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Our ref: LT01844
Your ref: 9458

19 February 2019

Dear Dr Harrowing

Re Regulation 28 (Report to Prevent Future Deaths) sent in connection with the inquest into the death of Mrs Susan Longden

Thank you for your letter dated 19th December 2018.

I am writing on behalf of NHS Digital, in response to your Regulation 28 Report to Prevent Future Deaths. This follows the death of Mrs Susan Longden who sadly passed away on 1st February 2018. This was followed by an investigation and inquest which concluded on 28th November 2018. Please allow us to express our condolences to Mrs Longden's family at this late stage.

NHS Pathways is the clinical decision support software used by all 111 service providers, and some 999 ambulance service providers. I am [redacted], MD, FRCEM, MRCS(Glasgow), MBChB and am writing in my capacity as Senior Clinical Lead for Urgent and Emergency Care at NHS Digital.

The Report to Prevent Future Deaths has raised the following matters of concern:

1. The NHS Pathways algorithm does not include a question with regard to recent surgical or interventional procedures where a patient is reporting abdominal pain. The close association in time between such a procedure and the onset of symptoms may well be significant in ensuring prompt action is taken to investigate the cause of symptoms: and

2. Where the caller to NHS 111 is not the patient then the Health Advisor continues to follow the algorithm obtaining information for the caller and not the patient. There should be greater emphasis on tying to speak with the patient and the reason(s) why the patient cannot come to the telephone. The information is provided may well affect the outcome of the triage: and

3. Previous concerns have been raised by [redacted], the Medical Lead for SW111, Care UK, under case references P130273, P132849 and P133040.

NHS DIGITAL'S RESPONSE

Background:

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 15 million calls per year. These calls are managed by trained, non-clinical 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 can 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. Alongside this independent oversight, NHS Pathways ensures its clinical content and assessment protocols are consistent with the latest advice from respected bodies that provide evidence and guidance for medical practice in the UK. In particular, we are consistent with the latest guidelines from

- NICE (National Institute for Health and Clinical Excellence)
- The UK Resuscitation Council
- The UK Sepsis Trust

To specifically answer the concerns raised:

1. **The NHS Pathways algorithm does not include a question with regard to recent surgical or interventional procedures where a patient is reporting abdominal pain. The close association in time between such a procedure and the onset of symptoms may well be significant in ensuring prompt action is taken to investigate the cause of symptoms:**

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, including bleeding, by asking about conscious level, fitting and choking, breathlessness, cool, cold, clammy skin and pallor. Specific questions about the many individual conditions that could lead to such symptoms, including post-procedure complications, are not included at this stage as NHS Pathways focuses on triggering a suitable response (e.g. ambulance dispatch) based on the severity of the symptoms themselves.

On ruling out the described immediately life-threatening symptoms, the abdominal pain pathways are used for those with abdominal pain as their main symptom. Within these pathways there are further questions to identify or exclude potentially life-threatening symptoms, including vomiting or passing blood rectally which could be linked to post procedural complications. If any of these were present, further assessment would be made and an emergency ambulance would be likely to be dispatched.

A question about a recent surgical procedure or intervention is specifically asked within the abdominal pain pathway where the pain is described as moderate or mild in nature. This results in a referral to primary care for a direct clinical assessment after all life-threatening symptoms and severe illness have been excluded.

We acknowledge that we do not specifically include a question about recent procedures within the sub-section of the abdominal pain algorithm where callers describe severe pain. This is because, at present, any patient describing severe pain will, as a minimal response, be referred to primary care urgently regardless of such background. Before this backstop is reached, other questions are asked, looking to identify key symptoms that warrant prompt action to investigate their cause, including ambulance dispatch.

In the case of Mrs. Longden, the NHS Pathways algorithm recommended an emergency (Category 3) ambulance. Pursuant to a local service process the call was then passed to a clinician to validate dispatch of an ambulance, and the ambulance was downgraded to 'contact primary care within 2 hours'. This step and decision are not a part of NHS Pathways procedures.

