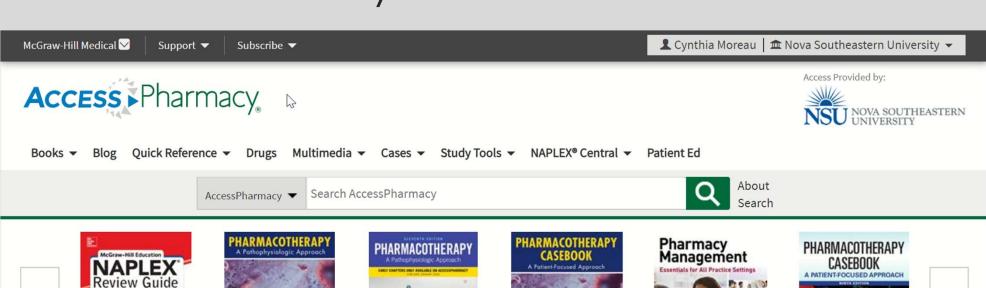
Ambulatory Care - Gone Virtual

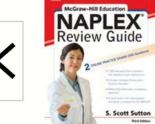
Patient work-ups, interviews, care plans

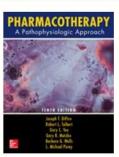


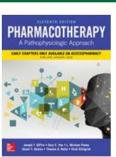
Patient case discussions

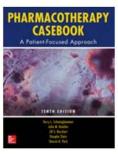
AccessPharmacy - Patient Cases



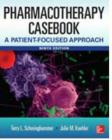














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TYPE 2 DIABETES MELLITUS: EXISTING DISEASE

Establishing Optimal Control Level II

Sharon S. Gatewood, PharmD, BCACP, FAPhA Margaret A. Landis, PharmD

CASE SUMMARY

A 45-year-old white woman comes to the pharmacy for an education class about diabetes taught by the pharmacist. She was diagnosed with diabetes 6 months ago and started on therapy along with lifestyle modifications. The patient's blood glucose levels and A1C have worsened, and the patient is not maintaining her lifestyle modifications. Her drug regimen for diabetes and lifestyle modifications will need to be changed. Because of diabetes and obesity, her cholesterol and blood pressure (BP) are uncontrolled. The reader will have to create a treatment plan that optimizes control of the patient's hypertension and dyslipidemia as well.

QUESTIONS

Collect Information

- 1.a. What subjective and objective information indicates the presence of diabetes mellitus?
 - Self-monitored blood glucose levels range from 215 to 280 mg/dL.
 - · Self-monitored fasting blood glucose levels average 200 mg/dL.
 - A random blood glucose is 243 mg/dL.
 - The A1C is 10.0%.

disease, peripheral arterial disease, or stroke) and microvascular (neuropathy, nephropathy, or retinopathy) complications.

- 2.b. Create a list of the patient's drug therapy problems and prioritize them. Include assessment of medication appropriateness, effectiveness, safety, and patient adherence.
- Problem #1: Type 2 diabetes mellitus (DM) uncontrolled on current therapy (maximally dosed metformin) and requiring additional medication.
- Problem #2: Hypertension uncontrolled on current dose of ACE inhibitor (lisinopril 20 mg daily) requiring titration of dose and/or additional antihypertensive therapy.
- Problem #3: Dyslipidemia with elevated TGs despite current moderate-intensity statin therapy requiring more aggressive treatment for adequate ASCVD risk reduction.
- Problem #4: Obesity contributing to instability of the patient's diabetes, hypertension, and dyslipidemia, and possibly requiring pharmacotherapy and/or lifestyle intervention for weight loss.
- Problem #5: Bipolar disorder controlled on current regimen of olanzapine and carbamazepine, but possible adverse impact of atypical antipsychotic on glycemic control, and no clear indication for lorazepam use.

