

NEAS evidence to Overview and Scrutiny Committee

OPIOID DEPENDENCY IN MIDDLESBROUGH

DANIEL J. HAWORTH

Contents

Introduction	2
Background	2
Scope.....	2
Methodology.....	2
Definitions	2
Discussion.....	2
Hospital admissions	4
Patient outcomes	4
Location of incidents where Naloxone is used	4
Demographic Information.....	5
North East regional profile.....	6
Conclusions and recommendations.....	6

Introduction

Background

North East Ambulance Service NHS Foundation Trust (NEAS) covers 3,200 square miles across the North East region. It employs more than 2,600 staff and serves a population of 2.7 million people by handling all NHS111 and 999 calls for the region, operating patient transport and ambulance response services, delivering training for communities and commercial audiences and providing medical support cover at events.

In 2018/19 we answered more than 1.4m emergency 999 and NHS 111 calls, with almost 290,000 patients taken to hospital, 21,500 treated and discharged over the phone and more than 100,000 treated and discharged at home.

Scope

This report looks at Naloxone Hydrochloride use in the Middlesbrough postcode sectors of TS1-8, from 2017 to present day. Four questions were posed to the NEAS in the original request:

- Is there a concentration of ambulance call out requests / particular hot spots for overdose / poisoning by drug misuse cases locally?
- Has NEAS continued to see an increase in calls for overdose / poisoning by drug misuse and treatment with Naloxone over the 2018-20 period?
- Are hospital admission rates for overdose / poisoning by drug misuse in Middlesbrough increasing?
- What demographic information is available in respect of those affected?
- Does NEAS have any views on what action can be taken locally to reduce these figures significantly?

This report will aim to answer those questions.

Methodology

The NEAS uses an electronic record system to record patient demographic, assessment and treatment details. These are then uploaded to a central database for clinical audit and reporting purposes. The database was interrogated to provide the information contained within this report.

It's important to note that NEAS has no access to blood results or other forms of definitive diagnosis for opioid toxicity and relies solely on the history given by patients and friends and other environmental clues to determine whether an opiate overdose is likely or possible.

Definitions

	Definition
Naloxone Hydrochloride	Opioid reversal agent normally given as an injection.
Narcan	Brand name for Naloxone Hydrochloride
e-PCR	Electronic Patient Care Record
EMS	Emergency Medical Services

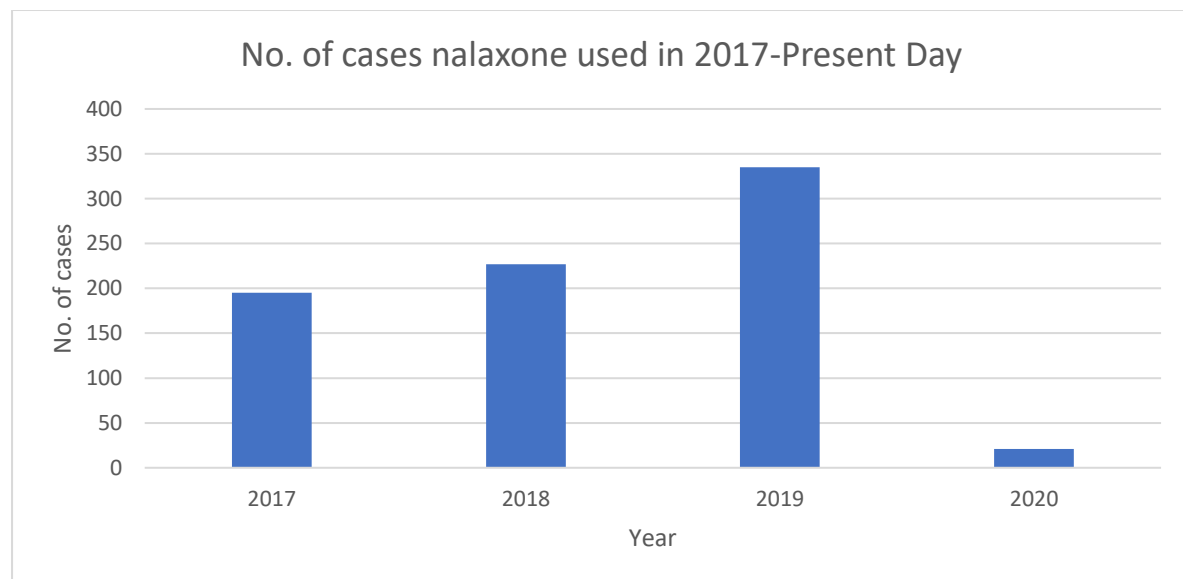
Discussion

NEAS has seen an increase in the number of overdose cases attended in the TS1-8 postcode areas over the last three years; with 2019 being the last full year available. In 2017 the number of overdose cases attended was 982 and this has risen to 1757 in 2019. It is worth noting that the term

overdose is a very wide definition and may include both accidental and unintentional overdose of both prescription and illicit drugs. In terms of identifying patients who have probably taken an overdose of an opioid based drug, the use of Naloxone is more accurate measure.

