Attitudes to naloxone intranasal spray in an inner London community of opioid-users.

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Introduction

Naloxone can be used by bystanders to rapidly reverse opioid overdose, but naloxone's injection-only status likely hampers its wider provision. A new concentrated intranasal (IN) naloxone spray for bystander application has recently been approved (North America, Europe, Australia), but little is known about community willingness to use and carry this formulation.

Aims

To assess the preferred method of naloxone administration amongst people who use opioids, their family and friends, and addiction services staff.
Secondary aims include collecting data on overdose witness rates, carriage rates of injectable naloxone and confidence in administering naloxone in these groups.

Methods

Exploratory, cross-sectional, quantitative survey on attitudes towards naloxone delivery devices in two addiction services in South London. Researchers in situ surveyed opioid-users, family members and addiction services staff using a topic-specific survey, which compared a. ampoules, with needle and syringe for IM administration; b.pre-filled syringe for IM administration; c. nasal spray from March-August 2018.

Figure 1. Naloxone ampoule

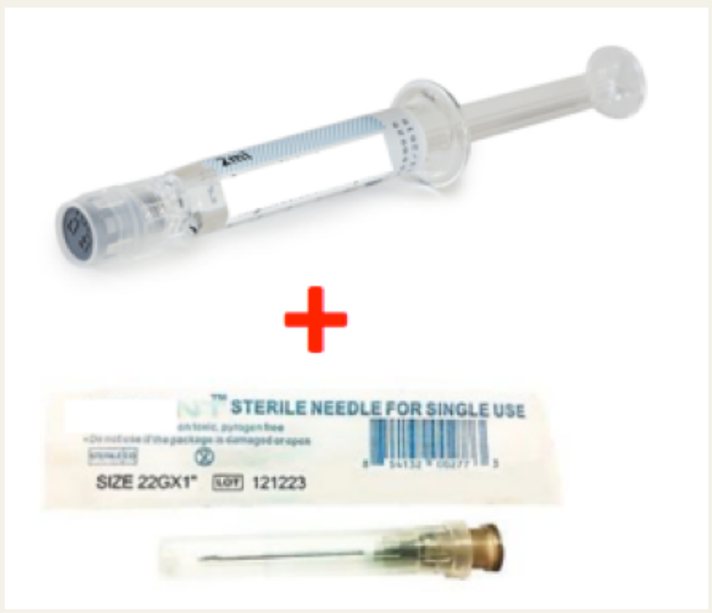

Figure 2. Naloxone pre-filled syringe

Figure 3. Concentrated naloxone nasal spray

Results

Respondent demographics

215 respondents were surveyed. 134 opioid users. 66 staff addiction services. 15 respondents were family members of people who use opioids. 70% were men. 56% 45-64 years old.

Naloxone Device Preference

	Service users N=134	Staff N=66	Family N=15
Which device would you be willing to use in an overdose emergency?	Amp: 48.9% (60/123) PFS: 70.7% (87/123) NS: 84.6% (104/123)	Amp: 34.9% (22/63) PFS: 82.8% (53/63) NS: 79.7% (51/63)	Amp: 40.0% (6/15) PFS: 53.3% (8/15) NS: 93.3% (14/15)
Which device would you be most comfortable using?	Amp: 7.3% (9/123) PFS: 19.3% (43/123) NS: 80.5% (99/123)	Amp: 7.9% (5/63) PFS: 52.4% (33/63) NS: 73.0% (46/63)	Amp: 13.3% (2/15) PFS: 13.3% (2/15) NS: 86.7% (13/15)
Which device do you think would be easiest to use?	Amp: 7.3% (9/123) PFS: 23.6% (29/123) NS: 83.7% (103/123)	Amp: 3.1% (2/64) PFS: 26.6% (17/64) NS: 82.8% (53/64)	Amp: 20.0% (3/15) PFS: 26.7% (4/15) NS: 93.3% (14/15)
Willing to administer naloxone IV	88.5% (108/122)	50.8% (32/63)	86.7% (13/15)
Willing to administer naloxone IM	99.2% (120/121)	93.8% (60/64)	100% (15/15)
Willing to administer naloxone IN	98.4% (120/122)	95.2% (60/63)	100% (15/15)

Table 2. Results of primary hypothesis "survey respondents prefer naloxone nasal spray to injectable formulations". "Amp" = Ampoule, "PFS" = pre-filled syringe, "NS" = Nasal spray. Percentages shown with frequencies in brackets. Respondents could elect >1 answer, explaining why totals are >100%.

Overdose witness rate and naloxone carriage

	Service users N=134	Staff N=66	Family N=15
Ever Overdosed	41.4% (53/128)		
Ever witnessed and overdose	74.2% (95/128)	51.5% (34/66)	26.7 (4/15)
Ever reversed an overdose?	13.6% (17/125)	21.2% (14/66)	0.0% (0/15)
Ever been provided THN	74.8% (95/127)	7.8% (5/64)	66.7% (10/15)
Carrying naloxone at time of survey	5% (5/94)		6.7% (1/15)
Naloxone always available where you/your family member use(s) drugs?	46.5% (59/91)		80.0% (8/10)

Table 1. Overdose experience. Percentages shown with frequencies in brackets

Conclusion

People who use opioids, their family and friends show preference for naloxone nasal spray compared with injectable alternatives, as measured by several outcomes. All study groups were willing and confident to use, and most comfortable carrying, naloxone nasal spray compared with injectable formulations. This study is the first to examine the attitudes of people who use opioids, their family and friends and service staff towards the new, concentrated naloxone nasal sprays versus existing formulations, a key field of study considering the current introduction of novel naloxone nasal spray in North America, Europe and Australia. This, along with studies demonstrating IN naloxone's efficacy and safety, supports the addition of nasal sprays in THN programmes.

Declaration of Interests

John Strang (JS) is a clinician and researcher and has worked extensively with agencies in the addiction treatment fields and addiction-related charities and with government departments and has contributed to clinical guidelines on treatment types and provision. JS's employer (King's College London) has received, connected to his work, project grant support and/or honoraria and/or consultancy payments from Department of Health, NTA (National Treatment Agency), PHE (Public Health England), Home Office, NICE (National Institute for Health and Clinical Excellence), and EMCDDA (European Monitoring Centre for Drugs and Drug Addiction) as well as research grants from (last 3 years) NIHR (National Institute on Health Research), MRC (Medical Research Council) and Pilgrim Trust. He has also worked with WHO (World Health Organization), UNODC (United Nations Office on Drugs and Crime), EMCDDA, FDA (US Food and Drug Administration) and NIDA (US National Institute on Drug Abuse) and also other international government agencies. JS's employer (King's College London) has also received, connected to his work, research grant support and/or payment of honoraria, consultancy payments and expenses from pharmaceutical companies (including, past 3 years, Martindale, Indivior, MundiPharma, Braeburn/Camurus) and trial medication supply from iGen and Braeburn. JS's employer (King's College London) has registered intellectual property on an innovative buccal naloxone with which JS is involved, and JS has been named in a patent registration by a Pharma company as inventor of a potential concentrated naloxone nasal spray. For updated information see: http://www.kcl.ac.uk/ioppn/depts/addictions/people/hod.aspx.
This survey was conducted with funding support from Mundipharma International.

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