Course Department, Number & Title: PED 895, Pediatric Infectious Disease

Course credit or length: 2 – 4 Weeks. For reporting info email Dr. Lanata 1 week before elective begins.

Course director and contact information: Dr. Mariana Lanata, 304.691.1339, lanatapiazzo@marshall.edu

Course Coordinator and contact information: Ashley O’Neill, 304.691.1371, oneill15@marshall.edu

LOCATION: Marshall University Medical Center, Pediatric Department, 3rd Floor, Office 3582, 1600 Medical Center Drive, Huntington, WV and Cabell Huntington Hospital.

COURSE DESCRIPTION: The elective rotation in Pediatric Infectious Disease for Senior Medical Students provides a broad learning experience in the care for children requiring infectious disease consultation at Cabell Huntington Hospital. Students will work as an integral part of the team, under the direct supervision of infectious disease attending physician.

The rotation emphasizes appropriate use of antimicrobial therapy; the importance of the host-pathogen relationship in determining the outcome of an infectious disease; appropriate use of diagnostic techniques; and understanding the importance of social, emotional, ethical and medico-legal issues in patient care. During the rotation students will, under attending supervision, evaluate, examine, discuss, treat and follow hospitalized patients with infectious diseases, including, but not limited to, those with nosocomial infections, postoperative infections, trauma related infections, sepsis, and infections in immunocompromised hosts, (e.g., patients with primary immunodeficiency syndromes, and conditions requiring immunosuppressive therapy).

COURSE GOAL: To enable the students to acquire and demonstrate the fund of knowledge and practical skills necessary to manage common and serious infectious diseases involving infants, children and adolescents that a general pediatrician will encounter in his or her practice.

REPORTING INFORMATION: Students are to report to the inpatient service at approximately 8:00 AM Monday through Friday unless otherwise instructed by the attending.

Institutional Objective
**Patient Care** - Students must demonstrate the ability to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.

**Objective**
The student will be able to manage pediatric patients in a compassionate, appropriate and effective manner for treatment of health problems and promote continuity of care.

**Outcome Measure**
The student will orally present to the faculty member at least five patient encounters of common pediatric infectious diseases showing their ability to:
- Consistently gather accurate and appropriate information for each patient encounter;
- Perform physical examinations of children across age range
- Develop comprehensive differential diagnoses, including infectious and noninfectious causes of the patient's illness;
- Accurately analyze and apply available information to make appropriate diagnostic decisions and therapeutic interventions;
- Provide capable management plan and follow-up for children with infectious diseases

**Course Objective**
The student will be introduced to infectious pediatric disease health care and gain experience in the treatment interviewing and counseling of patients.

**Outcome Measure**
The student will orally present at least four infectious disease cases to a designated Attending. The patient cases must be one in which the student was directly involved. During this presentation, the student must demonstrate the basic ability to formulate a differential diagnosis as well as develop an investigatory plan, and the formation of an appropriate treatment plan. The patient encounters shall consist of five common pediatric infectious diseases listed below:

- **Ophthalmologic infections** (Example: ophthalmia neonatorum)
- Central nervous system infections (example: meningitis)
- **Upper respiratory tract infections** (example: pharyngitis)
- Lower respiratory tract infections (example: bronchiolitis)
- Cardiac infections (example: endocarditis)
- Gastrointestinal infections (example: gastroenteritis)
- Genitourinary infections (example: urinary tract infections)
- Skin and soft tissue (example: cellulitis)
• Bone and joint infections (example osteomyelitis)
• Bloodstream infections (example central venous catheter associated infections)
• Trauma-related infections (example: bites)
• Congenital/perinatal (example: herpes simplex)
• Infections in children with cancer (example febrile neutropenia)
• Fever and rash (Example Lyme)
• Primary immunodeficiency (example humoral deficiency)
• Prevention of infection (example immunizations)

Institutional Objective
Medical Knowledge- Students must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care.

Basic Science Course Objective
Students must demonstrate basic knowledge in pediatric infectious diseases and the pathogenesis, clinical presentation, and diagnostic approaches to infections encountered in children in the inpatient setting.

Basic Science Outcome Measure
The Attending will assess the student's abilities and demonstration of knowledge during the course.

Institutional Objective
Interpersonal and Communication Skills- Students must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.

Course Objective
The student will be able to communicate information effectively with members of the health team, including other physicians, nurses, physician and medical assistants, school personnel and social workers.

Outcome Measure
The student will be able to demonstrate to faculty:
• The ability to communicate effectively with others
• The ability to perform concise oral case presentations
• The ability to work as a team member and leader

Institutional Objective
Professionalism- Students must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.

Course Objective
The student will behave in an ethical, responsible, reliable and dependable manner and be able to accept constructive feedback to improve performance. The student must demonstrate professionalism in interacting with other medical students and health care providers.