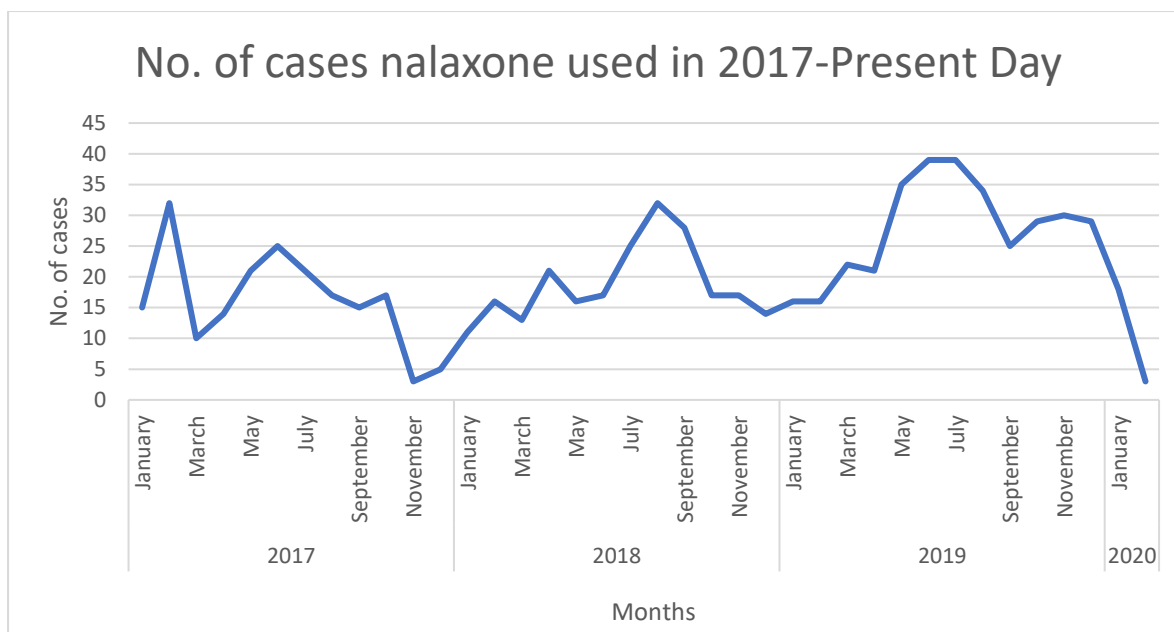
NEAS documented 778 cases where Naloxone was administered to a patient between January 2017 and the present day, with a significant increase (38%) in usage between 2018-2019. This accounts for approximately 1% of all face to face ambulance encounters in the same area.

During this time period the indications for the administration Naloxone Hydrochloride have not changed and therefore it is reasonable to assume that the NEAS is seeing more cases of opioid toxicity.



On average, over that time period, 10% of the cases where Naloxone Hydrochloride was administered were for patients who had experienced a cardiac arrest. This proportion of patients suffering cardiac arrest has remained consistent over those three years with no significant increase in 2018-19.

There does appear to be some seasonal variation in the number of cases, with the summer months seeing greater numbers of cases than winter. However, with only 3 years' worth of data it's not a large enough sample to draw definitive conclusions.



Hospital admissions

NEAS does not hold data on hospital admissions per se; we did however transport 78% of patients and all of those went to James Cook University Hospital. Twenty-two percent of patients were not transported to another location for a variety of reasons.

