Patient Centered Medicine 2
Key Concepts and Session Objectives Grouped by Competency

MEDICAL KNOWLEDGE

General Appearance of the Patient

- Name common terms to describe the general appearance on a physical exam.
- Define anchoring bias, confirmation bias, and implicit bias; recognize the potential presence of these biases when assessing the general appearance of the patient.
- Define common terminology used in describing levels of consciousness such as: alert, lethargy, obtunded, stupor and coma.
- Define normal weight, obesity, underweight using body mass index.

Skin Exam

- Define and recognize the primary skin lesions: macule, papule, nodule, patch,plaque, pustule, vesicle, bulla, and wheal.
- Define secondary skin lesions, including ulcer, scar, atrophy, scale, crust, fissure,excoriation, erosion, burrow, telangiectasia, lichenification, purpura, and petechiae.
- List the ABCDE of melanoma (Asymmetry, Irregular Border, Color Variation, Diameter>6mm, Evolving).
- Recognize how skin lesions or changes in the skin may appear differently in patients with various skin tones.
- Define Fitzpatrick Skin types in general terms.

Eye Exam

- Name the relevant anatomical structures of the eye as it pertains to a preliminary eye examination.
- List the components of the eye examination.
- Name the portion of the visual pathway associated with a particular visual field defect.

Head (ENT) and Neck Exam

- List the components of the ear, nose, and throat exam.
- Identify normal structures of the ear, nose, and oral examination.
- Identify structures of the neck including the thyroid and cricoid cartilages
- List the borders of the anterior and posterior triangles of the neck, be familiar with lymph node levels in the neck.

Breast Exam

- Describe the risk factors and prevalence of breast cancer.

Cardiac Exam

- Describe inspection and palpation steps of the cardiac examination, including where to find PMI.
- Discuss the proper way to wear and use a stethoscope, difference between bell and diaphragm, proper placement on the chest.
- Describe the mechanism of generation, clinical significance, and best listening areas on the chest of the following sounds:
    a. S1 & S2–including etiologies for increased and decreased intensities.
    b. S2 splitting patterns-including normal, wide, fixed, paradoxical.

c. S3 & S4
d. Ejection clicks-early and mid (including MVP)
e. Opening snap

- Describe the grading system for heart murmurs (I – VI/VI).
- Compare and contrast the location, pattern of radiation, timing, pitch, shape, quality and response to common physiologic maneuvers and any associated change in carotidwaveform with the following murmurs:
  a. Aortic stenosis
  b. Mitral stenosis
  c. Aortic regurgitation
  d. Mitral regurgitation
  e. Hypertrophic cardiomyopathy
  f. Ventricular septal defect
  g. Atrial septal defect
  h. Mitral Valve Prolapse
  i. Pericardial rub

Peripheral Vascular Exam:

- List the most common causes of peripheral vascular disease—plaque and inflammation.
- List risk factors for atherosclerosis
- Discuss the purpose of the Allen test.
- List the symptoms of acute arterial insufficiency: pain, pallor, pulselessness, poikilothermia, paresthesia, paralysis.

Lung Exam

- Identify general observation findings pertinent to the respiratory system—specifically breathing patterns, clubbing.
- Identify the range of percussion sounds over the lung (resonant, dull, hyper-resonant) and their clinical significance.
- Describe the clinical significance of the following lung sounds: bronchial,vesicular, wheeze, crackle, rhonchi, stridor, and pleural rub.
- Recognize the following patterns of breathing and their clinical significance:Kussmaul, Cheyne Stokes, orthopnea, sleep apnea, and pursed lip breathing.
- Identify the clinical history and physical findings typical for pneumothorax and tension pneumothorax, congestive heart failure, airway obstruction, asthma, COPD, and interstitial lung disease.
- List differential diagnosis for clubbing, silhouette sign, meniscus sign

Abdominal Exam

- Describe a variety of abdominal symptoms and signs that suggest specific abdominal pathology including peptic ulcer, pancreatitis, biliary colic, cholelithiasis, acute appendicitis, bowel obstruction, mesenteric ischemia.
- Describe a variety of abdominal bulges and protrusions.
- Recognize the physical findings of liver disease.

