

Lectures covering concentrated Topics in Emergency Medicine (TEMs)

Section	Week	Title	Topics
Pharmacology	082	Introduction to Pharmacology and Therapeutics	Introduction Pharmacological considerations Benefit-risk ratio Efficacy Interactions Environment Other medications Tolerance Selection of agent and dose Effects Desired Untoward Special populations Age Lactation [see Week 096] Pregnancy [see Week 096] Therapeutic considerations Pharmacokinetics Absorption Distribution Elimination Pharmacodynamics Bioavailability Concentration Potency
	083	Opioid and Related Analgesic Medications	Opioid-receptor agonists Codeine Fentanyl Hydromorphone Meperidine Methadone Morphine Propoxyphene Opioid-receptor agonist/antagonists Butorphanol Nalbuphine Opioid-receptor antagonists Naloxone Naltrexone NMDA-receptor antagonists Dextromethorphan Ketamine Nitrous oxide Pathophysiological conditions Dependence Tolerance
	084	Nonopioid Analgesic Medications	Alkaloids Colchicine Ergot alkaloids Dihydroergotamine Sumatriptan Nonsteroidal anti-inflammatory drugs Acetylsalicylic acid derivatives Aspirin [analgesic effects] Heteroaryl acid derivatives Ketarolac Indol derivatives Indomethacin

			Para-aminophenol derivatives Acetaminophen Propionic acid derivatives Ibuprofen Naproxen Xanthine-oxidase inhibitors Allopurinol
	085	Gastrointestinal Medications	Antacid agents Antidiarrheal agents Bismuth compounds Opioids Diphenoxylate Loperamide Antiemetic agents D2-receptor antagonists Butyrophenones Droperidol Phenothiazines Chlorpromazine Prochlorperazine Promethazine D2/5-HT ₃ -receptor antagonists Metoclopramide 5-HT ₃ -receptor antagonists Ondansetron Cytoprotective agents Polysaccharides Sucralfate Prostaglandin analogs Misoprostol Gastric acid reducers H ₂ -histaminergic-receptor antagonists Cimetidine Famotidine Ranitidine H ⁺ /K ⁺ -ATPase inhibitors Esomeprazole Lansoprazole Omeprazole Pantoprazole Rabeprazole Laxatives Mineral oil Osmotic Lactulose Polyethylene glycol & electrolyte solutions Sorbitol Stimulant Bisacodyl
	086	Neurological Medications	Acetylcholinesterase inhibitors Edrophonium Physostigmine Pyridostigmine Acetylcholine-receptor antagonists Benztorpine GABAergic-receptor agonists Barbiturates Methohexital Pentobarbital Phenobarbital Thiopental Benzodiazepines

			Diazepam Lorazepam Midazolam GABAergic-receptor antagonists Flumazenil H ₁ -histaminergic-receptor antagonists Alkylamines Brompheniramine Chlorpheniramine Ethanolamines Diphenhydramine Piperazines Cetirizine Fexofenadine Hydroxyzine Loratidine Meclizine Hydantoins Fosphenytoin Phenytoin [anti-epileptic effects] Imidazole derivatives Etomidate Neuromuscular blocking agents Depolarizing Succinylcholine Nondepolarizing Atracurium Mivacurium Rocuronium Vecuronium NMDA-receptor antagonists Ketamine
	087	Cardiovascular Medications	Acetylcholine-receptor antagonists Atropine Adenosine Adenosine β-adrenergic-receptor antagonists Atenolol Esmolol Labetolol Metoprolol Calcium-channel blockers Diltiazem Verapamil Catecholamines Dobutamine Dopamine Epinephrine Neosynephrine Norepinephrine Na ⁺ /K ⁺ -ATPase inhibitors Digoxin Phosphodiesterase inhibitors Amrinone Milrinone Sodium-channel blockers Amiodarone Lidocaine Phenytoin [anti-dysrhythmic effects] Procainamide Vasopressin-receptor agonists Vasopressin

