

RESEARCHING THE SEXUAL HEALTH NURSE PRACTITIONER SCOPE OF PRACTICE: A BLUEPRINT FOR AUTONOMY

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Key words: nurse practitioner, sexual health nurse practitioner, scope of practice, clinical protocols, health service, sexual health outreach

ABSTRACT

The nurse practitioner role substantially extends the career path for clinical nurses and recognises and values clinical nursing skills. This new type and level of health service promotes the use of a nursing model of care, demonstrates a high level of autonomy, and utilises expert nursing skills in the diagnosis and treatment of complex problems in the patient, the carer, and the family. This paper reports on the investigation of a sexual health nurse practitioner trial of practice. The study outcomes included findings that support the feasibility of the role in terms of improved patient outcomes and the development of clinical protocols that define the parameters of the scope of practice for the sexual health nurse practitioner.

INTRODUCTION

The Australian Capital Territory (ACT) Nurse Practitioner Project was conducted over a two-year period from 2000 to 2002 and followed similar undertakings in NSW (NSW Health Department 1995), Victoria (Victorian Government Department of Human Services 2000), and South Australia (SA Department of Human Services 1999). The ACT project was initiated by the Nurses Registration Board of the ACT in collaboration with the ACT Department of Health and Community Care. The project was conducted by a steering committee with a broad range of membership from professional and consumer health care groups. A major part of the project was the ACT Nurse Practitioner Trial. The aim of the trial was to conduct a trial of practice for four nurse practitioner (NP) models to inform the committee on the feasibility of the role in health service delivery in the ACT, the impact of the role on selected outcomes, and to define the parameters of practice for selected models. The definition of NP used for the ACT trial was:

A nurse practitioner is a registered nurse that works within a multidisciplinary team. The role includes extended practice in the autonomous assessment and management of patients using nursing knowledge and skills gained through postgraduate education and clinical experience in a specific area of nursing. The role may include but is not limited to the direct referral of patients to other health care professionals, the prescribing of a designated and agreed list of medications, and the ordering of a designated and agreed list of diagnostic investigations. (ACT Government 2002).

This paper will report on one of the models investigated in the trial - the sexual health NP model. The sexual health NP was based at the Canberra Sexual Health Centre (CSHC), located at The Canberra Hospital in the

ACT. The CSHC is the principal provider of sexual health services in the ACT and the surrounding region.

BACKGROUND

A review of the international literature indicates that while there is a strong body of research into NP service in general (eg Horrocks et al 2002; Kinnersley et al 2000; Venning et al 2000; Sakr et al 1999; Brown and Grimes 1995), there is scant research into sexual health NP models. Advanced practice models in sexual health nursing have been reported in the United States of America (Lewis and Miramontes 1999; Aiken et al 1993; Gifford 1993) and the United Kingdom (Bulaitis 2001; Liple 1999; Allen 1998; Friend 1998; Rowe 1994). However, each of these models deals only with a discrete aspect of sexual health care such as HIV education, counselling, or contraception.

There is limited literature on advanced practice in sexual health nursing in Australia. Two reports were located (Peckett 1997; Anderson et al 1994) that described advanced practice models that are narrow in scope without the legitimised extended practice necessary for the autonomy of a NP level of service.

A noted exception to the above is the Kirketon Road sexual health NP model in New South Wales described by Hooke et al (2001). The authors, in reporting on the evaluation study of this model, stated that the NPs in this clinic achieved a 95% agreement rating on accuracy of patient assessment and clinical management and overall achieved the standards for best practice. Furthermore, clinical outcomes were achieved in 97.2% of cases. However, the Kirketon Road model did not include the management of symptomatic patients nor did the NP deliver an outreach service. Both of these were included in the planning of the ACT model that was informed by the Kirketon Road model.

Sexual health clinics have traditionally been the primary means of delivering sexual health services to the community. These clinics, whilst an essential part of sexual health services, are insufficient in dealing with many of the broader issues. The majority of sexually transmitted infections (STIs) have no symptoms (Anderson 1999) and the social, cultural and economic influences of STI epidemiology mean that many individuals, especially those in high-risk groups, do not access sexual health screening or treatment facilities (O'Connor et al 1998). For these reasons provision of sexual health services out of a clinical setting (outreach) is essential and has been demonstrably successful elsewhere (Morton et al 1999; Wilson 1999; O'Connor et al 1998).

An outreach service, by its very nature, demands autonomous decision-making, a hallmark of a NP level of service (Mick and Ackerman 2000). Furthermore, a sexual health NP model that includes an outreach context has the potential to achieve positive health outcomes for

patients through the opportunistic management of sexual health issues. These factors contributed to the design and testing of the sexual health NP model for the ACT trial.

