Reinfection with Gonorrhea or Chlamydia after Partner Treatment with Patient-Delivered Partner Therapy

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BACKGROUND

- Patient-delivered partner therapy (PDPT) has been associated with decreased risk of reinfection with gonorrhea (GC) and chlamydial infection (CT) in individual-level randomized controlled trials.
- In the trials, PDPT was more effective in preventing recurrent GC than in preventing recurrent CT.
- PDPT use in WA State is many fold higher than in other parts of the U.S.
- We evaluated the impact of EPT on the risk of recurrent GC and CT at the population level.

METHODS

- Washington State was the site of a community randomized trial of expedited partner therapy (EPT) from 2007-2010.
- The intervention included provision of free PDPT partner packs via medical providers, pharmacies, and health departments for heterosexual men and women diagnosed with CT or GC.
- After 2010, health departments around Washington State continued to make free PDPT available for use by medical providers.
- Cases reported with CT or GC were interviewed for partner services (PS) if referred by PS by a provider or randomly sampled for interview.
- Ascertainment of PDPT use was determined via patient interviews.
- Reinfection was defined as a subsequent reported infection with the same pathogen >30 days after the initial diagnosis.
- We examined the relationship of PDPT treatment of >1 partner and reinfection with gonorrhea (GC) and chlamydia (CT) in individual-level population, somewhat limiting the generalizability of our results.

RESULTS

- 127,890 cases of CT and GC were reported among heterosexual men and women from 2007-2012.
- Of these, 39,207 (30.7%) were interviewed, including 35,056 CT cases and 4,667 GC cases.

Figure 1: Cumulative percent of CT and GC cases reported with a recurrent infection within 3, 6, and 12 months

RESULTS SUMMARY

- Reinfection within 12 months occurred among 10.6% of CT cases and 5.1% of GC cases who were interviewed.
- In multivariate analyses, the risk of reinfection was not associated with PDPT use when all CT and GC cases were included in infection-specific models.
- However, in a model including cases with only GC, persons who received PDPT were 35% less likely to have recurrent GC within 12 months.

LIMITATIONS

- PDPT use is based on patient report, and may be overestimated if partners did not use the PDPT medication(s).
- Patients referred by providers for PS are likely to be a higher risk population, somewhat limiting the generalizability of our results.

CONCLUSIONS

- These results provide some support for the effectiveness of PDPT in preventing recurrent gonorrhea among heterosexuals in Washington State.
- We did not find evidence for the effectiveness of PDPT in preventing recurrent chlamydial infection.