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Mr Crispin Butler
Senior Coroner for Buckinghamshire
Coroner's Office
29 Windsor End
Beaconsfield
Buckinghamshire
HP9 2JJ

Our Reference LT02365

Via email to: coroners@buckscc.gov.uk

December 2nd 2019

Dear Mr. Butler

Inquest into the death of Alf Rewin

I am writing in response to the Regulation 28 report received from HM Senior Coroner dated 7th October 2019. This follows the death of Alf Rewin who sadly passed away on 22nd November 2018. This was followed by an investigation and inquest which concluded on 25th September 2019. Firstly, we would like to express our sincerest condolences to the family of Mr. Rewin.

Unfortunately, NHS Digital was not informed that this inquest was occurring, and it is disappointing that we did not have the opportunity to provide information and address your concerns directly at the inquest.

Pathways is the clinical decision support software used by all 111 service providers, and some 999 ambulance service providers including South Central Ambulance service. I am Darren Worwood RGN, RSCN, BSc, SPQ and am writing in my capacity as Deputy Clinical Director, NHS Pathways, NHS Digital.

We have included the updated Coroner's Information Pack (containing background information on NHS Pathways).

HM Senior Coroner has raised the following matters of concern with regards to NHS Pathways:

1. The National Ambulance Call Categories prescribed by NHS Pathways to ambulance services, including South Central Ambulance Service, who were the attending service in relation to Alf Rewin's death, indicate that an individual contacting emergency services himself or herself, having taken an overdose may be triaged through the national call handling pathway to a Category 3 Urgent call. This category currently prescribes a target attendance within 120 minutes.

2. There is a concern that in cases of overdose, the patient is at risk of becoming unconscious or having a cardiac arrest or other potentially fatal event and will be unable to contact emergency services or be contacted by them subsequently, such that his or her call should at that stage then be regraded as Category 1 (with a 7 minute response time) or a Category 2 (with an 18 minute response time).
3. In Alf Rewin's case, there existed a local policy to override the Category 3 120-minute response in overdose cases to provide a specific triage which could lead to a Category 2 18-minute response (although the 18-minute response was not, in fact, implemented at the outset in Alf Rewin's case and he was initially allocated the national Category 3 response).
4. It is understood that the national categorisation of overdose cases is under review. Whilst the Category 3 120-minute target may be the standard, subject to local variation, in relation to overdose cases where the patient is conscious, the risk of deaths arising during this period remains where the circumstances of the overdose might enable some counteractive treatment to be given, or successful resuscitation measures to be carried out, if there were to be earlier attendance and /or earlier hospitalisation.

BACKGROUND INFORMATION

For information, I have provided below a short summary of the functions that NHS Pathways performs and the governance that underpins it.

Function of NHS Pathways

NHS Pathways is a programme providing the Clinical Decision Support System (CDSS) used in NHS 111 and half of English ambulance services. This triage system supports the remote assessment of over 16.7 million calls per annum. These calls are managed by non-clinical specially trained call handlers who refer the patient into suitable services based on the patient's health needs at the time of the call. These call handlers are supported by clinicians who are able to provide advice and guidance or who can take over the call if the situation requires it. The system is built around a clinical hierarchy, meaning that life-threatening problems assessed at the start of the call trigger ambulance responses, progressing through to less urgent conditions which require a less urgent response (or "disposition") in other settings.

Governance of NHS Pathways

The safety of the clinical triage process endpoints resulting from a 111 or 999 assessment using NHS Pathways, is overseen by the National Clinical Governance Group, hosted by the Royal College of General Practitioners. This group is made up of representatives from the relevant Medical Royal Colleges. Senior clinicians from the Colleges provide independent oversight and scrutiny of the NHS Pathways clinical content. Changes to the NHS Pathways clinical content cannot be made unless there is a majority agreement at NGCC.

Alongside this independent oversight, NHS Pathways ensures its clinical content and assessment protocols are concordant with the latest advice from respected bodies that provide evidence and guidance for medical practice in the UK. In particular, we are concordant with the latest guidelines from:

- NICE (National Institute for Health and Clinical Excellence)

- The UK Resuscitation Council
- The UK Sepsis Trust

NHS Pathways currently available version is Release 18. Widescale deployment of Release 18 to all providers of NHS111 and all ambulance services in England that use the NHS Pathways system began on 7th October 2019, with services then having an 8 week period to update their staff and deploy in their systems.