Neuro Exam

- List the components of a neurologic exam: motor, sensory (light touch, pain, position, vibration), cerebellum, reflexes, cranial nerves, and mental status,
- List the grading scale of reflexes.

- List the grading of muscle strength.

Musculoskeletal Exam/Rheumatology

- List the key questions for a focused rheumatologic history, addressing:
    a. Stiffness on arising.
    b. Pain worse with weight bearing
    c. Medications patient has tried.
    d. Time of the day is the pain worse

Lymphatic and Hematologic Exam

- Describe the relevant anatomy and physiology as pertains to the examination of the lymphatic system and lymph nodes, describe location, size, consistency, and other attributes of lymphadenopathy,
- Identify common clinical scenarios involving lymphadenopathy.
- Distinguish among various nutritional anemias--including iron, folate, and vitamin B-12 deficiency.

Genitourinary (GU) Exam

- List components of the screening GU history, which may include sexual health and dysfunction, pain, swelling, bleeding, discharge, lesions, and infectious diseases, a menstrual history, obstetric history, contraceptive history when applicable.
- List anatomical landmarks of the GU examinations.
- List common abnormal findings of the GU exam.
- Describe the American Urological Association (AUA) guideline recommendations for prostate cancer screening (age to start, stop, and intervals for screening).
- Describe technique to obtain a cytologic specimen of the cervix (i.e., Pap smear) and current American College of Gynecology (ACOG), American Cancer Society(ACS), or the United States Preventive Services Task Force (USPSTF) recommendations for screening (age to start, stop, and intervals for screening).

Geriatric Concepts

- Describe normal physiologic changes with aging in the vital signs, eye, ear, cardiovascular system, pulmonary system, gastrointestinal system, neurologic system, and skin.
- List the activities of daily living (ADLs) necessary for independent living(bathing, dressing, toileting, transfers, continence, and feeding) and identify IADLs (Instrumental Activity of Daily Living)

End of Life

- Describe the role each advance directive can play in the advance care planning process.
- List the differences between a living will and a power of attorney for healthcare.
- Identify appropriate patients for whom a POLST conversation is appropriate
- Describe the different standards of surrogate decision making.

EKG Concepts

- Describe a systematic approach for interpreting EKGS (rate, rhythm, axis,intervals, hypertrophy, and ischemia).
- State the paper speed and locate voltage calibration marking on the EKG; know standard settings

for both.

- Describe proper lead location on the body and list which leads are unipolar or bipolar.
- Identify the typical waveforms of the normal EKG.
- Name the mechanical/electric events in the heart represented by
    a) P wave
    b) QRX complex
    c) PR interval
    d) QT interval
    e) T wave
- Apply the systematic EKG interpretation to calculation and/or recognize:
  a. rate
  b. rhythm
  c. axis
  d. normal and abnormal intervals
  e. right and left atrial enlargement.
  f. right and left ventricular hypertrophy.
  g. ischemia
  h. infarction
  i. AV Block
      i. First degree
      ii. Second degree (Mobitz I and Mobitz II)
      iii. Third degree (complete heart block)
  j. Pattern of evolution for hyperkalemia

Radiology Concepts

- Identify basic anatomical landmarks on the chest x-ray which will include trachea, carina, lungs, major lung fissures, cardiac borders, left ventricle, right atrium, pulmonary vasculature, aortic knob, ribs, clavicle, scapula, sternum, diaphragms, breast shadows,and gastric bubble.
- Describe a systematic approach to interpret chest x-rays (ABCDE, for example)
- Identify the following abnormalities on a CXR: cardiomegaly, CHF/pulmonaryedema; pleural effusion; hyper expansion and other changes typical of patients with COPD. List possible etiologies of mediastinal masses as determined by location in chest on CXR.

