

Guideline/Drug Updates: 2020 RxPrep Course Book

NAPLEX-relevant updates from June 2019-May 2020

Page	Update Type	Description
Chapter 20: Immunizations		
p. 322-328	Guideline Update November 2019	<p><i>Prevnar 13</i> is no longer routinely recommended at ages ≥ 65 years. It can be recommended based on shared clinical decision making between the patient and healthcare provider. A single dose of <i>Prevnar 13</i> is still recommended for immunocompromised patients ≥ 6 years old if not previously received (see Study Tip Gal p. 328).</p> <p>The update above applies to the following content:</p> <ul style="list-style-type: none"> ■ p. 322: Vaccinations for Special Groups, Older Adults: first bullet under Pneumococcal vaccines (age ≥ 65 years). ■ p. 323: Vaccinations for Adults, Pneumococcal: first bullet under <i>Prevnar 13</i> (if not received before). ■ p. 327: Pneumococcal Vaccines: third bullet. ■ p. 328: Pneumococcal Vaccines drug table (top of page): Administration Recommendations for the 13-Valent Conjugate Vaccine (PCV-13): <i>Prevnar 13</i>. ■ p. 328: Pneumococcal Vaccine Indications Study Tip Gal: second bullet under column 1 for <i>Prevnar 13</i> (PCV 13). ■ p. 328: Pneumococcal Sequence and Intervals, Immunocompetent Patients: the first bullet for patients ≥ 65 years is accurate if the shared clinical decision is to administer the vaccine. <p style="text-align: right;">ACIP/CDC Recommendations for <i>Prevnar 13</i> for ages ≥ 65</p>
Chapter 23: Infectious Diseases II: Bacterial Infections		
p. 382	Guideline Update October 2019	<p>The American Thoracic Society and Infectious Diseases Society of America have published updated guidelines for the Diagnosis and Treatment of Adults with Community-acquired Pneumonia. Key changes that can impact testing include:</p> <p>Outpatient CAP Treatment</p> <ul style="list-style-type: none"> ■ Study Tip Gal, column 1: Patient Characteristics, Category 1 <ul style="list-style-type: none"> ○ Course book reads: No antibiotic use within the past 3 months and previously healthy. ○ NEW criteria: No comorbidities (chronic heart, lung, liver or renal disease; diabetes mellitus; alcoholism; malignancy or asplenia) and no risk factors for MRSA or <i>P. aeruginosa</i> (prior respiratory infection with either pathogen or hospitalization with receipt of parenteral antibiotics in the last 90 days). ■ Study Tip Gal, column 2: Recommended Empiric Regimen, Category 1 <ul style="list-style-type: none"> ○ Course book reads: <ul style="list-style-type: none"> ■ Option 1: Macrolide (azithromycin, clarithromycin, erythromycin) ■ Option 2: Doxycycline ○ Updated Recommendations: <ul style="list-style-type: none"> ■ Option 1 (NEW): High-dose amoxicillin (1 gram TID) ■ Option 2: Doxycycline

		<ul style="list-style-type: none"> ▪ Option 3 (NEW): Macrolide (azithromycin and clarithromycin) if local pneumococcal resistance is < 25%. ▪ Study Tip Gal, column 2: Recommended Empiric Regimen, Category 2 <ul style="list-style-type: none"> ○ Option 1: Amoxicillin (high-dose) is no longer recommended and can be crossed out. <p>Inpatient CAP Treatment</p> <ul style="list-style-type: none"> ▪ Drug treatment is based on location of patient and severity of infection: <ul style="list-style-type: none"> ○ Non-ICU (nonsevere CAP) <ul style="list-style-type: none"> ▪ Treatment options described on p. 382 remain appropriate. ○ ICU (severe CAP) (NEW) <ul style="list-style-type: none"> ▪ Recommended <ol style="list-style-type: none"> 1. Beta-lactam + macrolide 2. Beta-lactam + respiratory quinolone ▪ Not recommended <ol style="list-style-type: none"> 1. Respiratory quinolone alone 2. Beta-lactam + doxycycline ○ Risk factors present for MRSA or <i>P. aeruginosa</i>: add appropriate coverage as noted in the last bullet on p. 382. <p style="text-align: right;">Guidelines for the Treatment of Community-acquired Pneumonia</p>
p. 384	Guideline Update February 2020	<p>The Centers for Disease Control and Prevention and the National Tuberculosis Controllers Association have published updated guidelines for the Treatment of Latent Tuberculosis Infection.</p> <p>Regimens with shorter durations (e.g., 3 or 4 months) are preferred due to higher completion rates and less risk of hepatotoxicity when compared to longer courses of isoniazid (INH).</p> <p>Preferred Regimens</p> <ul style="list-style-type: none"> ▪ INH + rifapentine weekly for 12 weeks <ul style="list-style-type: none"> ○ Recommended for adults, children > 2 years old and HIV-positive patients (if no drug interactions with antiretroviral therapy) ○ Do not use in pregnant women (see Alternative Regimens) ▪ Rifampin daily for 4 months <ul style="list-style-type: none"> ○ Recommended for HIV-negative adults and children of any age ○ Watch for drug interactions with rifampin (a CYP inducer) ▪ INH + rifampin daily for 3 months <ul style="list-style-type: none"> ○ Recommended for adults, children of any age and HIV-positive patients (if no drug interactions with antiretroviral therapy) <p>Alternative Regimens</p> <ul style="list-style-type: none"> ▪ INH daily for 6 months or 9 months <ul style="list-style-type: none"> ○ An option for all adults (HIV-negative and HIV-positive) and children of any age ○ The regimen of choice for pregnant women ○ May be preferred in HIV-positive patients who cannot take a preferred regimen due to drug interactions with antiretroviral therapy <p style="text-align: right;">Guidelines for the Treatment of Latent Tuberculosis Infection</p>