NHS DIGITAL'S RESPONSE

To specifically address the concerns raised:

1) **The National Ambulance Call Categories prescribed by NHS Pathways to ambulance services, including South Central Ambulance Service, who were the attending service in relation to Alf Rewin's death, indicate that an individual contacting emergency services himself or herself, having taken an overdose may be triaged through the national call handling pathway to a Category 3 Urgent call. This category currently prescribes a target attendance within 120 minutes.**

We have broken down our response to the concerns raised and details of measures in place and actions taken and ongoing in this area as detailed below:

A) Triage of symptoms

NHS Pathways triages symptoms presenting at the time of the call and directs patients to the most appropriate services based on these symptoms rather than making a diagnosis.

NHS Pathways is built on a clinical hierarchy of symptoms, meaning that life-threatening symptoms are prioritised and assessed through our initial set of questions (known as module 0). Within these algorithms we specifically look to identify the symptoms and signs of life-threatening conditions by asking about breathing, conscious level, fitting and choking, and heavy bleeding. Specific questions about the many individual conditions that could lead to such symptoms, including substance ingestion and suicidal intent, are not included in the very early questions as NHS Pathways focuses on triggering a suitable disposition) (e.g. Category 1 emergency ambulance dispatch) based on the severity of the symptoms themselves.

Once immediately life-threatening symptoms have been ruled out NHS Pathways continues to assess symptoms in a hierarchical manner and reach appropriate dispositions.

B) Disposition codes and ambulance categorisation

National ambulance call categories are not prescribed by NHS Pathways to ambulance services.

NHS Pathways dispositions are unique codes, for example Dx012 is the disposition code for a Category 3 emergency ambulance response. Where symptoms require a disposition related to an ambulance being dispatched this is then 'mapped' to the clinically appropriate ambulance response standard. These are set by NHS England (not NHS Digital / NHS Pathways) and this process results in the specific disposition code indicating the category of ambulance.

Ambulance response standards and ambulance quality indicators are the nationally agreed timeframes for ambulances to arrive at the patient's location following a call passed to the ambulance service. The response time standards vary according to the urgency of the call. These are set by NHS England and further information can be found at:
https://www.england.nhs.uk/urgent-emergency-care/arp.

All of NHS Pathways ambulance response disposition codes are ratified by the National Ambulance Services Medical Directors (NASMED). NASMeD is an advisory group consisting of medical director representatives from all ambulance services in England, Wales, Scotland and Northern Ireland who endorse the categorisation of ambulance codes.

Ambulance codes are further ratified by the Emergency Call Prioritisation Advisory Group (ECPAG). The purpose of the ECPAG is to advise NHS England, NHS Improvement and Department of Health & Social Care (DHSC) on issues of ambulance call prioritisation. Its principal remit is to recommend which disposition codes should be mapped to which ambulance responses. The group consists of membership from Association of Ambulance Chief Executives (AACE), College of Paramedics, NHS England, DHSC, NHS Pathways, AMPDS, National Ambulance Commissioning Network (NACN), NASMeD and ambulance Heads of Control.

Category 3 ambulances do not have an average response target, but a 90th percentile response target of 120 minutes, meaning these types of calls will be responded to at least 9 out of 10 times before 120 minutes. However, there is a 60-minute response indicator which is collected nationally by the ambulance quality indicators.

C) Categorisation of, and safeguards relating to, overdose cases

Overdose cases (whether with suicidal intent or not) are very complex to assess within telephone triage due to different methods, lethality and social circumstances. In overdose cases the capacity of any drug to cause harm is dependent on multiple factors; for example, quantity of drug taken, interactions of other medication, the patient's medical history and time of overdose, as well as the patient's understanding of what exactly has been taken.

Due to this complexity, the lowest disposition that can be reached by a patient where self-harm or suicidal intent is present (even if asymptomatic) is a Category 3 (Dx012) emergency ambulance response (with more severe symptoms generating a higher disposition). As of Release 18 this disposition would specifically be Dx0124(following the changes detailed below in paragraph 2C).

Mr Rewin was assessed in this manner and a suicide attempt was recorded which resulted in the disposition of a Category 3 emergency ambulance response. If more severe symptoms had been recorded this would have generated a higher disposition.