Develop a Care Plan

- 3.a. What are the goals of pharmacotherapy in this case?
 - Control of blood glucose levels as close to normal as possible.
 - Preprandial plasma glucose: 80–130 mg/dL.
 - Peak postprandial plasma glucose: <180 mg/dL (measurements should be made 1-2 hours after the beginning of the meal).
 - A1C < 7%.¹
 - Short-term goals for diabetes are to prevent and relieve acute complications.
 - Long-term goals for diabetes are to prevent any microvascular and macrovascular complications and improve patient's quality of life.
- The goals for dyslipidemia are HDL ≥40 mg/dL for men, HDL ≥50 mg/dL for women, and TGs <150 mg/dL.^{1,2} Treat-

Demographics

Name: Thomas Smith

Age: 52 years old

BMI: 30.5 kg/m2

Ht: 6'0

Wt: 102.3 kg

Allergies: NKA

Subjective

CC: "I am here to see if I need additional meds."

<u>HPI:</u> Thomas Smith is a <u>52 year old</u> man obese African-American man who presents to pharmacotherapy clinic for follow-up about further optimization of this cardiovascular risk reduction therapy. He had a STEMI 6 months ago and has a significant family history of cardiovascular disease. He reports good adherence to his medications since having his heart attack. He reports no drug allergies and rides bike at the gym for 30 minutes 2-3 days a week. Patient is interested in what he can do to lower risk of another heart attack.

<u>PMH</u>: Obesity (BMI 30.5 kg/m), Dyslipidemia × 6 years, HTN × 10 years, Chronic kidney disease (stage 3) × 5 years, CAD, s/p STEMI 6 months ago (drug-eluting stents placed in right circumflex and left anterior descending arteries), GERD x 5 years

EHx: Father has had 2 <u>MI's</u>[one at age 50 and one at age 60. Mother has no major medical conditions. Patient has one older brother with HTN & history of MI at age 48.

 $\underline{\sf SHx}$: No children. Patient is married and lives with wife. College graduate and works as an accountant.

Drinks 1-2 beers most days of the week. <u>Tobacco(</u>-) Exercises for 30 minutes 2-3 days a week.

ROS: Denies unilateral weakness, numbness/tingling, or changes in vision. He denies CP and only has SOB if he really pedals hard on the bike for longer than 15 minutes. He denies changes in bowel or urinary habits. He denies any lower extremity edema.

Objective

Medications / Treatments / Immunization Status:

Carvedilol 25 mg PO BID, Atorvastatin 80 mg PO once daily, Aspirin 81 mg PO once daily, Clopidogrel 75 mg PO once daily, Pantoprazole 40 mg PO once daily, Lisinopril 40 mg PO daily, Chlorthalidone 25 mg PO daily, Acetaminophen 500 mg one to two tablets PO PRN every 6 hours for pain, Garlic capsules Physical Examination:

- · GEN: Obese, African-American man
- VS: BP 136/84, P 64, RR 18, T 38.2°C; Wt 102.3 kg, Ht 6'0
- . HEENT: PERRLA; EOMI; funduscopic exam deferred; TMs intact; oral mucosa clear
- · Neck/Lymph Nodes: Neck supple, no lymphadenopathy, thyroid smooth and firm without nodules
- · Chest: CTA bilaterally, no wheezes, crackles, or rhonchi
- CV: RRR, no m/r/g, normal S1 and S2; no S3 or S4
- Abd: (+) BS, no hepatosplenomegaly
- · Genit/Tect: Deferred

Labs / Diagnostics:

Na 140 mEq/L(135-145); Ca 8.2 mg/dL (8.5-10.3); K 4.6 mEq/L(3.6-5.2); Mg 2.1 mEq/dL Cl 103 mEq/L;

AST 45IU/L; CO2 23 mEq/L; ALT 40IU/L BUN 19 mg/dL; SCr 1.6 mg/dL T. bili 0.5 mg/dL; T. prot 7.1 g/dL; CrCl: 66.8 ml/min

Problem: ___Dyslipidemia(uncontrolled)_ Assessment

Patient was diagnosed with dyslipidemia 6 years ago. His physician started him on atorvastatin 80 mg PO QD. He had a STEMI 6 months ago and has a significant family history of cardiovascular disease. He is currently uncontrolled with his dyslipidemia due to his high levels of LDL being 121 mg/dL. Lipid profile are at good values with TC being 190 mg/dL, HDL being 40 mg/dL, and TG being 145 mg/dL. Patient admits to drinking 1-2 beers most days of the week and exercises for 30 minutes 2-3 days a week.

