Algorithms and Acute Infections: Innovations in Routine HIV Testing

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Objective

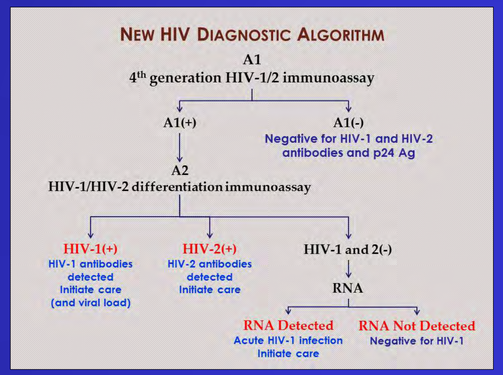
Use 4th generation testing to assess the prevalence of acute HIV infections in a metropolitan ED.

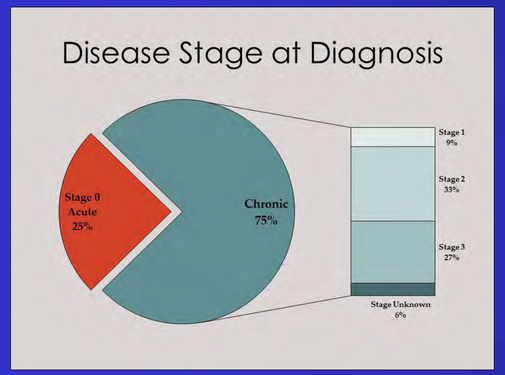
Background

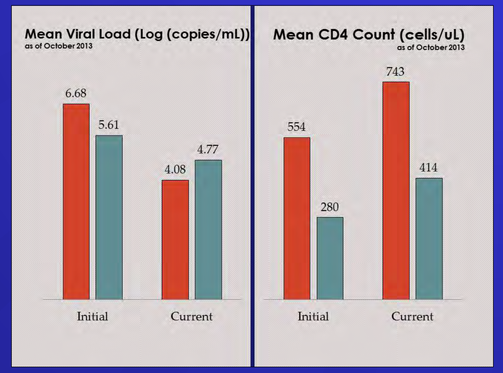
- CDC recommends routine, opt-out HIV screening in all heathcare settings if the undiagnosed prevalence is ≥0.1%.
- Identification of acute, or Stage 0, HIV infections allows for early treatment and reduced transmission.
- 4th generation technology detects HIV antigens & antibodies and identifies acute and chronic infections.
- Mathematical models and studies suggest that acute HIV infections are between 5% and 25% of all new HIV diagnoses.

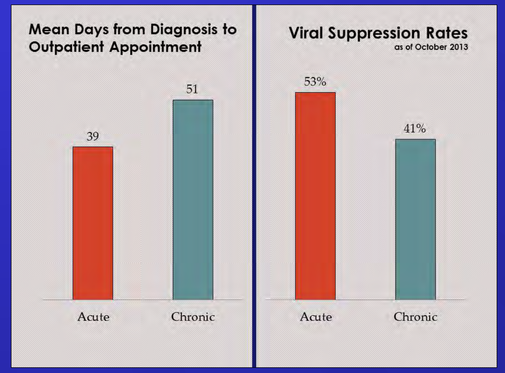
Methodology

- TESTAZ is a routine, opt-out HIV screening program in the adult Emergency Department (ED) of Maricopa Integrated Health System, a metropolitan safety-net hospital serving predominantly uninsured and minority populations.
- Testing is integrated into normal ED work flow which minimizes the need for additional resources.
- The HIV test performed is the 4th generation Architect HIV Ag/Ab Combo Test™ (Abbott Laboratories ™).
- Reactive HIV test results are delivered to the patient by the physician and social worker.









Results

- In the first 27 months of TESTAZ, 26,634 tests were performed.
- 39% of patients were excluded per internal exclusion criteria. 15% of patients actively opted-out of HIV screening.
- 69 new HIV diagnoses indicates a prevalence rate of 0.28%.
- 17 of the 69 newly diagnosed (25%) were acute infections under CDC's Stage 0 algorithm.

Conclusions

- Patients with acute HIV infections often seek medical care for their symptoms.
- 25% of newly diagnosed HIV infections may have misclassified as HIV negative without 4th generation testing technology.
- Patients diagnosed in the ED are linked to care and treatment in a timely fashion.
- A routine, opt-out HIV screening in the ED in a safety-net hospital can be successful.

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