Student Electives

Medical Education
Thank you for your interest in Medical Education at IU Health Ball Memorial Hospital. Our institution offers a variety of electives in various disciplines. Each elective allows students to experience real-world practice in a unique private community setting. We are able to achieve this through a three-part collaboration of a community hospital, medical school, and strong community physicians.

First, IU Health Ball Memorial Hospital is a center for academic excellence in graduate medical education. Our residency programs include Family Medicine, Internal Medicine, and Transitional Year. Second, our community is the site for the Indiana University School of Medicine-Muncie, founded through a relationship between the Indiana University School of Medicine and Ball State University. Finally, there is our unique relationship with the primary care and specialty physicians within the community.

During your elective rotation, full room and board are provided; exercise facilities are available at the fitness center; and meals are provided free of charge at the hospital cafeteria and Subway.

For further information or to register for an elective, please contact:
800.279.1666
medstudent@iuhealth.org
Ward Medicine

Description:
This elective is designed to give the student experience normally gained in the internship year. The student will have diagnostic and patient care responsibilities supervised by the Ward Resident and Staff Physicians assigned to the ward. These responsibilities include history and physical examination, order writing, daily progress notes and observation and performance of a broad spectrum of diagnostic and therapeutic medical procedures.

Daily didactic conferences and ample time for reading complement the above.

Learning Objectives:
Students will demonstrate competence in the following areas:
1) Develop appropriate assessments and plans of care for patient acute care episodes (PC3)
2) Perform histories and physical exams and interpret basic diagnostics (PC1)
3) Effectively direct the use of healthcare resources to help care for patients admitted to the hospital (SBP5)
4) Demonstrate the skills necessary to transition a patient safely to the next level of care (PC5)
Description:
Welcome to the wonderful world of Family Medicine! This rotation is designed to expose medical students to the full spectrum of Family Medicine with both inpatient and outpatient experiences. We educate students in all aspects of primary care and can assist in career decisions. First contact with patients, development of differential diagnosis, and expansion of treatment plans will be stressed. Each student will participate in our family practice center under the supervision of our program directors and residents. The standard rotation schedule includes experiences in obstetrics, pediatrics, outpatient FMRC clinic, behavioral health clinic, and inpatient palliative care. Several procedures are available as well and participation is encouraged. The schedule can be tailored to weigh more heavily in the following areas if desired:

- Obstetrics (students can be paired with a resident and participate in a continuity delivery).
- Outpatient procedures (OB and MSK ultrasound, colonoscopy, colposcopy, dermatologic procedures, IUD and nexplanon, toenail surgery and more).
- Inpatient and outpatient adult medicine and pediatrics experiences
- Evaluation: Every resident and faculty member with whom the student works will complete an evaluation. Using these evaluations, the course director will complete an overall evaluation which will be used to determine a final grade.

Learning Objectives:
1) Demonstrate a working knowledge of common outpatient medical problems and those for which patients are commonly admitted to a family medicine service (PC1)
2) Formulate an appropriate differential diagnosis in patient care (PC2)
3) Demonstrate effective and succinct oral presentation in patient care (ICS3)
4) Create an effective and succinct admission History and Physical (PC1)
5) Follow and have primary responsibility for the care of the patients they admit (from admission through discharge) (PC1)
6) Work with hospital healthcare team to transition patient safely back to outpatient setting (PC5)
7) Perform procedures when indicated on their patients (under the direct supervision of attending/resident) (PC4)
8) Assess the psychosocial aspects of a patient’s history and the effects they might have on the health of that patient) (SBP2)
Critical Care

Description:
This rotation is based at a community teaching hospital and private practice office and will provide exposure to a broad range of patients and problems in pulmonary and critical care. Teaching will take place through daily work rounds in the hospital and office. Consultations will be provided for critically ill patients in the intensive and coronary care units in addition to patients on the wards. Commonly encountered syndromes include respiratory failure, shock, sepsis, organ failure, pleural effusions, pneumonia, and various chronic and acute lung diseases. Emphasis is placed on bedside imaging with focused critical care ultrasound to extend physical exam and allow better understanding of pathophysiology. Students will be given the opportunity to image pleural effusions, atelectasis, normal lung sliding, basic focused cardiac ultrasound including assessment of volume status, and studies for DVT and hydronephrosis.

