

Pregnancy and contraceptive use among young women who inject drugs in a HCV vaccine preparedness study

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Introduction

Background

- Efficacy trials of candidate HCV vaccines will require recruitment of large numbers of HCV-uninfected people who inject drugs.
- Women who inject drugs (WWID) are at higher risk of HCV infection and have elevated rates of unplanned pregnancies compared to the general population.
- Pregnancy is an exclusion criterion for vaccine trials and women recruited would be required to use contraception. Long-acting reversible contraception (intra-uterine devices and hormonal implants) methods are considered the most effective as they are not user dependent.
- However, little is known about the risk of unplanned pregnancy among WWID, their future fertility plans nor their use of effective contraception.

Aims

- The current study examined among WWID their
- reproductive history
 - pregnancy incidence
 - reproductive intention
 - use of long-acting reversible contraception (LARC).

Results

Baseline demographics, drug use & sexual behaviour

	n=33 (%)
Median age, years (range)	25 (16-37)
Caucasian/Anglo-Saxon	26 (79)
Heterosexual	25 (76)
Education ≤10 years	18 (55)
Unstable housing	4 (12)
Time since 1 st injection, years (range)	4 (<1-17)
Main drug injected last 6 months, heroin	14 (42)
Main drug injected last 6 months, MA	13 (33)
Daily injecting last 6 months	10 (30)
Receptive syringe sharing last 6 months	8 (25)
≥1 new sexual partner last 12 months	17 (52)
≥3 partners last 12 months	11 (33)
Ever been paid for sex	8 (24)

HCV acquisition

	n=33 (%)
Incident HCV infection during follow-up	11 (33)

Reproductive history

	n=33 (%)
≥1 prior pregnancy	27 (82)
Median lifetime pregnancies, number (range)	3 (1-9)
Median lifetime live births, number (range)	1 (0-6)

Results

Pregnancy intention

- Twenty women (61%) indicated future pregnancy intention during the study.
- Intention was unrelated to pregnancy – while 8/16 (50%) women reporting pregnancy had previously indicated future intent, 8/16 (50%) did not (p=0.226).

Long-acting reversible contraception (LARC)

- Use of LARC methods was rare.
- Four women (12%) reported implant use during the study period either to prevent (n=2) or to delay (n=2) pregnancy.
- Three women (9%) reported intra-uterine device (IUD) use to prevent (n=2) or delay (n=1) pregnancy.

HCV and pregnancy

- One out of 11 women who acquired HCV during follow-up reported LARC (implant) use.
- Six out of 11 women who acquired HCV infection reported one pregnancy each and two gave birth following diagnosis.

Methods

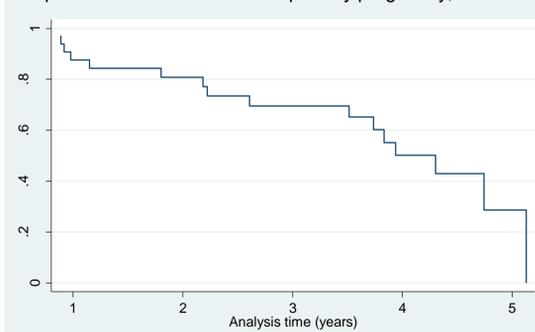
- The Hepatitis C Incidence & Transmission Study – community (HITS-c) was a prospective observational study of HCV antibody negative PWID.
- Potential participants were identified via incentivised peer referral and targeted outreach sampling in six neighbourhoods across three Sydney regions between November 2008 and November 2013.
- Participants completed quarterly follow-up visits with pregnancy related outcomes assessed and documented annually.
- Forty-four (23%) of the 188 participants enrolled in HITS-c were women. Of the 44 women, 33 (75%) completed ≥1 annual pregnancy-related follow-up assessment.
- Primary pregnancy incidence was estimated using the person-time method where first pregnancy reported was divided by total number of women years of observation, calculated from the date of baseline to the date of the first annual visit where a pregnancy was reported (cases) or the date of last follow-up (non-cases).

Results

Primary pregnancy incidence

- Sixteen women (48%) reported at least one pregnancy during the five year follow-up period, a rate of 17.8/100 women years (95% CI 10.9-29.0).
- Ten women reported one pregnancy, three women reported two pregnancies and three reported three pregnancies.

Kaplan–Meier survival curve of primary pregnancy, 2008-2013

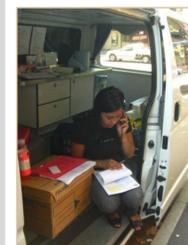


Live births

- Ten women (30%) gave birth during the study.

Conclusions

- Our self-reported pregnancy rate is over twice that reported among 508 WWID enrolled in the Vancouver Injection Drug User Study 1997-2001 (6.46/100py; Weber et al 2003).
- Along with the fact that one-in-three women gave birth during the course of the study, our findings highlight a need to consider the impact of pregnancy on study power in sample size estimates for trials involving WWID.
- The very low prevalence of LARC use limited analysis but results suggest this group may require support to achieve consistent use.
- Results are also relevant to new HCV treatments given most direct-acting antivirals will require contraception use throughout treatment with regimens containing ribavirin also requiring contraception for 6 months post-treatment.



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