west midlands
police and crime
commissioner

West Midlands Nasal Naloxone Pilot Evaluation

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1.0. Introduction

In July 2019, West Midlands Police undertook a Nasal Naloxone pilot over 12 months. The aim of this report is to outline the steps taken, and also to highlight the successes and learning outcomes. This will allow for further development of other forces across the country, who may want to implement the same practice.

1.1. Naloxone

Naloxone is a short-acting opioid antagonist that is used for reversal of respiratory or central nervous system depression from opioid overdose. During overdose, there is a small and immediate opportunity to deliver naloxone in order to preserve life. Until 2015, naloxone was a prescribed only medication. It was also available in emergency settings, primarily through ambulance services and medical professionals, who are specifically equipped and trained to undertake such tasks.

Legislation was passed in 2015 that made it possible to increase availability of take home naloxone (THN) to a wider range of carriers, and THN became exempt from prescription requirements when supplied either by a drug treatment service commissioned by a local authority, the NHS, Public Health England or other commissioned public health agencies under the conditions of being 'in the course of provisions of lawful drug treatment services and only where required for the purpose of saving lie in an emergency'. Following the introduction of the new legislation in 2015, drug treatment services began training people in the use of naloxone, and distributed intramuscular (IM) naloxone kits in February 2019, The Human Regulations 2012 were amended to permit drug treatment services to also train people in the use of intranasal IN naloxone.

1.2. Introduction to Pilot

Police Officers from Birmingham City Centre volunteered to undertake the training with intranasal with intranasal naloxone, in order to be able to administer it to people who they believe have overdosed on opioids.

The key aim of the naloxone pilot is to improve the evidence base for naloxone usage by police officers and staff. In addition, the project aims were to:

- Reduce drug related deaths in Birmingham.
- Assess the benefits in reducing drug related harm.
- Increasing awareness of naloxone and how it works.
- Increasing the availability of naloxone, especially in targeted hotspot areas.
- Issuing take-home kits.

1.2.1. Background

In December 2017, the West Midlands Police and Crime Commissioner held a Drug Policy Summit. Within the summit, practical proposals were announced to tackle the cost of drug use to public services, reduce drug related crime and the shocking number of deaths in the region. This came on the back of a report published by the PCC, outlining the toll that drugs are taking on our society [(1)]. The impact of drugs in the West Midlands, costs an estimated £1.4 billion to the area each year. Within the region, every three days somebody dies from drug poisoning, with a death every four hours in England. Drug-related crime, pressures on the health service, drug-related deaths and social care costs are over £60,000 a year for a heroin user.

The main cause of premature death in people who use drugs in the UK is by drug overdose. Of these deaths, heroin and morphine account for 32% of all deaths related to drug poisoning in England and

Wales; making opiates the most common cause of drug related deaths[2]. The majority of these deaths are preventable, if they are reached early by the use of naloxone. Although the task of treating those with a suspected opiate overdose lies with emergency health services, it is recognised that operational police officers and staff will often be first to arrive at the incident. For this reason, police officers and staff can have a role in overdose response. However there were some challenges in making this happen, as police are not allowed to administer medicine.

2.0. Context

2.1. Strategic Priorities

The nasal naloxone pilot grew out of the West Midlands Police and Crime Commissioner's report which revealed that every three days in the West Midland's, somebody dies from drug poisoning, with a death every four hours in England; a figure which has been rising since 2010 and for the last four years, has been the highest since records began. The provision of mainstream treatment and harm-reduction services is the foundation of good drug policy. These services, have faced significant cuts to their funding in recent years. The knock on effect of these cuts is becoming clear, with drug related deaths at an all-time high. Within the PCC's drug recommendations paper[3], better naloxone provision is recognised as a key **point** of action; echoing the government's 2017 Drug Strategy[4] as well as Public Health England's guidance for an approach that targets the widest possible population who might benefit from the naloxone

2.2. Geographic context

The pilot was launched within the West Midlands. This area includes the local authorities of Birmingham, Coventry, Dudley, Sandwell, Solihull, Walsall and Wolverhampton. Compared to the other local authorities, Birmingham has the highest number and the highest rate of drug-related deaths in the West Midlands a well as being an area with reports of high levels of anti-social behaviour related to people using drugs That is why it has been chosen as the local authority area for the pilot. This location was determined by categorising and assessing the points of risk: individuals, institutions and geographies [5].

2.2.1. Hotspot mapping

Geographic hotspot mapping, indicated that urban centres appear to face the most visible need for naloxone. In the Birmingham area, West Midlands Ambulance Service administered naloxone on average of 48 times in each city centre postcode; this also coincides with a high concentration of needle litter. On the contrary postcodes outside of the city centre had on average a third of administrations of that of the city centre. The supply of Naloxone along with appropriate training to first responders, e.g. police officers, in this area could have a significant impact on reducing the number of fatal overdoses.

