

# VIROLOGY FASTTRACK

## Evidence-Based for Retention in HIV Care

### INTERVENTION DESCRIPTION

#### Goal of Intervention

- Improve retention in HIV care and other HIV-related health outcomes

#### Target Population

HIV care providers and their HIV clinic patients

#### Brief Description

*Virology FastTrack* is a clinical decision support system that generates alerts in the electronic medical record (EMR) to notify HIV care providers of suboptimal follow up, virologic failure, and new laboratory toxicities. The alerts are generated based on an algorithm that accounts for the patient's appointment and care history. FastTrack generates and sends alert messages to providers through their EMR home page, patient-specific EMR, and biweekly emails. The interactive alerts provide key clinical information and a streamlined mechanism for providers to request follow-up appointments and lab tests. Providers respond to these alerts by acting, dismissing, or redirecting the alert to a different provider. Scheduling requests are electronically sent to administrative assistants who contact and schedule patients for lab tests and/or appointments. Alerts are automatically resolved and removed from the EMR when patients complete repeat lab tests, have an arrived appointment, or if the provider did not respond in 8 weeks. If a requested appointment or lab test is not completed within 2 weeks of the requested timeframe, a one-time reminder alert is sent to the HIV care provider.

#### Intervention Duration

- On-going

#### Intervention Setting

- HIV clinic

#### Deliverer

- Clinical decision support system

### INTERVENTION PACKAGE INFORMATION

**For intervention materials, please contact Gregory K. Robbins, Massachusetts General Hospital, 55 Fruit Street, Cox 5, Boston, MA 02114.**

Email: [grobbs@partners.org](mailto:grobbs@partners.org)

## EVALUATION STUDY AND RESULTS

### Site and Study Year Information

The original evaluation was conducted at the Massachusetts General Hospital HIV clinic in Boston, MA between 2007 and 2008.

### Recruitment Settings

- HIV clinic

### Eligibility Criteria

Men and women were eligible if they were HIV infected, had a participating provider, and had an arrived appointment within the past 6 months or an arrived appointment during the following year.

### Study Sample

The baseline study sample (N = 1,011) is characterized by the following:

- 54% white, 22% black or African American, 12% Hispanic/Latino, 12% other
- 72% Male, 28% Female
- 48% Men who have sex with men, 27% heterosexual, 14% injection drug use, 3% blood transmission, 8% unknown (HIV transmission category)
- 75% participants >40 years old
- 72% participants with undetectable viral load (<400 copies/mL)

### Assignment Method

Participants (N = 1,011) were randomly assigned with a 1:1 ratio, by blocks of 4, stratified by provider to one of two groups: Virology FastTrack (n = 506) or control (n = 505).

### Comparison

Providers of patients assigned to the comparison group received “static” alerts which were only visible on patient-specific EMR and provided no additional information or semi-automated scheduling mechanism.

### Relevant Outcomes Measured

- Retention in HIV care was defined as sub-optimal follow-up measured as having no arrived appointments for >6 months during a 12-month post initiation of the Virology FastTrack intervention.

### Significant Findings on Relevant Outcomes

- Over the 12-month assessment period, patients of providers in the intervention group had a lower rate of 6-month sub-optimal follow-up than patients of providers in the comparison group (20.6 vs. 30.1 events per 100 patient-years, p = 0.022).

### Considerations

- Patients of providers in the intervention group had a significantly shorter median time to next scheduled appointment after suboptimal follow-up than intervention participants (1.71 vs. 3.48 months, p<0.001).

- Among 982 patients with at least 1 CD4 measure, patients of providers in the intervention group had a significantly greater increase in mean CD4 count than patients of providers in the comparison group over the 12 month assessment period ( $p = 0.040$ ).

## REFERENCES AND CONTACT INFORMATION

Robbins, G. K., Lester, W., Johnson, K. L., Chang, Y., Estey, G., Surrao, D., . . . Freedberg, K. A. (2012). [Efficacy of a clinical decision-support system in an HIV practice: A randomized trial](#). *Annals of Internal Medicine*, 157, 757-766.

**Researcher:** **Gregory K. Robbins, MD**  
Massachusetts General Hospital  
Division of Infectious Diseases  
55 Fruit Street, Cox 5  
Boston, MA 02114  
**Email:** [grobbins@partners.org](mailto:grobbins@partners.org)

