

## Curricular Goals, Objectives and Timeline

### Global Program Description and Goals

The University of Massachusetts Department of Family Medicine and Community Health / New England AIDS Education and Training Center / Family Health Center of Worcester HIV and Viral Hepatitis Fellowship is a 12-month, post-graduate fellowship that will train family or internal medicine MD, NP or PA graduates to provide expert HIV and viral hepatitis care and become educators and leaders in the care of these patients in community-based settings. Fellows will learn to manage all aspects of HIV care, including antiretroviral management, opportunistic infections, HIV-specific disease manifestations, and HIV-related primary care as well the management of latent TB and Hepatitis B and C without decompensated cirrhosis or hepatocellular carcinoma. Training will occur at the Family Health Center of Worcester, the Edward M. Kennedy Community Health Center, Community Health Connections in Fitchburg, MA, and the UMass Medical Center. Upon completion of the program, the fellows will seek specialist certification through the American Academy of HIV Medicine.

### Timeline of Specific Topics, Goals and Objectives

Each month presents a different goal for the fellow, which is to develop sufficient working knowledge of that month's topic so as to be able to function independently in the clinical realm and as a peer educator and consultant. This goal is to be attained by understanding the specific objectives, shown in the subheadings, which support that goal. While many topics will be addressed iteratively throughout the fellowship year, the schedule below provides a framework for areas of focus throughout the year.

### Month Topic/Goal and Objectives

- 1) HIV Virology, Pathogenesis, Transmission and Epidemiology
  - a. HIV life cycle, natural history, and diagnosis
  - b. Immune responses to HIV and vaccine development
  - c. HIV transmission and prevention ( excepting PEP, nPEP or prEP – covered in month 10)
  - d. US and global HIV epidemiology
- 2) Antiretroviral Management, Part 1
  - a. Memorize all antiretroviral generic and trade names and 3-letter abbreviations
  - b. Pharmacology and pharmacokinetics
  - c. Goals of therapy and regimen selection considerations
  - d. Adherence issues
  - e. Management of side effects
  - f. Monitoring for efficacy
  - g. Monitoring for and management of toxicity
    - i. Metabolic
    - ii. Morphologic
    - iii. Other common toxicities
  - h. Immune reconstitution syndrome
- 3) Antiretroviral Management, Part 2
  - a. Mechanisms of resistance
  - b. Viral fitness and replication capacity
  - c. Resistance patterns
  - d. Use of Stanford DB on-line HIV resistance database tool
  - e. Interpretation of Monogram Phenosense GT and Trophile reports

- f. Regimen changes and the extensively treatment-resistant patient
- 4) HIV Clinical Manifestations, Part 1
  - a. Acute and chronic HIV presentation
  - b. Evaluation of presenting symptoms: Respiratory, GI, Neuro, Ocular, GYN, Musculoskeletal, Cardiac, Constitutional, Psychiatric
- 5) HIV Clinical Manifestations, Part 2
  - a. AIDS Defining Conditions: bacterial, mycobacterial, viral, fungal, protozoal, parasitic, neoplastic
  - b. Respiratory
  - c. Hematologic
  - d. Hepatobiliary, non-Hepatitis B or C (covered later)
  - e. Renal
  - f. Neurologic
  - g. Psychiatric
- 6) HIV Clinical Manifestations, Part 3
  - a. Dermatologic
  - b. Dental/Oral, Ocular and ENT
  - c. Endocrine
  - d. Gynecologic and Genitourinary
  - e. Musculoskeletal
  - f. Sexually transmitted diseases
  - g. Syphilis, Gonorrhea, Chlamydia, Herpes, HPV, Others
- 7) HIV-Specific Primary Care
  - a. Vaccinations
  - b. STI Screening
  - c. HIV-specific cancer screening
  - d. Dental and nutritional Care
  - e. Smoking, alcohol and drug abuse screening
  - f. Domestic and other community violence (particularly with LGBT populations)
- 8) Hepatitis B and C
  - a. Virology, transmission, natural history of disease
  - b. Epidemiology in US and worldwide
  - c. Laboratory, radiologic and pathologic evaluation
  - d. Management
    - i. Antiviral treatment
    - ii. Hepatocellular carcinoma surveillance
  - e. Prevention
- 9) Tuberculosis
  - a. Virology, transmission, natural history of disease
  - b. Epidemiology in US and worldwide
  - c. Laboratory, radiologic and pathologic evaluation
  - d. Management
    - i. Antimycobacterial treatment (both latent and active covered, but mastery of LTBI emphasized)
    - ii. Public Health reporting
  - e. Prevention
- 10) HIV Transmission Prevention
  - a. Pregnancy (PMTCT) and assisted reproduction
  - b. PEP

- c. nPEP
  - d. PrEP
  - e. Barrier methods, microbicides
- 11) Special Populations and Topics
- a. Pain management and other palliative care
  - b. Children and adolescents (covered briefly, but this will be outside the scope of the fellowship)
  - c. Transgender patients
  - d. Addiction
  - e. Complementary and alternative medicine
  - f. Legal issues in HIV care
- 12) Public Health, Leadership and Teaching
- a. Federal HIV/AIDS Bureau and the Ryan White CARE Act
  - b. AAHIVM and HIVMA
  - c. Massachusetts DPH Office of HIV/AIDS
  - d. Program development (ongoing)
  - e. Teacher development
    - i. Lectures by fellows (ongoing)
    - ii. Teacher of Tomorrow Conferences in November and March