Evaluation of therapy:

Patient is not at goal with LDL being 121 mg/dL and is being treated with a high intensity statin (atorvastatin 80 mg). Patient falls under group of patients with clinical ASCVD and with a very high risk ASCVD. Per 2018 ACC/AHA Since patient had one major event and multiple high risk conditions, such as hypertension and and chronic kidney disease. Patient should be on a maximally tolerated statin and ezetimibe. Patient is also taking garlic capsules which might interact with the high dose atorvastatin and can cause nephrotoxicity. Fish oil supplement not recommended since he is taking an antiplatelet and TG levels are stabilize.

Plan

Treatment goal(s):

Reduce LDL < 70 mg/dL, prevent progression and complication, prevent episodes of MI, lose 5-10% weight lose from baseline for health benefits, minimize adverse drug reactions, and prevent drug-drug interactions.

Plan continued

Therapeutic plan:

Continue with Atorvastatin 80 mg PO QD and add Ezetimibe 10 mg PO QD. Discontinue garlic capsules.

Pertinent patient education points:

Educate patient on common side effects of ezetimibe such as diarrhea, abdominal pain, hepatitis, myalgias.

Educate patient to start a healthy diet with low fat dairy products and healthy protein sources and educate patient to reduce caloric intake to 1.500-1.800 kcal.

Educate patient to engage in to maximize exercise regimen to 40 minutes 3-4 sessions a week.

Educate patient to limit alcohol consumption.

Follow-up/Monitoring:

Follow up with lipid measurements 4-12 weeks after drug initiation. Must be repeated 3-12 months.

Monitor CK and liver enzymes at baseline or if experiencing and symptoms while on drug therapy.

Follow up in 6 months to check if any weight reduction changes.

Problem: Hypertension(uncontrolled)

Assessment

Patient is diagnosed with hypertension 10 years ago. He is currently not at goal with

Plan continued

Therapeutic plan:



APhA Library – Patient Cases

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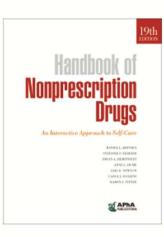
NAPLEX® Review

Case Studies

Preceptor Central

Handbook of Nonprescription Drugs

The Handbook of Nonprescription Drugs: An Interactive Approach to Self-Care, 19th Edition is the most authoritative reference on nonprescription drug pharmacotherapy, nutritional supplements, medical foods, nondrug and preventive measures, and complementary therapies. This new edition is updated and revised throughout and includes a new chapter on prebiotics and probiotics.



In the News

American Pharmacists Association

- Study: Global lockdowns, other measures averted half-billion COVID-19 cases
- · CDC: Pet-to-human transmission of coronavirus unlikely
- · Tramadol mortality risk in osteoarthritis could outweigh benefits
- Benzodiazepines tied to higher risk of ectopic pregnancy