The needle litter recovered by Birmingham City council is predominantly focused within the city centre, with fewer needles recovered in other parts of the city. The maps below highlights the locations of needle deposits reported to Birmingham City Council in 2015 (orange), 2016 (blue) and March 2017 (red).

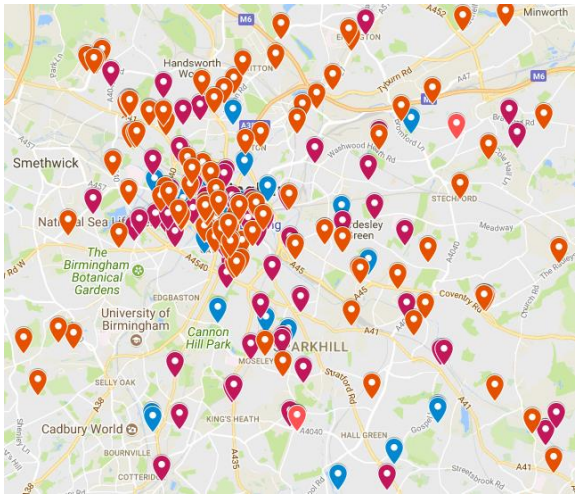

Figure 1 - Birmingham City Council Area

Figure 2 - Birmingham City Centre

For this reason, Birmingham city centre has the most pressing need for individuals carrying naloxone kits. There are several policing teams that cover this geographical area. Birmingham Central Neighbourhood Team operates in the specific geography that correlates with the need as previously identified.

2.3. Views of service users

We were concerned with service user's perceptions of police officers carrying naloxone, as they are the cohort the provision was being provided for. To understand how people who use drugs (PWUD) would react to officers carrying naloxone, service users at a West Midlands based needle exchange were asked three questions:

1. What do you think about police officers carrying naloxone?
2. Would police carrying naloxone change your confidence in calling 999?
3. How would police carrying naloxone change your opinions about police?

The overall emerging themes that were identified from the responses are; (a) greater trust, (b) greater awareness, and (c) a sense of urgency within the community. Below are statements in regard to the themes aforementioned:

(a) Greater trust and confidence

"Police carrying naloxone and saving a life from an overdose of an illicit drug could well improve the image of the police in the community and build some rapport."

(b) Greater awareness and compassion

"I would feel like they would be more open minded about the drug itself."

"If police offers carried naloxone it would show a more compassionate view towards substance users."

"Make them more aware of accidental overdose, maybe."

(c) A sense of urgency within the community.

"It is a very good idea and I am surprised it is not already happening given the rise in drug related deaths."

"Excellent idea as they are front line responders. It is logical, it is practical, as I believe it will save lives."

"Much needed in light of an increase of overdoses within the community."

3.0. Implementation

In order for volunteer police officers to carry naloxone, it was important they were provided with suitable training to equip them with the relevant knowledge they required. The training officers received was influenced by a questionnaire prior to training sessions. The responses received within the questionnaire gave an understanding of drug related deaths as well as how officers felt about carrying naloxone.

3.1. Phase 1: Training

The training for officers was one of the main aspects of the pilot. As previously mentioned, it was not compulsory for officers to carry naloxone. It was important that the training provided for officers who had volunteered to take part, was comprehensive and prepared them effectively for identifying an overdose as well as administering naloxone.

In the training, a brief and easy to understand discussion was had around the pharmacokinetics and pharmacodynamics of opiate drugs and the signs of opiate overdose. Once naloxone had been introduced and officers had an understanding of the medication, a video and a demonstration was shown on how to prepare and dispense naloxone, monitoring the patient and the actions required after the use of naloxone.

3.1.1. Pre-training questionnaire

Prior to the pilot's commencement, an academic research dissertation was undertaken by a steering group member in order to fulfil the requirements of completing an MSc at the Public Health Institute[(6)] (part of Liverpool John Moores University). The research dissertation assessed attitudes, competency, knowledge and experiences of drug use and people who use drugs amongst the neighbourhood teams in the West Midland Police Force, as well as the readiness of officers to carry and use naloxone The research found that officers wanted to support people who use drugs and wanted to receive training to equip them to deal with drug overdoses, including being trained to carry and use naloxone.

Competency Issues:

- 100% of officers either disagreed or strongly disagreed that they would be able to effectively deal with an overdose
- 100% of officers either agreed or strongly agreed that they would need more training to help someone suffering from an overdose

Readiness Items

- 82% of officers will do whatever is necessary to save someone's life in an overdose situation
- 63% of officers had no understanding of Naloxone
- 91% of officers wanted to be able to help someone who overdoses

Concern Items

- 72% of officers worry that if they carry Naloxone an ambulance may not come to attend.
- 81.82% of officers would be afraid of doing something wrong in an overdose situation.
- 63.64% of officers would be afraid of giving naloxone for fear that the person becomes aggressive afterwards.