Ultrasound Examination (Point of Care)

- Recognize the ultrasound images of the liver, kidney, spleen, gall bladder,aorta, and urinary bladder.

Charting in the Medical Records:

- Name all components of an Admit Note-including the H&P, Problem List, Assessment, Plan (diagnostic, therapeutic and education) and major components of admission orders.

Clinical Reasoning

- Define pertinent positive and negative findings of a history and physical examination.
- Recognize pertinent positives and negatives from both the history and physical exam to create, update, and order a list of differential diagnoses.
- When the student is unable to arrive at a differential diagnosis for a particular patient's problem, employ an approach based on pathologic process (example VINDICATE = vascular, Infectious,

Neoplastic, Nutritional, Degenerative, Inflammatory, Congenital, Autoimmune, Traumatic, Toxic, and Environmental) to create a differential diagnosis.
- Identify a final diagnosis based on supportive data.
- Learn types of cognitive errors common in medical diagnostic reasoning and strategies to avoid them.

Standard Precautions and the Prevention of the Spread of Infectious Diseases
- Define Standard Precautions in patient care.
- Explain the risk of health care acquired and the post exposure care for HIV and Hepatitis B and Hepatitis C.
- Explain best practices to prevent risks of health care exposures to COVID19 in both the suspected or known patient with COVID19, and with the patient population in general.
- Describe the proper use of sharp containers and safety when using tools such as needles, syringes, and scalpels.
- Define the several types of isolation precautions: contact, contact plus, droplet, and airborne.
- Name examples of personal protective equipment and describe isolation techniques.
- Describe steps to take in the event of body fluid exposure.

General H&P information
- Describe the differences between complete H&P and Focused H&P.
- List what should be included in a focused H&P
- Describe the benefits and limitations of non-face-to-face health care delivery, including telemedicine.
- Identify social determinants of health in preceptorship cases.

PATIENT CARE
- Perform the steps of a complete head to toe physical exam without prompting.
- Perform the basic steps for a focused history and physical exam as is pertinent tothe case before the student.
- Demonstrate a respectful approach toward all patients.
- Recall the impact of illness and disabilities on multiple aspects of patients' lives.

General Appearance, Growth and Development, and Vital Signs
- Recognize an abnormality on a growth chart for the pediatric patient.
- Recognize the elements of the patient's general appearance that should be pursued with focused historical questions and/or targeted physical examination.
- Recognize abnormal vital signs.
- Recognize conversational dyspnea.
- Recognize the classic general appearance of a patient with Cushing disease,Parkinson disease, hyperthyroidism, acromegaly, Marfan syndrome, Turner syndrome, trisomy 21, COPD, central cyanosis, and peripheral cyanosis.
- Recognize that general appearance features may give clues to the presence of a toxidrome.
- Demonstrate proper technique to assess blood pressure (sitting for a minimumof 5 minutes, back and legs supported, no caffeine for 30 minutes prior, selecting proper cuff size:bladder circumference at least 80% and width at least 40%-of arm circumference).

Eye Exam

- Perform the components of an eye exam (acuity, visual fields, extraocular muscles, external exam, pupils, retinal/fundoscopic examination).
- Describe the common technique of checking for intra-ocular pressure and normal pressure range.
- Recognize a variety of common abnormalities/exam findings of the lid, pupil, extra ocular movement, sclera, and retina, including:
    a) Icterus
    b) Hordeolum (stye)
    c) Conjunctivitis--allergic, viral, and bacterial
    d) Pre-septal cellulitis
    e) Orbital cellulitis
    f) Exophthalmos/changes associated with hyperthyroidism.
    g) Afferent pupil defect
    h) 3rd nerve palsy, 6th nerve palsy.
    i) Disc edema
    j) Cup to disc ration changes of glaucoma

