

Delivery models of opioid agonist maintenance treatment in South Asia: a good beginning

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An estimated 6.5 to 13.2 million people with opioid dependence, representing more than half of the world's estimated number, live in Asia.¹ Although most people in Asia who are opioid dependent use heroin or opium, the use of pharmaceutical opioids, mainly through the injecting route, has raised concern in recent years.² In South Asia – Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan and Sri Lanka – the estimated number of people who inject drugs illicitly ranges from 434 000 to 726 500. Of these people, from 34 500 to 135 500 are infected with the human immunodeficiency virus (HIV).³ Three countries in South Asia – Bangladesh, India and Nepal – have large numbers of people who inject drugs, many of whom are infected with HIV. In the Maldives, the population of people who inject drugs is also large.⁴

In response to the large burden of opioid injection, Bangladesh, India and Nepal have established needle and syringe programmes. In Bangladesh and India these programmes have been rapidly scaled up.^{2,5} However, this cannot be said for the use of opioid agonist maintenance treatment (alternatively known in South Asia as “opioid substitution therapy”), which is lagging far behind. This form of treatment for opioid dependence has been recognized as effective in preventing infection with HIV and in increasing adherence to antiretroviral treatment (ART); accordingly, it has been endorsed by different United Nations agencies, including the United Nations Office on Drugs and Crime (UNODC) and the World Health Organization (WHO).^{6–9} The two opioid agonists most commonly used to treat opioid dependence, buprenorphine and methadone, are on WHO's model list of essential medicines.¹⁰ A WHO collaborative multi-country study has established the effectiveness of opioid

agonist maintenance treatment in developing countries.¹¹ Different delivery models have been implemented across the world, and studies have several positive outcomes, including reductions in drug use, injecting behaviour, incidence of HIV infection, criminality and drug overdose.^{12,13}

Opioid agonist maintenance treatment has not yet been integrated into routine health care in South Asia, a term used in this paper to refer to the six countries represented by the UNODC's Regional Office for South Asia: Bangladesh, Bhutan, India, the Maldives, Nepal and Sri Lanka. A global review in 2010 showed that opioid agonist maintenance treatment is available in India, the Maldives and Nepal.⁵ Bangladesh also initiated opioid agonist maintenance treatment in 2010.^{2,14} In our experience while working closely with these six South Asian countries and as revealed by a review of the published literature, only four of them – Bangladesh, India, the Maldives and Nepal – have implemented opioid agonist maintenance treatment. Coverage, however, has been abysmally low; according to the global review, the percentage of people injecting opioids who receive opioid agonist maintenance treatment is only 1 to 3%.⁵ Ensuring optimal coverage is vital to these countries' efforts to maximize HIV prevention among people who inject opioids.

In countries of South Asia, opioid dependence has been traditionally considered a psychosocial rather than a biopsychosocial problem. The conventional approach to reducing the demand for opioids has centred on prevention and abstinence and on short-term withdrawal management followed by psychosocial intervention or rehabilitation. A report published in 2000 documented different types of interventions in South Asia, from preventive education to placement in therapeutic communi-

ties.¹⁵ Long-term pharmacotherapy, which is the mainstay of treatment for opioid dependence, was not mentioned among them except for an anecdotal mention of a methadone maintenance treatment clinic in Nepal.¹⁵ Most interventions based on short-term treatment or rehabilitation are run by nongovernmental organizations (NGOs) with some support from the government. The concept of drug dependence as a chronic, relapsing condition requiring medical treatment is poorly understood, as reflected in the limited availability of treatment services or qualitative policy research studies on the subject.¹⁶ Equally misunderstood is the concept behind opioid agonist maintenance treatment, which involves administering narcotics or psychotropics for the long term. This lack of understanding is also manifested in the low availability of narcotics or psychotropics for the treatment of other chronic medical symptoms and conditions, such as pain in cancer patients.¹⁷

Another problem is that existing models based on the delivery of opioid agonist maintenance treatment through exclusive clinics, licensed pharmacies or office-based prescription, which are typical of high-income countries, cannot be directly applied in South Asia. The infrastructure, availability of health-care professionals and regulatory mechanisms for pharmacies and health-care practitioners in countries of this region seldom allow it.

Through one of its projects, the United Nations Office on Drugs and Crime in South Asia has assisted most countries in developing models for the delivery of opioid agonist maintenance treatment. Although the models adopted by these countries have certain similarities, they differ in terms of setting, human resources for treatment delivery, and location of medical, psychosocial and outreach services for clients. In the

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following section we briefly present an overview of models – as case examples – adopted for the delivery of opioid agonist maintenance treatment in those four countries of South Asia where this intervention is in place.