> Pharmacy Today

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
5/11	5/12	5/13	5/14	5/15
APPE Introduction (Zoom)	Watch videos (see links below): 1. Medication Reconciliation 2. SBAR Communication with Providers	Disease State Presentation & Discussion – Diabetes (T2DM focus) (Zoom)	Patient Case & SOAP Note Discussion – Diabetes (Zoom)	Journal Club # 1 article selection due NAPLEX Review Questions Due - Diabetes (5:00 pm)
5/18	5/19	5/20	5/21	5/22
	Disease State Presentation & Discussion – Dyslipidemia (Zoom)		Patient Case & SOAP Note Discussion – Dyslipidemia (Zoom)	Clinical Debate – Aspirin – Bhumika & Leslie (Zoom) NAPLEX Review Questions Due – Dyslipidemia (5:00 pm)
5/25	5/26	5/27	5/28	5/29
MEMORIAL DAY - OFF	Disease State Presentation & Discussion – Hypertension (Zoom)	Journal Club # 1 presentations (Zoom)	Patient Case & SOAP Note Discussion - Hypertension (Zoom)	NAPLEX Review Questions Due - Hypertension (5:00 pm)
6/1	6/2	6/3	6/4	6/5
Journal Club # 2 article selection due	Disease State Presentation & Discussion – COPD (Zoom)		Patient Case & SOAP Note Discussion - COPD (Zoom)	Clinical Debate – Statins – Leslie & Via (Zoom) NAPLEX Review Questions Due

Patient Case Discussions

- Role playing exercises
 - Patient interviews
 - Initial patient interview:
 https://accesspharmacy.mhmedical.com/multimedia.aspx#42358
 - Medication reconciliation Vanderbilt University (YouTube): https://www.youtube.com/watch?v=8az0PV3WXZk
 - Provider interactions
 - https://www.youtube.com/watch?v=fsazEArBy2g
 - Emphasizing "Situation, Background, Assessment, Recommendation (SBAR)" communication technique

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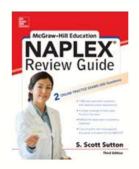
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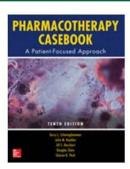




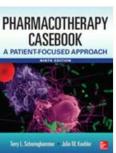














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Other Activities

NAPLEX review

Clinical debates

Journal club presentations

Drug information questions

NAPLEX Review Questions

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APPE Introduction (Zoom)	Watch videos (see links below):	Disease State Presentation &	Patient Case & SOAP Note	Journal Club # 1 article selection due
	Medication Reconciliation SBAR Communication with Providers	Discussion – Diabetes (T2DM focus) (Zoom)	Discussion – Diabetes (Zoom)	NAPLEX Review Questions Due - Diabetes (5:00 pm)
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	Disease State Presentation & Discussion – Dyslipidemia		Patient Case & SOAP Note Discussion – Dyslipidemia	Clinical Debate – Aspirin – Bhumika & Leslie (Zoom)
	(Zoom)		(Zoom)	NAPLEX Review Questions Due – Dyslipidemia (5:00 pm)
5/25	5/26	5/27	5/28	5/29
MEMORIAL DAY - OFF	Disease State Presentation & Discussion — Hypertension (Zoom)	Journal Club # 1 presentations (Zoom)	Patient Case & SOAP Note Discussion - Hypertension (Zoom)	NAPLEX Review Questions Due – Hypertension (5:00 pm)
6/1	6/2	6/3	6/4	6/5
Journal Club # 2 article selection due	Disease State Presentation & Discussion – COPD (Zoom)		Patient Case & SOAP Note Discussion - COPD (Zoom)	Clinical Debate – Statins – Leslie & Via (Zoom)
				NAPLEX Review Questions Due – COPD (5:00 pm)

NAPLEX Review Questions





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NAPLEX® Central

STUDY HINT

- First, complete all the 1500 questions from the NAPLEX® Review book 3/e
- Then, go into the 2019 NAPLEX® Q&A and test yourself on these 1500 questions

Important Note

- NAPLEX® Review book and the Q/A Review each have 1500 UNIQUE questions
- 3000 Plus unique questions between the two products!

