

Durham County STD and TB Clinic Curriculum

I. Description of Rotation

Site: The STD Clinic is located in the Adult Services Clinic on the 1st floor of the Durham County Health Department (DCHD). There are 10 examination rooms, 6 counseling rooms and a work station for 2-3 midlevel clinicians, an extended role public health nurse, 2 HIV health educators, 2 nursing assistants. There is also a sublobby shared with other adult services. The TB Clinic is also located on the 1st floor of DCHD; there is a separate sublobby, 3 negative pressure examination rooms, 4 skin test areas, a sputum collection room, a health education room, 3 offices and 8 cubicles for the UNC attending (Sena), 1 mid-level clinician, 4 public health nurses and an administrative assistant. The DCHD laboratory and pharmacy is located on the same floor and in close proximity to the clinics. Fellows will attend the STD and TB Clinics for approximately 2 1/2 days per week for 8 weeks under the supervision of 2 board certified ID Faculty at DCHD (Sena, Duncan – STD Clinic only). The ID Fellows will see 8-10 patients on an average STD Clinic Day and 2-3 patients on an average TB Clinic Day, of which 50% are female.

STD Clinic Day: ID Fellows will receive an initial orientation by the primary attending (Sena) and the UNC nurse practitioner to standard clinic protocols and STD management. The fellows will then see the patients by themselves, review their electronic medical record (EMR), obtain new history, perform a focused physical exam, formulate a diagnostic or treatment plan following the standard clinic protocols for STD management, and document those plans in the EMR. They will consult with the attending or STD clinic nurse practitioners as needed. The attending will review the patients seen by the ID fellows at the end of the day to confirm details of the history and physical exam and teach the fellow. At least once a week, the attending will also discuss an article reviewed by the fellow involving STD epidemiology, prevention, diagnostics or treatment.

TB Clinic Day: ID Fellows will receive an orientation by the attending to standard clinic protocols and TB management for suspected or confirmed active TB or latent TB infection (LTBI). The fellows will then see the patients by themselves, review their electronic medical record (EMR), obtain new history, perform a detailed physical exam, formulate a diagnostic or treatment plan and document those plans in the EMR. They will discuss the case and see the patient with the attending who will confirm details of the history and physical exam and teach the fellow. ID Fellows will also review several patients' charts on a daily basis to determine if they meet eligibility for initiation of LTBI therapy, and discuss these patients with the attending. At least once a week, the attending will discuss an article reviewed by the fellow involving TB epidemiology, prevention, diagnostics or treatment. During this rotation, there is also an opportunity for ID fellows to assist with communicable disease outbreak investigations and management (e.g. pertussis, foodborne illnesses) as they arise under the direct supervision of the UNC attending.

Evaluation: For these clinics, there is informal and formal assessment of the fellows' skills. Informal assessment consists of ongoing feedback from the attending on skills including relevant medical or sexual history, physical examination performance, collection and organization of relevant clinical data,

creating a differential diagnosis, formulating a treatment or referral plan, and creating and implementing a follow-up care plan. Since this is an outpatient clinic, the attending also reviews the fellows management of chronic health maintenance issues (e.g. vaccines in STD clinic, hepatitis in TB clinic). The attending communicates this feedback real time in clinic. The attending will also review, edit, and sign all clinic and EMR notes of the ID Fellows. The attending formally evaluates the ID fellows strengths and areas for improvement at the end of the rotation in all six competencies.

II. **Goals of the Rotation**

The fellows should be able to:

- a. Become adept at evaluation of patients with STD-related conditions and syndromes including pelvic and male genital examinations, and cryotherapy for genital warts.
- b. Learn CDC guidelines for STD management.
- c. Learn NC guidelines for active TB and LTBI management, including among HIV-infected persons
- d. Learn ACIP guidelines for hepatitis A/B and HPV vaccinations.
- e. Manage patients with suspected or confirmed TB, be able to initiate standard TB or LTBI therapy, recognize drug reactions and side effects.
- f. Provide necessary care to STD or TB patients requiring on-going follow-up

III. **Core Competencies**

a. *Patient Care* Fellows will:

- a.) Provide patient care that is compassionate, appropriate, and effective for the treatment of STD- and TB-related health problems and the promotion of health.
- b.) Collect accurate and comprehensive diagnostic information from outpatients with clinical syndromes including sexually transmitted infections, HIV, pulmonary and extrapulmonary TB, and drug side effects
- c.) Select appropriate therapy for these syndromes or refer to other healthcare providers for additional evaluation (e.g. rash, abdominal pain, pulmonary symptoms)
- d.) Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, public health treatment guidelines, and clinical judgment
- e.) Develop and carry out patient management plans
- f.) Provide health care services aimed at preventing health problems or maintaining health
- g.) Work with health care professionals, including those in public health, to provide patient-focused care
- h.) Recognize stigmas associated with STDs or TB so that a patient's unspoken concerns and fears can be addressed

b. *Medical Knowledge* Fellows will:

- a.) Demonstrate knowledge of established and evolving biomedical, clinical, epidemiological, and social-behavioral sciences, as well as the application of this knowledge to STD and TB patient care.
- b.) Demonstrate the scientific method of problem solving, evidence-based decision making, a commitment to lifelong learning, and an attitude of caring that is derived from humanistic and professional values.