	088	Bronchodilators, Diuretics, and Vasodilators	Acetylcholine-receptor antagonists Ipratropium Angiotensin-converting-enzyme inhibitors Captopril Enalapril Ramipril β_2 -adrenergic-receptor agonists Albuterol Levalbuterol Salmeterol Catecholamines Racemic epinephrine Terbutaline Central α_2 -adrenergic-receptor agonists Clonidine Direct smooth-muscle relaxants Hydralazine Diuretics Na^+/Cl^- -symport inhibitors Hydrochlorothiazide $\text{Na}^+/\text{K}^+/\text{2Cl}^-$ -symport inhibitors Furosemide Osmotic Mannitol Magnesium [bronchodilating effects] Methylxanthines Aminophylline Theophylline Nitrates Nitroglycerine Nitroprusside Nitrous oxide Phentolamine
	089	Hematological Medications	Cyclo-oxygenase inhibitors Aspirin [antiplatelet effects] ϵ -aminocaproic acid Glycoprotein-IIb/IIIa inhibitors Abciximab Eptifibatide Tirofiban Heparins Fractionated Dalteparin Enoxiparin Unfractionated Thrombolytic agents Alteplase Retaplase Tenectapase Streptokinase Urokinase Thienopyridines Clopidogrel Ticlodipine Thrombin inhibitors Bivalirudin Vitamin-K-dependent processes Vitamin K Warfarin

	090	Hormones and Steroids	Hormones - Female - Estrogens - Oxytocin - Progestins - Pancreas - Glucagon - Hypoglycemia-reversal effect - Inotropic effect - Insulin - Hypoglycemia effect - Inotropic effect - Thyroid - Propylthiouracil - Thyroxine Steroids - Inhalational - Beclomethasone - Dexamethasone - Fluticasone - Mometasone - Oral - Dexamethasone - Prednisone - Prednisolone - Parenteral - Dexamethasone - Fludrocortisone - Hydrocortisone - Methylprednisolone - Triamcinolone
	091	Dermatological Medications	Antibacterial agents - Systemic - Topical - Benzoyl peroxide - Mupirocin Antifungal agents - Systemic - Griseofulvin - Fluconazole - Itraconazole - Ketaconazole - Topical - Clotrimazole - Econazole - Miconazole - Naftifine - Tolnaftate Anti-inflammatory agents - Dapsone - Selenium - Sulfasalazine Glucocorticoids - Systemic - Topical - Delivery methods - Covers - Preparations - Creams - Gels - Lotions

			Ointments Potency classes Retinoids Sunscreens
	092	Antimicrobials [part 1]	β -lactam antibiotics Carbapenems Azteronam Imipenem Meropenem Cephalosporins First-generation Second-generation Third-generation Fourth-generation Penicillins Ampicillin Carboxypenicillins Dicloxacillin β -lactamase inhibitors Clavulanic acid Sulbactam Tazobactam Clindamycin Macrolides Azithromycin Clarithromycin Erythromycin Tetracyclines Doxycycline Tetracycline Vancomycin
	093	Antimicrobials [part 2]	Aminoglycosides Amikacin Gentamicin Neomycin Bacitracin Chloamphenicol Diaminopyrimidine Trimethoprim Isoniazid Metronidazole [antibacterial effects] Nitrofurantoin Nitrofurantoin Phenazopyridine Polymyxin B Quinolones Ciprofloxacin Levofloxacin Moxifloxacin Rifampin Sulfonamides Sulfamethoxazole
	094	Antimicrobials [part 3]	Anti-fungal agents Amphotericin B Fluconazole Ketoconazole Itraconazole Anti-parasitic agents Chloroquine congeners Chloroquine Mefloquine Primaquine

			Diaminopyrimidines Mebendazole Metronidazole [antiparasitic effects] Pentamidine Praziquanatel Anti-viral agents Acyclic nucleoside phosphonates Anti-herpesvirus agents Acyclovir Famcyclovir Valacyclovir Anti-retroviral agents Lamivudine Zidovudine Neuraminidase inhibitors Amantidine Oseltamivir Rimantadine Nucleoside analogs Ribavirin Trifluridine Vidarabine Non-nucleoside reverse-transcriptase inhibitors Efavirenz Nucleoside reverse-transcriptase inhibitors Emtricitabine Nucleotide reverse-transcriptase inhibitors Tenofovir Protease inhibitors Lopinavir Ritonavir
	095	Electrolytes, Substrates, and Water	Electrolytes Calcium Iodine Lithium Magnesium Antidysrhythmic effects Antieclamptic effects Uterine smooth-muscle relaxation effects Phosphorus Potassium Sodium Hypertonic Hypotonic Isotonic Substrates Dextrose Glucose Water
	096	Medications in Pregnancy and Lactation	Physiological changes affecting medications Lactation Pregnancy Research Teratogenesis US Food & Drug Administration categories