Bangladesh

Bangladesh initiated methadone maintenance treatment in 2010 in one centre, a clinic in a government-run hospital for the treatment of drug dependence. Clinic staff, consisting of a full-time physician, a counsellor, a project manager, two nurses and a team of outreach workers, provides opioid agonist maintenance treatment to about 163 people who inject opioids.¹⁸ Medical, psychosocial and outreach services are provided to these clients in a single setting, free of cost. Methadone is dispensed daily under direct observation by nurses; take-home doses are not provided. Although basic counselling services are offered, clients are not obligated to attend counselling sessions or to submit urine samples for screening. The programme has not yet been evaluated systematically.

India

Although buprenorphine maintenance treatment has been available for many years now, in India it was only offered on a limited scale until 2007–2008, when it was included in the National AIDS Control Programme as an intervention for the prevention of HIV infection among people who inject opioids.^{18,19} India has the highest number of opioid agonist maintenance treatment centres in South Asia – 67 centres covering 5800 people who inject opioids – and it has two delivery models. In the first model, opioid agonist maintenance treatment is provided through 52 of the 275 NGO-run targeted interventions for people who inject opioids. Buprenorphine is dispensed free of cost under direct observation by trained nurses at the drop-in centres, which also have needle and syringe programmes and other services. A trained, part-time physician visits the centres 3 to 5 times a week, and outreach staff of the needle and syringe programme bring the clients to the centres and provide follow-up, referral and peer counselling. People injecting opioids who want to access

opioid agonist maintenance treatment are enrolled in the programme if there are vacant slots. They are offered basic counselling services. Body fluids are not screened for opioid use, and clients who drop out can easily re-enter opioid agonist maintenance treatment. A formal evaluation of this model is yet to be carried out, but preliminary reports show positive outcomes.²⁰

The second, more recent model is the provision of buprenorphine maintenance treatment through centres (11 when we wrote this) situated in government hospitals, in collaboration with NGO-run targeted interventions for people who inject opioids. The centres have full-time staff consisting of a physician, a nurse, a counsellor and a data manager. The NGO in charge of the targeted intervention for people injecting opioids in the vicinity of each centre brings clients for enrolment and follow-up. Procedures for delivering opioid agonist maintenance treatment are similar to those described above for the NGO model. Early experience with the pilot of this model at five sites is encouraging.^{21,22} The methadone maintenance treatment project recently initiated at five sites also follows a similar modality for treatment delivery.

In India, quality assurance systems that include practice guidelines, standard operating procedures and training manuals have been developed by the National AIDS Control Organisation in collaboration with technical experts. An independent agency evaluates and grants accreditation to the opioid agonist maintenance treatment centres.

Maldives

The Maldives has one methadone maintenance treatment centre located in a government clinic. It is equipped with one full-time physician, two nurses and a team of counsellors.²³ A psychiatrist also provides services part time. In the Maldives, unlike other countries of South Asia, methadone is provided free of cost to all clients with opioid dependence, irrespective of their injecting status. Urine is regularly screened for opioids and regular attendance for counselling services is strongly emphasized. In addition, three different NGOs provide other psychosocial services, including peer-based counselling, out-

reach and social support for spouses and other family members. For entry into methadone maintenance treatment, strict eligibility criteria were formerly in place and clients had to obtain legal clearance from various departments. These criteria were relaxed in 2011.²³ The availability of vacant slots is now the only limiting factor.

Nepal

The first methadone maintenance treatment programme in South Asia was established in Nepal in 1994. Although the programme was discontinued for a few years, it resumed in 2007. Methadone maintenance treatment centres operate within the psychiatry departments of government hospitals. A team composed of a full-time physician, nurses and counsellors – the clinical unit – is employed in the centre. It is responsible for the medical component of the services offered to people who inject opioids. The psychosocial components – outreach, follow-up, counselling and advocacy – are delivered through social support units run by NGOs. Both of the units are located on the same premises. Methadone is provided free of cost and eligibility criteria are lenient. Neither counselling nor periodic urine testing for opioids is compulsory. Re-entry into methadone maintenance treatment after dropping out is encouraged. A formal evaluation showed that Nepal has three methadone maintenance treatment centres that cater to about 400 clients and urgent scale-up using the same model was recommended (unpublished report).

