

Curriculum Content Report
Prepared November 6, 2019 – Delivered to MSEC November 19, 2019
Basic Sciences in the Clerkships
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Community Medicine	<ul style="list-style-type: none"> -Pulmonary physiology relevant to interpretation of spirometry -Epidemiologic database research
Family Medicine	<p>Anatomy</p> <ul style="list-style-type: none"> -ankle -chest x-ray anatomy -coronary artery -knee -lumbosacral spine -male genitourinary -shoulder -skin (histology & immunology) <p>Epidemiology</p> <ul style="list-style-type: none"> -common causes of mortality -diabetes -colorectal cancer -general epidemiologic principles <p>Pathophysiology</p> <ul style="list-style-type: none"> -asthma -diabetes Mellitus type I -diabetes mellitus type II -diastolic dysfunction -ECG abnormalities -metabolic syndrome -stroke -Cardiovascular pharmacology, epidemiology, pathophysiology & genetics -Inherited coagulation disorders -Prenatal genetic testing -Pharmacology of drugs for headache -Antidepressant mechanisms of action -Role of H. pylori and immune response in gastritis and peptic ulcer disease -Microbiology of pediatric pneumonia -Pulmonary physiology relevant to interpretation of spirometry
Internal Medicine	<p>Cardiology</p> <ul style="list-style-type: none"> -myocardial physiology such as myocardial contraction via actin-myosin -action potential and Na-K transport -pharmacology of ACEI and blocking pathways. -pathophysiology of heart failure

	<p>Rheumatology</p> <ul style="list-style-type: none"> -pathophysiology of acute gout -autoantibodies in rheumatologic disease -immunologic basis of vasculitis -HLA B27 association with ankylosing spondylitis -infectious causes of reactive arthritis <p>Neurology</p> <ul style="list-style-type: none"> -review of cerebrovascular anatomy and basic neuroanatomy relevant to stroke syndromes -principles of localizing CNS lesions -pathophysiology of stroke <p>Bleeding disorders</p> <ul style="list-style-type: none"> -platelet physiology -pathophysiology of TTP -basic mechanisms of hemostasis -intrinsic and extrinsic pathways in clotting cascade -hemophilia genetics -pathophysiology of DIC -genetic causes of bleeding disorders <p>Nephrology</p> <ul style="list-style-type: none"> -pathophysiology of renal tubular acidosis -genetics of Alport syndrome -immunologic basis of glomerulonephritis -pathophysiology of oxalate stones in Crohn's disease <p>Pulmonology</p> <ul style="list-style-type: none"> -lung volumes and flow volume loops -pathophysiology of COPD -pharmacology of bronchodilators <p>Gastroenterology</p> <ul style="list-style-type: none"> -pathophysiology of Barrett's esophagus -immunologic markers in viral hepatitis <p>Endocrinology</p> <ul style="list-style-type: none"> -adrenal gland anatomy and hormones -pathophysiology of hyperaldosteronism -genetics of pheochromocytoma
<p>Obstetrics & Gynecology</p>	<p>Anatomy</p> <ul style="list-style-type: none"> -Female pelvic anatomy <p>Genetics</p> <ul style="list-style-type: none"> -BRCA mutations and breast cancer -causes of gonadal dysgenesis -causes of premature ovarian failure <p>Physiology</p> <ul style="list-style-type: none"> -menstrual cycle -pregnancy -Embryology of the vagina

<p>Pediatrics</p>	<p>Anatomy</p> <ul style="list-style-type: none"> -tympanic membrane -ventricular septal defect <p>Epidemiology</p> <ul style="list-style-type: none"> -obesity -pediatric brain tumors <p>Genetics</p> <ul style="list-style-type: none"> -Down Syndrome -common trisomies -prenatal genetic testing <p>Pathophysiology</p> <ul style="list-style-type: none"> -Asthma -Bronchiolitis -Croup -diabetic ketoacidosis -Hypothyroidism -Intussusception -Nephrotic syndrome -Pneumonia -Shock -Sickle cell disease <p>Physiology</p> <ul style="list-style-type: none"> -fetal growth -newborn bilirubin and jaundice -Antibiotic mechanisms of action -Bacterial resistance -pharmacology mechanisms of action during simulation exercises -Teratogens in pregnancy -Laboratory assessment of bleeding disorders -Natural history of Bordetella pertussis infections -Cerebellar function -Localization of CNS lesions -Toxicology of ingestions including lead -Hemoglobin types in newborns
<p>Psychiatry</p>	<ul style="list-style-type: none"> -Psychopharmacology Review -Neuroanatomy Review
<p>Rural Primary Care Track</p>	<p>Anatomy</p> <ul style="list-style-type: none"> -ankle -coronary artery -knee -lumbosacral spine -male genitourinary -shoulder <p>Epidemiology</p> <ul style="list-style-type: none"> -common causes of mortality -diabetes -colorectal cancer

	<p>Pathophysiology</p> <ul style="list-style-type: none"> -asthma -diabetes Mellitus type I -diabetes mellitus type II -diastolic dysfunction -metabolic syndrome -stroke -Inherited coagulation disorders -Prenatal genetic testing -Pharmacology of drugs for headache -Antidepressant mechanisms of action -Role of H. pylori and immune response in gastritis and peptic ulcer disease -Microbiology of pediatric pneumonia -Pulmonary physiology relevant to interpretation of spirometry -Epidemiologic database research
<p style="text-align: center;">Surgery</p>	<p>Anatomy</p> <ul style="list-style-type: none"> -review of surgery relevant anatomy during cases -biliary tract anatomy -diverticular disease Anatomy -inguinal hernia -lymphatic anatomy related breast cancer -pancreas -Pyloric stenosis anatomy -thyroid anatomy and embryology <p>Pathophysiology</p> <ul style="list-style-type: none"> - calcium metabolism, regulation of calcium by parathyroid hormone, role of kidneys, PTH related peptides -cholesterol solubility related to cholelithiasis -colorectal cancer pathophysiology – evolution -from adenoma to carcinoma -pancreatitis -Review of basic science foundational concepts during case presentations, e.g rationale for increased lipase in pancreatitis. -Adrenal gland histology and physiology -BRCA genes and breast cancer risk -Thyroid physiology