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Research Paper

Profile, risk practices and needs of people who inject morphine sulfate: Results from the ANRS-AERLI study

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ABSTRACT

Aims: In France, a non-negligible proportion of opioid-dependent individuals inject morphine sulfate. Although it has not yet been officially approved as an opioid substitution treatment (OST), some physicians can prescribe its use for people in methadone or buprenorphine treatment failure. Longitudinal data from the ANRS-AERLI study, which evaluated an educational intervention for safer injection called AERLI, provided us the opportunity to better characterize the profile, risk practices and needs of people who inject morphine sulfate (MSI), through comparison with other injectors, and to identify correlates of HIV/HCV risk practices in this group.

Methods: The national multisite ANRS-AERLI study assessed the impact of AERLI offered in volunteer harm reduction (HR) centers ("with intervention") (n = 113) through comparison with standard HR centers ("without intervention") (n = 127). All participants were scheduled to be followed up for 12 months and have 3 telephone interviews: at baseline, 6 months and 12 months. We compared MSI (n = 79) with other opioid injectors (n = 161) and then used a mixed logistic model to identify factors associated with HIV/HCV risk practices among MSI.

Findings: Of the 240 eligible participants, 79 were regular MSI. They were less likely to use cocaine, crack or buprenorphine and to receive OST than other participants. Conversely, MSI were more likely to inject drugs more than three times a day and to report HIV/HCV risk practices. Among MSI, multivariate analysis showed that those receiving morphine sulfate as an OST were less likely to report such practices than other participants (aOR [95%CI] = 0.11 [0.02-0.61]).

Conclusion: Our results show that while MSI use fewer stimulants, they have more HIV/HCV risk practices than other injectors. However, when MSI are prescribed morphine sulfate as a treatment, these practices tend to decrease. Our findings suggest the importance of increasing access to morphine sulfate as a new OST in France.

Introduction

Although Opioid Substitution Treatment (OST) (oral methadone and buprenorphine) is widely available in France, some people who use drugs (PWUD) continue to inject opioids, mainly diverted buprenorphine (Roux et al., 2008). Thanks to its safety profile (Auriacombe et al., 2004; Carrieri et al., 2006), buprenorphine has been available as an oral OST in primary care since 1996. In contrast, methadone induction in France is possible only in specialized centers caring for addiction (Carrieri et al., 2014). Western countries are facing the growing problem of diversion of prescription opioids (PO) through injection (Delorme et al., 2016; Lake et al., 2015). In France, this is especially true for oral buprenorphine (Roux et al., 2008) due to its easier access through primary care physicians (Thirion et al., 2002). People who inject drugs (PWID) risk serious health issues related to the injection of illicit or prescription opioids in a non-medical context, as it promotes blood-borne transmission of pathogens, such as HIV and Hepatitis viruses (Yokell, Zaller, Green, & Rich, 2011), and leads to

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local complications at the injection site, including skin infections and vascular injuries (Dwyer et al., 2009; Gordon & Lowy, 2005). In PWID, these complications are particularly prevalent, and can lead to life-threatening situations requiring emergency care and hospitalization (Kerr et al., 2005; Larney, Peacock, Mathers, Hickman, & Degenhardt, 2017). With respect to the injection of drugs intended for oral use, some studies have reported local complications as well as pulmonary and cardiovascular complications (Lamb & Roberts, 1972; Shlomi et al., 2008; Waller, Brownlee, & Roberts, 1980) associated with the diversion of buprenorphine tablets (Del Giudice, 2004) and morphine sulfate capsules (Diot et al., 2014).

In France, morphine sulfate, better known under its brand name Skenan®, is mainly authorized and prescribed to relieve pain in patients with terminal illnesses such as cancer (Teoh & Camm, 2012). In an increasing number of countries (EMCDDA, 2012) it is also available as an alternative to standard methadone and buprenorphine OST. In France, although Skenan® is prescribed for pain, it has not yet been approved as an OST. Nevertheless, it can be prescribed by some doctors when methadone or buprenorphine treatment failure occurs (CCMSA, 1996). The growing IDU demand for morphine sulfate seems to be linked, in part, to their desire for an alternative to buprenorphine and methadone (Cadet-Taïrou & Gandilhon, 2014; Chappard, 2009). Indeed, a non-negligible proportion of opioid-dependent individuals already self-medicate with morphine sulfate as an OST. Easily found on the street, many PWID choose to inject it, as it provides an immediate and positive effect (Peyriere et al., 2016). To date, few studies have investigated the profile of people who inject morphine sulfate (MSI). Longitudinal data from the ANRS-AERLI study, which aimed to evaluate an educational intervention for safer injection called AERLI, provided us the opportunity to better characterize the profile, risk practices and needs of MSI, with respect to injectors of other opioids, and to identify correlates of HIV/HCV risk practices in this group.

