

Original
article

STD management by private pharmacies in Hanoi: practice and knowledge of drug sellers

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Background: Prompt treatment of sexually transmitted infections may reduce the incidence of HIV/AIDS infections. With health sector reforms private pharmacies are increasingly the first and only contact with health delivery services.

Objectives: To find out how patients with STDs are treated at private pharmacies in Hanoi, and what drug sellers know about STD management.

Methods: Five simulated clients were taught to adopt a scenario stating that their friend had a urethral discharge. They visited 60 randomly selected private pharmacies in urban Hanoi and noted all questions asked, advice offered, and treatment given. Afterwards interviewers administered a semistructured questionnaire to all people working in the 60 pharmacies.

Results: Drug treatment was given in 84% of the 297 encounters averaging 1.5 drugs and 1.2 antibiotics per encounter. Quinolones were given 188 times. No dispensing was adequate for chlamydia or was in accordance with the national guidelines. No questions were asked in 55% of encounters and no advice was given in 61%. Questions on sexual activity were asked in 23% (69) of cases and about the health of the partner twice (1%). Advice to practise safe sex was given in 1% of encounters and for the partner to seek treatment only once. Of 69 questionnaires administered 51% said they would refer to a doctor, 16% said they would ask about the sexual activity 1% said they would ask about the health of the partner, 7% said they would advise using a condom, and 1% advised telling the partner to seek treatment. Even after prompting, 61% would ask no questions and 80% would give no advice.

Conclusions: Even though 74% of pharmacists and drug sellers know that they should not treat STD patients, 84% actually did. None gave syndromically correct treatment. In both the questionnaire and during the simulated client methods, numbers advising on partner notification and condom use were very poor. Educational or peer awareness interventions are urgently needed among private pharmacists in Vietnam.

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Keywords: sexually transmitted diseases; private pharmacies; simulated client methods

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Background

One way of reducing the incidence of HIV/AIDS infections is to treat sexually transmitted diseases (STDs) promptly.¹ To make this possible the syndromic approach to diagnosis and treatment has been adopted in many countries.^{1–4} With health sector reforms private pharmacies are increasingly the first and only contact with health delivery services.^{5–9} In Vietnam 80% of people when sick go directly to a drug seller.^{9 10}

In 1990 there was only one infection of HIV reported in Vietnam; by the end of 1997 88 000 people were estimated to be infected and 8700 cumulative AIDS cases had developed¹¹; by July 1999 it was 14 500.¹²

It has been established in several countries that, in spite of regulations, many people seek and find care for STDs from drug sellers.^{13–16} The people who use these services tend to be less educated^{14 15} and engage in riskier sex practices.¹⁵ Often the service that people receive is of poorer quality than under medical supervision.¹⁴ The primary goal of business is profit rather than patient wellbeing.^{8 17}

The simulated client methodology (SCM), where researchers have posed as real patients with standardised illnesses¹⁸ has seldom been used for research on STDs at private pharmacies.^{13 16 19}

Although a pressing need,²⁰ changing behaviour is difficult.²¹ Documenting the difference between knowledge and practice can help plan strategies to improve the situation.

The aim of this study was to find out how patients with STDs are treated at private pharmacies and to find out what the drug sellers knew about STD management. This study is part of the “Towards Good Pharmacy in Thailand and Vietnam” Project. The members of this international project jointly developed the design and the instruments used in this study.

Method

DESIGN

Sixty pharmacies were selected randomly from the 641 of 789 pharmacies registered in Hanoi that were not inside a hospital and were not mainly wholesalers. These pharmacies were visited by simulated clients and later by interviewers.