THE RESEARCH PROCESS

The aim of the study was to investigate: the feasibility of the sexual health NP role in health service delivery in the ACT; the impact of the role on selected outcomes; and, to define the parameters of practice for the model. Ethics approval was gained from the ACT Human Research Ethics Committee.

Data collection was conducted over a 10-month period and the NP was a co-researcher in the trial. A CSHC clinical support team comprising the medical director, the clinical nurse consultant and the senior sexual health registrar provided clinical teaching and supervision. This strategy ensured patient safety whilst enabling the NP to extend her skills and engage in experiential clinical learning opportunities.

Patient recruitment

Patients were recruited through the CSHC and on outreach activities. All patients who presented to the CSHC were triaged by the director and the clinical nurse consultant to either i) a medical specialist, ii) the nurse practitioner, or iii) a sexual health nurse. The NP then provided her group with information about the trial and invited them to participate. All patients recruited in the outreach setting were from sex-on-premise venues and were commercial sex industry workers. Any patients who declined in either setting were provided with the standard level of nursing care.

Data collection

The data collection tools were adapted from the NSW Nurse Practitioner Project (NSW Health Department 1995). Data collection included:

- *Diagnostic and demographic details of the patients seen by the nurse practitioner*

Analysis of these data determined the pattern of service for the model and informed the patterns of practice for development of clinical protocols.

- *Consultation details and treatment, investigative, and referral decisions made by the NP*

Analysis of these data informed the specific details for the clinical protocols. These in turn defined the parameters of autonomous practice for the NP.

- *Data relating to the clinical team's review of the NP's clinical decisions*

Analysis of these data provided information on the safety of the NP service and in turn also informed the development of the clinical protocols for the model.

- *Patient outcomes*

This related to the safety and effectiveness of the NP level of service.

- *Survey of patients who received NP service*

Analysis of these data provided a consumer perspective of the service.

- *Survey of health professionals related to the clinical service*

The health professionals survey informed the feasibility of the NP role as a new level within existing health service.

RESULTS

This trial provided information about the impact of this level of service on sexual health outcomes in the ACT and surrounding region and defined the scope of practice for this model. The results will be reported in terms of the patients, their health care outcomes and satisfaction with the health service, and the pattern of NP service.

The patients

Patient demographics

Seventy-six patients were enrolled in the trial. These patients generated 79 episodes of care totalling 134 visits with an average of 1.8 visits per episode. An episode of care was deemed to be the duration of care for a particular presenting issue from when the patient first saw the NP until treatment by the NP for that issue ceased. One patient declined to participate. A number of potential recruits in the outreach venues were not asked to participate because of ethical implications related to language barriers and informed consent. In these cases there was no access to a language-relevant interpreter.

The age of patients ranged from 18 to 59. Most patients (82%) were younger than 39. This represents a group in their reproductive years for which the implications of morbidity from the transmission of STIs, particularly chlamydia, are a concern.

There were 31 women (41%) and 45 men (59%) enrolled in the trial. Commercial sex industry workers were targeted in the outreach setting; consequently women represented the majority of episodes of care (86%).

Patient outcomes

Data on patient outcomes were collected for 79 episodes of care. The patient outcomes were reviewed for each episode of care in collaboration with the clinical support team. This review revealed that expected outcomes for all identified problems for the patient were achieved in 100% of the cases followed up. Further analysis revealed that patient outcomes conformed to one of three elements of service described below.

Access to sexual health services

A substantial number of outreach patients stated that they would not have attended either CSHC or another health care facility for their sexual health needs. The reasons given included: sex industry workers living on brothel premises and having no transport; language barriers; drug and alcohol issues; and mental health issues. Three commercial sex industry workers who were screened all had a positive result for chlamydia, were still providing sexual services to their clients, and had at least two 'regular' clients with whom they had unprotected sex.

Successful treatment or management of an STI or related genito-urinary condition

There was resolution of symptoms for 100% of patients presenting with genital lumps, sores, rashes, and vaginal or urethral discharge. All patients diagnosed with a treatable STI were given appropriate treatment and where possible a test of cure was carried out to ensure that the antibiotic initiated was effective. For patients with a genito-urinary condition there was resolution of urinary and/or vulvo-vaginal symptoms post initiation of antibiotic therapy or other management strategies.

On some occasions cryotherapy was used for the management of STIs. There were six out of 11 patients with either genital warts or molluscum contagiosum for whom cryotherapy was initiated as a mode of treatment. These patients had either a reduction or a resolution of their skin lesions as documented on their outcome data sheet.