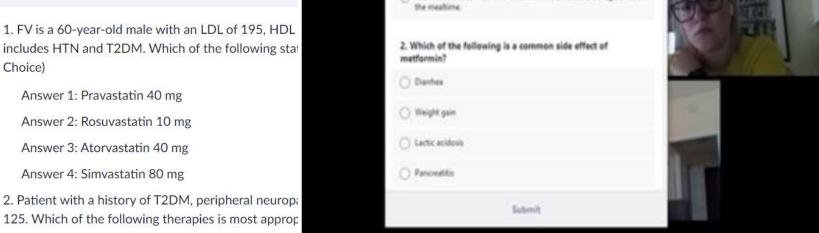


You have created 1 poll for this meeting.

Title

^ Poll 1

1. FV is a 60-year-old male with an LDL of 195, HDL includes HTN and T2DM. Which of the following stat Choice)



DM

() Guisine is a basal insulin and administration should be regardless of

1. How many minutes before a meal should a patient

administer gluffsine insulin?

15 minutes before the start of a meal.

30 minutes before the start of a meal.

60 minutes before the start of a meal.

Polling

- Kahoot! (<u>www.kahoot.com</u>)
- Socrative (<u>www.socrative.com</u>)
- Poll Everywhere (<u>www.polleverywhere.com</u>)

Clinical Debates

- Two students present two sides of a clinically controversial topic
- Topic 1: Aspirin for primary prevention of cardiovascular disease
- Topic 2: Statin use in elderly patients
- Topic 3: Benefits/harms of ACE-inhibitors and ARBs in COVID-19

Clinical Debates

2019 ACC/AHA GUIDELINES

- Class IIb: Low-dose aspirin (75-100 mg orally daily) might be considered for the primary prevention of ASCVD among select adults 40 to 70 years of age who are at higher ASCVD risk but not at increased bleeding risk.
- Evidence for ASCVD risk
 - · Strong family history of premature MI
 - Inability to achieve lipid or BP or glucose targets
 - · Significant elevation in coronary artery calcium score





Other

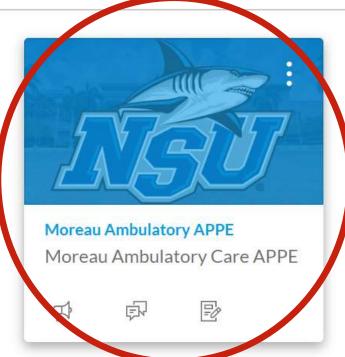
- Journal Club Presentations
 - Each student presents 2 journal club presentations during six-week rotation
 - Criteria:
 - Randomized controlled trial
 - Ambulatory care-related topic
 - Published within the last 18 months
- Drug Information Questions
 - Follow-up questions from various discussions
 - Written response (with appropriate references) within 48 hours

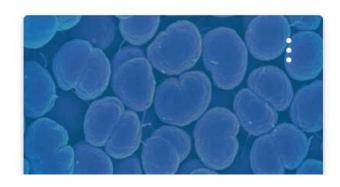


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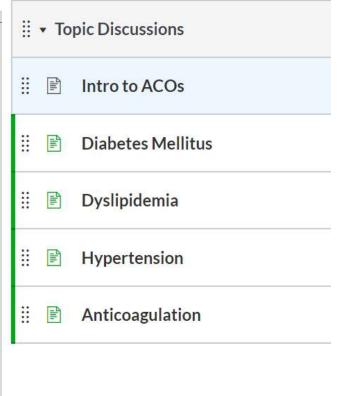
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Medical Letter Drugs for COPI

