

Infectious Diseases Rotation

Location:

Children's Hospital, New Orleans.

Faculty:

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Duration:

4 weeks.

Competency Tools: Multiple choice quiz, a review of a topic or literature.

Overall Objective:

To review common infectious processes as seen by the pediatrician with emphasis on decision-making skills. Also, aspects particular to the specialty will be introduced.

Specific Objectives:

1. **Knowledge base.** Patient-oriented discussions will center around actual cases which, by definition, will involve common infectious processes seen by the pediatrician. In addition, to give an idea of the breadth of the specialty, unusual infectious processes will be discussed either as part of the differential diagnosis or during conferences. The rotator will have a chance to see consultations at the Travelers' Clinic and the concept of globalization of infectious diseases will be introduced.
2. **Clinical skills.** Emphasis will be given to the appropriate evaluation and interpretation of aspects of the medical history (e.g., prior illnesses, epidemiologic exposures, initiation and progression of symptoms), physical examination (e.g., organs and systems involved, and extent of involvement) important for a logical differential diagnosis in infectious diseases (including the alternative of no infection). Does the patient have an infection? Where is the infection located? What is the likely etiologic agent?
3. **Decision-making.** The rotator should elaborate a logical and practical diagnostic and treatment plan based on the differential diagnosis and priorities considering the most likely diagnosis and the entities most in need of prompt therapy.
3. **Management approach.** Most commonly used antibiotics will be reviewed. The rotator will learn the spectrum, most common indications and monitorization of side effects. Emphasis will be given to pharmacodynamic/pharmacokinetic concepts as well as pricing, drug interactions and the risk of resistance for the judicious use of these agents. Also the use of other interventions (e.g., surgery, immunologic interventions, etc) will be emphasized.
4. **The big picture.** Related issues on infectious diseases will be discussed, as appropriate, such as measures for prevention of infections (e.g., vaccination, isolation, chemoprophylaxis), public health relevance of certain diseases (e.g., outbreaks and reporting) and containment of spread in the hospital and other settings (infection control). The cost-effectiveness of these interventions will be emphasized.
5. **Analytical skills.** Literature search will be encouraged to find the answers to the questions posed by the clinical cases. The emphasis will be in knowing the resources available, how to

use them, and being analytical in the interpretation of the data, as how it applies to a particular case.

Resources and Methodologies:

- **Pediatrics Morning Report**, Monday-Friday 8:00-9:00 am (except Wednesday), attended by students, residents and faculty. Previous night admissions are presented and discussed.
- **Pediatrics Noon Conference**, different formats, Monday-Friday (except Wednesday) 12:00-1:00 pm.
- **Pediatrics Grand Rounds**, Wednesday 8:00-9:00 am, attended by students, residents and faculty. Subspecialty pediatric topics presented by faculty members.
- **ID Citywide Conference**, Friday 7:30-9:30 am, Children's Hospital Auditorium. Attended by ID rotators, fellows and faculty from the New Orleans area. The first hour, an ID topic is presented to the audience by a faculty. The second hour, a fellow presents a case (as an unknown) and a faculty discusses the differential diagnosis and management. The format emphasizes the thought and decision processes in ID.
- **ID Clinics**, Wednesday 9:30 am-12:00 pm. Combines ID ambulatory consults and Travelers' Clinic (advise on immunizations and medications to travelers to different parts of the world). On average 3-5 patients per session.
- **Consultations**, on average 2 consults per day. The rotator will be responsible for initial evaluation of the patient, and discussion with the attending ID physician (the rotator is expected to already have a differential and a plan before meeting with the attending).
- **Rounds**, daily, approximately 2 hours every day. All new consults will be seen by the whole team, and update will be given on all old patients, along with pertinent laboratory results. Depending on each cases rounds might also take the team to radiology, microbiology, pathology or other.
- **Mini-conferences**, 4 times a week. At the end of daily rounds, one member of the team each day will give a short presentation (15 minutes) of an ID topic (see Appendix 1) with emphasis on topics that might not be discussed during rounds otherwise. The emphasis of the presentation is on practical aspects. All the participants, including the presenter are encouraged to ask questions.
- **Literature review**, variable. In addition, rotators will be asked to read important aspects related to the patients they are following. This will usually lead to the answer to a specific question generated by the team.
- **Journal Club**, once a week one rotator is expected to read an article extracted at his/her discretion from a recent issue of a pediatric Journal, on an ID topic, and discuss with the rest of the team. The emphasis will be on analysis of the article, eg, appropriateness of the design of the study, data presentation and interpretation. As an exercise, the rotator is expected to rate the article in terms of relevance of the study, acceptability for publication and envision other studies that might shed additional light on the topic.
- **Slide Reviews**, at the discretion of the rotators, they are expected to review a series of educational slides on ID topics (see Appendix 2). These are self-study series, so they are better viewed whenever the attending ID is busy with something else. Also an Atlas of Pediatric Infectious Diseases is available for review. It is recommended that the slides are reviewed by the whole group so each rotator benefits from the comments of the others.

- **Microbiology rounds**, Tuesday 9:00-10:00 am, Charity Hospital. It is recommended that the rotator attends at least once during the month.
- **Pediatric Tuberculosis Clinic**, Tuesday 10:00-11:30 am, Wetmore Clinic, Charity Hospital. It is recommended that the rotator attends at least once during the month.

Evaluation:

Both at the beginning and end of the rotation, the rotator is encouraged to take a self-evaluation test on ID, written and computer format. The grade is not part of the evaluation (actually only the rotator knows the grade) but help the rotator to identify areas that need further review. The final grade is based on performance during the whole rotation as witnessed by the attending ID. Consideration will be given to the above mentioned objectives with emphasis on improvements and achievements during the rotation, more than gross knowledge.

Appendix 1

Infectious Diseases Mini Conferences (Suggested)

Brain abscesses
Ehrlichiosis /Rickettsial diseases
Papillomaviruses
Hepatitis viruses
Infant botulism
Kawasaki syndrome
Brucellosis
Cysticercosis
Cholera
Actinomycosis
Encephalitis
Babesiosis
Rotavirus
Tularemia
Typhoid fever
Anthrax
Malaria
Lyme disease
Prion diseases
Sexually Transmitted Diseases
Immunodeficiencies
Rabies
Helicobacter pylori
Yellow fever
Rheumatic fever
Whipple's disease

Appendix 2

Slide Reviews

1. Schistosomiasis
2. Leprosy
3. Malaria
4. Amebiasis
5. Cutaneous manifestations of AIDS
6. Plague
7. Childhood Exanthems
8. Skin Rashes
9. Dermatologic Manifestations
10. Human Mycosis