

Magnet: Rapid HIV Antibody, Viral RNA, & Rapid Testing Algorithm (RTA) Testing for Gay Men in San Francisco Steve Gibson, MSW¹; Dale Gluth, MA¹; Tim Ryan, RN/MSN¹; James Austin, MPP²; Shelley Facente, MPH³; Chris Hall, MD¹

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OBJECTIVE: To identify gay men at high risk of HIV infection including acute infection to prevent new HIV infections.



SFDPH (2001). Atlas of HIV/AIDS in San Francisco ncreasing intensity of orange portrays increasing density of AIDS cases, culminating in blue for geographically distinct epidemiological centers.

San Francisco

- 2008 population = 824,525 (CA Department of Finance 2008)
- 60,000 gay men and other MSM (SFDPH 2004)
- HIV estimated annual incidence of 800-1,000 / 27% HIV prevalence among gay men (SFDPH 2004)
- 62% of incident syphilis cases are gay men living with HIV (SFDPH 2008)

Magnet Needs Assessment & Community Planning

In 2001, gay men in San Francisco faced a challenge. HIV & AIDS were no longer seen as a crisis and yet the city was experiencing endemic rates of new HIV infections annually. Magnet opened in the center of the Castro in July 2003 to respond to the need for a new way of thinking about gay men's health and to reduce new HIV infections.

Magnet

- Sexual Health Services:
 - . Rapid HIV antibody and Viral RNA testing

- 2. Screening and treatment for gonorrhea, chlamydia, and syphilis
- . Hepatitis A and B vaccinations

Community Programs & Wellness Services:

- 1. Art exhibits, literary readings, performances, community socials, and town hall forums

METHODS: Based in the neighborhood with the largest concentration of new HIV infections, Magnet provides rapid oral HIV antibody testing and other sexual health services and is the only facility in the Castro to provide routine testing.

HIV Antibody, Viral RNA, & RTA (Rapid Testing Algorithm) **Services**



PalmIT Axioms

- Improve the quality of counseling by removing data collection from the session
- Improve data quality by having clients enter their own risk behavior information
- Decrease transcriber error by eliminating paper forms
- Redefine the counseling session to focus on client needs and reasons for testing

- . Mental health and substance use counseling
- 3. Massage, hypnotherapy, and acupuncture

PalmIT: Electronic Data Collection

Magnet, SFDPH, and **UCSF Center for AIDS Prevention Studies** partnered in 2006 to implement a hand-held pocket PC model of electronic risk-assessment data collection. PalmIT was created after the advent of rapid testing with the following goals:

PalmIT Procedures

- Devices given to clients 15 minutes prior to counseling session to complete risk-assessment
- Results are not shared with the counselor
- Skip patterns reduce survey completion time depending on risk level
- Device prompts clients to inquire about other services (RNA) testing) or referrals that may not be disclosed in session (e.g. – rape)

Preliminary Positives, False Positives, and Same-Day Confirmations (RTA)

Rapid testing, the disclosure of positive results, and falsepositives led to a need for same-day confirmations.

- Clients with OraQuick antibody positive oral fluid result provide blood sample
- A second, blood-based rapid test is run (Stat-Pak)
- If Stat-Pak result is positive, client is confirmed positive
- If Stat-Pak result is negative, a third rapid test (second blood) is run (Uni-Gold)
- The use of Uni-Gold captures rare false positive tests detected using oral fluid
- Clients testing "preliminary" positive receive same-day confirmation

Because use of Stat-Pak and Uni-Gold in combination with OraQuick is not yet FDA-approved, confirmatory Western Blot and ELISA tests (blood-based) are conducted by SFDPH.

RNA Testing, Counseling Messages, and Inclusion Criteria

- HIV RNA testing launched at Magnet in October 2006
- Previous models of HIV RNA testing were population-based
- Magnet developed a risk-based approach to RNA testing for those at greatest risk of acute or recent infection

Magnet RNA Testing Criteria:

Unprotected Receptive Anal Intercourse in the past 14 – 90 days

- Unprotected Insertive Anal Intercourse with a known HIV+ partner in the past 14 – 90 days
- Broken condom with HIV+ or status unknown partner
- Shared IDU history in the past 30 days
- Rectal STD diagnosis in the past 90 days

Specimens from three sites conducting RNA testing are submitted to SFDPH for testing in pooled batches of 10. Positive pools result in individual specimen testing. SFDPH laboratory notifies SFDPH AIDS Office of a positive pool. SFDPH notifies the provider.

Clients receiving an RNA test are counseled to act as if they are HIV+ pending RNA test results. Clients are scheduled for followup for a face-to-face appointment 14 days after their initial visit.

RESULTS: Magnet has provided HIV antibody testing services to 7,291 men since July 2003; 3,000 tests in FY2008–2009 (projected). Overall HIV incidence rate at Magnet is 2% annually.

Magnet's HIV RNA testing program of highest risk clients has been used by approximately 300 men. 2.5% of men testing antibody negative identified as acutely or recently infected (N=7).

OraQuick	Stat-Pak	Uni-Gold
C T T T		Control Test Sample TRINITY BIOTECH
Oral fluid directly or fingerstick with a loop	Collect blood from the vacutainer tube using a loop (add 1 loop)	Collect blood from the vacutainer tube using specimen dropper (add drop)
Buffer in vial	3 drops of Stat-Pak buffer	4 drops of Uni-Gold buffer
Run time 20-40 minutes Read window 20 minutes	Run time 15-20 minutes Read window 5 minutes	Run time 10-12 minutes Read window 2 minutes
Run temperature 59°F – 99°F	Run temperature 64°F – 80°F	Run temperature 64°F – 80°F
Storage temperature 35°F – 80°F	Storage temperature 46°F – 86°F	Storage temperature 35°F – 80°F

RTA Test Series Panel



-Gold



n dropper (add only Uni-Gold buffer 10-12 minutes dow 2 minutes emperature – 80°F temperature

agnet / SFAF HIV RNA Testing Protocol



Between 2004–2007, Magnet administered 5,902 HIV antibody tests. Self-reported unprotected receptive anal intercourse decreased from 45% in 2006 to 25% in 2007. Of those testing HIV+, 36% were men of color. 80% lived in San Francisco. This group reported an average of six previous HIV tests and reported an average of 37 sexual partners in the past two years.

CONCLUSIONS: Testing high-risk gay men in a highprevalence neighborhood with targeted HIV RNA testing may be an effective way to identify men with acute or recent HIV infections. Gay men presenting at Magnet are assessing their level of risk of acquiring HIV and are seeking testing as appropriate. Increased HIV testing access for gay men in San Francisco may further identify acute or recent infections, as well as longer term infections.

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