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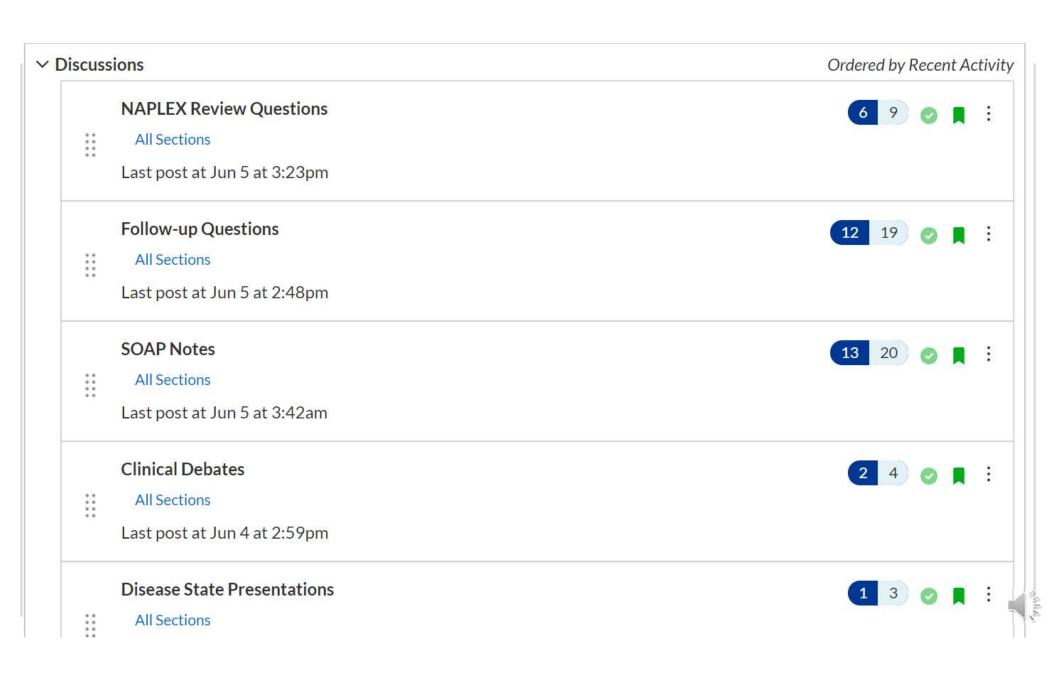
Diabetes Mellitus

- 1. Medical Letter: Drugs for Type 2 Diabetes
- 2. Medical Letter: Insulins for Type 2 Diabetes
- 3. ADA Standards of Care 2020.pdf

Sections To Read:

- o Classification and diagnosis S14 (including Table 2.2, Table 2.3, Table 2.5, and Figure 2.1)
- Prevention or Delay of Type 2 Diabetes S32
- Comprehensive Medication Evaluation and Assessment of Comorbidities S37 (including Figure 4.1, Table 4.2, and Table 4.3)
- Facilitating Behavior Change and Well-being to Improve Health Outcomes S48 (including Table 5.1)
- o Glycemic Targets S66 (including Figure 6.2, Table 6.3, and Table 6.4)
- Pharmacologic Approach to Glycemic Treatment S98 (including Table 9.1, Figure 9.1, Figure 9.2, Table 9.2, and Table 9.3)
- o Cardiovascular Disease & Risk Management S111 (including Table 10.2)
- Microvascular Complications and Foot Care S135 (including Figure 11.1)
- 4. Medical Letter: Cardiovascular Effects of DM Drugs
- 5. Medical Letter: Cardiovascular Benefits of SGLT2 Inhibitors and GLP-1 Receptor Agonists in

T2DM



NSU Official Syllabus	▼ Assignment Quizzes	
Modules		
Discussions	Week 3 Assessment Due Sep 19, 2017 at 8pm 10 pts 10 Questions	\bigcirc
Assignments	Full-fD-t-ti D-fl-ti	
Quizzes	End of Rotation Reflection Due Mar 30, 2018 at 11:59pm 60 pts 6 Questions	\bigcirc
Conferences	Pre-Rotation Goals	0
Grades	Due Apr 3, 2018 at 11:59pm 60 pts 6 Questions	\Diamond
LockDown Browser	Assessment 1 - Requires Respondus LockDown Browser + Webcam	0
Purchase Course	Due May 16, 2019 at 5pm 10 pts 10 Questions	
Materials	Assessment 2	\Diamond
Research and Adopt Course Materials	Due May 17, 2019 at 8pm 10 pts 10 Questions	<u> </u>
Collaborations Ø	Pre-Rotation Assessment	0
	Closed Due Sep 8, 2019 at 11:59pm 60 pts 60 Questions	<u>~</u>
ages	Post-Rotation Assessment	
Outcomes	Due Sep 13, 2019 at 5pm 60 pts 60 Questions	0