Methods

Study design

The ANRS-AERLI study was designed to validate the effectiveness of an innovative community-based face-to-face intervention (entitled AERLI), which provided education about safer injection on HIV and HCV infectious risk reduction, and also about the reduction of local complications at injection sites (Roux et al., 2016). This national, clustered, multisite intervention study was conducted in 17 low-threshold drug-user harm reduction (HR) centers in France between 2011 and 2013. It enrolled 271 PWID seeking support for their injection practices, including 144 people recruited in 8 HR centers implementing the intervention (hereafter “intervention group”) and 127 people in 9 HR centers not providing the intervention (hereafter “control group”). HR centers were not randomly assigned, because not all HR centers had a dedicated space or trained staff/volunteers. The study enrolled PWID attending HR centers who spontaneously asked for help or information related to injection and who could be reached by phone. Each participant received a small monetary incentive for each questionnaire completed during the study’s scheduled 3 telephone interviews. All PWID who agreed to participate in the study provided written informed consent. ANRS-AERLI was approved by the National scientific research ethics committee in Paris. Further details of the study are described elsewhere (Roux et al., 2016).

AERLI consisted in providing training and education about HIV and HCV transmission risk reduction, with a focus on drug-injecting practices, other injection-related complications, and access to HIV and HCV testing and care. It was organized as a series of participant-centered face-to-face educational sessions, taking place in a dedicated room in each intervention group HR centers. Intervention group participants had to receive at least one educational session over the first 6 months after study enrolment.

Data collection

Data were collected using computer-assisted telephone interviews (CATI) conducted by a trained, non-judgmental interviewer not involved in the AERLI sessions. These interviews, performed at baseline, at 6 months and at 12 months, collected data on socio-demographic characteristics (gender, age, education level, living in a couple or not, employment status, housing situation) and behavioral data on the following variables: history of drug use (age at first drug injection), drug use in the previous month (frequency of drug sniffing and/or drug injection using the Opiate Treatment Index (OTI (Darke, Hall, Wodak, Heather, & Ward, 1992))), alcohol use (AUDIT-C questionnaire (Bradley et al., 2007)) and HCV-HIV risk practices (BBV-TRAQ-SV questionnaire (Fry & Lintzeris, 2003)).

The variable “Morphine Sulfate Injector” (MSI) was defined as a PWID who reported to have injected morphine sulfate at least 3 times during the previous 5 days (yes/no). Information about whether morphine sulfate was prescribed as an OST or not was also recorded for this variable. The variable “on OST” was defined as being on OST at the

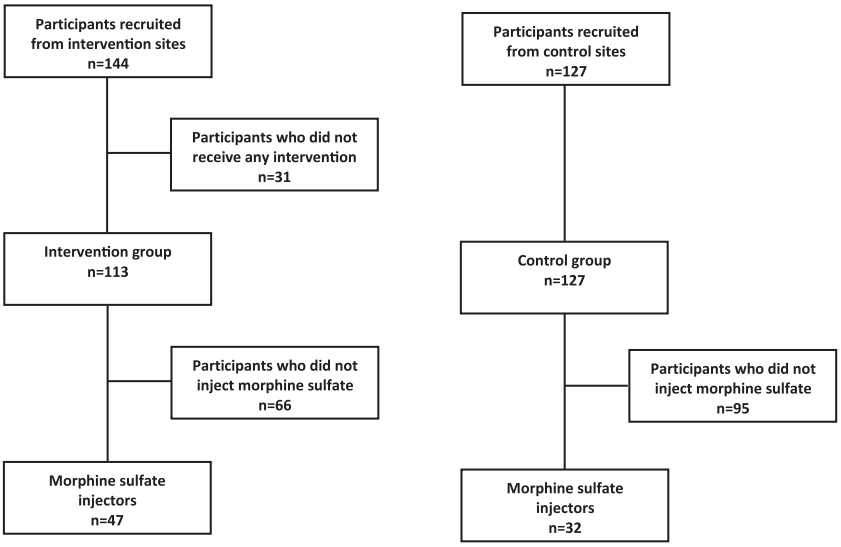

Fig. 1. Flow chart ANRS-AERLI (n = 271).