Implementing HIV Testing in the ED

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HIV Testing in the ED

Objectives:

- Why HIV testing should be offered in the ED?
- Concerns over offering testing in the ED!
- Which patients are appropriate for HIV testing in the ED?

HIV Prevention

Case Presentation

HIV Prevention

As we are today

- HIV epidemic and current testing practices
- Previous recommendations
- New Revised recommendations
- Rapid HIV tests in ED's
- Lessons from the field—Stroger/Oak Forest

Awareness of HIV Status (US)

- HIV infected 1,039,000-1,185,000
- Unaware of status 252,000-312,000 (24 – 27%)
- Estimated new infections (annually) 40,000

Glynn M, Rhodes P. 2005 HIV Prevention Conference

HIV/AIDS Diagnosis among Adults & Adolescents Transmission Category

Males

MSM	63%
IDU	15%
MSM/IDU	5%
Heterosexual	17%
Other	1%

Females

IDU	21%
Heterosexual	78%
Other	1%

33 States (2001-2005)

HIV/AIDS Surveillance Report, 2005

Terminology

- Diagnostic testing: performing an HIV test based on clinical signs or symptoms
- Targeted testing: performing and HIV test on subpopulations of persons at high risk based on behavioral, clinical, or demographic characteristics
- Screening: performing an HIV test for all persons in a defined population
- Opt-Out: performing an HIV test after notifying the patient that the test will be done; consent is inferred unless the patient declines

HIV Testing: Missed Opportunity

Missed Opportunities: South Carolina

- All reported cases of HIV, 2001-2005
- Confidentially matched with registry of health care visits during 1997-2005 at:
  - 60 emergency departments
  - 62 inpatient facilities
  - 63 ambulatory surgery facilities
  - 19 free medical clinics

- MMWR, 2006 Missed Opportunities for Earlier Diagnosis of HIV infection—South Carolina, 1997-2005

HIV Testing in the ED

Missed Opportunities

- **4,315** reported HIV cases
  - **3,157 (73%)** made **20,271** health care visits prior to their first positive HIV test
  - Diagnosis codes at **15,648 (77%)** of prior visits would not have prompted an HIV test
  - **1,784 (42%)** developed AIDS within 1 year
    - **1,302 (73%)** made **7,988** previous health care visits (4 per patient) but were not tested for HIV
    - 6,303 (79%) were visits to the ED

Previous CDC Recommendations Adults & Adolescents

- Routinely recommend HIV screening in acute care hospital settings with HIV prevalence $\geq$ 1%
- Targeted testing based on risk assessment in clinical settings with lower HIV prevalence
- Routine voluntary HIV testing as part of prenatal care, as early as possible, for all pregnant women
- Simplified pretest counseling
- Flexible consent process

CDC, 1995

Revised Recommendations for HIV testing of Adults, Adolescents, and Pregnant Women in Health Care Settings, 2006

- **Routine voluntary HIV screening** for all persons **13-64** in health care settings, not based on risk
- All patients with **TB** or seeking treatment for **STD's** should be screened for HIV
- **Repeat HIV screening** of persons with known risk at **least annually**
- When acute retroviral infection is a possibility use an RNA test in conjunction with an HIV antibody test

Revised Recommendations

- Settings with low or unknown prevalence
  - Initial screening
  - If yield from screening is < 1/1000, continued screening is not warranted
- Opt-out HIV screening with the opportunity to ask questions and the option to decline testing
- Separate signed informed consent should not be required
- Prevention counseling in conjunction with HIV screening in health care settings should not be required

Revised Recommendations

- Screening is voluntary
- Inform patients orally or in writing that HIV testing will be performed unless they decline
- Arrange access to care, prevention, and support services for patients with positive HIV test results

Rationale for Revising CDC Recommendations

- Many HIV infected persons access health care but are not tested for HIV until symptomatic
- Effective treatment is available
- Awareness of HIV infection leads to substantial reductions in high-risk sexual behavior
- Inconclusive evidence about precention benefits from typical counseling
- Great deal of experience with HIV testing, including rapid tests

Rapid HIV Screening in Acute Care Hospitals

Study Site	New HIV
Cook County (Stroger)	2.3%
Grady (Atlanta)	2.7%
Hopkins (Baltimore)	3.2%
King-Drew (LA)	1.3%

Incorporating HIV Testing into the Emergency Department

1995
- Physician referral for off-site conventional testing

1/01
- Trained ED physicians to initiate conventional HIV testing
- ED physicians counsels/consents/orders
- Patient referred to affiliated clinic for results

6/19/01
- Health Educators initiate rapid testing (SUDS)
- Rapid tests performed in the ED
- Same visit results
- Physician initiated conventional testing still available all hours

