

Partner notification for sexually transmitted infections. Why can't we talk about it?

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Abstract

Aim Primary care practitioners need practical guidance on how to best manage partner notification for bacterial sexually transmitted infections. This paper reviews published literature on partner notification to determine whether there is good evidence to support the introduction of patient delivered partner therapy for the management of bacterial STI in New Zealand.

Method A search of CINAHL, Medline and Cochrane databases was carried out using the search terms partner notification, contact tracing, sexually transmitted infections, sexually transmitted diseases, chlamydia, gonorrhoea and trichomoniasis. After review of the abstracts the identified papers were included in the review if they addressed the research question.

Results Most people diagnosed with a bacterial STI would prefer to notify their sexual contacts themselves; therefore health practitioners need to feel competent to discuss and facilitate this process for their patients. Clinicians and patients are prepared to consider the use of patient delivered partner therapy with reservations however there is little evidence to support the effectiveness of this intervention even if it were legal under current New Zealand prescribing law.

Conclusion Training of practice nurses, the use of partner notification cards and implementation of systems to improve documentation of management of index cases are all practical ways of achieving better partner notification outcomes in primary care within existing legal frameworks.

New Zealand has a major problem with bacterial sexually transmitted infections (STI) such as chlamydia and gonorrhoea and has much higher notification rates than other similar countries, which has serious implications for use of health resources.

The estimated national chlamydia and gonorrhoea prevalence rates for New Zealand in 2010 (782 per 100,000 population) were several times higher than those most recently reported for Australia and the United Kingdom.¹ Partner notification (contact tracing) is an important component of the management of bacterial STI however, many general practitioners (GPs) have had little training in partner notification and many feel unsure about what is best clinical practice.² This needs addressing as surveillance data confirms the majority of bacterial STIs are managed in primary care settings.

A recent editorial in an Australian sexual health journal called for better guidelines on the management of partner notification.³ There is no doubt that practical guidance is required to enable GPs and other non-specialist sexual health practitioners to manage

partner notification in a manner that produces reasonable outcomes but also that fits within the time and cost restraints of running a busy practice.

The use of patient delivered partner therapy has been proposed as one possible solution to improving the effectiveness of partner notification. Patient delivered partner therapy is the practice of treating the sex partners of persons with bacterial STI without an intervening medical evaluation or professional prevention counselling⁴ and is used on occasion by GPs and other health professionals despite concerns about its legality.²

The aim of this paper is to review published literature on partner notification to determine what is effective and whether there is good evidence to support the introduction of patient delivered partner therapy for the management of bacterial STI in New Zealand. A search of CINAHL, Medline and Cochrane databases for published literature was carried out using the search terms partner notification, contact tracing, sexually transmitted infections, sexually transmitted diseases, chlamydia, gonorrhoea and trichomoniasis and the main findings are discussed below.

Potential risks and benefits of partner notification

Partner notification or contact tracing is the process of identifying the relevant contacts of a person with an infectious disease (index patient) and ensuring that they are aware of their exposure.⁵ There are potential theoretical benefits to be gained from effective partner notification not only for the infected individual but also for their sexual networks.

These benefits include possible prevention of reinfection in the index case and for their contacts may include treatment of undiagnosed STI and prevention of possible morbidity and complications. There may be an added benefit of reducing the risk of further transmission of STI in the wider sexual networks of index cases and contacts.

The most commonly used method for partner notification is patient referral, whereby the index case has responsibility for informing sex partners of their exposure to a sexually transmitted infection.⁵ However the effectiveness of patient referral relies on index cases being willing or able to identify their sexual contacts. They must then be able to safely and effectively communicate to their sexual contacts of the requirement to seek testing and treatment and finally their notified contacts must be willing and able to access health services for the required testing and treatment.

Sexually transmitted infections such as chlamydia are associated with social stigma and the diagnosis may result in guilt or fear of losing a partner as well as concern about emotional or physical violence as a result of notification.⁶

How could the effectiveness of partner notification be improved?

New Zealand data suggests that partner notification may not be well managed in primary care settings. A recent Waikato audit of chlamydia management in 19 different health-care sites found that most chlamydia cases had only limited documentation in the notes regarding partner notification. There appeared to be limited patient follow-up and documented outcomes of partner notification were notably lower than that reported by UK settings where partner notification is most often undertaken by specialist sexual health advisers.⁷ However, this should not be

interpreted to conclude that partner notification is best managed in a genitourinary (GU) or specialist sexual health clinic setting.