Health maintenance and health promotion

Currency of sexual health screening for patients was an important outcome. This currency is essential in the outreach context, in that it is a breach of the ACT Prostitution Act (1992 Section 16) to provide a sexual service if infected with a notifiable STI. This outcome is also important considering the asymptomatic nature of STIs and that screening is the cornerstone of STI control in terms of public health.

The primary prevention strategy identified in the patient outcomes data was the uptake of vaccination against hepatitis B. Other prevention strategies were education around negotiating safer sex practices; the use of condoms, dams, and lubricant; smoking cessation; safer injecting; and drug and alcohol use; all designed to reduce the communicable diseases burden.

Patient satisfaction

Surveys were used to obtain a customer focus on the NP service. Survey questions related to knowledge of the NP service, satisfaction with the service, and willingness to see a NP again. Extended answers were invited on what the participant liked, and did not like about the service. These surveys were anonymous and returned directly to the chief investigator of the ACT trial. There were 23

surveys distributed between September and November 2001 of which 14 were returned.

Analysis of the survey data indicated that the NP level of service was well accepted by patients. All patients agreed they would see a NP again and all either strongly agreed (12) or agreed (2) with the statement: 'I was satisfied with the consultation/s provided by the NP'. All 14 patients were satisfied with the information provided. The majority claimed an improvement in their health problem, three indicated that this question was not applicable to them, and two were undecided. Comments from the patients focused on the 'user-friendliness', non-judgemental attitude, and quality of the NP level of service.

The sexual health NP service

There was a difference between the clinic and outreach venues in the patients' presenting issues, with clinic-based patients more likely to be symptomatic (30%) than those at an outreach venue (20%). The primary focus of the outreach clinic was sexual health screening and addressing concerns about contracting an STI. These accounted for 54% of the presenting issues.

The NP provided health service to the target groups identified in strategic sexual health documents (ACT Department of Health, Housing and Community Care 1998; Commonwealth Department of Health and Aged Care 1998). The patients from these at-risk groups included commercial sex industry workers (15), clients of commercial sex industry workers (7), men who have sex with men (3), and intravenous drug users (IVDU) (6).

The average length of a patient visit was 37 minutes. The three most common presenting issues for patients were:

- requests for sexual health screening (33%);
- concerns about being at risk of acquiring an STI (29%);
- symptoms such as vaginal or urethral discharge, genital blisters, lumps, or rashes (25%).

The remaining consultations were divided among: treatment revision; requests for medication, including vaccination; psychosexual issues; and other issues unrelated to sexual health.

Sexually transmitted infections that were diagnosed, treated, and managed included chlamydia, gonorrhoea, genital warts, genital herpes, molluscum contagiosum, and pubic lice. Three patients with chlamydia infections were sex workers who spoke no English and were screened on outreach brothel visits with the assistance of an interpreter. One had vaginal discharge and was treated empirically at the venue while the other two who were asymptomatic were treated the following week after the pathology results were available.

The genito-urinary conditions that were managed included vulvo-vaginal candidiasis, bacterial vaginosis, urinary tract infection, non-specific urethritis, and tinea cruris. Skin conditions such as eczema and dermatitis were also managed.

Recommending medication

Fifty-nine percent of consultations resulted in the initiation of medications. These medications were most commonly STI related antibiotics, anti-mitotics, immunomodifiers and antivirals. Additionally genito-urinary related preparations were prescribed such as antifungal preparations for vulvo-vaginal candidiasis and antibiotics for bacterial vaginosis and urinary tract infection.

Hepatitis A and B vaccine were also a feature of clinical service in this model with hepatitis B vaccine being the most frequently initiated medication.

Hormonal contraception was a feature of this model where it represented 11% of the medication initiated. There was evidence of a demand for emergency contraception, the oral contraceptive pill, and medroxyprogesterone acetate injections in relatively equal numbers.

The medication formulary for the model was developed from these data (see table 1).