Patient outcomes

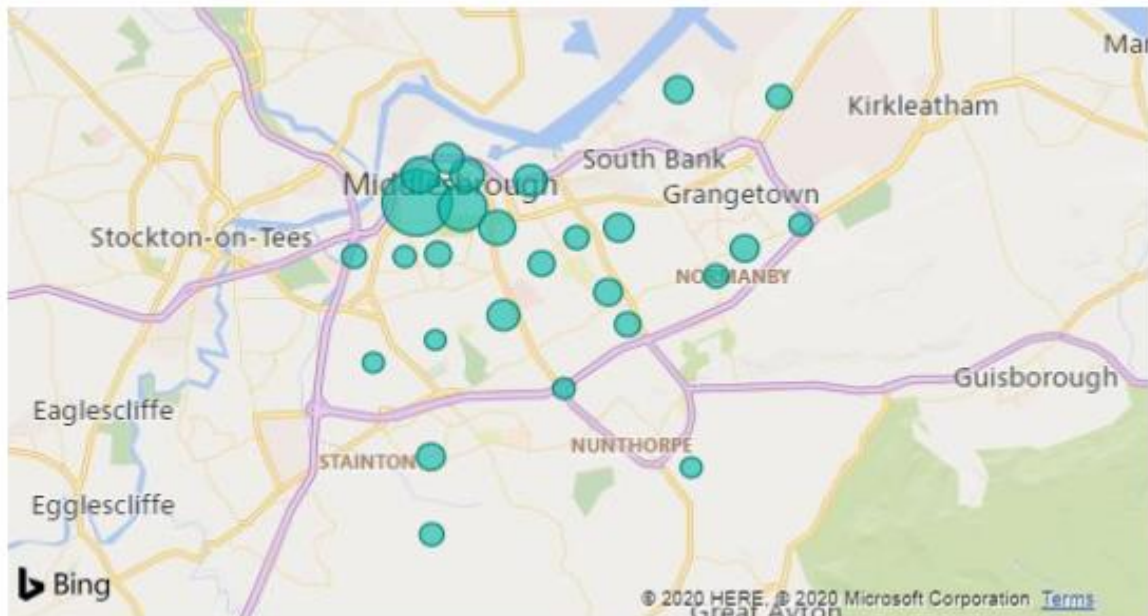
Except for the 16 patients that were sadly 'recognised as life extinct' on scene, we don't hold information on patient outcomes. This would need to be sought either from the acute trust or primary care colleagues.

Location of incidents where Naloxone is used

Within the Middlesbrough area, the TS1 postcode area has the highest rates of Naloxone use and accounts for nearly 40% of all cases where Naloxone was administered since 2017.

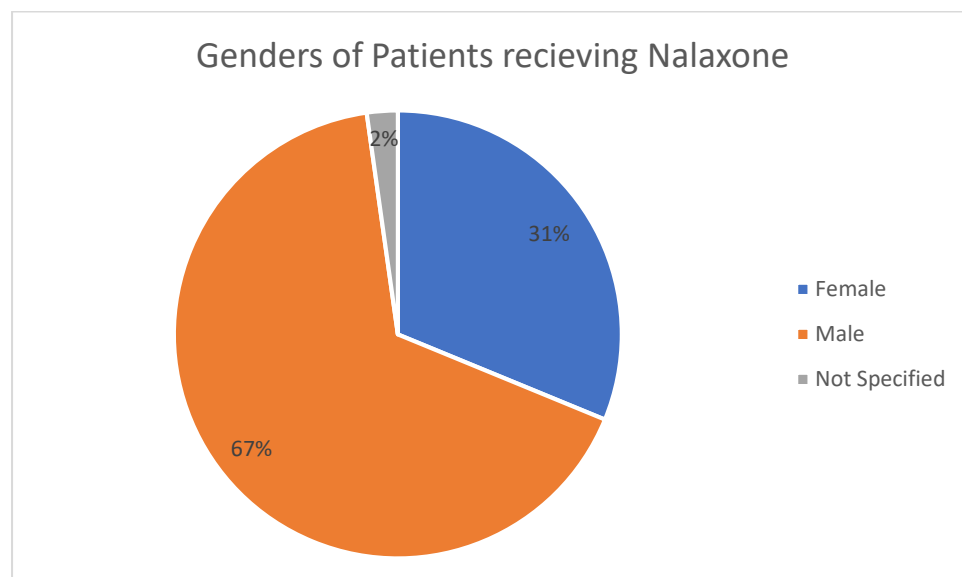
Postcode Sector	Naloxone Usage since 2017
TS1	348
TS3	128
TS4	83
TS5	55
TS6	94
TS7	32
TS8	38