Chapter 26: Human Immunodeficiency Virus		
p. 418	Guideline Update December 2019	<p>Dolutegravir/lamivudine (<i>Dovato</i>) was added to the “Recommended Initial Regimens” as the first approved two-drug regimen. <i>Dovato</i> is only recommended for the following patients:</p> <ul style="list-style-type: none"> ■ No active hepatitis B ■ Low viral load ■ No known resistance to the components of <i>Dovato</i> <p style="text-align: right;">Guidelines for Initial Combination Regimens for the Antiretroviral-Naïve Patient</p>
p. 419	Guideline Update December 2019	<p>The recommendations for the Use of Antiretroviral Drugs in Pregnant Women with HIV have been updated. Dolutegravir can now be used with 2 NRTIs as a preferred treatment in pregnancy. The true incidence of neural tube defects in the United States from dolutegravir is unknown but is lower than previously reported.</p> <p>In the section on Regimens for Antiretroviral-Naïve Pregnant Women:</p> <ul style="list-style-type: none"> ■ Cross out the last sentence in the second paragraph. Dolutegravir should be avoided due to a risk of neural tube defects. ■ Add dolutegravir to the INSTI column of the table.
p. 433	Labeling Change	Emtricitabine/tenofovir alafenamide (<i>Descovy</i>) has been FDA-approved for the indication of pre-exposure prophylaxis (PrEP).
Chapter 42: Chronic Obstructive Pulmonary Disease		
p. 619	Guideline Update January 2020	<p>The 2020 Global Initiative for Chronic Obstructive Pulmonary Disease (GOLD) was published. There were no significant changes impacting the 2020 RxPrep Course Book content.</p> <p style="text-align: right;">2020 GOLD Report for Prevention, Diagnosis and Management of COPD</p>
Chapter 44: Diabetes		
p. 639-642	Guideline Update January 2020	<p>The 2020 American Diabetes Standards of Care update was published. Key changes that can impact testing include:</p> <p>Comprehensive Care</p> <ul style="list-style-type: none"> ■ p. 639: Cholesterol Control – the last bullet should now read: <ul style="list-style-type: none"> ○ Ezetimibe (preferred) or a PCSK9 inhibitor can be added in patients with ASCVD and LDL cholesterol ≥ 70 mg/dL on a maximally tolerated statin. ○ (NEW) Ezetimibe can be added in patients without ASCVD but with ASCVD risk > 20% on a maximally tolerated statin. ○ (NEW) Icosapent ethyl (<i>Vascepa</i>) can be added in patients with ASCVD or other cardiovascular risk factors if LDL is controlled on a statin but triglycerides remain elevated. ■ p. 640: Diabetic Kidney Disease (second bullet): <ul style="list-style-type: none"> ○ Course Book reads: A urine test is performed annually to measure urine albumin excretion as an indicator of disease progression. ○ NEW <ul style="list-style-type: none"> ■ A urine test should be performed annually in patients without kidney disease to monitor for development of disease. ■ Patients with established kidney disease should have a urine test twice a year to monitor disease progression. <p>Treatment for Type 2 Diabetes</p>