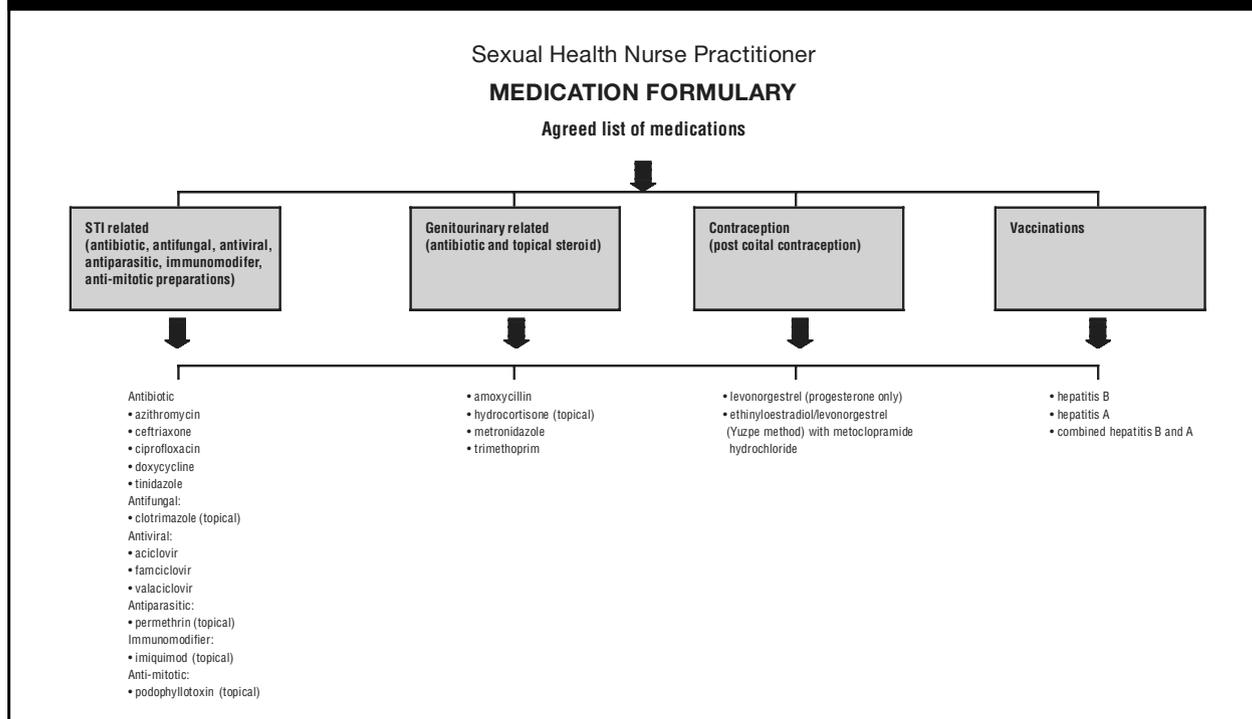
Initiating diagnostic pathology

Seventy-six percent of the patients in the trial had some type of pathology generated and there were 282 diagnostic investigations ordered. The bulk of diagnostic pathology was to screen for STIs using microscopy, 43% and serology, 52%, for blood borne viruses. On-site microscopy was done on a number of occasions to confirm a clinical diagnosis of common STIs and genito-urinary conditions. Pap and vault smear (cytology), urinalysis, and midstream urine microscopy tests also feature in the diagnostic pathology data but in small numbers. Biochemistry and haematology were only done prior to a medical referral.

Referral patterns

There were 24 referrals initiated during this trial. Six referrals were to the sexual health social worker for psychosexual issues requiring intensive counselling, and four to the sexual health medical registrar for management of patients who were outside the NP's scope of practice. There were six referrals to general medical practitioners for either ongoing care or for management of medical issues that were not sexual health related. Other referrals were to community services providing psychosocial support such as mental health or sexual assault services.

Table 1



NP clinical reasoning skills

For the duration of the trial there were weekly, hour-long clinical review sessions with members of the clinical team. During these sessions each consultation was discussed and critically evaluated, and recommendations were made for future clinical practice. These review sessions monitored safety of practice and appropriateness of the NP's clinical decisions. They also met the clinical learning needs of the NP by providing collaborative critique and analysis of clinical management decisions and options. There were 120 clinical review forms completed with an agreement rate between the clinical team and the NP of 98%.

DISCUSSION

The analysis of data in the sexual health NP model describes the patients managed by the NP and illustrates this practice. The analysed data relating to the service was subjected to interpretive scrutiny and triangulated with the descriptions of practice from the clinical review and clinical outcomes data to develop the clinical protocols and medication formulary. This discussion section reports on this process.

One of the recommendations from the Kirketon Road study (Hooke et al 2001) was that protocols and policy be developed to guide NP practice. Clinical protocols were developed in the ACT NP Trial as a mechanism for defining and communicating the scope of practice of specific NP models. The protocols represent a general guide to appropriate practice. They are inclusive rather than prescriptive and the aim is to provide information on

which decisions can be made rather than dictate a specific form of diagnostic and treatment strategy. Whilst Hooke and her colleagues (2001) recommended the development of standing orders for a range of medications, within the scope of practice defined by the protocols and the accompanying medication formulary from this trial the NP has full prescribing rights and discretion and autonomy in practice.

The context

The results indicate that in the outreach context, the sexual health NP level of service is accessed, well accepted, and effective in both a neutral venue in Canberra's central business district and at sex-on-premise venues. The sexual health NP had the facility to reach locations and populations that do not usually access sexual health or other support services.