3/1/02
- Trained ED physicians initiate conventional tests
- No rapid testing available (study ends)

10/17/02
- Health educators initiate rapid HIV testing (OraQuick)
- Physician referrals for rapid HIV tests/results during the ED visit

12/31/04
- Support ends
- Conventional testing available with referral to affiliated clinic

12/07
- Rapid testing restarted on all admissions from the ED

Incorporating HIV Testing Intervention into Practice

Stroger (Cook County Hospital/Chicago)

- Adult Emergency Department
  - 116,000 – 130,000 visits/year
  - 70 beds (3 separate rooms)
  - 300 visits/day
- CDC sponsored studies:
  - 6/01 through 2/02 (SUDS)
  - 10/02 through 8/04 (OraQuick)

Incorporate HIV Testing Intervention into Practice

Stroger Hospital

- Objectives:
  - Evaluate routine POC rapid HIV testing
  - Determine feasibility
  - Evaluate acceptance
  - Assess test performance

Incorporating HIV Testing Intervention into Practice

Protocol

- To approach all registered ED patients during study hours, evaluate and offer rapid HIV testing to those eligible.
- Health educators provided through study
  - Responsible for all aspects of HIV counseling and testing
  - Screen and enroll in study, counsel, obtain consents and blood specimens, perform rapid test, link to care

Incorporating HIV Testing Intervention into Practice

Eligibility:

- Age 18 – 60 years
- English/Spanish
- Informed consent
- Report during study hours

Exclusion:

- Known HIV-infected
- HIV test ≤ 3 months
- Assessed as unable to cope with same day results

Incorporating HIV Testing Intervention into Practice

Cook County (Stroger)

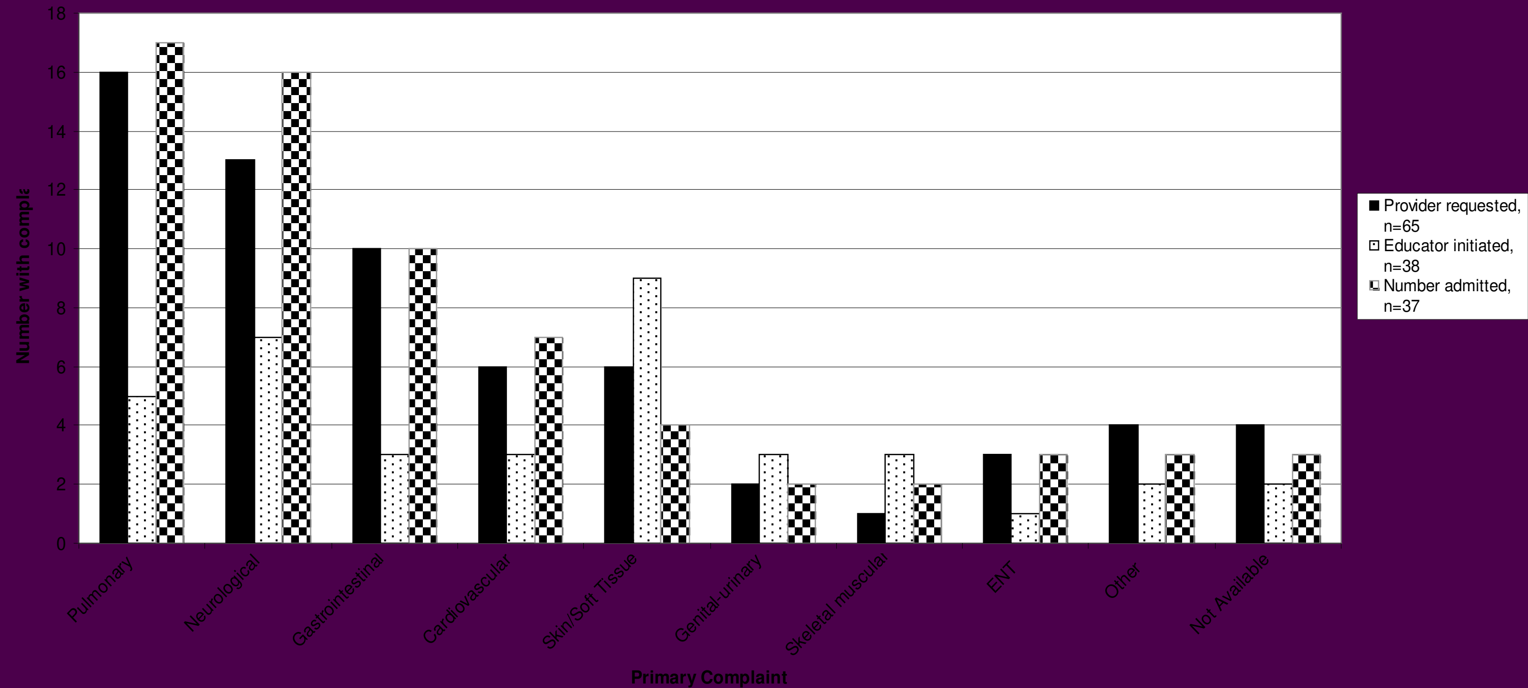
- Overview of Testing (HERT)
  - 31 # of months offered
  - 5946 # patients tested
  - 192 # patients tested/month
  - 149 # patients newly identified

