Evidence-Based Interventions for Increasing CT/GC Retesting Rates

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Presenters
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Objectives
• Identify at least two reasons why proper CT/GC management is a priority for women’s health
• Summarize CDC recommendations for CT/GC retesting
• Describe at least two interventions for increasing CT/GC retesting
Why Is Retesting a Priority?

Retesting can detect reinfections early, reducing risk of complications.

The majority of infections are asymptomatic.

Repeat infections are common.

Reinfection is associated with ↑ risk of complications.

Partner treatment doesn’t eliminate reinfection risk.

Repeat CT/GC infections are common.

Repeat infection with Chlamydia and Gonorrhea Among Females: A Systematic Review of the Literature

- Overall median reinfected with CT = 13.9%; range of 0 – 32%
- Overall median reinfected with GC = 11.7%; range = 2.6 – 40%
- Peak rates of reinfection at 8-10 months

The majority of CT/GC symptoms are asymptomatic.

Chlamydia

- Known as the “silent disease”
- Women—appear within 1-3 weeks after exposure, if symptoms do occur
  - Abnormal vaginal discharge or a burning sensation when urinating
  - Abdominal pain, low back pain, nausea, fever, pain during intercourse, bleeding between menstrual periods, if the infection spreads from the cervix to the fallopian tubes
- Men
  - Penile discharge, burning sensation when urinating, and burning and itching around the opening of the penis

Chlamydia – CDC Fact Sheet: http://www.cdc.gov/std/chlamydia/STDFact‐Chlamydia.htm
The majority of CT/GC symptoms are asymptomatic.

Gonorrhea
- Women—have no symptoms, in most cases
- Often mild and mistaken for bladder or vaginal infection
- Painful or burning sensation when urinating, increased vaginal discharge or bleeding between menstrual periods
- Men—may have no symptoms
- Burning sensation when urinating, penile discharge that usually appears 1-14 days after infection, and painful or swollen testicles

Why Is Retesting a Priority?

Partner treatment doesn’t eliminate reinfection risk.
- Patient not waiting 7 days post treatment to have sex
- Re-exposure to infected sex partners who were not treated after initial infections detected

Expedited partner therapy can reduce reinfection with CT/GC.
- Minority of persistent vs. new infections—antibiotic treatment failure or noncompliance with treatment

Reinfection is associated with an increased risk of reproductive complications.
- Ascension of CT/GC into the upper genital tract
- Ectopic pregnancy
- Pelvic inflammatory disease
Why Is Retesting a Priority?

Retesting can detect reinfections early, reducing risk of complications

CDC Recommendations for CT/GC Retesting

Unlike the test-of-cure, which is not recommended, repeat *C. trachomatis* testing of recently infected women or men should be a priority for providers.

Chlamydia-infected women and men should be retested approximately 3 months after treatment. If retesting at 3 months is not possible, clinicians should retest whenever persons next present for medical care in the 12 months following initial treatment.

Poll #2

Do you have a policy that patients with CT/GC should be retested 3 months after treatment?

a. Yes, for both patients with CT and GC
b. Yes, for patients with CT only
c. Yes, for patients with GC only
d. No

Clinicians should advise patients with gonorrhea to be retested 3 months after treatment. If patients do not seek medical care for retesting in 3 months, providers are encouraged to test these patients whenever they next seek medical care within the following 12 months.
Related Studies

- A Closer Look: Barriers and Opportunities to Improve Chlamydia Retesting Rates by Goldenkranz and Fine
  - 61% of patients did not return
  - 38% of returned patients not retested by clinics = "missed opportunities"
  - Overall, 76% were not retested
- Missed Opportunities for Chlamydia Retesting at Limited Service Visits in California FP Clinics by Howard et al
  - 38% of patients did not return
  - 31% of returned patients not retested by clinics
  - Overall, 57% were not retested

Why are Retesting Rates Low?

How much of the problem is related to:

- Organizational Policies
- Patients
- Clinic Protocols/Systems

Assessing Barriers to Retesting

- Provider surveys re: knowledge, attitudes, practices
- Administrative claims data analysis
- Key informant interviews with clinic staff:
  - Review of protocols, policies
  - Review of clinic flow
- Evaluation of paper and electronic medical record and billing systems
- Patient surveys/feedback

What is the provider’s role in improving retesting rates?

Important to identify and address providers’ perceived barriers to retesting

California Title X Provider Survey (2007):
Retesting Knowledge, Attitudes & Practices

Research Objectives:

- Describe Title X provider knowledge, attitudes, practices, and perceived barriers related to CT retesting
- Describe interventions currently utilized by Title X clinics to ensure patient retesting

Designed by the California Family Planning Council, Inc.; Results analyzed by Ina Park MD, MS, CA STD Control Branch
Park IU, et al. (2010) J Women Health (Larchmt); 19(6):1139-44
**Survey Conclusions:**

**Title X Provider Retesting Knowledge, Practices**

Majority of providers had good **knowledge** about retesting recs... Yet.