A scenario was developed for a patient with STD (see box). The ideal questions, treatment, and advice were also characterised. Recommended management in Vietnam approves of asking about recent sexual activity, advising patient and partner to visit a doctor, and using condoms. The sale of prescription only drugs is not allowed without a prescription. However, if the national guidelines for treatment by a doctor were to be followed then the syndromic

The scenario used for the simulated clients for STDs. The questionnaire asked similar questions

SEXUALLY TRANSMITTED DISEASE

The simulated client was 20–45 years of age and feels pain every time he urinates, and he has pus coming from his urethra. The client asked the drug seller for advice about what things to buy.

If asked, the following information was allowed:

- He hasn't had any similar symptoms ever before. He has a mild fever. He has a burning pain when he urinates. During the first few days the pus had a milky appearance but after approximately the third day it has turned more yellow, and creamy. He has also noticed small skin lesions appearing in the past few days.
- He had had intercourse with a few different girlfriends in the past few weeks. He doesn't know whether any of the girls that he has seen suffer from anything like this.
- He hasn't seen a doctor about his problems. He is willing to accept any suggestion that the pharmacist or the person behind the encounter provides.

WHAT THE SIMULATED CLIENTS SAID TO THE DRUG SELLERS

"My friend has a pain when peeing and a *urethral discharge* (to be translated into local, common language) for the past 3–4 days. Can you tell me how to assist him?"

INSTRUCTIONS TO THE SIMULATED CLIENT

- (1) You will take note mentally of any question that the pharmacy staff asks before making a recommendation, any advice about the products recommended, and also any other advice on how to treat the condition.
- (2) You are willing to accept any product or suggestion the pharmacy staff provides.
- (3) Any products recommended should be purchased in the quantities offered.
- (4) Always leave the initiative to the pharmacy staff.

All information must be recorded on the information sheets by the client at a maximum of 15 minutes after leaving the store.

approach would ensure treatment for chlamydia and gonorrhoea.²² This would be ceftriaxone 250 mg or spectinomycin 2 g for gonorrhoea and doxycycline (100 mg twice a day for 7 days), tetracycline (500 mg four times a day for 7 days) erythromycin (500 mg four times a day for 7 days) or sulfisoxazole (500 mg four times a day for 10 days) for chlamydia.²³

SIMULATED CLIENT SURVEY

For the SCM STD scenario, five men were chosen as simulated clients to present "that their friend" has a urethral discharge. A professional drama teacher, using role play and real life visits to a private pharmacy in Hanoi, gave a 2 week drama training course to the clients to act and say the words described in the box in a natural and reproducible manner. They had to buy all recommended drugs and record the information within 15 minutes of leaving the pharmacy. Each of the five men visited each of the 60 pharmacies making a total of 300 encounters. Only one visit would occur per pharmacy per day. Two supervisors planned the timing of visits and monitored the progress. The results were recorded by these supervisors and entered onto a computer using EPI-INFO 6.

INTERVIEWS

A questionnaire on STD case management was also developed and piloted in Hanoi. Certain changes were made as a result of the pilot. The questionnaire was translated back to English to

see if the sense was maintained. The principle of the questionnaire was to find out what the respondent would say that they would actually have done given a customer complaining of symptoms of an STD. Therefore the questionnaire contained open questions such as "How would you deal with someone who came to you suffering from a urethral discharge?" If they offered to ask no questions or give no advice, the questioner would prompt with "would you ask any questions?" or "would you give any advice?" and record the answer as prompted. (The full questionnaire is available on request from J Chalker.)

Four interviewers were trained to use the questionnaire. All 60 pharmacies were visited and the questionnaire was presented to all staff working at the pharmacy at the time of the visit. A supervisor coded the answers, which were entered into EPI-INFO 6. The interviews took place after all the simulated client visits had been completed. Drugs were classified according to the Anatomical, Therapeutic Chemical (ATC) classification.²⁴ The interviewers had permits from the Hanoi Provincial Health Bureau.

ETHICAL APPROVAL

The study had ethical approval from the Ministry of Health in Vietnam and the Karolinska Institute. It was carried out in collaboration with the Hanoi Provincial Health Bureau and the Pharmacist Association.