A randomised controlled trial in the UK found that with a little training GP practice nurses could manage partner notification for chlamydia as well as GU clinic health advisers.⁸ Overall 45% of possible contacts in the trial were considered treated; 65% in the practice nurse arm and 52% of those referred to the GU clinic. Although it is likely that the delay in management caused by referring index cases to the GU clinic will have impacted on the results, this study illustrates that partner notification can be easily managed in primary care and that outcomes are better than if cases are referred to another provider even if the other provider may have more expertise.

Patient delivered partner therapy is an intervention that has the potential of reducing STI reinfection rates in index cases by removing the potential barrier of a consultation before their sexual contacts can be treated. However as with patient referral, there is still a requirement for the index case to inform their contacts of their possible exposure to an STI and then they must be willing to deliver them medication. A possible disadvantage of patient delivered partner therapy is that the recipient may suffer an adverse reaction to the antibiotics.

Further because no clinical consultation has occurred, the diagnosis of other STIs may be missed⁹ or there may be inadequate treatment of complicated infections such as pelvic inflammatory disease. These risks could theoretically be reduced by the provision of appropriate printed information to be delivered along with the medication but this is based on the presumption the information will be read and understood and of course there is no guarantee the medication will be either delivered or taken.

Whilst the concept of patient delivered partner therapy has become increasingly acceptable internationally, it is not legal in New Zealand for a medical practitioner to prescribe medication unless it is for the treatment of a patient under his or her care (Section 39, NZ Medicines Regulation Act 1984).¹⁰ Although anecdotally it would appear that this practice is not uncommon, the evidence regarding the effectiveness and acceptability of patient delivered partner therapy needs to be critically appraised before a reasonable case could be made to revise current regulations regarding the prescription of medication.

In New Zealand this intervention could not be used for management of contacts of gonorrhoea as the prevalence of ciprofloxacin resistant *Neisseria gonorrhoeae* is widespread and there is no effective oral treatment for ciprofloxacin resistant gonorrhoea available in New Zealand.

How effective is patient delivered partner therapy at improving outcomes of partner notification?

Patient delivered partner therapy and similar interventions have been trialled in the US as a means of better enabling the notification and treatment of sexual contacts of bacterial STI. In 2001, SB 648 amended California law to allow patient delivered partner therapy for chlamydia, and in January 2007, AB2280 further amended the law to allow PDPT for gonorrhoea.¹¹

The law allows physicians to prescribe and nurse practitioners, physician assistants, and certified nurse-midwives to dispense antibiotic therapy for the male and female

sex partners of individuals infected with *Chlamydia trachomatis* or *Neisseria gonorrhoeae*, even if they have not been able to perform an examination of the patient's partner(s). However data from 4 well conducted randomised controlled trials and 2 uncontrolled comparative trials in the US fail to make a case for the effectiveness of patient delivered partner therapy when objective outcomes such as re-infection rates in index cases are examined.¹²⁻¹⁷

Although 2 of the randomised controlled trials reported better outcomes for patient delivered partner therapy, such as lower re-infection rates in index cases and index cases being more likely to report their contacts had been treated; these findings need to be placed in context.^{12,13} One of these studies (with 3 intervention arms) found that patient delivered partner therapy was more effective than standard patient referral at reducing re-infection rates for chlamydia and gonorrhoea in index cases; however the most effective intervention at preventing re-infection was giving the index case a tear-out card with information on the diagnosed STI to give to sexual contacts.¹² In the other study, patient delivered partner therapy was more effective at reducing re-infection rates with chlamydia and gonorrhoea than standard patient referral, however the difference was only statistically significant for gonorrhoea.¹³ The participants were also a very select group comprising only 10% of total notifications for chlamydia and gonorrhoea in King County Washington during the study period and of those eligible to participate, one third declined and about half had partners who had already been treated.

Two other randomised controlled trials comparing patient delivered partner therapy with standard patient referral for women diagnosed with trichomoniasis and chlamydia respectively,^{14,15} did not find significant differences in rates of re-infection in index cases, although the former found that women were more likely to report that their partners had been treated if they were in the patient delivered partner therapy treatment arm.¹⁴

Two systematic reviews of effectiveness of partner notification strategies have also not found patient delivered partner therapy to be any more effective than other methods of partner notification for bacterial STI, however simple additional measures such as provision of printed material, verbal nurse-given education or counselling by lay-workers were found to produce small increments in numbers of sexual contacts treated.^{18,19}

What do health practitioners think about patient delivered partner therapy?

