Expecting the unexpected: intravenous insulin at Sydney’s medically supervised injecting centre
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To the Editor: In April 2009, a registered nurse at the Sydney Medically Supervised Injecting Centre (MSIC) overheard two clients warning others about the effects of injecting from a particular glass vial, believing it had given them a “dirty shot” (bacterially contaminated injection). Seeing an unlabelled, discarded vial containing cloudy fluid, the nurse was concerned that it may have contained insulin, and assessed all four clients who reported injecting from similar vials. Three clients were sweaty, nauseated, and looked unwell, while only two (who had subsequently injected heroin) showed the pin-point pupils and hypoventilation typical of opioid use. Blood glucose levels confirmed likely insulin use, with the lowest reading being 1.5 mmol/L. MSIC staff made sweet drinks available, but one client became unconscious and required intramuscular glucagon and hospital admission. She was subsequently discharged without complications.

Staff were concerned that insulin from an unknown source and of unknown concentration was for sale in the local area, and immediately informed the local police and health and social welfare agencies. Thankfully, no further cases were noted, and no permanent harm resulted from this incident.

The vial found at the injecting centre was later identified as Humulin 30/70 (Eli Lilly Australia, Sydney, NSW). Insulin-induced hypoglycaemia may result in brain damage and death.1 To our knowledge, this is the first case of inadvertent insulin injection in an injecting facility reported in the scientific literature. Given the unlikely nature of the substance, and that two clients showed physical signs consistent with opioid use because of subsequent heroin injection, their presentation in another setting could well have been confused with opioid overdose. We believe the MSIC was able to avert serious morbidity and possible death because of the presence of experienced staff able to provide immediate medical attention.

The MSIC opened in 2001 in Kings Cross, Sydney, the first of its kind in the English-speaking world. The centre reduces morbidity and mortality from drug overdose, enhances access to health and social welfare services, reduces transmission of blood-borne viruses and reduces the incidence of drug injecting in public places.2 The main drugs injected at the MSIC include heroin, other opioids, cocaine and methamphetamines. There are now 70 such facilities around the world, these are legally sanctioned sites where people may inject previously obtained drugs under the supervision of qualified personnel.

There is growing scientific evidence internationally to show that supervised injecting facilities reduce the harms associated with illicit drug injection.3-5 This case highlights their role in preventing harm associated with more unexpected drug injections.

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