Learning Objectives:
1) Explain some basic physics of critical care ultrasound (PC4)
2) Distinguish pleural effusion from consolidation by ultrasound (MK3)
3) Explain the significance of absent lung sliding on thoracic ultrasound (PC3)
4) Correlate findings from chest imaging (e.g. chest x-ray, CT scan) with patient history and physical exam (PC1)
5) Distinguish obstructive from restrictive patterns on pulmonary function testing (MK3)
6) Develop an appropriate initial treatment strategy for acute respiratory failure and hypotension (MK4, PC3)

Course Director: S. Kolli, MD, FACP, FCCP
Other Faculty: Medicine Staff
Availability: All Rotation Blocks except for: R2
Number of Units: 1 Full Time
Maximum Students/Unit: 1
Prerequisites: 4th year status
Time Distribution: 75% Clinical 15% Lecture 10% Library
Interprofessional Collaborative Skills: Yes, as part of rounds we quite intentionally work with nurses, pharmacy, dietary, and respiratory therapy to develop care plans for our patients.
Description:
The objective of this elective is to provide the student with an opportunity to evaluate a wide diversity of diagnostic and therapeutic problems in the areas of hematology-oncology. Direct patient contact will be emphasized. The student will participate in the evaluation and management of patients with multiple problems in the above areas. Emphasis will be placed upon the multi-disciplinary approach to the diagnosis and treatment of malignant diseases and the extern will have the opportunity to observe the functioning of the hematology/oncology outpatient clinic and the Ball Memorial Hospital Oncology Unit. The student will spend a significant period of time participating in the IU Health Ball Memorial Hospital intern-resident teaching program as well.

Learning Objectives:
1) Participate in the multidisciplinary clinical care of the Hematology-Oncology patient (SBP1)
2) Describe the primary treatment options for the common oncologic conditions (MK6)
3) Demonstrate a basic understanding of the diagnostic approach to the patient with a new diagnosis of cancer (PC3)
4) Recognize characteristic side effects of chemotherapy (MK4)
5) Analyze benign hematologic abnormalities common to the primary care setting (MK1)
6) List the benefits of psychosocial and supportive care in management of the oncology patient (SBP2)
7) Apply the concept of ‘total care’ to the advanced oncology patient (SBP1)
8) Describe the integrated roles that health care team members play in the management of our patients (SBP1)

Course Director:
Maitri Kalra, MD

Other Faculty:
M. Pajeau, MD

Availability:
All Rotation Blocks

Number of Units:
1-3 Full Time

Maximum Students/Unit:
1

Prerequisites:
4th year status

Course Components:
85% Clinical
15% Lecture

Elective Type Category:
AC - Advanced Clinical

Interprofessional Collaborative Skills:
Yes. The course does offer some opportunity for interactive collaboration with other specialties and healthcare providers.
Private Service Adult Hospitalist Medicine
(18MI751)

Description:
This course is designed to give 4th year students a unique experience in the practice of adult Hospitalist Medicine at a community hospital. Attendings are drawn from the hospitalist group at IU Health Ball Memorial Hospital in Muncie. Students will work one on one with a member of the group and will learn to evaluate patients efficiently and formulate an appropriate evidence based treatment plan for a broad range of medical problems. Students will expand their communication skills by interacting with patients and their families, consulting appropriate sub-specialty services, and by participating in multi-professional rounding with pharmacists, case managers, dieticians and therapists. Participation in weekly teaching conferences such as Chest Conference, Tumor Board and Hospitalist Case Presentation and attendance at ground rounds will be expected. Students will work Monday through Friday with the option to work with a nocturnist on Friday evening shifts. During this night time rotation the student’s responsibilities include new admissions and communicating effectively with family and medical staff - nurses, pharmacists, respiratory therapists, consulting physicians. At the completion of the rotation students will have developed the necessary skills to effectively manage a variety of medical conditions encountered in hospitalized adult patients.

