



# 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 2<sup>ND</sup> 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 21, 2025, 10:36 pm.  
 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
<b>Antiretroviral Medications and Initial Therapy</b>  Completed December 14, 2020	<ul style="list-style-type: none"> <li>List the major classes of antiretroviral medications</li> <li>Explain the mechanism of action with each class of antiretroviral medications</li> <li>Summarize evidence supporting antiretroviral treatment of all persons with HIV</li> <li>Describe recommended antiretroviral regimens for treatment-naïve individuals and discuss factors to consider when selecting an initial regimen</li> <li>Discuss recommended laboratory studies to obtain at baseline and while monitoring response to therapy</li> </ul>
<b>Adverse Effects of Antiretroviral Medications</b>  Completed December 14, 2020	<ul style="list-style-type: none"> <li>Summarize common adverse effects associated with antiretroviral medications</li> <li>Identify serious adverse effects caused by antiretroviral therapy</li> <li>List appropriate baseline laboratory studies to perform when starting antiretroviral therapy</li> <li>Discuss frequency of types of laboratory tests for monitoring persons taking antiretroviral therapy</li> <li>Explain management strategies for antiretroviral-related adverse effects</li> </ul>
<b>Drug Interactions with Antiretroviral Medications</b>  Completed December 14, 2020	<ul style="list-style-type: none"> <li>Explain the difference between pharmacokinetics and pharmacodynamics</li> <li>Access resources for checking drug interactions that involve antiretroviral medications</li> <li>Identify commonly used antiretroviral medications that often cause significant drug interactions</li> <li>Discuss how some antiretroviral increase levels of medications and others decrease levels of medications</li> <li>Describe several drug interactions involving antiretroviral medications and common therapeutic classes of drugs used to treat comorbid conditions</li> </ul>
<b>Switching or Simplifying Antiretroviral Therapy</b>  Completed December 15, 2020	<ul style="list-style-type: none"> <li>Discuss the rationale for switching or simplifying antiretroviral therapy</li> <li>Describe common situations to consider for simplifying antiretroviral therapy</li> <li>Explain why some antiretroviral medications generally warrant a switch to a newer agent</li> <li>List the two-drug regimens that have been FDA-approved for maintenance antiretroviral therapy</li> <li>Summarize key findings with studies involving a switch to an integrase strand transfer inhibitor</li> </ul>
<b>Evaluation and Management of Virologic Failure</b>  Completed December 15, 2020	<ul style="list-style-type: none"> <li>Describe the management of intermittent and persistently detectable HIV RNA levels in persons receiving antiretroviral therapy</li> <li>Discuss the indications for and types of resistance testing for patients with virologic failure</li> <li>Utilize an HIV resistance database tool to assist in the optimal selection of regimens in persons with HIV drug resistance</li> <li>Summarize concepts of resistance with different antiretroviral drug classes</li> <li>Explain key considerations when selecting a salvage antiretroviral regimen in persons with virologic failure</li> </ul>