**Outcome Measure**
The student will be directly observed and assessed as part of the final grade by faculty to determine ethical behavior, reliability and level of dependability of the student and the student’s ability to accept criticisms or suggestions. The student will also be evaluated by faculty on:

- Professional behavior toward colleagues
- Exhibition of integrity and honesty
- Acceptance of responsibility one’s own actions and decorum
- Sensitivity to gaps in knowledge exhibited by colleagues
- Ability to work effectively as a team member

**Institutional Objective**

**Systems-based Practice** - Students will be able to recognize and better understand the role of other health care professionals in the overall care of the patient.

**Course Objective**
The student will practice interacting with the health team, including other physicians, nurses, physician and medical assistants, school personnel and social workers to better understand the role of ancillary staff that is critical to the care of pediatric patients.

**Outcome Measure**
The student will orally demonstrate to faculty the ability to:

- Understand the concept of interdisciplinary teams to improve patient care
- Understand the multidisciplinary resources necessary to care optimally for patients
- Understand the need to collaborate with other members of the health care team to assure comprehensive patient care
- Understand the use of evidence-based, cost-conscious strategies in the care of patients and advocate for patients within the health care system.
- Advocate for patients and families and help them to navigate system complexities
- Describe the role of the subspecialist in consultation, including appropriate requests, documentation, and follow-up for consultation in infectious diseases
- Participate in multidisciplinary patient care activities involving, e.g., case managers, sub-specialty consultants, home care services
• Participate actively and regularly in case conferences
• Demonstrate knowledge of billing and coding and their supporting documentation

Institutional Objective

*Practice-Based Learning and Improvement*- Students must be able to assimilate scientific evidence and improve their patient care practices.

Course Objective
Students are expected to investigate and evaluate patient care practices, appraise and assimilate clinical information to make appropriate patient management decisions and learn from error.

Outcome Measure
Students will orally demonstrate to faculty the ability to:

• Critically review the pediatric ID literature and web-based information, and describe the most important textbooks and journals in the field.
• Apply up to date evidence-based information to resolution of clinical questions in infectious disease and to selection of specific therapies.
• Evaluate their own performance, identify gaps in their knowledge base, and target their self-directed learning to enhance performance and fill knowledge gaps.
• Provide, request, accept and incorporate feedback.
• Work well with other learners to enhance knowledge the rationale for, mechanism of action of, risks and side effects of pharmaceuticals commonly used to treat infectious diseases.

Self-Directed Learning
As a medical student, you are encouraged to use any unstructured time as a time to read about your patients, research questions that arise during the day, prepare for case conferences, and prepare for student-faculty rounds. Preceptors have been specifically asked to look for evidence that you have read articles and books between clinic sessions. Use this time to build your knowledge of medicine and learn from your patients.

ASSESSMENT METHODS

Preceptor Evaluation- 100%

Grading: Pass/Fail

The preceptors’ evaluation will be based, but are not limited to, upon the following factors:
Clinic Attendance and participation in assigned activities
• Conference/ Journal Club/Pediatric Grand Rounds, Academic lectures and other attendance
• Demonstration of knowledge and skills outline in course objectives
• Maturity and Professionalism
• Participation in call
• Oral Case presentations/patient workup
• Participation in Clinic and Hospital Consultation Duties
• The demonstration of basic knowledge of patient care during clinic and hospital care

Each of the above components must be passed in order to successfully complete the course. Remediation is at the discretion of the course director.

**ATTENDANCE POLICY; INCLEMENT WEATHER POLICY; ACADEMIC INTEGRITY POLICY**

Students are responsible for making sure they are aware and understand updated University policies with respect to attendance and academic integrity. These policies are available for review through the medical school web site.

**Evaluation of Course and Faculty Requirement**

Completion of evaluations of Course and Faculty members by students is a required component of this course. Students will be issued an “Incomplete” until the course and faculty evaluations have been submitted.

**MUJCESOM Policies:** All medical students taking this course will comply with School of Medicine policies given at https://jcesom.marshall.edu/students/policies

**Required Reading/Other Material:**

- Long S, Pickering L and Prober C. Pediatric Infectious Disease. 5th edition
- Nelson Textbook of Pediatrics

**Guidelines:**

Infectious Diseases Society of America Practice Guidelines
Freely available:
http://www.idsociety.org/Templates/Landing.aspx?id=23622320151
Many adult and pediatric topics:
- Community-acquired pneumonia, sinusitis, GAS pharyngitis, meningitis, encephalitis, etc.
- MRSA, *C. difficile*, Candidiasis, Histoplasmosis, TB, etc.
- Fever & neutropenia, catheter-related bloodstream infections, etc.
AAP Guidelines:
Available on AAP website (www.aap.org Advocacy & Policy AAP Policy) or NCH Library website (Anchor Education and Training Library Reference Resources link for AAP Policy). Topics: Acute bacterial sinusitis, acute otitis media, bronchiolitis, UIT in febrile infants, etc.

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