Ear, Nose and Throat/Neck Exam

- Perform the components of the ear, nose, and throat exam.
- Recognize the physical exam findings of the following mouth lesions:
    a) Acute tonsillitis
    b) Peritonsillar abscess
    c) Cleft palate
    d) Torus palatinus
    e) Ranula
    f) Carcinoma
- Recognize the physical exam findings of the following ear abnormalities and their clinical history:
    a) Acute otitis media
    b) Serous otitis media
    c) Hemotympanum
    d) PE tubes
    e) Foreign body
    f) Cerumen impaction
    g) TM perforation
    h) Cholesteatoma
    i) Otitis externa
- Recognize normal nasal structures including inferior turbinate.
- Recognize the physical exam findings of the following abnormalities of the noseand their clinical history:
    a) Nasal polyp
    b) Septal hematoma
    c) Septal perforation
    d) Sinus drainage
- Recognize the physical exam findings in the following neck findings and their clinical history including:
    a) Thyroglossal duct cyst

b) Thyromegaly
c) Epiglottitis
d) Laryngeal polyp

Breast Exam

- Describe the perform the components of a clinical breast exam (inspection, palpation, and associated lymph node exam)
- Apply the correct terminology to describe a breast lump (location, size, shape, delimination, mobile vs. fixed, presence of pain).
- Demonstrate proper technique using the vertical stripe method of examination.

Lung Exam

- Recognize and identify normal lung sounds and common abnormal lung sounds of wheezes, crackles, rhonchi, stridor, and pleural rub.
- Demonstrate correct techniques of observation of respiratory patterns, examination for lung expansion, percussion, palpation, and auscultation.
- Identify the range of percussion sounds over the lung (resonant, dull, hyper-resonant) and their clinical significance.
- Recognize the following patterns of breathing and their clinical significance:Kussmaul, Cheyne Stokes, orthopnea, sleep apnea, and pursed lip breathing.
- Identify the clinical history and physical findings typical for pneumothorax and tension pneumothorax, congestive heart failure, airway obstruction, asthma, COPD, and interstitial lung disease.

Cardiac Exam

- Explain the significance of elevated or decreased jugular venous distension.
- Examine the patient for jugular venous distention.
- Demonstrate correct technique of observation, palpation, and auscultation of the heart.
- Recognize and identify normal cardiac heart sounds and additional sounds of S3, S4, murmursof aortic stenosis, aortic regurgitation, mitral stenosis and mitral regurgitation, ejection clicks, opening snap.

Peripheral Vascular Exam:

- *Demonstrate examination technique of palpation of pulses, grading pulses, listening for bruits.*
- *Identify location of the following arteries: carotid, brachial, radial, ulnar, femoral, popliteal, posterior tibialis and dorsalis pedis*
- *Demonstrate examination for abdominal aortic aneurysm.*
- Identify the location of the commonly examined peripheral pulses including therelationship of the femoral nerve, artery, vein, and lymphatics in the groin (NAVEL memory aid)
- Identify the collateral arterial supply in the hand, demonstrating technique, give indications for and state the Allen test's significance.

Abdominal Exam

- Perform physical examination steps to discover the following physical findings:
    a. Ascites (shifting dullness, bulging flanks, and fluid wave)
    b. Murphy’s sign for acute cholecystitis
    c. Peritoneal signs
    d. Flank tenderness by percussion
    e. Hepatomegaly, splenomegaly

f. Rovsing sign
g. Rebound
h. Rigidity
i. Psoas sign
j. Obturator sign

Genitourinary Exam

- Apply respectful history taking skills for all gender identities.
- Describe and perform the appropriate procedures/considerations for a GU exam (i.e., chaperone, privacy, draping, correct use of a speculum when applicable; positioning and correct technique for examining genitalia and rectal examination.)
- Identify the abnormal physical findings and describe the classic history associated with those findings:
    - Cervical motion tenderness
    - Cervical discharge
    - Adnexal mass
    - Inguinal and hernias
    - Scrotal masses
        - Testicular mass
        - Hydrocoele
        - Varicocoele
        - Spermatocele
    - Epididymitis
    - Prostate enlargement
    - Prostate cancer
- Describe the clinical significance of the above physical findings of the GU examination.

