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Gwasanaethau Ambiwylans Cymru
Welsh Ambulance Services
University NHS Trust

Cadeirydd

Chair: [REDACTED]

Prif Weithredwr

Chief Executive: [REDACTED]

Swyddfa'r Prif Weithredwr a'r Cadeirydd

Chair and Chief Executive's Office

Our ref: [REDACTED]

Your ref: [REDACTED]

17 July 2024

FAO: Edward Ramsay

Assistant coroner for Swansea and Neath Port Talbot

By email only to: [REDACTED]

Dear Mr Ramsay,

Re: Inquest into the death of Stefan Barrie Walker

I am writing in response to the Regulation 28 Report to Prevent Future Deaths, that you issued on 17 June 2024. On receipt, the report was passed to our Associate Medical Director for Emergency Care (who is a Consultant in anaesthesia, intensive care medicine & pre-hospital emergency medicine) and our Executive Director of Paramedicine. Advice and consultation with the National Ambulance Service Medical Directors Group (NASMeD) has also been sought in order to give your report our fullest consideration.

As you are aware, flumazenil is a drug which acts to reverse the effects of benzodiazepine drugs (such as diazepam, midazolam, and similar agents). The drug 'naloxone' to which you also refer is a drug which reverses the effects of opioid drugs (such as morphine, heroin, fentanyl, etc).

Naloxone is routinely carried by ambulance crews and can be administered by paramedics & emergency medical technicians. It is also carried by several UK police forces, and issued to members of the public who may come into contact with patients who are experiencing the effects of opioid overdose, as part of a wider strategy to reduce harm. Naloxone in this context has an excellent safety profile and there is extensive experience of use across the world.

Mae'r Ymddiriedolaeth yn croesawu gohebiaeth yn y Gymraeg neu'r Saesneg, ac na fydd gohebu yn Gymraeg yn arwain at oedi

The Trust welcomes correspondence in Welsh or English, and that corresponding in Welsh will not lead to a delay

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There are very robust clinical reasons as to why flumazenil cannot and should not be considered in the same way. While flumazenil does reverse the effects of benzodiazepines, its use for overdose of benzodiazepines (and in particular overdose in the context of multiple drugs including benzodiazepines) is controversial and potentially very hazardous.

Flumazenil has multiple serious side effects including life-threatening heart rhythm disturbances, and seizure activity. It also has drug interactions with many commonly used medications. The use of flumazenil is contraindicated in patients with seizures who are normally controlled with benzodiazepines & it must be used with great caution in patients who have prolonged use of benzodiazepines for any reason.

The UK licenced indication for flumazenil is the "reversal of sedative effects of benzodiazepines in anaesthesia and clinical procedures". Any use in other circumstances would be outside of the scope of the UK product licence and would not be something we could legally authorise for paramedic use.

The view of our Associate Medical Director for Emergency Care is that flumazenil should not be carried for use in the context of suspected benzodiazepine overdose, and that supportive treatment should be provided instead. This advice was echoed by his colleagues at NASMeD.

This is also the advice of the National Poisons Information Service (NPIS) who published guidance suggesting that flumazenil should be used only to "avoid mechanical ventilation in patients who developed reduced ventilation and coma due to GABA-A agonists". (GABA-A receptors are the mechanism through which benzodiazepines have their effect). They go on to explicitly state that flumazenil "SHOULD NOT be used as a diagnostic test for benzodiazepine poisoning" or where the risk of convulsions is high, such as patients who have prolonged exposure to benzodiazepines over time, or where other potentially pro-convulsant drugs may have been taken (for example tricyclic antidepressant drugs).

To address your specific matters of concern from the report:

*"I was told that **paramedics and ambulance crew do not carry flumazenil** (but often do carry naloxone). The availability of flumazenil was happenstance in this case because STEFAN was on an acute psychiatric ward where the said antagonist was being kept and could be prescribed by the ward pharmacist and administered by the doctors (with the support paramedics when they arrived). "*

Some of our Welsh Ambulance Service paramedics do carry flumazenil and may utilise it under a patient group directive (PGD) authority. But this use is specifically only for the emergency reversal of benzodiazepines which they have administered, so this only applies to paramedics who are trained and authorised to use advanced sedative pain-relieving drug options. These paramedics however can (and should) only use flumazenil in this specific context, and the PGD is explicit that it should not be used in the context of other suspected benzodiazepine overdose for the reasons outlined above.

"I am concerned that there may be other acute circumstances when the use of this particular antagonist (flumazenil) could make a difference (say in the case of the collapse of person on the street or otherwise in the community) but will not be available since paramedics do not it. "

Hopefully the explanation I have provided above will reassure you that flumazenil should not be used in this context based on all current clinical guidelines. Ambulance personnel are trained in advanced airway techniques and other supportive care strategies which are more appropriate for the management of benzodiazepine overdose.

"I and the jury heard no evidence as to why naloxone is carried, but other antagonists (such as flumazenil) not."

Again, hopefully my explanation above will provide you with sufficient reassurance around this question. Naloxone has a long established and proven safety record and can and should be made widely available for the management of potential opioid overdose. Flumazenil by contrast would be unsafe for deployment in this manner and against all current published clinical guidelines.

In closing, I hope this letter provides you with the information you require. However, if you have any further questions please do not hesitate to contact me, this can be done by writing to the address shown on this letter or by email to [REDACTED]

While writing I would like to offer my sincere condolences to Mr Walker's family on their sad loss.

Yours sincerely

[REDACTED]

Chief Executive