Incorporating HIV Testing Intervention into Practice

Summary of Findings

- 2.5% New HIV Infection identified
- 30-62% Patient acceptance
- 100% Receipt of results for HIV +
- 98% Receipt of results for HIV –
- 79% Entered care (Core Center)
- 58% New HIV+ patients hospitalized
- 67% CD4 $\leq$ 200 cells/mm
- 35% ED visits $\leq$ 5 years before dx

Incorporating HIV Testing Interventions into Practice



Incorporating HIV Testing Intervention into Practice

Circumstances supporting routine ED point-of care testing

Study findings

- # of new HIV infections identified
- Acceptance by patients & providers
- Report to follow up care

OraQuick Test

- Easy
- Immediate results
- Limited storage problems

Established stat lab

- CLIA waived certificate
- QA program experience

Incorporating HIV Testing Intervention into Practice

Sustainability

- Resources inside/outside the ED
- Finding new funds/staff
  - Health department/CBO collaboration
- Continued demonstration of worth
  - Shorter hospital stays (6 vs 13)
- Politics/budget
  - who provides what and why

Incorporating HIV Testing Intervention into Practice

Potential Barriers

- Volume/space
  - 130,000 visits/year
  - 135,000 sq ft facilty
- Staff
  - Additional duties
  - Responsibility for follow-up
  - Written consent
- Oversight
  - Monitor test being offered appropriately
  - Assuring linkage to care
- Cost
  - Tests
  - Support staff

Incorporating HIV Testing Intervention into Practice

Lesson Learned

- Problems cited in the literature: delay in care for results, time constraints and counseling concerns were not a problem for us
- Physician support for health educators counseling and testing, but may only use and support ED HIV testing when rapid test readily available/educator to counsel patients
- Change requires administrative and fiscal support on all levels.
- New programs/services offered in the ED need to fit in and be part of the ED culture
- Change is slow and can be frustrating

Incorporating HIV Testing Interventions into Practice

Conclusions

- POC routine rapid HIV testing
  - was feasible in the ED and identified many new HIV infections
- Rapid HIV testing
  - was well accepted when offered as part of routine medical care
- Rapid test results
  - may influence and assist with medical decision making in the ED and at admission
- OraQuick rapid test
  - performed well POC when performed by non-lab personnel

Incorporating HIV Testing Intervention into Practice

Oak Forest Emergency Department

- Public Hospital
  - Affiliated with Stroger (Cook County)
  - Community Hospital in Suburban Cook County
- 7 bed ED
  - Stand-by status
- 30,000 visits per year
- Community report card
  - Uninsured 17.8%
  - Teen pregnancy 13.4 %

