HIV Genotyping Cost Analysis with Follow-up as an Indicator

Laura Biederman, MD
*Department of Pathology, Anatomy and Cell Biology, Sidney Kimmel Medical College at Thomas Jefferson University*

Amity L. Roberts, PhD, D(ABMM)
*Thomas Jefferson University*

Follow this and additional works at: https://jdc.jefferson.edu/pacbresidentposters

Part of the Medical Anatomy Commons, Medical Cell Biology Commons, and the Medical Pathology Commons

Let us know how access to this document benefits you

**Recommended Citation**


https://jdc.jefferson.edu/pacbresidentposters/27

This Article is brought to you for free and open access by the Jefferson Digital Commons. The Jefferson Digital Commons is a service of Thomas Jefferson University's Center for Teaching and Learning (CTL). The Commons is a showcase for Jefferson books and journals, peer-reviewed scholarly publications, unique historical collections from the University archives, and teaching tools. The Jefferson Digital Commons allows researchers and interested readers anywhere in the world to learn about and keep up to date with Jefferson scholarship. This article has been accepted for inclusion in Department of Pathology, Anatomy, and Cell Biology Resident's Posters by an authorized administrator of the Jefferson Digital Commons. For more information, please contact: JeffersonDigitalCommons@jefferson.edu.
HIV Genotyping Cost Analysis with Follow-up as an Indicator
Laura Biederman, MD and Amity Roberts, Ph.D., D(ADMM)
Department of Pathology, Anatomy and Cell Biology, Sidney Kimmel Medical College at Thomas Jefferson University, Philadelphia, PA 19107

Introduction

HIV-1 genotype (GHIV), HIV-1 Integrase (HIV1I) and HIV-1 Trophile (HIV1T) assays are sendout tests that incur a significant financial burden on the laboratory when ordered on inpatients who do not receive follow-up clinic visits. For these assays to be utilized in guiding antiretroviral therapy, the patient must receive follow-up. It will reduce the sendout budget by restricting these tests to the outpatient clinic setting.

Methods

The number of GHIV, HIV1I and HIV1T tests ordered between 1/5/13 and 1/5/14 were collected. These data were then analyzed based on test, ordering provider specialty and post-inpatient follow-up. The data was organized into test type and further categorized by order setting (inpatient vs outpatient), and ordering clinician specialty. Clinical follow up was then analyzed for each of the categories.

Results

GHIV: There were 68 patients for which GHIV was ordered, 32% (n=23) of whom did not have follow-up. The specialty who had the largest percentage of un-followed up tests was Hospital Medicine with 63% of their ordered tests not having follow up (n=12). Of the 68 GHIV ordered, 46% were ordered in the inpatient setting with 60% of those orders not receiving follow-up and represent a total cost of $6,300 for the institution.

HIV1I: A total of 7 HIV1I tests were ordered during the time period examined. Of these 7 tests, only one was ordered as an inpatient. This one test was not appropriately followed up on and represented a net cost to the hospital of $725. Interestingly, this test had an overall follow up rate of 71% (n=5).

HIV1T: Of the 6 HIV1T tests ordered, only one of the tests was ordered inpatient, and all of the patients who had this test done received appropriate follow-up. The one HIV1T assay ordered inpatient represented a cost of $3,055.

The total amount of money lost due to lack of clinic follow-up was $10,550 for the laboratory.

Conclusion

HIV genotyping represents a significant cost for the hospital, that is wasted if there is no follow-up. Especially when ordered in the inpatient setting, the lack of follow-up confers a significant cost to the institution. The total amount spent by the laboratory on genotyping assays which did not have follow-up during 12 months (inpatient and outpatient) was $10,550. If testing were to be restricted to the outpatient clinic setting there would be a savings of $15,330 annually. Based on this data, ordering of these tests should be at least restricted in the inpatient setting to those patients who are being followed by infectious disease in order to mitigate inappropriate ordering.