- c.) Master the cognitive aspects of the following:
 - (1) mechanisms of action and adverse reactions to antimicrobial agents used for treatment of STDs and TB
 - (2) appropriate procedures for specimen collection relevant to STD and TB
 - (3) principles of partner notification and contact investigation
 - (4) appropriate vaccinations to sexually active patients seen in the STD clinic
 - d.) Demonstrate the diagnostic approach to clinical syndromes with possible infectious etiologies including
 - a. Upper and lower respiratory syndromes
 - b. Abdominal pain
 - c. Hepatitis
 - d. Sexually Transmitted, urologic, and gynecologic Infections
 - e. Rash, skin, and soft tissue infections
 - f. Urinary tract infections
 - e.) Demonstrate an ability to manage oral antimicrobial dosing and understand adverse effects for antibiotics for STDs and TB
 - f.) Demonstrate the ability to diagnose and manage tuberculosis as well as recommending prophylaxis to family members and other exposed people
- b. *Practice-Based Learning and Improvement* The Fellow will:
- a) Demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate public health guidelines and scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning.
 - b) Identify strengths, deficiencies, and limits in one's knowledge and expertise
 - c) Set learning and improvement goals and identify and perform appropriate learning activities
 - d) Systematically analyze practice, using quality improvement methods and implement changes with the goal of practice improvement
 - e) Incorporate formative evaluation feedback into daily practice
 - f) Locate, appraise, and assimilate evidence from public health guidelines and scientific studies related to their patients' health problems and apply new information to the management and care of their patients
 - g) Use information technology to optimize learning and to support patient care decisions and patient education
 - h) Assess the clinical efficacy of new therapies in STD and TB management and their appropriate utilization in different patients and clinical settings
 - i) Evaluate adherence of TB infected patients to their therapies and propose methods to improve
 - j) Identify, review and present an article on STD or TB care to the attending, public health clinicians and other staff at the end of the rotation
- c. *Interpersonal and Communication Skills* Fellows will:
- a) Demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.
 - b) Communicate effectively with patients and families across a broad range of socioeconomic and cultural backgrounds

- c) Communicate effectively with public health staff, physicians, other health professionals, and health related agencies
- d) Maintain comprehensive, timely, and legible medical records
- e) Inform patients about a diagnoses and outline proposed treatment strategies
- f) Work with public health staff about reportable diseases
- g) Document assessments and interventions in the medical records
- h) Provide information to a patient about a potentially life-threatening infection in a caring and empathic fashion
- i) Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients, especially regarding sexual behaviors
- j) Educate patients about the need for partner notification and evaluation for STD exposures
- k) Educate patients about the need for respiratory isolation and TB contact investigation
- l) Educate families about their risk for acquisition of tuberculosis when a family member has been diagnosed with one of those infections
- m) Participate in the education of patients, families, public health staff and other health professionals

d. *Professionalism* Fellows will:

- a) Demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles including:
 - 1) compassion, integrity, and respect for others
 - 2) responsiveness to patient needs that supersedes self-interest
 - 3) respect for patient privacy and autonomy
 - 4) accountability to patients, society, and the profession
 - 5) sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation
 - 6) high standards of ethical behavior which includes maintaining appropriate professional boundaries, including relationships with other physicians and conflicts of interest
- b) Inform patients about an STD diagnosis without being judgmental
- c) Demonstrate willingness to evaluate patients with illnesses such as syphilis or TB that may pose some element of risk to the provider
- d) Institute appropriate infection control measures when patients have suspected or proven infections that can be readily transmitted to others such as syphilis or TB

e. *Systems-Based Practice* Fellows will:

- a) Demonstrate an awareness of and responsiveness to the larger context and system of public health, as well as the ability to call effectively on other resources in the system to provide optimal health care.
- b) Coordinate patient care within the public health system relevant to their clinical specialty
- c) Advocate for quality patient care and optimal patient care systems
- d) Work in multidisciplinary teams to enhance patient safety and improve patient care quality

- e) Participate in identifying system errors and implementing potential systems solutions
- f) Demonstrate an ability to utilize public health resources when providing advice and counseling
- g) Know how to report and manage communicable diseases
- h) Exhibit an understanding as to which infections require sexual abstinence or isolation to minimize risk of transmissibility

IV. Teaching Methods

- a. Individual interactions with attending
 - All fellows will be working one-on-one with a board certified ID Attending in the STD and TB Clinics and presenting patients with their assessment and plans to her.
 - Given the nature of the interaction, the opportunity for directed, patient-centered teaching is immediately available.
- b. Required reading
 - Fellows will be provided with a textbook reference and with access to a web-based travel information site (see below) and encouraged to perform reading on core topics throughout the course of the rotation and prior to each clinic
- c. Independent reading
 - It is expected that fellows will perform focused, independent reading following clinic on topics and problems encountered that day in clinic

V. Assessment Method (Fellows)

- a. Evaluations completed by their clinic attending using the standard EValue

VI. Assessment Method (Program)

- a. Annual (anonymous) evaluations completed by the fellows and attendings
- b. Performance of the fellows on the In Service Training Examination
- c. Performance of the fellows on the ABIM Infectious Diseases Board Examination

VII. Level of Supervision

- a. Fellows will be directly supervised in clinic by the attending who will be onsite and will evaluate patients after they have been seen by the fellow.

VIII. Educational Resources

- a. *Sexually Transmitted Diseases, 4th Edition* (Holmes, Sparling, Stamm, Piot, Wasserheit et. al. eds.)
- b. *Tuberculosis, 2nd Edition* (Rom, Garay, eds.)
- c. *PubMed*
- d. CDC STD Treatment Guidelines www.cdc.gov/std/treatment/2010
- e. NC TB Policy Guidelines www.epi.publichealth.nc.gov/gcdc/tb