Incorporating HIV Testing Intervention into Practice

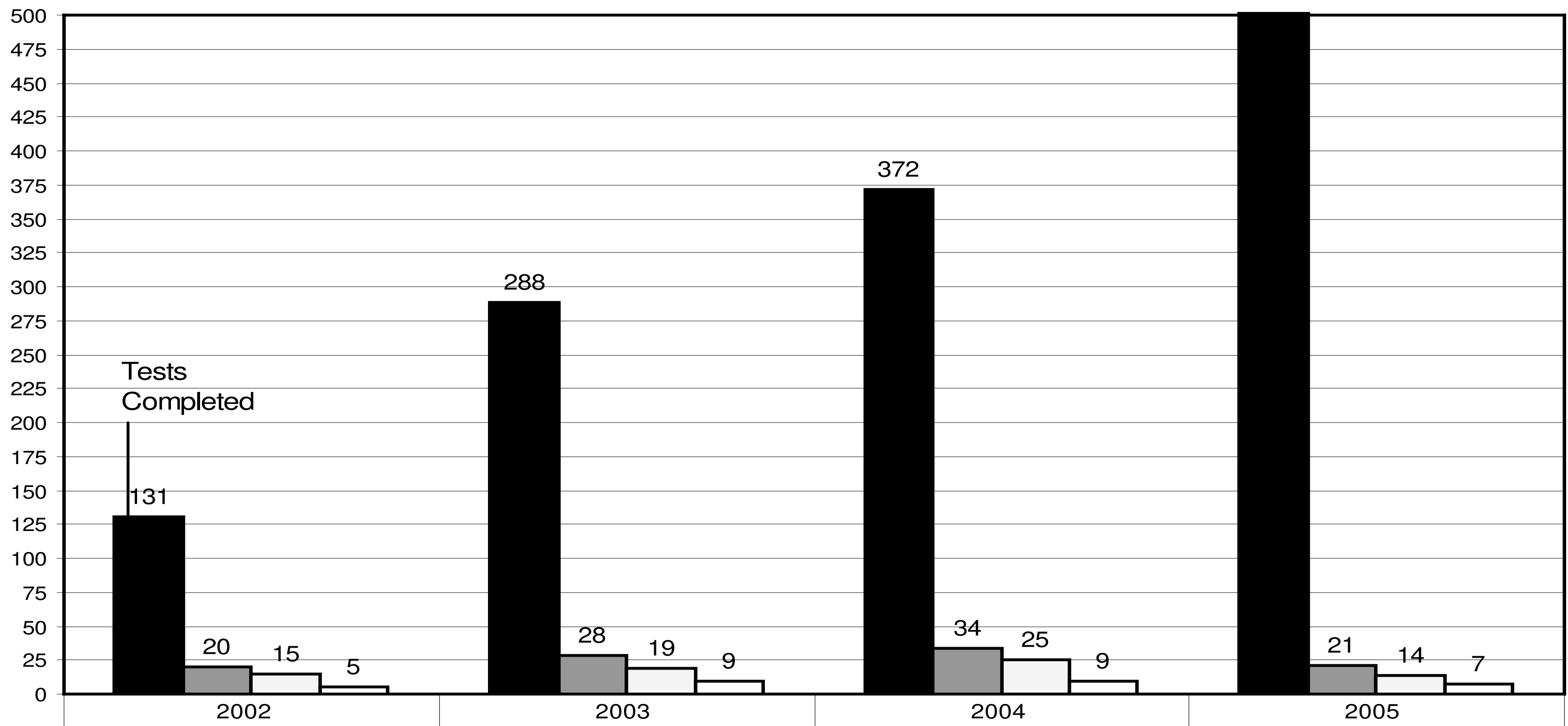
- Outside Support/Funding
  - None
- Health Educators
  - None
- Rapid Tests
  - 50 donated otherwise conventional
- Administration
  - Supportive
- Lab
  - Supportive

Incorporating HIV Testing Intervention into Practice

Oak Forest

- Conventional testing is offered utilizing existing nursing staff
- Identified “at risk” or by request
- Patients return in two weeks
- No appointment necessary
- CBO case finder/health educator
- Affiliated clinic available for follow-up

Conventional HIV Testing at Oak Forest Hospital 2002 -2005



	2002	2003	2004	2005
TESTS	131	288	372	615
Positive	20	28	34	21
AIDS	15	19	25	14
HIV+	5	9	9	7

Incorporating HIV Testing Intervention into Practice

Oak Forest

- Findings
  - 67% - 75% of patients presenting for care tested late in the disease
  - 2006 (January – October) 565 c-HIV drawn
    - 20 (3.5%) HIV +
  - Staff have incorporated testing into everyday care
  - Since 2002 one + patient has been lost to follow up

Emergency Department Safety Net

- Smoking Cessation
- Pneumonia treatment within 4 hours
- Drug abuse awareness
- Domestic violence
- Shaken baby prevention
- Alcohol abuse and cessation
- MI protocol -- 10 minute EKG
- Patient satisfaction
- No wait ED
- Flow—get them in and get them out
- Child abuse
- Hypertension teaching
- Bicycle safety
- Helmet reminders
- Immunizations
- Abandon baby
- Trauma registry
- Disaster preparedness
- Sexual Assault treatment protocol
- Medication safety
- Medication reconciliation
- Falls prevention
- Restraint safety
- Admission back log/extended LOS
- ICU Boarders
- HIV SCREENING

Incorporating HIV Testing Intervention into Practice

Recipe

- 1 ED champion with a professional commitment
- 3/4 staff agreeable to impact transmission
- 4 in-services
- 1-2 community based organizations
- 20 reminders a day
- 1 administration to support the intervention
- 1 good lab support
- 20,000 test kits (may vary)
- Blend the ingredients, keeping expectations at low. Let simmer for one + years. Bring to a boil and the results ....life altering......life changing....life saving......

DO IT

develop an **o**pportunity to **i**nterrupt **t**ransmission