There is also a demonstrated role for the NP level of service in a clinic-based setting as indicated by the volume of asymptomatic screening completed and the numbers of symptomatic patients managed.

The pattern of practice and the scope of practice

As indicated by the results a sexual health NP level of service is accessible and acceptable to both sexes and a range of age groups. Of particular note is that this service was both 'youth and male friendly' and this has application for targeting these groups with an outreach strategy. Other groups who are at risk of STIs seen by the NP were commercial sex industry workers, clients of commercial sex industry workers, and intravenous drug users.

Analysis of the data revealed a pattern of practice that can be categorised into four key areas: management of i) asymptomatic screening, ii) STIs and related genito-urinary conditions, iii) contraception, and iv) opportunistic management strategies. These areas informed the clinical protocols and medication formulary that were developed to define the scope of practice for the sexual health NP model.

Whilst describing categorical areas of practice, the clinical protocols collectively define the scope of practice for the sexual health NP. These protocols extend the specialist nurse role to the NP level of clinical practice whilst also defining the boundaries of the role. That is, the clinical protocols and medication formulary are the guidelines within which the NP can provide autonomous clinical service. Each of these clinical protocols will be discussed, explicated, and schematically represented.

Asymptomatic screening

Asymptomatic screening formed the bulk (54%) of the sexual health NP episodes of care during the trial. The elements of asymptomatic screening were identified through examination and triangulation of data from the patients' presenting issues, NP diagnoses, and patient outcomes. During asymptomatic screening patients were screened for the most probable STIs, other sexual health issues within the scope of practice were managed, and referral initiated for other health or psychosocial issues.

Asymptomatic screening requires the use of specimen testing. Some of these were performed on the spot at the clinic and the hospital pathology department conducted the remainder. As demonstrated in the previous section there was a large amount of serology testing (52% of total) and microscopy (43%).

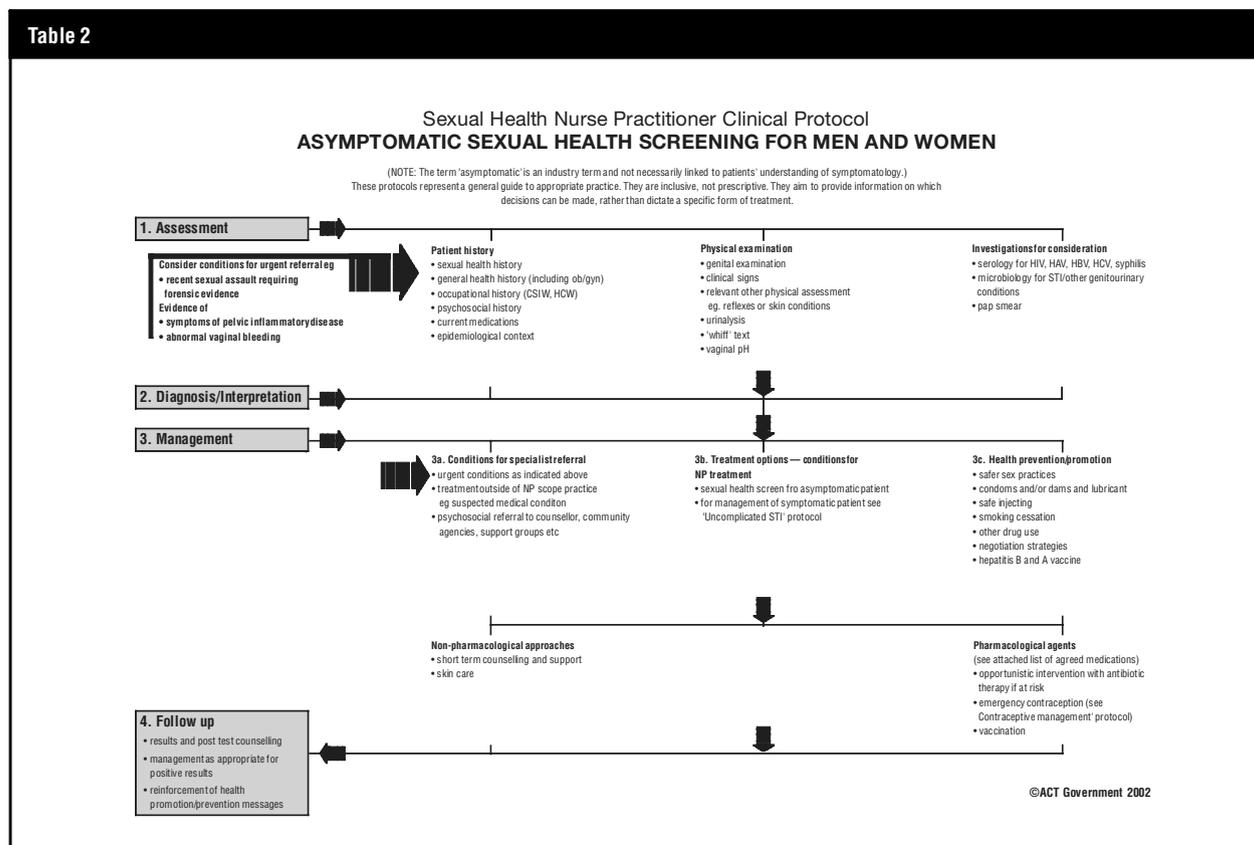
Hepatitis A and B vaccination was a feature of the NP initiated medication in asymptomatic screening. This highlights the importance of being able to initiate medication from a well-defined formulary. See table 1 for a schematic representation of the medication formulary and table 2 for the 'Asymptomatic sexual health screening for men and women' clinical protocol.