Table 1 presents a comparative description of the different opioid agonist maintenance treatment delivery models followed in South Asia. All the programmes, with the exception of the one in the Maldives, have the advantage of being “low-threshold” and are easily accessible to clients seeking entry into opioid agonist maintenance treatment. Eligibility criteria are not rigid; clients can easily re-enter opioid agonist maintenance treatment after dropping out; urine screening and attendance at counselling services are not mandatory, and clients using opioids while on opioid agonist maintenance treatment are not penalized. These features, together with close linkages to NGOs,

make South Asia’s opioid agonist maintenance treatment programmes low-threshold, their features being similar to those of programmes described as “low-threshold” in various studies.^{12,24} Apart from the fact that low-threshold programmes make services more accessible and acceptable to clients, they usually require fewer resources than high-threshold programmes, which benefit fewer people and may be unsustainable in resource-poor countries. In high-threshold programmes, clients are required to regularly attend counselling services and to undergo random urine

screening, and there is strict emphasis on clients being opioid-free while they are on opioid agonist maintenance treatment.

Most opioid agonist maintenance treatment models in the South Asian countries used as case studies in this paper started as pilot projects. Evidence so far shows that they have high retention rates and lead to decreased HIV-related risk behaviour and to improved psychosocial, physical status and overall quality of life.^{20,25} Opioid agonist maintenance treatment shows good acceptance by the clients, their

families and the community at large. Through these pilot programmes, local capacity that can be used for scale-up activities has been built in each country. The resource materials that have been developed can help to ensure the standardization of services and the rapid dissemination of capacities. Finally, the programmes have furnished policy-makers with evidence of the effectiveness, feasibility and acceptability of opioid agonist maintenance treatment programmes in their countries.

Despite all these positive developments, opioid agonist maintenance

Table 1. Comparison of opioid agonist maintenance treatment (OAMT) delivery models in four countries of South Asia

Model – salient features	Bangladesh	India	Maldives	Nepal
Estimated no. of people injecting opioids	20 000–40 000	106 518–223 121	690–896	16 100–28 000
Drug used for OAMT	Methadone	Buprenorphine, methadone	Methadone	Methadone
Approximate no. of OAMT clients	163	5800	80	400
Beneficiaries	People who inject opioids	People who inject opioids	People with opioid dependence	People who inject opioids
OAMT coverage of people injecting opioids (%)	0.4–0.8	2.6–5.4	8.9–11.6	1.4–2.5
No. of centres	1	62 buprenorphine centres; 5 methadone centres	1	3
Location of centre(s)	GO-run hospital	NGO model: NGO-run targeted intervention sites GO-NGO model: government hospitals	Government agency	Psychiatry departments in government hospitals
Medical services	OAMT clinic	OAMT clinic	OAMT clinic	OAMT clinic
Psychosocial services	OAMT clinic	NGO model: OAMT clinic GO-NGO model: OAMT clinic	OAMT clinic and NGOs working with people who inject opioids	NGO-run SSUs co-located with OAMT clinic
Outreach and follow-up	OAMT clinic	NGO model: OAMT clinic GO-NGO model: NGO targeted intervention for people who inject opioids	NGOs working with people with opioid dependency	NGO-run SSUs co-located with OAMT clinic
Staff	One programme manager, full-time physician, two nurses and one counsellor; team of outreach workers	NGO model: one full-time nurse; others (programme manager, part-time physician, counsellor, outreach workers) shared with the NSP programme. GO-NGO model: one full time physician, nurse, counsellor, data manager; outreach workers are part of the NSP targeted intervention	One full-time physician, one part-time psychiatrist, two nurses, team of 3 to 4 counsellors	- MMT clinic: one full time physician, nurse, counsellor - SSU: programme manager, outreach workers, peer educators, coordinators, etc.
Dispensing modality	Directly observed	Directly observed	Directly observed	Directly observed
Is take-home dose provided?	No	No	No	No
Is urine screening mandatory?	No	No	Random and regular urine screening conducted	No
Is attendance to counselling services mandatory?	No	No	Strong emphasis on counselling services	No

GO, government; MMT, methadone maintenance treatment; NGO, nongovernmental organization; NSP, needle and syringe programme; SSU, social support unit.

treatment coverage remains abysmally low. Without scale-up, these pilot programmes will remain as nothing more than “boutique” projects. Most opioid agonist maintenance treatment programmes, except for those in India, are

funded by external agencies, and the extent to which national governments will want to invest in the treatment of opioid dependence in the face of competing health priorities remains to be seen. The experience gathered through these pilot

projects should prove useful in efforts to rapidly scale up opioid agonist maintenance treatment in these countries, which is the need of the hour. ■

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