

EMERGENCY MEDICINE



COMPETENCY BASED CURRICULUM

Introduction

Emergency Medicine is taught progressively over the four years at VCOM.

A review of the courses each student completes in the first two years at VCOM are found in the section marked pre-clinical courses.

The majority of emergency medicine is taught through the course Clinical Case Correlations. This curriculum begins in Block 2 of the first year and runs through Block 12 of the second year. Emergency Medicine skills are taught through the Clinical Skills Course that runs Block 8 through Block 12.

Each case in Clinical Case Correlations provides a pre-case tutorial on line. The faculty member enters all the relevant data surrounding a condition or several conditions that will be in the differential for the case. After completing the case, the student is tested with a pre-case quiz. The in-class case presentation follows where the faculty member presents one or more facilitated cases to the class. During the facilitated case presentation, the faculty member focuses on the most common symptoms and signs associated with a disease, the patient presentation, the differential diagnosis, and the diagnostic evaluation used to narrow the diagnosis. First year cases do not cover management. Second year cases are expanded and cover the management of the patient once the diagnosis has been made. An in class quiz evaluates the students understanding of the presentation.

Clinical Case Correlations are evaluated through pre-case on-line quizzes, in class quizzes, and written examinations that occur periodically through the block.

MEDICAL STUDENT YEARS ONE AND TWO

An overview of courses for the Pre-clinical years may be found earlier in the manual. Curriculum specific to Emergency Medicine that occurs in the first two years at VCOM are listed below.

These topics are taught through the Clinical Case Correlations Course Blocks 2-12. They students knowledge base is tested through written exam. An Asterisk * is placed by the lectures given by Emergency Medicine Faculty.

Block 2 & 8 Skin Abscess
 Most Common Skin Rashes
 Skin Tumors
 Thrombophlebitis
 Hypertension
 Lymphadenopathy
 Inflammatory Dermatitis

Immune Disorder — Dermatitis
Dermatitis due to External Insults (Ivy dermatitis, insect bites, etc.)

- Block 8 Acute Psychosis
 Altered Consciousness — Psychiatric
 Mood Disorders
 Anxiety Disorders
 Personality Disorders
 Substance Abuse Disorder
 Suicide and Violence
 Introduction to Toxicology (Pharmacology)
- Blocks 3 & 9 Musculoskeletal System and Neurological System
 Skull Fracture *
 Cervical Fracture *
 Spinal Fracture *
 Acute Knee Injury
 Acute Shoulder Pain,
 Acute Shoulder Injuries (Fracture and Dislocation)
 Fractures of the Foot and Ankle
 Fractures and Injuries to the Elbow, Forearm, and Wrist
 Fractures of the Femur, Hip and Pelvis
 Injuries to the Chest Wall, Clavicle, and Ribs
 Common Infections of the Bone and Joints
 Introduction to Radiology of the Skeletal System
 Radiology of the Lower Extremity
 Radiology of the Skull and Cervical Spine
 Radiology of the Spine
 Radiology of the Upper Extremity
 Acute Compartmental Syndromes
 Acute Lumbar Pain (Sprain vs Disc Injury vs Spondylolisthesis vs Stenosis)
 Lumbar and Thoracic Spine Injuries — Neurosurgery perspective
 Pediatric Disorders of the Lumbar and Thoracic Spine
 Pediatrics Limping with Fever and Limping without Fever
 Adult Hip Pain
 Acute Inflammatory Arthritis
- Block 4 & 9 Seizures in Children
 Meningitis and Encephalitis
 COMA and Encephalopathies
 Cephalgia
 Seizures and Epilepsy
 Head Trauma, Cerebral Bleeds *
 CVA
 Spinal Cord Syndromes *
- Block 5 & 10 EKG Interpretation
 Supraventricular Arrhythmias
 Ventricular Arrhythmias

Congestive Heart Failure
 Pulmonary Embolus
 Pulmonary Edema
 Acute MI— Coronary Artery Disease
 Shock (Septic, Neurogenic, Cardiac, and Hypovolemic)*
 Hypertensive Crisis*
 Pericarditis and Myocarditis
 Evaluation for and Management of Microcytic and Macro cytic anemias
 Evaluation and management of Childhood Anemias
 Asthma
 COPD
 Pediatric Pulmonary Disorders
 Pneumonia
 Laryngitis, Tracheitis, and Bronchitis
 Carotid Artery Disease
 Pneumothorax
 Aortic Disease and Aneurysm
 Block 6 & 11 Evaluation of Acute Abdominal Pain *
 Perforated Viscous, Peritonitis *
 Acute appendicitis
 Mesenteric thrombosis
 Diverticulitis
 Pancreatitis
 Bowel obstruction
 Incarcerated hernia
 Acute Cholecystitis
 Nephro- Ureteral lithiasis*
 Testicular Pain, Epididymitis, and Testicular Torsion*
 Acute Renal Failure
 Chronic Renal Failure
 Cystitis
 Pyelonephritis
 Upper GI Bleed, Perforated ulcer, vs. Esophageal varices, vs. Mallory
 Weiss tear, and Boerhave's
 Lower GI Bleeding: Hemorrhoidal vs.fistulal fissure vs. AV malformation
 vs. diverticulitis vs. polyps
 Block 7 & 12 Ectopic Pregnancy
 Vaginal/Uterine Hemorrhage
 Pelvic Inflammatory Disease
 Ovarian Cyst (includes acute rupture)
 Endometriosis
 Sexual Abuse and Rape
 Sexually Transmitted Diseases
 Thyroiditis and Hyperthyroidism
 Hypothyroidism
 Obstetrical Emergencies (taught in Obstetrics)
 Diabetic Ketoacidosis, Non-ketotic Hyperosmolar & Hypoglycemic
 emergencies*
 Traumatic Genitourinary Injuries *
 Drug Overdose*

ACLS 10 lectures/lab hours in Clinical Skills Course*
ATLS 10 lecture/lab hours in Clinical Skills Course*
Evidence Based Medicine and Critical Thinking (10 hours)

Clinical Skills from Pre-Clinical Courses

The Clinical Skills course focuses on skills necessary for basic evaluation and treatment of a patient. Each block the skills that are taught are aligned with the system covered in the block. Prior to entering clinical rotations, the students have demonstrated in a laboratory setting using models or classmates, that they have obtained the following clinical skills:

- oCPR
- Blood pressure, heart rate, temperature, respiratory rate
- Principles of ACLS (not certified)
- Principles of ATLS (not certified)
- Sterile technique
- Surgical Scrub
- Basic suturing
- Fluid replacement for Burns
- Urinary catheter placement
- Venipuncture
- IV line placement
- Injection techniques
- Performance of a complete physical exam including auscultation, inspection, and palpation.
- Medical History taking
- Medical Risk Factor Analysis
- Patient assessment
- Communication skills basic to medicine
- Documentation of patient h and p and the soap note
- HIPPA procedures
- Universal Precautions
- Plain film xray interpretation (with over-read)
- EKG interpretation (with over-read)
- Domestic abuse assessment and reporting
- Airway Management
- ABG
- Spirometry Interpretation

While these skills have been tested in a laboratory or mock setting the faculty physician should observe the student in performing these skills until he or she has deemed that the student performs the skill in a satisfactory and medically acceptable manner.