Other

- A greater proportion of officers would feel more comfortable using intra nasal naloxone as opposed to injectable
- Overall 70% of officers thought that they should be trained to carry Naloxone.

The findings from this questionnaire helped to inform the training provided to officers, including which type of naloxone would be more appropriate for officers to be equipped with.

3.1.2. Officer training

The training sessions provided were carried out by a minimum of two trainers from the local drug treatment provider Change Grow Live (CGL).

The sessions entailed an open conversation with officers around what opiate drugs are – including street names and what opiates definitely aren't.

3.1.3. Post questionnaire

Initial feedback from officers after the session had not been received, however a questionnaire for further feedback was circulated a few weeks after the training session. Results from this questionnaire are still awaited.

3.1.4. Training Provider Feedback (CGL)

Although no post-training responses were collected from officers in attendance at training sessions, feedback from the providers was available.

CGL felt training was well received by all officers who took part – the training was presented in an easy format including an effective video. The police were enthusiastic and appeared to be very open and receptive in finding a new approach in dealing with the cities drug problems and the clients involved – they had a less punitive approach to policing around drug issues.

The training became more refined from a CGL view point the more times it was completed as with any teaching session.

3.2. Phase 2: (Pilot)

The pilot ran for the initial 6 month period. Intra nasal naloxone and the training that officers received was provided by Birmingham City Council's drug treatment provider, Change Grow Live (CGL).

Officers at the end of their training sessions, if comfortable, were issued with an intra-nasal naloxone kit. The kit was provided along with an information card to provide to any individual that it has been administered to. The card includes information of drug treatment service providers in Birmingham who they could contact for further help. This feeds into the wider agenda of West Midlands PCC of not only saving lives but also reducing harm and costs to society, by being able to refer people to treatment providers.

3.2.1. Oasis log

Data has been collected from routine information sources such as the Oasis log, where police officers are requested to record each nasal naloxone administration. In order to record when naloxone had been used by officers, we created a section on the app, for it to be logged. Recording of this information is necessary from an organisational/legal/knowledge/health perspective, as well as for the safety of officers. In addition to the Oasis log, after leaving the incident, body worn video footage from the officers should be uploaded.

3.3. Phase 3: 6 month review

The initial pilot was due to take place for six months. During that time there was no issues with the pilot, though there had not been any recordings of the use of nasal naloxone. The lack or any recorded uses could be the result of a small cohort officers carrying naloxone and their encounters with overdoes during the short time frame. Due to no issues arising, the pilot has been extended for a further six months to allow for evaluation and monitoring of the pilot.

3.3.1. Reflections (Stakeholders)

The pilot has been developed through a multiagency stakeholder group. This includes - the Office of West Midlands Police and Crime Commissioner (OPCC); West Midlands Police (WMP); Public Health England (PHE); ChangeGrowLive (CGL), and Walsall Council Public Health Department. In addition to the stakeholders aforementioned, the West Midlands Police's Clinical Governance panel provided oversight of the pilot.

The aim of interviews and reflections from stakeholders, was to understand the processes that went into getting the pilot to the point that is at.

The overall consensus from the multiagency stakeholder group was that the pilot has been a success, with all partners engaging effectively. The engagement of partners was not the only measure of success. Stakeholders emphasised the fact that West Midlands Police are the first force in the UK equipped with naloxone, and the positive change in officer's attitudes, as the real measure of success.

Although, from a stakeholder perspective, the pilot has been a success - a note was raised in relation to the lack of any recorded uses of naloxone by officers. Reasons for the lack of recording has been identified, and is something which is being worked on to improve.

3.3.2. Extension (pilot)

The pilot was initially scheduled to run for 6 months. Once the initial 6 months came to an end, the decision was made to extend the pilot for a further 6 months.

The decision to extend the pilot was taken to enhance the evaluation and continue monitoring. During this time, it has allowed stakeholders to further develop the pilot; including identifying ways in which the recording of naloxone could be improved.

4.0. Evaluation

4.1. Cost effectiveness

Drug related deaths within the United Kingdom are at a record high. Public Health England reported that, within the West Midlands, 35,381 people used opiates and/or crack cocaine between 2016/2017. The following year saw 4,359 deaths relating to drug poisoning in England and Wales; a 16% increase since 2017 and the highest number since recording began in 1993. Deaths related to drug misuse account for 67% of the total registered deaths related to drug poisoning.