Learning Objectives:
1) Appropriately diagnose and manage commonly encountered diseases in adult inpatient medicine (PC2)
2) Properly consult sub-specialty services (ICS1)
3) Develop a treatment plan and utilize proper documentation (PC3)
4) Effectively communicate with patients and their families as well as other physicians (ICS1)
5) Develop and utilize an individual patient management style supported by best evidence for patient care (PC3)
6) Display a strong appreciation and understanding of a ‘system based’ medical management environment (SBP1)
7) Display sensitivity, care, and respect to patients, families, and colleagues in the hospital setting (ICS1)
8) Develop skills in the evaluation and management of common inpatient diagnoses such as heart failure, COPD, acute myocardial infarction, pneumonia, etc. (PC2)
9) Develop differential diagnoses for common presentations such as fever, shortness of breath, chest pain, abdominal pain (PC2)
10) Participate in inter-disciplinary rounding and develop presentation and communication skills required for team based, collaborative care (ICS1)

Course Director:
C. Gamble, MD

Other Faculty:
N. Gheyara, MD
G. Hazlett, MD
A. Behery, MD
R. Johnston, MD
V. Muppidi, MD
S. Vasireddy, MD
R. Panghal, MD
A. Shetty, MD
T. Adugna, MD
J. Anderson, MD
D. Bezza, MD
M. Haq, MD
L. Hingst, MD
A. Hunter, MD
E. Keskinen, MD
A. Magadia, MD
T. Melham, MD
D. Rizk, MD
A. Roque, MD
N. Siggiqui, MD
D. Stegelman, MD
K. Yuhico, MD
R. Yuhico, MD
S. Zeleke, MD

Availability:
All Rotation Blocks except for: R3, R8, & R9

Number of Units:
1-3 Full Time

Maximum Students/Unit:
1

Prerequisites:
4th year status

Time Distributions:
80% Clinical
10% Research
10% Library

Competency Offered:
None

Elective Type Category:
AC - Advanced Clinical

Interprofessional Collaborative Skills:
Yes. Inter-disciplinary rounding with pharmacists, nurses, and care managers.
Sports Medicine
(18ZS711)

Description:
The sports medicine elective is designed to concentrate on the primary care aspects of sports medicine as well as exposing the student to a multi-disciplinary approach to sports medicine practice. During the clerkship the student will be involved in contact with between 300 and 400 acute and chronic sports injuries and illnesses mostly of junior high, high school, and college level athletes as well as a large number of recreational and senior athletes. Patient contacts will come from the Sports Medicine Clinic at Central Indiana Sports Medicine. In addition, training room sessions are available that will allow experience in dealing with acute injuries in Division I NAIA and high school athletes.

The medical student will have the opportunity to deal with acute injuries first hand and will gain experience in training of the athlete, emergency care and transportation of the athlete, and finally, definitive diagnostic procedures to be used. Experience will include office care of the athlete, coverage of various sporting events on the campus of Ball State University, and informal teaching sessions with the athletic training staff, physical therapists, and various consultants in sports medicine. The student will gain knowledge not only in the clinical aspects of sports medicine, but also in the philosophy of primary care sports medicine, rehabilitation techniques, and the important aspects of prevention in sports medicine.

Each student will be required to select an area of sports medicine to investigate during their period of rotation. A thorough review of the literature and a short lecture presentation at the end of the elective is required.

