

Development, Implementation, and Evaluation of a Multidisciplinary Approach when Diagnosing HIV Infection in the Emergency Department



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ABSTRACT

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Problem Statement: An estimated 50 to 75 percent of HIV-infected individuals in the United States who are linked to care meet the national standards for retention in care, defined as completing two or more HIV primary care appointments per year. The Centers for Disease Control and Prevention guidelines recommend a multidisciplinary approach at the time of diagnosis to improve linkage of care, which has been shown to result in a decreased viral load by 6 months. The standard practice in our large urban academic emergency department had been a single-provider approach to care linkage for patients newly diagnosed with HIV in the emergency department.

Purpose: The purpose of this quality improvement project is to develop and implement a multidisciplinary approach when diagnosing new HIV infections in the emergency department, and to measure the competence and compliance of healthcare staff to this approach.

Approach: This quality improvement project took place at the Mount Sinai Hospital Emergency Department in New York City from January 1, 2023, to May 15, 2023. First, the current unit workflow was observed and characterized. Next, a pre-intervention survey was conducted to assess competence and compliance of healthcare staff to utilize a multidisciplinary approach. Staff without a bachelor's degree and pediatric clinicians were excluded. Physicians, physician assistants, nurse practitioners, registered nurses, and social workers collaborated on an updated unit workflow based on feedback from staff and the initial survey. Once the new workflow was created, staff were educated in unit-wide meetings and "just-in-time" education completed during working hours in five-minute classes. Next, staff were educated to utilize the multidisciplinary approach when diagnosing HIV. After one month, a post-intervention survey was conducted to assess the intervention.

Findings: A comparison of pre- and post-intervention demonstrated a significant positive relationship between implementation of a multidisciplinary approach and the staff competence and compliance with appropriate linkage to care ($p < 0.001$). Staff reported change in attitude regarding diagnosing HIV in the emergency department ($p < 0.001$) utilizing an equalitarian approach ($p < 0.001$). Staff reported appropriate training for delivering diagnoses ($p < 0.001$), with decrease in bias (<0.001) and increase in confidence, highlighted by change in behavior and acquiring the necessary skills to approach newly diagnosed HIV patients ($p < 0.001$). A significant

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relationship was demonstrated between the new process workflow created and the staff competence and compliance. The provider team expressed difficulty in workflow implementation due to increased number of steps when enrolling the multidisciplinary team for “just-in-time” education.

Conclusions and Implications for Clinical Practice: The implementation of a multidisciplinary approach was positively associated with the improved competence and compliance of healthcare workers to create appropriate linkage to care. Unintended consequences (e.g., discovering that patients received a phone call with HIV-positive screening results) revealed the need for continuous workflow reviews that likely would benefit all units. Additional Plan-Do-Study-Act cycles are warranted to refine workflows and reassess compliance.

COMPETING INTERESTS

The authors have no competing interests to declare.

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