Where no self harm or suicidal intent is present a patient who has taken an overdose would be assessed using the Accidental Poisoning / Inhalation pathway. Due to the complex nature of accidental poisoning cases, the lowest disposition that can be reached by a patient presenting with any symptoms is a Category 3 (Dx012) emergency ambulance response (with more severe symptoms generating a higher disposition/outcome). If asymptomatic, the outcome reached is "speak to a clinician from our service immediately – toxic ingestion/inhalation". This outcome is to allow immediate transfer to a clinician to clinically assess the risk to life, apply their expertise to information about drugs taken or other relevant factors, assess using Toxbase and allocate the

appropriate response based on that assessment.

The Ambulance Response Programme in December 2018 discussed categorisation of suicidal cases as detailed in paragraph 4A) below.

2) There is a concern that in cases of overdose the patient is at risk of becoming unconscious or having a cardiac arrest or other potentially fatal event and will be unable to contact emergency services or be contacted by them subsequently, such that his or her call should at that stage be regarded as a Category 1 or Category 2.

We have broken down our response to the concerns raised and details of measures in place and actions taken and ongoing in this area as detailed below:

A) Assessment of drugs taken

NHS Pathways previously considered whether there was a way of identifying higher risk overdose patients automatically within the system based on drugs taken. Our assessment was that this is not possible given that NHS Pathways is a computer-based system operated by non-clinical call handlers. There are too many variables to address this in multiple choice / closed type questions. NHS Pathways does not rely on non-clinical call handlers being able to recognise particular conditions or the likely consequences of factors such as drugs taken, as: i) this requires knowledge and discretion that non-clinical call handlers are not expected to have, and that a training programme for individuals who are not medical professionals could not deliver; and ii) therefore to do so may introduce further risks if relied upon to determine a disposition.

Within NHS Pathways when an emergency ambulance disposition/outcome is reached for suicide attempt a question is asked, “what was the method of the suicide attempt”. The answers; overdose of medication, swallowing something harmful, breathing in poisonous fumes, and other all have a free-text ‘specify’ box for documenting further details.

Within the accidental poisoning/inhalation pathway a positive answer to “Do you know what, when and how much was taken?” also has a free text ‘specify’ box to document further details.

This information is transferred into the call report and call summary. These reports are then visible to clinicians working within the 999 or 111 services when reviewing cases to assess whether they are required to be upgraded based on the medication taken.

B) Potential for worsening and advice given

NHS Pathways operates on the basis of directing a patient to the most appropriate service for their symptoms and situation at the time of a call. It does not diagnose any condition, suggest any prognosis or direct to a service based on what might happen next. Therefore the risks associated with any given symptoms or situation (including attempted suicide) are taken account of in the disposition but speculation about possible worsening is not, as the assessment of any such associated risks must be undertaken as part of a review by a clinician who can use their knowledge and discretion.

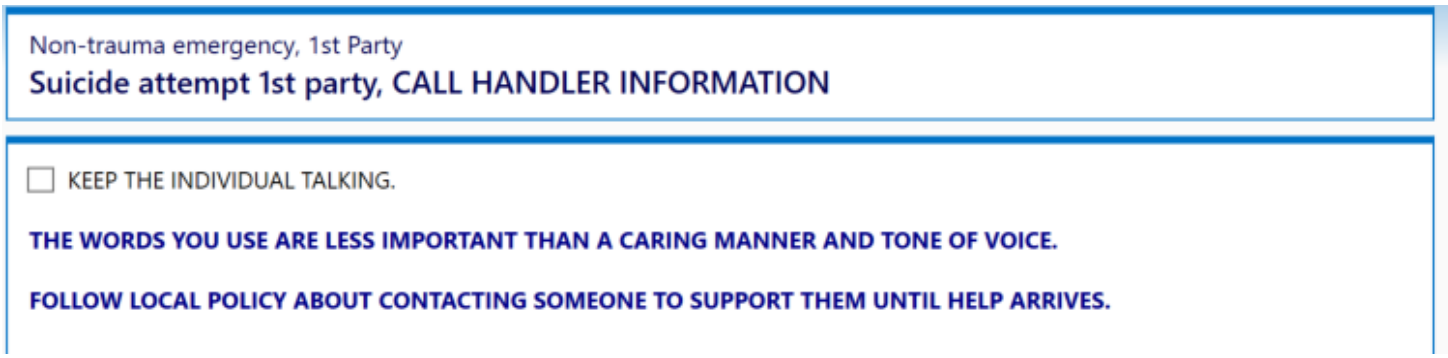
However, for all calls that go through NHS Pathways, care advice and closing instructions are provided at the end of each call by the call handlers. All calls end with worsening advice, in cases where an ambulance has already been dispatched this advises callers to call back to 999 if there are any new symptoms, or if the condition gets worse, changes or the caller has any other concerns.