- Over 50% reported multiple barriers: 73% stated that primary barrier to retesting was patients **not returning to clinic**
- Only 20% stated that retesting was a **High Priority clinical service:** 33% reported retesting was a **low priority**
- Very few clinic-level retesting strategies in place: Only 17% reported use of chart flags

**Analysis of Administrative Claims Data from a Large Family Planning Program**

**Research Objectives:**

- To describe, among female CT cases:
  - proportion of patients who returned to clinic (RTC)*
  - proportion of returning patients who were retested
  - any retesting rate patterns by visit type

* Time period: 1-6 months (31-180 days) post-treatment

**Analysis Results:**

**Overall Retesting & Reinfection Rates (N = 90,049)**

- 3.2% Baseline CT Rate
- 43% Retested overall
- 14% Re-infected

* CT cohort with confirmed treatment, 1 to 6 months post-treatment; Data during <30 days post-treatment excluded.

Source: Female CT+ Family PACT-Quest clients, 2007-2008

**Analysis Results:**

**CT reinfection rates many times higher than baseline positivity rates; high across all age groups**

- CT reinfection rates many times higher than baseline positivity rates
- High across all age groups

Source: Family PACT and Quest Diagnostics, female client data (2007)

**Analysis Results:**

**Patient- vs. Clinic-Level Roles in Low Retesting Rates**

- What proportion of patients return to clinic during the target retest timeframe (1-6 months post-tx)?
- What proportion of returning clients are retested?
Analysis Results:
CT+ Patient Return Rate and Retesting Rate Among those who Returned (1-6 months post-tx)

- 38% of CT+ patients returned to clinic (RTC) (N=1,038)
- 62% of returned patients were retested (N=1,124)
- Only 53% returned at their 2nd Return Visit

Analysis Conclusions: Administrative Claims Data Analysis

- Missed opportunities:
  - Although 62% of clients RTC during target retetest timeframe, 1/3 of returning clients were not re-tested

- Very low retesting rates at limited service visits (e.g., PTO, EC, BC Refill)

- High reinfection rates (14%) among all retested clients:
  - Highest rates (~25%) at limited service visits

Additional clinical service gaps discovered

- Assessments: clinic staff interviews; review of existing clinic protocols, systems; observation of clinic flow:
  - Lack of CT/GC screening or retesting protocols for limited-service visits
  - Lack of clinic staff knowledge or dangers of CT/GC reinfection
  - Insufficient counseling provided to CT+, GC+ patients
  - Follow-up and counseling gaps for empirically treated patients
  - Patient ed materials lack updated messages; reading levels too high
  - Drop-in and fast track visits for STD testing not always available

What are feasible and effective interventions that can be introduced now?

- Organization-Level: Lack of policies prioritizing retesting services
- Patient-Level: Patients not understanding importance of retesting
- Interventions targeted to various levels may be needed to address specific barriers to retesting

- Patient-Level: Patients not returning to clinic

- Clinic-Level: Missed opportunities for retesting returning patients
What are feasible and effective Interventions that can be introduced now?

**Organization-Level:**
Lack of policies prioritizing retesting services

**Patient-Level:**
Patients not grasping importance of retesting

### Organization-Level Intervention: Introducing Policies to Prioritize Retesting Services

**Objective:**
Obtain Medical Director/Agency Buy-in

**Intervention:**
Institute retesting as high-priority clinical service
- Medical Director presentations using own clinic data to demonstrate:
  - high reinfection rates
  - patient return rates
  - missed opportunities for retesting

### Patient-Level Intervention: Increasing Patients’ Understanding of Importance of Retesting

**Train All Clinic Staff to Provide Comprehensive Counseling to CT+, GC+ Patients**

- Counsel patients at their treatment visit about why they need to prioritize retesting
- Encourage patients to find a way to remember their retest

### Comprehensive Counseling Messages re: CT/GC Reinfection

- **Counsel patients at treatment visit about importance of:**
  - Partner treatment
  - Waiting to have sex after treatment
  - Condom use
  - Retesting in ~3 months
- Stress why repeat testing is important:
  - Reinfection is very common
  - Reinfection is even more dangerous than initial infection
  - Women newly infected with CT and GC rarely have symptoms
  - Thus, getting retested can detect new infection, prevent complications
- Encourage patients to prioritize their retest
- Ask them how they plan to help themselves remember (e.g., they can put a reminder in cell phone calendar before they leave office)

### Patient-Level Intervention: Increasing Patients’ Understanding of Importance of Retesting

**Revise/Develop Patient Education Materials**

- **Suggestion:** Update and Improve CT and GC Patient Fact Sheets:
  - Reinforce newest patient ed messaging re: reinfection, partner treatment, waiting to have sex after tx, condoms, and retesting
  - Improve readability/lower literacy level
  - Improve user-friendly formatting
  - Pilot-test with CT+, GC+ patients

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8/7/2012
Patient-Level Intervention: Increasing Patients’ Understanding of Importance of Retesting

**Suggestion:**
Retesting information cards can be given to patients to take home at treatment visit.

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What are feasible and effective Interventions that can be introduced now?