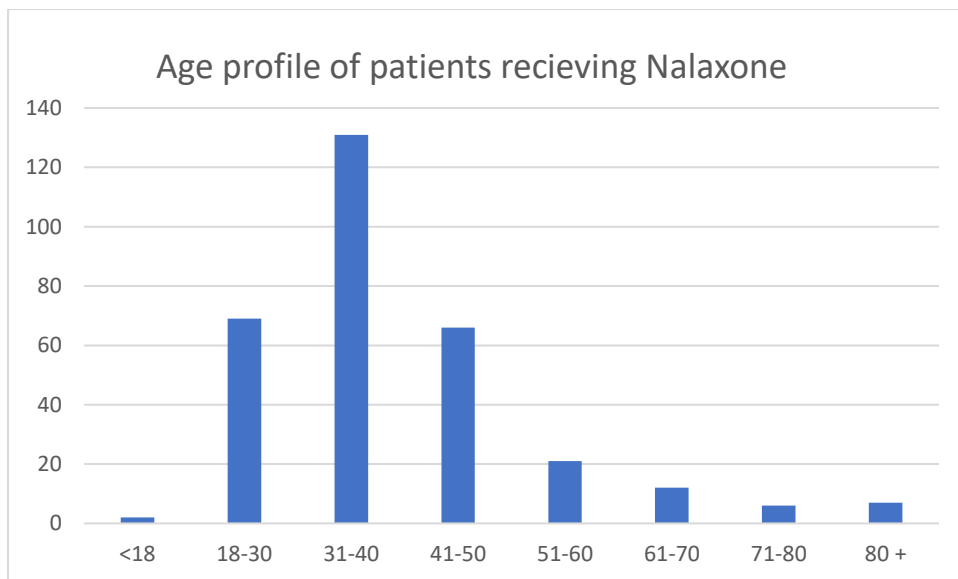
The below map demonstrates the spread of incidents in the Middlesbrough area. It does include areas of Grangetown, Normandy and South bank, which we do recognise are not in the Middlesbrough Council area but this is the incident location rather the patients home address so there may be a crossover between the Middlesbrough area and the Redcar and Cleveland areas.



Demographic Information

Capturing demographic information outside of gender and age is challenging in the pre-hospital environment. What we can see is that most people treated with Naloxone are male and are in the age ranges of 18-50.





North East regional profile

If you compare the Middlesbrough data with the rest of the region, it broadly follows very similar lines. Naloxone use has increased every year for the last 3 years, the seasonal variation is mirrored, and most patients do go to hospital. We were not able to do the age comparison and gender comparison regionally.

Conclusions and recommendations

With regards to the original questions; the TS1 and TS3 postcodes have the highest usage of Naloxone in the Middlesbrough area. There has been an increase in both general overdoses and more specifically overdoses where opioids were suspected of being involved. Whilst it's too early to say whether we will continue to see the increasing use of naloxone in 2020, 2018-19 saw a significant increase in use. Whilst NEAS does not hold data on hospital admissions, this increased activity has certainly seen more patients transported to hospital for overdoses, opioid and none opioid related. Demographic information held by the NEAS is limited but the majority of patients who receive Naloxone Hydrochloride were men and the largest age bracket is for those aged 31-40.

NEAS is unable to suggest actions that could be taken locally to reduce these figures. What we can do is highlight work that is being undertaken by other EMS agencies around the world. The US has seen the most significant challenges to its EMS providers, in terms of the opioid crisis that has been going on for some years. Whilst the transferability of lessons from the US to the UK, with their very different approaches to healthcare and EMS provision, is not always possible, two areas of practice may be worth the bringing to the attention of the committee:

1. Information sharing between ambulance services and other public health bodies.
 - In some communities, EMS services regularly share data with public health and law enforcement agencies to help community partners better understand when unexpected peaks are occurring and put plans in place to address them. This would require information sharing agreements and support from NHS commissioning colleagues but may provide a very useful early warning when a potentially fatal batch of drugs.

2. Within the US many law enforcement agencies have issued their officers with Naloxone kits, in order to provide immediate treatment model to patients. This is being adopted by some police forces elsewhere in the UK. NEAS has no view on this, it's more for information for the committee.
3. Finally, I would draw the attention of the committee to an on-going piece of research into 'Take-home Narcan'. Whilst not currently being undertaken in this region, the ['Take home naloxone intervention in multicentre emergency setting'](#) is investigating whether ambulance paramedics and Emergency Department staff giving out THN kits to drug users reduces deaths from overdose and to see if it is possible to collect data on this cohort of patients.