Management of uncomplicated sexually transmitted infections and related genito-urinary conditions

The management of STIs and related genito-urinary conditions was a core part of the sexual health NP service during the trial. The data relating to 'patient diagnosis' determined the STIs and related genito-urinary conditions that fell within the parameters of this model. The diagnostic pathology used in patient management was similar to but more complex than for asymptomatic screening and included additional tests like microscopic-urine and herpes serology.

The results show there were specific medications associated with STI and related genito-urinary conditions used in the trial. The use of these medications in the

Table 2



management of STIs and related conditions is an essential component of this model. The results indicate that the appropriate and safe use of these medications was achieved and there were positive patient outcomes. The medication formulary was reviewed and approved by an expert panel comprising a medical specialist (chair), a pharmacist, and a NP from the NSW trial. The members of this panel were not otherwise associated with the ACT NP Project. See table 3 for a schematic representation of the 'Management of uncomplicated sexually transmitted infections and related genito-urinary conditions' clinical protocol and table 2 for the medication formulary.

Opportunistic management strategies

A major strength of this model is the facility for opportunistic management of a range of sexual health issues in multiple settings. The portability of this model lends itself to the prevention of transmission of STIs by both screening for, and treatment of, these conditions in any number of settings.

Providing sexual services without personal protective equipment (PPE) such as condoms or dams is illegal in the ACT. Providing sexual services while infected with an STI with or without PPE is also illegal and furthermore represents a potential public health risk. Commercial sex industry workers may provide a sexual service for between three and 25 clients per day but may not have access to this knowledge for the reasons cited previously. The outreach element of this trial enabled more than

clinical treatment of individual patients; it included opportunistic education, advocacy, and increased access to health service for these groups. In addition the model facilitated collaboration with the staff and management of a range of community sex industry organisations. This collaboration ensured that relevant stakeholders and consumers were involved in the planning, implementation, and evaluation of the outreach services.

The model also has the ability to reduce the number of cases of hepatitis A and B through the opportunistic vaccination of patients. Furthermore, the initiation of hormonal contraception, particularly emergency contraception, in this way has the potential to reduce the number of unplanned pregnancies. Importantly, opportunistic intervention in this model goes beyond medication and includes health education, health promotion, and referral to other health or psychosocial services. See table 4 for a schematic representation of this clinical protocol.

Contraceptive management

Emergency contraception was the hormonal contraception included within the scope of practice for this model. There was insufficient clinical exposure and resulting data in the trial to include the oral contraceptive pill and medroxyprogesterone acetate in this clinical protocol. However, the facility to prescribe these preparations should be considered in further developments for this model (see table 5 for a schematic representation of this protocol).