Neuro Exam

- Perform the steps of a neurologic exam: motor, sensory (light touch, pain,position, vibration), cerebellum, reflexes, cranial nerves, and mental status.
- Recognize abnormal findings and begin to associate them with specific neurologic disorders.

Musculoskeletal Exam

- Describe common symptoms and signs of musculoskeletal joint disease.
- Explain normal range of motion and demonstrate basic provocative maneuvers for specific joint exams.
  a. Shoulder: Hawkin's and Neer's Impingement tests (both for rotator cuff impingement), Anterior Apprehension Test (for anterior shoulder instability), Crossed Arm Adduction Test (for AC joint pathology), Rotator Cuff Strength Test.
  b. Knee: Lachman's maneuver (for ACL integrity), Varus & Valgus Stress testing (for lateral and medial collateral ligament(s) integrity), Patellar Apprehension Maneuver (forpatellar stability), Joint Line Tenderness testing (for menisci tears)
  c. Spine: Straight Leg Raise testing and the Slump Test (both for lumbar nerve root entrapment)
  d. Hip: Trendelenburg Sign (for hip stability and strength)
- Recognize the abnormal physical findings and classic history for:
  a. Gout (i.e., tophi, podagra)
  b. Osteoarthritis (Heberden and Bouchard nodes)
  c. Rheumatoid arthritis
  d. Raynaud's phenomenon

e. Anserine bursitis
f. Trochanteric bursitis
g. Olecranon bursitis

- Recognize and differentiate symptoms of cervical spine radiculopathy andsternocleidomastoid spasm.

Hematopoietic system:

- Identify the signs and symptoms of anemia.
- Describe the signs and symptoms of bleeding and coagulation disorders, including thrombocytopenia, hemophilia and Von Willebrand's disease.
- Describe and recognize the signs and symptoms of patients with
    - Iron deficiency anemia.
    - Anemia due to folate and vitamin b-12 deficiency.
    - Sickle cell anemia.
- Demonstrate proper technique of the lymph node examination.
- Describe location, size, consistency, and other attributes of lymphadenopathy and be able to recognize the significance of lymph node examination abnormalities and associated symptoms and signs. ("B-symptoms")

Peripheral Vascular Exam:

- Explain how to perform an Ankle Brachial Index (ABI) and identify the clinicalsignificance of the result obtained.
- Compare and contrast the signs and symptoms of arterial and venous insufficiency
- Compare and contrast the difference between various ulcers in the lower extremities--arterial, venous, and neuropathic.

Care for All Ages. Growth and Development in early stages of life and Common Concerns of Aging

- Apply an understanding of cognitive and behavioral development to patients of all ages and abilities.
- Employ developmentally specific interviewing techniques.
- Describe specific history and examination steps used in the care of the older population, including assessment for fall risk.

Care of patients with disabilities

- Describe best practices in working with patients with disabilities.

Ultrasound Examination (Point of Care)

- Demonstrate, using real time ultrasound, how to
    - correctly hold an ultrasound probe
    - position the probe to identify the heart, liver, kidney, spleen, abdominal aorta, and urinary bladder; and demonstrate the technique to identify abnormal findings using the Focused Assessment with Sonography for Trauma (FAST exam)
    - Recognize common ultrasound abnormal findings of the above exams.

Standard Precautions

- Identify appropriate standard precautions to in patient care.
- Demonstrate proper hand hygiene technique.
- Demonstrate proper donning and doffing of Personal Protection Equipment

Clinical Reasoning

- Identify pertinent positives and negatives from both the history and physical exam to create, update, and order a list of differential diagnoses.
- Apply clinical reasoning techniques and concepts to formulate a prioritized differential diagnosis.
- Identify a final diagnosis based on supportive data.
- Identify targeted testing appropriate for a written case based on a list of differential diagnoses and pertinent positive and negatives elements from the history and physical.
- Create a problem list.
- Recognize when to admit a patient and demonstrate the ability to write basic admission orders.