Housing Rotation Materials

- Google Classroom (classroom.google.com)
- Basecamp (<u>www.basecamp.com</u>)

Stream

Classwork

People

Grades







Class code d3mwfap []



Upcoming

No work due soon

View all



Share something with your class...

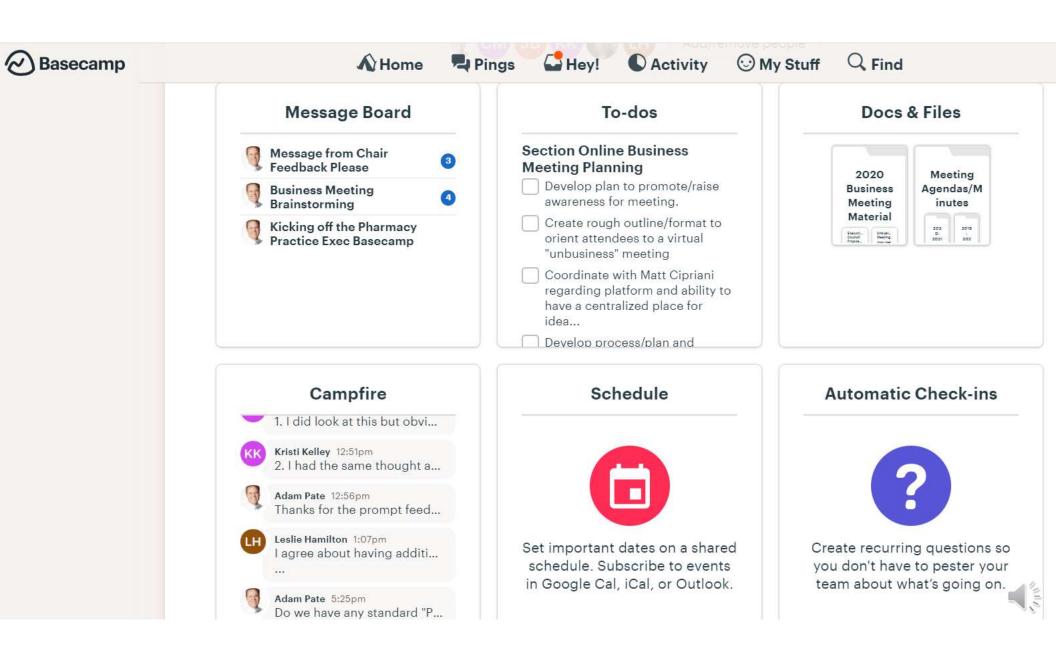




Cynthia Moreau posted a new question: What are you most looking forward to on this rota... Apr 15, 2019







Student Feedback

- "I like the idea of virtual meeting as there are so many things going on with COVID-19 crisis"
- "Doing **SOAP notes and medication reconciliations**, I have similar experiences as actual interactions with patients."
- "With the **NAPLEX review questions**, I am able to test myself and preparing myself for the actual NAPLEX exam next year"
- "I have really liked how I can think of patient cases and our topic discussions in a more **clinical way**, which is completely different than school."
- "Interpreting guidelines and researching follow-up questions gets me to practice with the resources that are available."
- "I am glad to work with 2 brilliant colleagues in our **team**, we always share if we have any concerns about anything to each other and help each other to solve queries."

Preceptor Perspective

- Cons/Weaknesses
 - Difficult to assess professionalism
 - Loss of face-to-face interaction
 - Thinking outside the box

- Pros/Opportunities
 - Flexibility
 - Thinking outside the box