The cost of illicit drug use is estimated to be £20 billion; with £0.8bn being spent on enforcement, and £7.8bn being spent on deaths and hospitalisation [7]. Within the West Midlands Police and Crime Commissioner's 'Substance Misuse' report, the cost of ***each*** drug user is estimated at £63,320 per year. This figure is, in part, due to the fact that officers are often required to secure scenes after fatal overdoses; sometimes for considerable amounts of time.

This pilot has helped to reduce the number of overdoses meaning that, as well as saving lives, it will reduce the cost to the taxpayer and free-up resources to tackle crime.

Responses to the Service User's questionnaire (see section 2.3) reinforce the benefits of officers carrying naloxone with users stating that, during overdose scenarios, they would no longer be worried to call the police due to fear of being arrested. This documentation of behaviour change further evidences the cost effectiveness of naloxone.

4.2. Officer confidence (post questionnaire)

Prior to the pilot, officers undertook a questionnaire to understand their readiness and confidence in carrying naloxone. The results proved that officers did not feel confident to carry the kit, however were willing to in order to help save a life wherever possible.

Post training officers were asked if they felt confident to be able to administer naloxone. 51 of officers trained stated they had the confidence, and as a result were issued with individual kits. A follow up questionnaire for more elaborate feedback has been circulated and results are awaited.

4.3. Portability

The portability of the naloxone kit was something which was taken into consideration. The kit was small enough for officers to have on their person; containing a nasal naloxone along with a nasal naloxone treatment card.

4.4. Suitability of training (table)

The main method of determining the effectiveness and suitability of the training sessions, was to conduct pre-training and post-training questionnaires. The pre-training questionnaire indicated that there needed to be an improvement in knowledge of opiates and those who use them. It was important that the training encompassed these factors.

A measure of the suitability of training was displayed in how many officers felt comfortable to be issued with a nasal naloxone kit, once training was finished. The feedback received from CGL who delivered the training was that it was well received by officers.

Number of Training Sessions	**4**
Number of Officers Trained	**52**
Number of Kits issued	**55**
Cost of Intra-Nasal Naloxone Kit	**£32**
No. of uses	**1***

Overall, 52 officers attended the training sessions provided. Of the cohort of officers trained, 51 accepted kits. 1 officer declined, although stated that if satisfactory answers could be provided to their questions, they would be willing to be issued a kit. Firearms officers and train the trainer officers were in attendance at the sessions on how to use naloxone but no kits were dispensed to this group of officers at the time.

51 Naloxone kits were issued directly to police staff and a further 4 kits were handed out to be stored in vehicles - therefore a total of 55 Kits were issued.

***Currently there are no official records of WMP using naloxone, however there is possible evidence of use from a video circulated on social media.**

5.0. Recommendations

The recommendations have been split into two categories based on feedback from stakeholders; training and recording. The two most important aspects of this pilot, was the training the officers received; and how many times officers administered naloxone.

5.1. Training.

Overall, training was well received by officers; this is displayed by the number of officers that agreed to be issued with intra-nasal naloxone kits after the training sessions. The training improved as more sessions were delivered, as it became more tailored to the officer's needs. However there were aspects of the sessions, such as Q&A, that could have been improved with the presence of police supervisors. This would be helpful to answer any policing questions that training providers do not have the answers to.

5.2. Recording

As previously mentioned throughout this evaluation, there has been reference to the lack of recording of the use of nasal naloxone by officers. This is also reflected by the fact that there has only been one recorded use of the kit. Moving forward, there are several recommendations that could be implemented to ensure that any use of nasal naloxone in the future is recorded.

5.2.1. Incorporated in training

It is paramount that officers who have been administered naloxone kits, understand the importance of the need to record any use of naloxone. An example of good recording practice could be built into the session, which could ease any anxiety the officers had around using the medication and also support the police/CGL around its use in practice, including the need to re-issue the medication to police.

5.2.2. Review app

Lack of recording of naloxone being administered could be due to the fact that the reporting portal for officers, to document the use of intra-nasal spray, is currently in the wellbeing section of the app officer's use. It is advised that the reporting portal on the app for intra-nasal naloxone to be used an alternative section, potentially under 'use of force'.

5.2.3. Consider recording at point of reissue

Nasal naloxone can only be administered once, meaning that once used, officers would require a new kit. If there had been no recording of the use, further details could be taken at the point of re-issue, to create a record of use.

5.3. Widening the use of Naloxone

Consider widening the use of naloxone to other towns and city centre officers. Introduce naloxone training as part of the routine first aid training for all police officers, including firearm officers and response teams. This will further add to the evidence base of the benefits in reducing drug related harm.

5.4. Future funding

As previously stated, widening the use of Naloxone to other town and city centre recommended. In order for this to be done, it is recommended to seek an agreement to further fund the carrying of naloxone kits to officers across the region.

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