		<ul style="list-style-type: none"> ■ p. 642: Study Tip Gal: ASCVD and HF or CKD arms of the flow diagram <ul style="list-style-type: none"> ■ (NEW) GLP-1 agonists and SGLT2 inhibitors with cardiovascular benefit should be considered regardless of A1C (i.e., even if at goal). ■ (NEW) Dulaglutide (<i>Trulicity</i>) has a new indication for reduction of cardiovascular events in adults with type 2 diabetes who have ASCVD or multiple cardiovascular risk factors. It can be included in the list of drugs with proven CVD benefit shown in the treatment algorithm. ■ (NEW) Dapagliflozin (<i>Farxiga</i>) has an indication to reduce the risk of hospitalization for heart failure in adults with type 2 diabetes who have ASCVD or multiple cardiovascular risk factors. It can be included in the list of drugs with proven HF or CKD benefit shown in the treatment algorithm. <p style="text-align: right;"><i>ADA Standards of Medical Care in Diabetes - 2020</i></p>
p. 649	New Drug Approval	Semaglutide (<i>Rybelsus</i>) has been approved as the first <u>oral</u> GLP-1 agonist.
p. 659	Labeling Change	The room temperature stability of <i>Toujeo</i> pen has changed to 56 days.
p. 660	New Drug Approval	The FDA approved two novel formulations of glucagon for the treatment of hypoglycemia: <ul style="list-style-type: none"> ■ Intranasal glucagon (<i>Baqsimi</i>) ■ Glucagon solution prefilled syringes for SC injection (<i>Gvoke</i>)

Errata: 2020 RxPrep Course Book

Corrections or clarifications for the 2020 RxPrep Course Book

Page	Description
Chapter 1: Preparing for NAPLEX with RxPrep	
p. 10 and p. 26	In the Dose Conversions section of the Required Formulas Checklist (p. 10), the Required Formulas Sheet (p. 26) and the Required Formulas tear-out (at the back of the RxPrep Course Book), the page number for Calcium Salts and Aminophylline ↔ Theophylline should be p. 183.
Chapter 15: Compounding I	
p. 237	The section on “Media-Fill Test” should include this statement: “Media-fill testing must be performed <u>initially</u> during training and at least <u>annually</u> for <u>low- and medium-risk</u> level compounding and semiannually for high-risk compounding.”
Chapter 16: Compounding II	
p. 263-264	The title “Hydrophobic Solvents” (p. 263) is incorrectly placed. Alcohols (p. 263) and Glycols (p. 264) are hydrophilic solvents. Oils and Fats (p. 264) are hydrophobic solvents.

Chapter 17: Compounding III							
p. 274	The section on "Melting Point Order" should say: "For any formulation, if melting ingredients, melt the ingredient with the <u>highest</u> melting point <u>prior</u> to adding the ingredient/s with <u>lower</u> melting points." The bullet underneath should say: "Line up the ingredients by the melting point temperature, and melt in that order, starting with the highest melting point."						
Chapter 27: Dyslipidemia							
p. 443	In the Key Drugs Guy for Select Drugs/Conditions that can Raise LDL and/or Triglycerides, "atypical antipsychotics" should be listed under "increased LDL and TG."						
Chapter 35: Anemia							
p. 549	For the Key Drugs Guy titled "Select Drugs that Can Cause Hemolytic Anemia," all drugs in the front and back box are "must know" for testing. Valproic acid should be removed and replaced with sulfonamides.						
Chapter 43: Tobacco Cessation							
p. 630	The 12-week schedule for nicotine gum and lozenge is missing from the table: <table border="1" data-bbox="250 905 683 1100"> <tbody> <tr> <td>Weeks 1-6</td> <td>1 piece Q1-2H</td> </tr> <tr> <td>Weeks 7-9</td> <td>1 piece Q2-4H</td> </tr> <tr> <td>Weeks 10-12</td> <td>1 piece Q4-8H</td> </tr> </tbody> </table>	Weeks 1-6	1 piece Q1-2H	Weeks 7-9	1 piece Q2-4H	Weeks 10-12	1 piece Q4-8H
Weeks 1-6	1 piece Q1-2H						
Weeks 7-9	1 piece Q2-4H						
Weeks 10-12	1 piece Q4-8H						
Chapter 44: Diabetes							
p. 656	The Study Tip Gal titled "Initiating Basal-Bolus Insulin" is intended to serve as an example and should have the following instructions: "Start a basal-bolus regimen with <i>Lantus</i> and <i>Humalog</i> in a 70 kg patient using a starting dose of 0.6 units/kg/day."						
Chapter 49: Osteoporosis, Menopause & Testosterone Use							
p. 716	The Bisphosphonates section in the Drug Summary for Osteoporosis Treatment and Prevention Study Tip Gal should include this statement: <ul style="list-style-type: none"> ■ Treatment duration: 3-5 years in patients at low risk of fracture (due to the rare risk of femur fracture and osteonecrosis of the jaw). 						
Chapter 62: Oncology II							
p. 858	In the second paragraph of the section titled "Hormonal Therapies for Prostate Cancer," the second sentence should say "ADT is achieved with either a gonadotropin releasing hormone (GnRH) antagonist (alone) or a GnRH agonist (initially taken with an antiandrogen)."						