Results

Out of the planned 300 visits 297 were recorded.

DRUG TREATMENT GIVEN

Drug treatment was given in 250 (84%) of the 297 encounters. In eight of these 250 encounters no antibiotic was given. The average number of drugs per encounter was 1.5 (SD 0.7). The average number of antibiotics was 1.2 (0.5). The average price charged was equivalent to \$3.3 with a high of \$11.6 and a low of \$0.2.

From table 1, of the 293 antibiotics dispensed, the most popular group was quinolones, given 188 times with pefloxacin given 158 times in doses of two, four, or six tablets. Tetracyclines were the next most popular (36 times) with doxycycline given 30 times and tetracycline six times, but never for 7 days. Spectinomycin was given four times. None of the drug dispensing was in accordance with the national guidelines and none was given in adequate daily doses for sufficient number of days for chlamydia.

In addition to the 293 antimicrobials, 68 other preparations were sold. The most common were urologicals in 12% of encounters and vitamins in 6%. Other drugs sold were diuretics and corticosteroids. These drugs are not recommended for the cure of STDs.

QUESTIONS ASKED AND ADVICE GIVEN DURING SIMULATED CLIENT ENCOUNTERS

During the 297 visits, 55% (163) of clients were not asked any questions and 61% (182)

Table 1 Antibiotics dispensed for STD simulated clients, by ATC classification

Names	ATC classification	Number of times dispensed
JO1A	Tetracyclines	36
JO1B	Amphenicols	14
JO1C	β lactam antibacterials. Penicillins	10
JO1D	Other β lactam antibacterials	16
JO1E	Sulphonamides and trimethoprim	6
JO1F	Macrolides and lincosamides	15
JO1M	Quinolones	188
JO1X	Other antibacterials	7
JO1XD01	Metronidazole	3
JO1XX04	Spectinomycin	4
JO4A	Drugs for treatment of TB	1
Total		293

were given no advice. The most frequent question asked was about whether or not sexual intercourse had taken place recently (23% (69)), whether the friend had had these symptoms before (18% (53)), questions about the appearance of the pus (15% (44)), and what drugs had been taken (8% (23)). Other questions were asked in 5% or less of the consultations. The most frequent advice given was to finish the full course of drugs in 19% (56) of cases and to visit a doctor in 16% (47) of cases. Other advice was given in 5% or less of consultations (table 2).

QUESTIONNAIRE

In the questionnaire (table 3), 74% (51) of 69 respondents said they would refer to a doctor.

Table 2 Question asked by drug sellers and advice they gave to clients during 297 simulated client encounters

Questions	297 encounters	
	Number	%
None	163	55
Has your friend had intercourse	69	23
Has your friend had these symptoms before	53	18
Questions about the pus (appearance, smell)	44	15
Drugs consumed	23	8
Questions about the pain	14	5
Has your friend been to the doctor, clinic	14	5
Questions about skin lesions	4	1
Presence of fever	2	1
Questions related to allergy from using drug	2	1
Questions about the urine (appearance, smell)	2	1
Are his partner(s) sick?	2	1
Advice		
None	182	6
Use full course of drug	56	19
Visit a doctor, health centre, or hospital	47	16
Stop having intercourse until you are cured	15	5
Visit a doctor if the infection become worse	9	3
Safe sex (condoms)	3	1
Continue as usual	2	1
Tell your sexual partners to see the doctor	1	0

Table 3 Comparison of what the pharmacy staff said they would do (the questionnaire) and what they actually did (SCM responses). Questions asked and treatment given

Questions	SCM (practice) 297 encounters		Questionnaire (theory) 69 interviews		Q plus prompt (theory) 69 interviews	
Sexual activity	69	23%	11	16%	19	27%
Health of partner	2	1%	1	1.5%	3	4%
None	163	55%			42	61%
Treatment						
Sell drugs	250	84%	22	32%		
Refer to doctor	47	16%	51	74%		
Advice						
Condom use	3	1%	5	7%	12	17%
Informing partner	1	0%	1	1.5%	3	4%
None	182	61%			55	80%

Thirty two per cent (22) said they would treat, including four who would both treat and refer.