Learning Objectives:
1) Demonstrate competence in conducting musculoskeletal exams (PC1)
2) Employ appropriate methods in completing common joint & tendon injections (PC4)
3) Understand indications for cost effective imaging of musculoskeletal problems (PC3)

Course Director:
J. Hunt, MD

Availability:
All Rotation Blocks except for: R3 & R8

Number of Units:
1 Full Time

Maximum Students/Unit:
1

Prerequisites:
4th year status

Course Components:
80% Clinical
20% Lecture/Seminar

Elective Type Category:
AC - Advanced Clinical
Clinical Infectious Disease

(18MD701)

Description:
The objective of this course is to give the advanced student experience in diagnosis and clinical management of patients with commonly encountered infectious disease disorders. Motivated student will be exposed to a busy clinical ID practice with community ID specialists.

The primary setting will be approximately 30% outpatient practice with 70% hospital consultative duties.

Student will take histories and conduct physical examinations in the outpatient and inpatient setting. Students will be exposed to the role of diagnosis and management of common infections, antibiotic management and selection, and clinical epidemiology. The student shall participate with the internal medicine residency program and attend clinical conferences and grand rounds.

Students will be measured regarding their ability to communicate and their ability to demonstrate knowledge about ID and the above metrics.

Learning Objectives:
1) Describe the diagnostic criteria and management for commonly encountered infectious disease conditions (e.g.), cellulitis, pneumonia, meningitis, urinary tract infections, etc. (MK4)
2) Explain basic principles of antibiotic pharmacology with respect to side effect monitoring, dosage alteration (e.g.), in patients with renal insufficiency), and drug selection based on “best practice” guidelines (MK4)
3) Take an appropriate medical history (PC1)
4) Perform an appropriate physical examination (PC1)
5) Create (with the assistance of written and online resources) an appropriate initial management plan for patients with common ID diseases (PC3)

Course Director:
Rosette Kfoury, MD

Availability:
All Rotation Blocks except for: R3, R4, R5, & R6

Number of Units:
1 Full Time

Maximum Students/Unit:
1

Prerequisites:
4th year status only

Time Distribution:
80% Clinical
20% Library/Research

Elective Type Category:
AC - Advanced Clinical
Clinical Endocrinology
(18ME711)

**Description:**
The objective of this course is to give the advanced student experience in diagnosis and clinical management of patients with endocrine disorders. A motivated student will be exposed to a busy clinical endocrinology practice with community endocrinologists.

The primary setting will be outpatient practice with occasional hospital consultative duties.

A student will take histories and conduct physical examinations in the outpatient and inpatient setting. Students are exposed to the role of diabetes management, thyroid, adrenal, pituitary and other endocrine disorders, and common endocrine disorders seen in the hospital consultative service. The student shall participate with the internal medicine residency program and attend clinical conferences, grand rounds, and morning report.

**Learning Objectives:**
1) Describe the diagnostic criteria for diabetes mellitus (PC2)
2) Discuss the basic management of diabetes in the outpatient setting and hospital (MK4)
3) Describe the diagnosis and management of common endocrine disorders relating to the thyroid, pituitary, parathyroid, gonadal, and adrenal systems (MK4)
4) Take an appropriate medical history (PC1)
5) Perform an appropriate physical examination (PC1)
6) Create (with the assistance of written and online resources) an appropriate initial management plan for patients with common endocrine diseases (PC3)

**Course Director:**
J. Matthew Neal, MD

**Other Faculty:**
C. Kurt Alexander, MD
V. Nellaiappan, MD
N. Batarseh, MD

**Availability:**
All Rotation Blocks except for: R5, R8, & R9

**Number of Units:**
1 Full Time

**Maximum Students/Unit:**
1

**Prerequisites:**
4th year status

**Course Components:**
70% Clinical
20% Lecture/Seminar
10% Library/Research

**Elective Type Category:**
AC - Advanced Clinical

**Interprofessional Collaborative Skills:**
Yes, students on all our rotations have the opportunity to work on collaborative teams with nurses, psychologists, and other professionals as mentioned. For the endocrinology rotation, this would include diabetes educators, advanced practice nurses, pharmacists, attendance at interdisciplinary conferences, etc.
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