Patient-Level:
Patients not returning to clinic

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Abundant Research Supporting Effectiveness of Clinical Reminders

**Patient reminders demonstrated effective at increasing:**

- Clinic attendance/appointment compliance
- CT screening
- CT treatment
- CT retesting
  - via self-addressed postcards
  - via text message

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Patient-Level Intervention: Increasing Number of Patients who Return to Clinic

**Offer Patient Retest Reminder Options**

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Patient-Level Intervention: Increasing Number of Patients who Return to Clinic

**Offer Patient Retest Reminder Options**

- Over 90% of all teens/young adults use the Internet
- 85% of teens/young adults engage in electronic communication: text messaging, emailing, instant messaging, or posting comments to websites
- Clinical reminders via text message acceptable to STD clinic patients

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Patient-Level Intervention: Increasing Number of Patients who Return to Clinic

**Offer Patient Retest Reminder Options**

- If resources/technology is available, offer patients the option to receive a retest reminder via email or text message.

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Patient-Level Intervention: Increasing Number of Patients who Return to Clinic

**Counsel Patients to Return for Retesting in < 3 Months**

If patient population very unlikely to return for a follow-up appointment in 3 months, consider counselling patients to return for retest appointment earlier than 3 months, e.g., 6 weeks.

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**Patient-Level Intervention:**  
Home-based Self-collected Vaginal Swab (SVS) Testing to Increase Patient Retesting Rates

Offer Patients Option to Retest at Home and Mail-In SVS Specimen

Self-Collected vaginal Swabs:
- Excellent test performance
- Acceptable to clients
- FDA cleared using nucleic acid amplification tests if collected in clinical setting
- Home-based collection and postal transport an option if lab completes verification testing

- **Suggestion:** If resources available, offer patients option to use a SVS home test kit and mail in their recent specimen directly to the lab.

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**What are feasible and effective Interventions that can be introduced now?**

**Clinic-Level Interventions:**  
Reducing Missed Opportunities for Retesting Patients who Return to Clinic

To maximize likelihood of patient getting retested, 2 approaches in the clinic should be used:

1. **Counsel** patient to return in ~3 months for a retest
2. Create systems-level protocols to ensure that clinic staff test “opportunistically” whenever patient next returns to clinic for any reason > 4 weeks post-treatment

**Research Supporting Effectiveness of Electronic Pop-Up Reminders for Clinic Staff**

**Results:** Missed opportunities for retesting patients who returned to clinic reduced by 58%

- **Historical Cohort** (N=1,397)
  - Retested: 30%
  - Not Retested: 70%

- **Intervention Cohort** (N=982)
  - Retested: 86%
  - Not Retested: 14%

**Clinic-Level Interventions:** Reducing Missed Opportunities for Retesting Patients who Return to Clinic

*Add medical record chart prompts to inform front office staff at intake when a presenting patient is due for retesting*

- Paper-based medical records: e.g., brightly-colored laminated cards inserted into patient charts
- Electronic medical records: “Pop-up” reminders linked to patient records scheduled via electronic medical or billing systems

**Clinic-Level Interventions:** Reducing Missed Opportunities for Retesting Patients who Return to Clinic

*Institute Standing Orders to allow any level of clinic staff to collect test specimens*

- Standing orders can allow medical assistants to collect test specimens from patients at low-risk and limited service visits that normally don’t involve clinician interaction
- **Allow Drop-In (no appointment) visits for STD testing**
  - Drop-in and/or Express (“fast-track” – no waiting) visit options for STD testing expands access to care for asymptomatic patients

**Assuring Quality of Interventions:** Assessing and Addressing Operational Barriers

*QA Check List (sample)*

**Poll #3**

Do you currently have any of the following in place to assist with retesting patients? *(choose all that apply)*

- Paper chart flags or electronic pop-ups
- Standing orders for non-clinicians
- CT/GC testing integrated into non-routine visits
- Drop-in visit option
- Fast-track (or “express”) STD testing option
- Retesting reminders

**Resources**

- California Department of Public Health STD Control Branch
  - [http://std.ca.gov](http://std.ca.gov)
- Link to Guidelines for Retesting:
  - Best Practices for Prevention and Early Detection of Reinfections
- California STD/HIV Prevention Training Center (CA PTC)
  - [http://www.cadphtraining.org](http://www.cadphtraining.org)
Resources:  [www.InTOUCH4Health.org](http://www.InTOUCH4Health.org)

Resources
- InTOUCH Clinic Resources  
  - Links to templates for customizable CT and GC patient fact sheets
  - Links to screening, treatment, and partner management guidelines.
- Coming soon:
  - Link to Ordering Reminder Message Postcards and Flip Cards
  - Link to printable CT/GC Risk Assessment Tool
- For **California providers only** who wish to utilize the InTOUCH4Health automated text/email retest reminder system, please send your request to info@intouch4health.org.

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