

2. INTRODUCTION

Opioid use, and in particular heroin use, is on the increase in South Asia. The diffusion of injecting drug use is causing concern in the region (UNODC-MSJE, 2004). Heroin and other opioid dependence cause significant morbidity and mortality; it is a chronic and enduring condition that often requires long-term treatment and care. Adequate access to a range of treatment options should be offered to respond to the varying needs of people with heroin/opioid dependence.

Substitution maintenance treatment is an effective, safe and cost effective modality for the management of opioid dependence. Such treatment is a valuable and critical component of the effective management of opioid dependence and the prevention of HIV among IDUs. A recent Cochrane review² recommended that the provision of substitution treatment for opioid

dependence in countries with emerging HIV and injecting drug use problems as well as in countries with established populations of IDUs should be supported (Gowing et al, 2004). The provision of substitution maintenance therapy should be integrated with other HIV preventive interventions and services, as well as with those for treatment and care of people living with HIV/AIDS (WHO, UNODC & UNAIDS, 2004).

Methadone is the most employed agent in substitution treatment around the world. Methadone treatment for heroin addicts was first used in a small trial in New York City in 1964. The first scientific report suggesting the benefits of methadone in heroin dependence was by Dole and Nyswander in the Journal of the American Medical Association, where they stressed that while taking the medication, addicts lost their cravings, they focussed on normal life events and largely ceased their compulsive drug use with all its risks and disadvantages (Dole and Nyswander, 1965). Following the American experience, a few other

Substitution treatment is a form of medical care offered to opioid dependents (primarily heroin dependents) based on a similar or identical substance to the drug normally used. Enough of the substitution substance is provided to the user to reduce risky or harmful behaviour associated with the original drug like injectable heroin. Methadone substitution treatment may be provided either with or without psychosocial support.

² The Cochrane reviews are based on the best available information about healthcare interventions. They explore the evidence for and against the effectiveness and appropriateness of treatments (medications, surgery, education, etc) in specific circumstances. The Cochrane Database of Systematic Reviews is a product of the Cochrane Collaboration, an international non-profit and independent organisation, dedicated to making up-to-date, accurate information about the effects of healthcare readily available worldwide. More details on how to access the Cochrane Library are available at www.cochrane.org

countries introduced methadone to various degrees and in a variety of manners over the years. Hong Kong, Holland, Germany, France and Queensland in Australia currently operate large-scale methadone programmes. In Asia, apart from Hong Kong, Thailand and Nepal offer methadone substitution treatment to opioid dependents. A scaled-up programme with methadone is under consideration in the Republic of China and pilots have been initiated in some provinces.

Methadone is an opioid falling under the same category as other synthetic and naturally-occurring opioids such as pethidine, heroin, morphine, codeine, etc. All these substances on repeated administration produce tolerance³ and dependence. But, the user becomes tolerant to opioids - and not to any specific opioid. This makes it possible to preclude the euphoric and other effects of all opioids by establishing a high degree of tolerance through the prescribing of methadone. One can also prevent withdrawal symptoms among individuals who have a long history of heroin use by prescribing appropriate doses of methadone. And that, in essence, is the pharmacological basis for the use of methadone for long-term 'maintenance' (Byrne and Newman, 1999).

Scientific evidence for methadone treatment

- ◆ Effective in retaining people in treatment
- ◆ Reduces the risk of HIV infection
- ◆ Improves physical, mental health and the quality of life of patients and their families
- ◆ Reduces criminal activities

Major observational studies have indicated that methadone maintenance treatment reduces illicit drug use and criminal activities (Ball and Ross, 1991; Hall et al, 1998). Scientific evidence suggests that substitution treatment with methadone can help reduce criminality, infectious diseases and drug-related deaths; and improve the physical, psychological and social well-being of dependent users (Gibson et al, 1999). Patients stabilised on adequate doses of methadone can function normally, hold jobs, avoid crime and violence of the street culture, and reduce their exposure to HIV by stopping or decreasing the injection drug use and drug-related high-risk sexual behaviour (NIDA/NIH, 1999). The beneficial role of methadone maintenance in HIV prevention among injecting drug users has good scientific evidence to support it (Metzger et al, 1993; Ward et al, 1998; Gibson et al, 1999). The cost effectiveness of methadone has been examined and the treatment with methadone is found to be efficient (Zaric et al, 2000). There is also evidence on the safety of methadone maintenance treatment (Bell and Zador, 2000). The treatment also reduces the number of fatal overdose deaths due to illicit drug use (Grönbladh et al, 1990; Caplehorn et al, 1996).

³ Tolerance is a state of adaptation in which exposure to a drug induces changes that result in reduction of one or more of the drug's effects over time.