If a caller calls back with worsening symptoms, they would be re-triaged, and an appropriate response sent.

Care advice instructs the patient how to look after themselves, either whilst waiting for an ambulance to arrive or another health care professional to contact them.

Release 16 (2018) introduced a new piece of care advice created to assist the call handler supporting a caller following a suicide attempt. Following the ambulance dispatch the care advice is to keep the patient talking and follow local policy to encourage additional support until the ambulance arrival.

Current Care advice screen shot:



C) Closing instructions have been amended for deployment in Release 19 following consultation with the 999 ambulance review group in July 2019, to encourage 1st party callers, whilst waiting for the ambulance, to contact someone at the end of the call. This is displayed as “If you do need to contact somebody do so now, then try to keep the line free as we may need to call you back”.

Release 18 changes:

Release 18 includes the addition of a new disposition code (Dx0124), ratified by the NHS Pathways National Clinical Governance Group (NCGG) in February 2019. This new code, ‘Dx0124 Emergency Ambulance Response for Risk of Suicide (Category 3)’ is designed to facilitate the early identification of higher risk suicidal patients either following an intentional toxic overdose or persons who intend to end their life by violent means, so that they can undergo early clinical review within 111 and 999 call-handling centres. This new disposition code will raise the visibility of higher risk suicide cases within the larger Dx012 Emergency Ambulance Response (Category 3) cohort so they can be targeted by clinicians in the control rooms for urgent remote clinical assessment of the risk to life, using their expertise to clinically re-triage to alternative levels of response if required, e.g. a higher Category 2 ambulance response if appropriate.

This new disposition code to support further clinical assessment was finalised and included in Release 18 of NHS Pathways content. Beta testing occurred in August 2019 and widescale deployment of Release 18 to all providers of NHS111 and all ambulance services in England that use the NHS Pathways system began on 7th October 2019, with services then having an 8 week period to update their staff and deploy in their systems.

D) Further planned changes

NHS Pathways has also recognised that those patients who have overdosed without suicidal intent and have symptoms (and so receive a Dx012 disposition and Category 3 ambulance) would benefit from having the same visibility within the Category 3 cohort as those with suicidal intent, so they can also be easily identified by clinicians working within ambulance control rooms for urgent remote clinical assessment of the risk to life. Further work by the NHS Pathways team is commencing in this area and, subject to review by the National Clinical Governance Group, a new disposition code will be introduced (similar to Dx0124) to enable this to occur. The Ambulance Response Programme will be made aware of this proposed change.

We are happy to provide an update on the progress of this work if required.

3) **In Alf Rewin's case, there existed a local policy to override the Category 3 120-minute response in overdose cases to provide a specific triage which could lead to a Category 2 18-minute response (although the 18-minute response was not, in fact, implemented at the outset in Alf Rewin's case and he was initially allocated the national Category 3 response).**

We cannot comment on the operation of local policy.

4) **It is understood that the national categorisation of overdose cases is under review. While the Category 3 120 minute target may be the standard, subject to local variation, in relation to overdose cases where the patient is conscious, the risk of deaths arising during this period remains where the circumstances of the overdose might enable some counteractive treatment to be given, or successful resuscitation measures to be carried out, if there were to be earlier attendance and /or earlier hospitalisation.**

We have broken down our response to the concerns raised and details of measures in place and actions taken and ongoing in this area as detailed below. Relevant to this concern are points relating to assessment of drugs taken, potential for worsening and advice given and the new dispositions as covered above in paragraph 2.