Focused H&P

- Use clinical reasoning to guide performing the pertinent elements of the history and physical examination.
- Recognize differences between complete and focused H&Ps
- Recognize components that should always be included in a focused H&P
- Identify the elements of an appropriate focused yet thorough physical exam.
- Discuss incorporating the pertinent elements of the focused H&P to guide clinical thinking.

INTERPERSONAL AND COMMUNICATION SKILLS

- List and utilize tactics to elicit a history on a difficult/sensitive topic.
- List and utilize techniques to address difficult scenarios.
- Identify how abnormal negative feelings toward a patient hinder communicationand management of a patient.
- Describe an approach to delivering bad medical news.
- Demonstrate a respectful, patient-centered approach during an OSCE, clinicalskills exam, workshop, and real patient encounter.
- Give two oral case presentations to their small group, based on a real patient caseobtained through the Preceptor Program.
- List and define some of the techniques of skilled interviewing.
- Apply an understanding of cognitive and behavioral development to patients of all ages and abilities.
- Apply an understanding of respectfully working with patients with disabilities.

PROFESSIONALISM

- Demonstrate professional standards of behavior in small groups, during clinical skills exercises, and in patient care, including punctuality, teamwork, proper dress, and respectfulcommunication with patients and other health care professionals.
- Demonstrate professional standards of behavior when working with the courseadministration, faculty, and peers.
- Attend all required sessions, meet course requirements within required deadlines and notify course administration and faculty in a timely manner if an emergent or unexpected situation arises and students are unable to fulfill requirements on time.
- Give attention tocourse requirements and all communication by course administration.
- Communicate with appropriate administration and faculty when having difficulty with components of the course or upon communication initiated by administration or faculty.

- Offer feedback in a constructive and professional manner.

PRACTICE BASED LEARNING AND IMPROVEMENT

- Respectfully receive and incorporate feedback to advance personal and professional growth.
- Demonstrate self-directed and life-long learning around the cases, especially those presented in small groups.
- Write a reflection on one's own experiences and growth from participating in community service.

SYSTEMS BASED PRACTICE

Safety and Quality Improvement

- List and comply with the following Joint Commission National Patient SafetyGoals:
    a. Decrease health care acquired infections.
        i. Proper hand hygiene
        ii. Influenza vaccination
    b. Decrease prevalence of Covid19 by being vaccinated as per school policy.
- Commit to being an advocate for the underserved and underrepresented patient population.
- Commit to learning about health care inequities and racial bias in medicine to begin to contribute to rectifying inequities.
- Promote and engage in activities that enhance diversity, equity, and inclusion in medical education.
- Observe safety practices on the wards, such as the attention to fetal monitoring on Labor & Delivery, triage practices in the Emergency Department, or hourly rounding on Pediatrics, attention to prevention of pressure wounds.

Bioethics

- Describe proper means of obtaining informed consent.
- Identify and maintain proper patient – physician relationships.
- List patient-physician relationships regarding professional boundary issues ordual loyalties
- Apply what and how patient information may or may not be shared under HIPAA regulations.

INTERPROFESSIONAL COLLABORATION

- Identify roles and responsibilities of nursing, physical therapists, occupational therapists, interpreters, and other health care professionals a medical student may encounter on the wards.
- Collaborate with health care professionals to improve systems-based care.
- Collaborate and communicate with nursing students and staff to develop team-delivered care.
- Describe best practices of incorporating an interpreter in the care of patients.

PERSONAL AND PROFESSIONAL DEVELOPMENT

- Incorporate feedback on all competencies, as applicable, to advance personal andprofessional growth.
- Seek appropriate assistance when needed.
- Reflect and write on the differences in the approach to history taking, physicalexam and other matters emphasized for pediatric patients compared to adults.
- Write about professional attitudes they have developed in becoming aPatient Centered Physician in the spirit of Jesuit values at Loyola University's Stritch School of Medicine
- Apply medical knowledge, clinical skills, and patient care skills,interpersonal and

communications skills, professionalism skills, problem solving and personal growth skills they have learned throughout the year.