An Australian study conducted an in-depth telephone survey of GPs from both rural and urban regions.² The GPs were asked about current practice and views about partner notification, perceived barriers and useful supports, previous use of and views regarding patient delivered partner therapy.

Many cited barriers to effective partner notification including lack of time and staff, lack of contact details for sexual contacts, uncertainty about legal issues of contacting partners and whether this constitutes breach of patient confidentiality and feeling both personally uncomfortable and inadequately trained to contact someone who is not their patient. They had mixed views on the use of patient delivered partner therapy.

Many felt concerned that it was not best clinical practice but many also felt that it was better than nothing. They felt partner notification would be easier to manage if there were clear clinical guidelines, a legal framework around partner notification, a formal chlamydia screening programme and financial incentives and education and practical support for health professionals. They also felt it was important to raise awareness of chlamydia in the community, in particular amongst young people.

Another primary care study in the United Kingdom (UK) looked at practitioner attitudes towards a novel form of partner notification (“accelerated partner therapy”) whereby sex contacts of index cases had the option of either a telephone consultation with a health practitioner or attending a pharmacy for consultation before antibiotics were dispensed. Generally the participants were positive about either alternative although they preferred the former option.²⁰

A separate UK study of non GU health practitioners examined attitudes of pharmacists, nurses and doctors towards novel methods of managing partner notification for sexual contacts of women diagnosed with chlamydia and found that the most popular novel method (chosen by 30% of doctors and 23% of nurses), was for the index case to deliver medication plus a postal testing kit to their sexual contacts.²¹ Standard patient referral scored very low with only 8% of doctors and 3% of nurses choosing this option. Twenty-five percent of doctors had already used patient delivered partner therapy in their clinical practice as a means of managing partner notification. Pharmacists were particularly receptive to novel methods of partner notification indicating willingness to supply free postal testing kits (98%), offer testing (75%), treatment services (100%) and give women medication for partners (80%).

In contrast, when specialist GU physicians and health advisors were surveyed; the findings were that although 50% of GU physicians had used patient delivered partner therapy in the past and were more willing to consider its use than health advisors, nearly a third of practitioners strongly objected to patient delivered partner therapy mainly because of concerns about possible adverse consequences in the recipients and concerns about the legal status of patient delivered partner therapy.²²

In summary, it appears that health practitioners have mixed views on patient delivered partner therapy but most would be prepared to use it. The main concerns appear to be the legal status of such a practice and possible adverse consequences in recipients of patient delivered partner therapy such as missed infections, drug allergies and antibiotic resistance. These concerns are somewhat allayed if sexual contacts have a telephone or pharmacy consultation before antibiotics are dispensed.

Management of partner notification is an acknowledged area of difficulty for primary care practitioners, often poorly documented and complicated because of lack of clear guidelines and legal framework.

What do patients think of patient delivered partner therapy?

Shivisankar et al surveyed 500 UK GU clinic attendees about various issues including the acceptability of various methods of partner notification.²³ They found that traditional patient referral was more popular for participants than patient delivered partner therapy but the difference was not statistically significant.

In another UK study, Sutcliffe et al interviewed 38 GU clinic attendees regarding 2 possible approaches for managing partner notification, which they termed “accelerated partner therapy” as patient delivered partner therapy is not legal in the UK.²⁴ Participants were all either recently diagnosed with an acute STI or were contacts of people with an STI. They were given the hypothetical option for their contacts of either a telephone consultation with a GU clinic staff member followed by delivery of medication by the index case (option A) or for contacts to be referred for a consultation and treatment at a nominated pharmacy(option B). Both options were considered acceptable approaches by most participants but most also wanted the opportunity to have spoken to their partners first before they were spoken to by a health professional.

Many felt they would rather have advice from a health professional from a GU clinic than from a pharmacist. Those aged under- 30 were more likely to prefer face to face advice from a GU health professional and having “proper tests”. A US study of STD clinic attendees had similar findings. When asked about preferences for partner notification, only 20% of participants (15.5% of males and 23.5% of females) preferred to “bring the medicine home for my partner(s) to take,” and of the 407 patients who tested positive for chlamydia, only 17.0% preferred the option of patient delivered partner therapy.²⁵

Other research has found patient delivered partner therapy to be generally acceptable to consumers however this depends on whether one is on the giving or the receiving end of the medication. Goldsworthy et al recruited 505 individuals to complete questionnaires regarding either willingness to deliver medication to sexual contacts or willingness for partner use, i.e. to receive medication from a sexual contact.²⁶

Whilst a majority of participants expressed willingness to engage in both patient-delivery (83%) and partner-use (69%), they found it more acceptable to deliver medication than to receive it. The facilitators most highly correlated with uptake for both patient-delivery and partner-use were: having the medicine sealed, having it in an official package, having instructions provided, having a note from the health care provider, and the presence or absence of partner trust.