When just asked what they would do for a case of urethral discharge 16% (11) of the pharmacy staff said they would ask about the sexual activity and 1.4% (1) said they would ask about the health of the partner. As for advice, 7% (5) advised using a condom and 1.4% (1) advised telling the partner to seek treatment (table 3).

After prompting with "would you ask any questions or give any advice," 27% (19) said they would ask about sexual activity and 4% (3) said they would ask about the health of the partner, but 61% (42) would ask no questions at all. Again after prompting 17% (12) would advise to use a condom and 4% (3) would advise to tell the partner to seek treatment, but 80% (55) would give no advice at all (table 3).

Discussion

Even though 74% (51 of 69) of pharmacists and drug sellers know that they should not treat STD patients, in fact 84% (250 of 297) did treat. When they did treat, no one gave the correct combination of drugs for treatment by the syndromic approach, as only 12% (36 of 297) gave tetracycline or doxycycline, and of those who sold them no one gave them for a sufficient number of days. Quinolones were by far the most common drug given but are not recommended by the Vietnam Institute of Venerology as there is a developing history of resistance to 7% in 1997,²⁵ and a study in Ho Chi Minh City in 1998 showed 50% of gonococcal isolates had a high grade resistance and 12% an intermediate resistance to another quinolone, ciprofloxacin.²² The reason for the popularity of pefloxacin is unclear, as it is not used in many countries and its activity against chlamydia is borderline.²⁶ However, even if successful with the gonococcus, using it ignores the recommended syndromic approach.

These results are similar to finding from Lima in Peru where 82% of patients were treated¹⁶ and only 1.5% of the regimens given conformed to national guidelines. In Peru 30% received some counselling, whereas in Hanoi the matters of condom use and partner's health were discussed in only 1% of encounters.

Questions about sexual activity (29% SCM, 16% questionnaire) and partner's health (1.5% questionnaire, 1% SCM) and advice on partner notification (questionnaire 1.5%, SCM, 0.5%) and condom use (7% and 1%) were very poor. A recent survey in four other provinces²⁷ in Vietnam supports the findings of this study of poor partner notification, poor syndromic treatment, and absence of advice to use a condom except for one province (Qang Ninh) where a campaign has been going on and 59% of clients received this advice.

As expounded by a WHO consultative group,²⁸ the role of the pharmacist has been changing over the past two decades with self treatment increasing worldwide. Responsibilities to recommend safe and efficacious medicine with sound advice are essential. The pharmacist should be a communicator, supervisor, and health promoter.²⁸

Actual behaviour has been found to be worse than that claimed by the drug seller during interview²⁹⁻³¹ and suggests poor compliance with ministry of health guidelines. Questionnaire results suggest a lack of knowledge, as even with a prompt, the maximum response was only 27% for asking about sexual activity and 4% for asking about the health of the partner. Almost three quarters said they would refer the patient to a doctor whereas only 16% actually did. The level of advice was dramatically poor both in questionnaire and in practice.

People with STDs go to private pharmacists and regardless of regulations the pharmacy staff treat them. However, both quality of drug treatment and advice are unacceptably poor. Treatment by drug sellers is cheaper than by doctors³² and the service is more accessible and less controlled. Given that the prompt treatment of STDs is a proved method of reducing the HIV infection incidence¹ then any successful method should be used. Asia has been identified as the area where the HIV/AIDS epidemic at the moment is growing most rapidly. In Hanoi, while we recognise that pharmacists do treat, they should at least treat and give advice properly.

With large educational or peer awareness interventions, improvements are reported in Nepal¹³ and Zambia.³³ These are urgently needed among private pharmacists in Vietnam.

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