A) Ambulance Response Programme discussions

The Ambulance Response Programme in December 2018 discussed and agreed that re-categorisation of all suicidal cases from Dx012 (Category 3 ambulance) responses to Category 2 ambulance responses without first differentiating the clinical risks of the method, toxicity and social circumstance of the case is unlikely to offer benefits of a faster response due to the volume of patients involved and would likely introduce new clinical risks across the wider emergency care system. This approach is also in line with the other national triage system in use in 999 services.

It is important that the presumed illness/risk posed to a patient following triage is accurate in NHS Pathways, not only to ensure that patients receive the appropriate level of care when seriously ill, but also to ensure that patients are not over-referred. When the questions within NHS Pathways are created, the clinical team must ensure that a careful balance between 'sensitivity' and 'specificity' is struck. By way of brief summary, the 'sensitivity of a test' is the

ability to correctly identify those with a disease or condition (true positive rate), whereas 'specificity' is the ability to correctly identify those without the disease (true negative rate). More than 16.7 million calls are triaged every year using NHS Pathways, so it is critically important that the content of the system has an appropriate and safe balance between sensitivity and specifically, since an imbalance in either direction carries significant risks.

B) National communications from NHS England

NHS England and NHS Improvement, through the Ambulance Response Programme and Joint Ambulance Improvement Programme Board, are aware of issues associated with the unpredictability of deterioration in overdose and suicide cases and ensuring care is provided when needed and have sought to address this with NHS Trusts and Ambulance Services.

The National Clinical Director for Urgent and Emergency Care, NHS England issued a letter as outlined in Appendix A, to all Ambulance Service Chief Executives and Ambulance Service Medical Directors in England on 21st January 2019 following a meeting of the Ambulance Response programme (ARP) implementation group on 18th December 2018 to request Trusts review how they monitor self-harm and suicidal patients. The ARP group is attended by all 999 Ambulance trusts.

On 2nd April 2019 the National Clinical Director for Urgent and Emergency Care NHS England wrote a further letter to all Ambulance Service Chief Executives and Ambulance Service Medical Directors in England to again highlight these issues and ask them to:

• "ensure they have robust clinical oversight in place in control rooms to monitor self-harm and suicidal patients safely and effectively, particularly those who have been allocated a Category 3 or 4 response initially".

• And stated that "Consideration should be given, at the point of call, to the type of overdose and quantity taken (where relevant), and to the intent to end life, all of which will determine the necessary response including the need to upgrade a call for clinical reasons...".

This letter also offered to promote and share good practice in this regard, which several ambulance services have done.

I, or an appropriate member of my team, are happy to answer any further enquiries from HM Coroner.

Yours sincerely

Darren Worwood
Deputy Clinical Director
NHS Pathways

Appendix A

21st January 2019

Dear Ambulance Service CEO / Medical Director

RE: Management of 999 patients who have self-harmed (including overdose) and/or who are at risk of suicide

The ambulance service plays a pivotal role in managing patients in acute mental health crisis, especially those individuals who have self-harmed and/or those who are at risk of suicide. The initial call to the ambulance service is often complex and difficult to manage. Many ambulance services have various models in place for managing these patients. It is clear from Coroners' Preventing Future Deaths (PFD) reports and internal feedback from ambulance trusts that patient outcome and experience is dependent on the quality of the ambulance response. It is imperative that these patients are managed safely through the Emergency Operations Centre (EOC) and provided with appropriate clinical input and support at an early stage.

At the meeting of the Ambulance Response Programme (ARP) Implementation Group on 18th December 2018, it was noted that many ambulance trusts are managing these patients differently. It was agreed that all services should review the identification and management of these patients to ensure they are receiving the correct type of response and timely clinical assessment.

I am therefore writing to request that ambulance trusts review their internal assurance processes to ensure they have robust clinical oversight in place in control rooms to monitor self-harm and suicidal patients safely and effectively, particularly those who have been allocated a Category 3 or 4 response initially. Consideration should be given, at the point of call, to the type of overdose and quantity taken (where relevant), and to the intent to end life, all of which will determine the necessary response including the need to upgrade a call for clinical reasons.

There are several examples of good practice already in use, and we can signpost these. Similarly, if the central ambulance team can assist with this review in any way please do not hesitate to get in touch.

Yours faithfully,

Professor Jonathan Benger,

National Clinical Director for Urgent and Emergency Care.