In another study exploring the acceptability of patient delivered partner therapy , Macbride et al recruited 64 patients from an urban US STI clinic with the aim of developing and evaluating instructional and packaging materials for patient-delivered partner therapy.²⁷ The analysis was repeated before and after participants had seen the patient delivered partner therapy materials. Prior to viewing the materials participants were largely willing (87.5%) to deliver medication to a sex partner(s), but fewer participants were willing to receive medication from a sex partner (57%).

Lack of trust in a partner and the context of the relationship (e.g. casual partner) were the primary reasons for being unwilling to receive medication from a partner. Participants also cited the need for testing and treatment by a healthcare provider before receiving treatment. After they had seen the materials participants were more likely to be willing to receive patient delivered partner therapy (89%) but were less willing to deliver patient delivered partner therapy (48%). Among those who said they would decline the medicine, all cited the need to seek services from a healthcare provider as a primary reason.

However are these study results applicable to a New Zealand context? There is some unpublished New Zealand data regarding patient preferences regarding partner notification. In a survey of 391 Auckland Sexual Health Clinic attendees, the most popular method for notifying sexual contacts was to “talk to them in person”. The majority of participants would also prefer to be told in person if they had been in contact with someone with an STI.

The least popular methods to notify sexual contacts were “send a letter” and “send an anonymous text, email or e card” Only 14% of respondents said they would like the clinic to notify their sexual contacts on their behalf. Most indicated that talking with a doctor or nurse (60%) about how to talk with their partner(s) would make it easier for them to do this. (Jenkins R, unpublished data 2011). In another Auckland study, 2 focus groups with young men and women were conducted as preparation for a pilot project for opportunistic chlamydia testing in primary care.

Both male and female participants felt that ideally partners should be notified of their exposure to an STI by the index case and that discussion of partner notification could be aided by a small card with information about the STI and contact details of health services. (They were shown contact cards similar to those used in the Kissinger trial)¹² While they considered it was possible to give antibiotics to a partner they felt that this was best done by a healthcare professional (unpublished data 2011).

In summary, these studies all highlight the complexities of issues that need to be considered in partner notification. Most people appear to be aware of their responsibilities to notify sexual contacts and would rather do it themselves than have a health professional do it for them. Although many would be willing to deliver medication to their contacts; paradoxically they would have concerns about their own health if they were to be delivered medication from a sexual contact and young people in particular would prefer to seek independent advice from a health professional.

While pharmacists are willing to provide medication, most people would prefer to speak to a clinician rather than a pharmacist about sexual health issues. The provision of printed information to be given with medication appears to reduce concerns for recipients but makes people less willing to deliver medication. This is perhaps because the provision of accurate information about STIs does nothing to reduce the stigma and concerns associated with an STI diagnosis for the index case and doesn't make it any easier to raise an awkward subject.

Conclusion

New Zealand has a major problem with bacterial STI and effective partner notification is an important part of managing this significant health problem. Research has found that most people diagnosed with a bacterial STI would prefer to notify their sexual contacts themselves; therefore health practitioners need to feel competent to discuss and facilitate this process for their patients. Whilst patient delivered partner therapy appears to result in more contacts being notified and treated than standard methods of partner notification, this finding cannot be readily verified.

Patient delivered partner therapy is not the most effective intervention at reducing re-infection rates in index cases, therefore a case cannot be made to change current New

Zealand prescribing laws and the use of patient delivered partner therapy should be reserved for only a minority of situations.

Guidance from the Medical Council of New Zealand would be helpful to advise practitioners in what circumstances it would be acceptable to use patient delivered partner therapy and what precautions need to be taken to reduce the risk. The development and use of partner notification cards of a similar design to those used in the Kissinger trial should be encouraged as they have been shown to reduce re-infection rates in index cases.¹² Training of nurses is an effective method of managing partner notification⁸ therefore nursing staff should be utilised in health care settings for the follow-up of all patients diagnosed with bacterial STIs.

Partner notification activities need to be accompanied by full documentation in medical records in order to properly audit partner notification outcomes. Finally, improving knowledge and awareness about STIs in the community is important to reduce the stigma associated with an STI diagnosis and will help normalise conversations about STIs for health practitioners and their patients.

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