



CERTIFICATE OF COMPLETION

THE UNIVERSITY OF WASHINGTON AND NATIONAL HIV CURRICULUM CERTIFY THAT

Kamfwa Mubanga, Diploma

HAS COMPLETED THE FOLLOWING LESSONS IN THE

ANTIRETROVIRAL THERAPY 2ND EDITION MODULE

Antiretroviral Medications and Initial Therapy, Adverse Effects of Antiretroviral Medications, Drug Interactions with Antiretroviral Medications, Switching or Simplifying Antiretroviral Therapy, and Evaluation and Management of Virologic Failure

A handwritten signature in black ink, reading "David H. Spach, MD".

David H. Spach, MD
Editor-in-Chief, National HIV Curriculum
Professor of Medicine, University of Washington

This certificate shows the progress of **Kamfwa Mubanga, Diploma**, a Clinician, identified by **mubangakamfwa@gmail.com** as of June 8, 2025, 7:28 am.
 You may validate this certificate or obtain a digital copy by visiting <https://www.hiv.uw.edu/certificate/antiretroviral-therapy/mubangakamfwa@gmail.com/2>

The following Lessons were completed along with their quizzes with a quiz score of 80% or higher:

Lessons	Learning Objectives
Antiretroviral Medications and Initial Therapy Completed December 14, 2020	<ul style="list-style-type: none"> • List the major classes of antiretroviral medications • Explain the mechanism of action with each class of antiretroviral medications • Summarize evidence supporting antiretroviral treatment of all persons with HIV • Describe recommended antiretroviral regimens for treatment-naïve individuals and discuss factors to consider when selecting an initial regimen • Discuss recommended laboratory studies to obtain at baseline and while monitoring response to therapy
Adverse Effects of Antiretroviral Medications Completed December 14, 2020	<ul style="list-style-type: none"> • Summarize common adverse effects associated with antiretroviral medications • Identify serious adverse effects caused by antiretroviral therapy • List appropriate baseline laboratory studies to perform when starting antiretroviral therapy • Discuss frequency of types of laboratory tests for monitoring persons taking antiretroviral therapy • Explain management strategies for antiretroviral-related adverse effects
Drug Interactions with Antiretroviral Medications Completed December 14, 2020	<ul style="list-style-type: none"> • Explain the difference between pharmacokinetics and pharmacodynamics • Access resources for checking drug interactions that involve antiretroviral medications • Identify commonly used antiretroviral medications that often cause significant drug interactions • Discuss how some antiretroviral increase levels of medications and others decrease levels of medications • Describe several drug interactions involving antiretroviral medications and common therapeutic classes of drugs used to treat comorbid conditions
Switching or Simplifying Antiretroviral Therapy Completed December 15, 2020	<ul style="list-style-type: none"> • Discuss the rationale for switching or simplifying antiretroviral therapy • Describe common situations to consider for simplifying antiretroviral therapy • Explain why some antiretroviral medications generally warrant a switch to a newer agent • List the two-drug regimens that have been FDA-approved for maintenance antiretroviral therapy • Summarize key findings with studies involving a switch to an integrase strand transfer inhibitor
Evaluation and Management of Virologic Failure Completed December 15, 2020	<ul style="list-style-type: none"> • Describe the management of intermittent and persistently detectable HIV RNA levels in persons receiving antiretroviral therapy • Discuss the indications for and types of resistance testing for patients with virologic failure • Utilize an HIV resistance database tool to assist in the optimal selection of regimens in persons with HIV drug resistance • Summarize concepts of resistance with different antiretroviral drug classes • Explain key considerations when selecting a salvage antiretroviral regimen in persons with virologic failure