Table 3

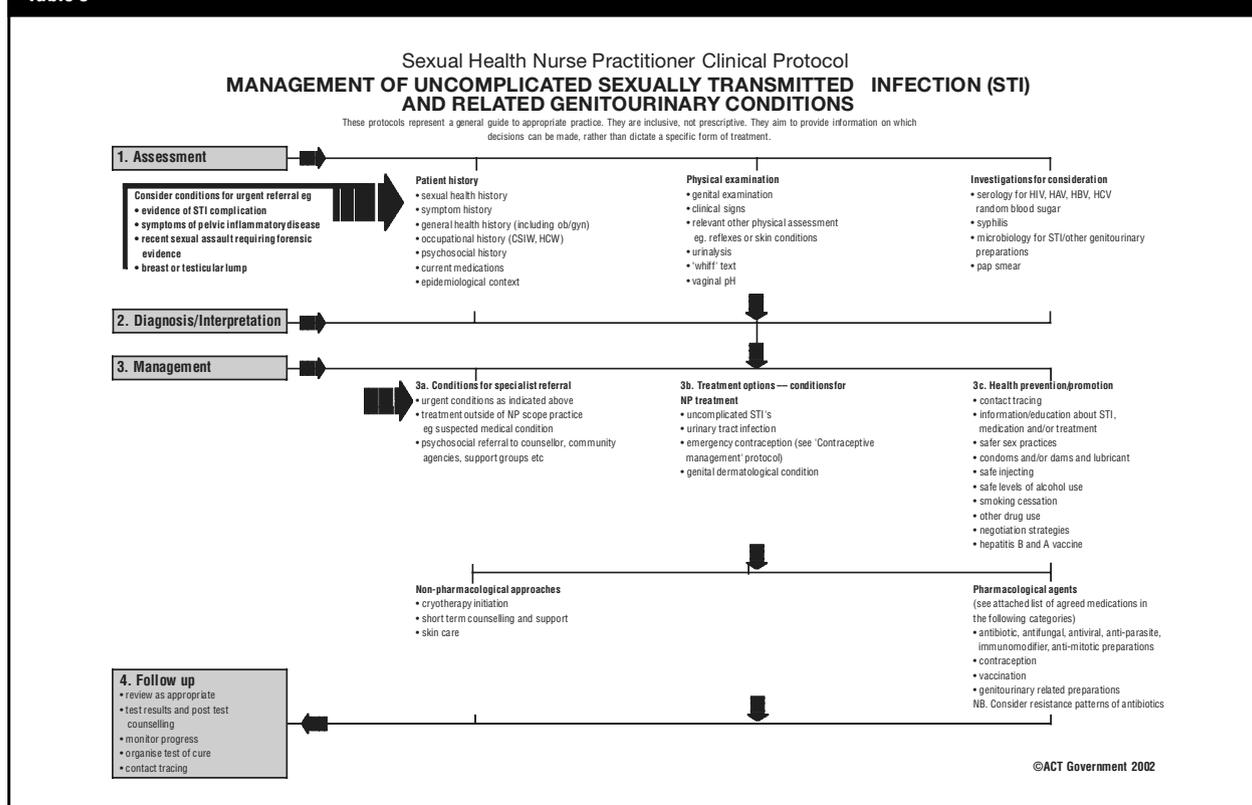


Table 4

Sexual Health Nurse Practitioner Clinical Protocol OPPORTUNISTIC MANAGEMENT FOR PATIENTS WITH SEXUAL HEALTH PROBLEMS

These protocols represent a general guide to appropriate practice. They are inclusive, not prescriptive. They aim to provide information on which decisions can be made, rather than dictate a specific form of treatment.

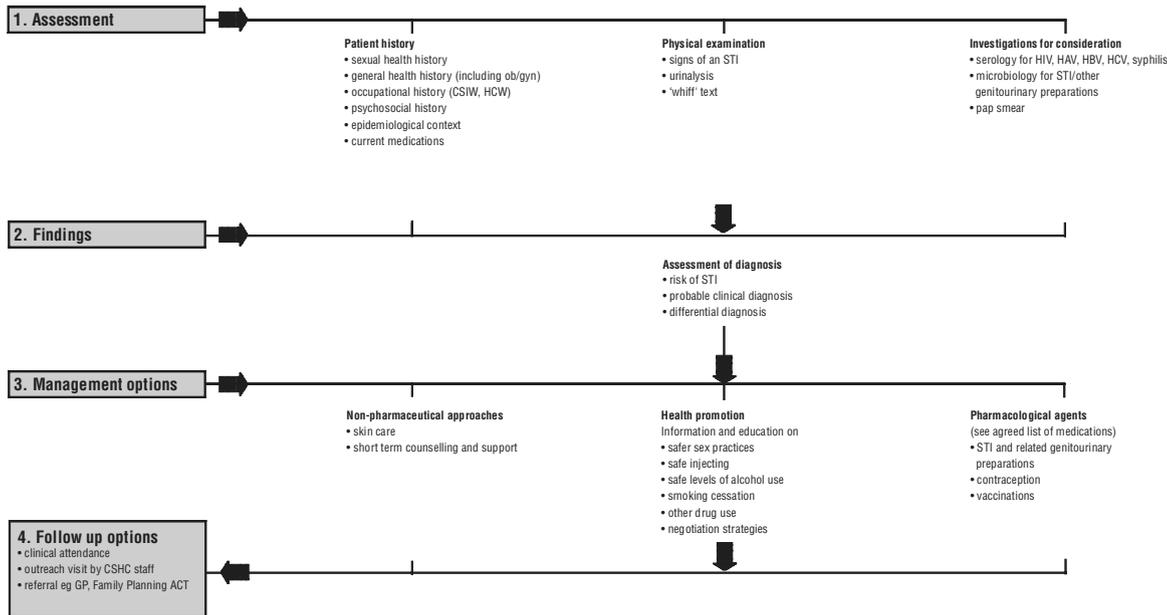
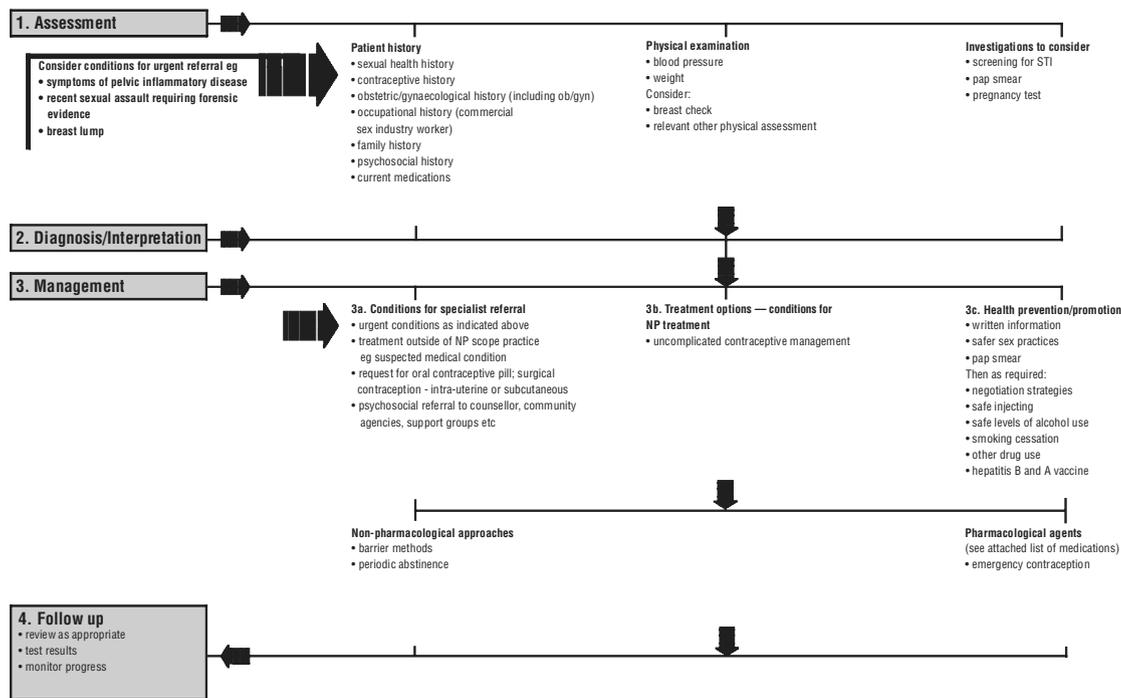


Table 5

Sexual Health Nurse Practitioner Clinical Protocol CONTRACEPTIVE MANAGEMENT

These protocols represent a general guide to appropriate practice. They are inclusive, not prescriptive. They aim to provide information on which decisions can be made, rather than dictate a specific form of treatment.



CONCLUSION AND RECOMMENDATIONS

This paper describes a trial of practice for the sexual health NP model that was conducted as part of the ACT NP Project. This trial of practice has generated data to demonstrate that the NP delivered effective clinical management, patient education and health promotion, and referral services for patients with a variety of sexual health issues. These sexual health issues included screening for and treatment of sexually transmitted infection, management of select genito-urinary conditions, and initiation of contraception. This model has a major strength in the ability to intervene in an opportunistic fashion for sexual health issues and has been shown to be accessible and acceptable to a variety of patients in multiple settings and has the benefit of accessing marginalised and/or at-risk groups.

This trial of practice has demonstrated that NPs are a feasible addition to sexual health services in the ACT health system. Furthermore, this NP service is well placed to positively impact upon the psychosocial health, morbidity, and mortality associated with sexually transmitted infections, blood borne viruses, and related sexual health issues. The implementation of this level of service will contribute to optimal sexual health of the ACT community.

This study supports the need for legislative change relating to protection of the title of NP and legitimisation of extended practice. Further to this, we recommend to other clinicians and researchers in the field that the clinical protocols and medication formulary are appropriate to structure the parameters that define the scope of practice for the sexual health NP model.

These protocols and the medication formulary are sufficient and necessary to inform prescribing, ordering of diagnostic studies, referral privileges, and therapeutic interventions for the model. We further recommend that ongoing development and research be conducted to monitor referral trends, staff utilisation, service provision, and clinical outcomes where this model of NP service is incorporated into existing health service systems.

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