At the time of the call to 111, Care UK was using release 14.0.2 of NHS Pathways. Since then, questions to better identify critical illness symptoms have been added into many pathways (including abdominal pain). On reviewing the call made in this case against our new algorithms, please be reassured that a caller with similar symptoms would still receive the same emergency ambulance disposition from NHS Pathways.

NHS Pathways regularly review the algorithms and our abdominal pain pathways are currently undergoing a review with our external subject matter experts from the Royal Colleges. This review will include the severe pain section specifically, ***and inclusion of a question asking about a recent surgical procedure or intervention has specifically been requested for review as part of this work.*** I can further reassure HM Coroner that this comprehensive review of our abdominal pain algorithms will be concluded by 1st May 2019, and that any changes to NHS Pathways will be implemented later this year, pending successful safety testing.

2. **Where the caller to NHS 111 is not the patient then the Health Advisor continues to follow the algorithm obtaining information for the caller and not the patient. There should be greater emphasis on tying to speak with the patient and the reason(s) why the patient cannot come to the telephone. The information is provided may well affect the outcome of the triage:**

Within initial NHS Pathways training, which both call handlers and clinicians must complete as part of initial training, there is great emphasis placed on the importance of speaking to a patient, where possible and appropriate. The training programme for staff is competency based and as such is mapped to the NHS Pathways Competencies (See Appendix 1). These competencies stress the importance of talking directly to a patient wherever it is safe and appropriate to do so.

The section below outlines how the NHS Pathways Competencies refer to the need to speak directly to the patient:

"Makes efforts to speak directly to patient
Triage is often more effective when it is carried out directly with the patient. This is because introducing a 3rd party often creates a "lost in translation" effect. Talking with the patient also enables the call handler to evaluate for themselves important factors such as the nature of the person's breathing, speech patterns, comprehension and so on. With 1st party calls certain questions don't need to be asked such as whether the person is too breathless to speak more than a few words. Thus, 1st party triage is often more accurate ***and*** *quicker.*

It is crucial to remember that there are situations where speaking to the patient is appropriate and others where it is not. It would not be appropriate to ask to speak to someone who is in an obviously life-threatening situation, for example someone experiencing arterial blood loss. Neither would it be appropriate to conduct an assessment with someone who is confused or a very young child. The call handler needs to exercise judgement as to how strenuously they pursue talking to the patient rather than the caller. Every call is different and requires skilled judgement on the part of the person handling it."

Initial Call Handler and Clinician Training
An example of where new trainees are introduced to the importance of speaking to the patient is on day 6 of initial training in the Understanding Competencies Session.

During this session, staff listen to real calls which demonstrate the importance of speaking to the patient, as well as highlighting the exceptions when it would not be appropriate to do this, such as if the patient is very young, in a life-threatening situation, or suffering from dementia.

Additionally, on day 8 of initial training, staff are involved in carrying out call critiques reinforcing the benefits of speaking to the patient and identifying good and poor practice based on real call examples. The session also involves role play to allow trainees to practise the skills of managing calls effectively, which includes the necessity to speak to the patient where safe and appropriate to do so.

At the end of training, all staff complete written and practical assessments before progressing into supervised practiced. They are assessed against the NHS Pathways competencies, which emphasise the important of avoiding a three-way conversation wherever possible.

Ongoing Competency Assessments

After initial training has been completed and staff have been signed-off as competent against the competencies, monthly call audit begins as a way of quality monitoring the practice of staff, and to highlight any additional training requirements or concerns with practice.

The requirement to carry out audit is stipulated within the NHS Pathways Licence to Use which all organisations must adhere to if they wish to utilise the system. NHS Pathways mandates a robust quality assurance process which includes non-negotiable monthly audit.

During monthly call audit every member of staff is assessed against the competencies. This is done by trained audit staff using the NHS Pathways Audit Tool. Call audit involves listening to live calls as they are being taken as well as recorded calls, listened to in retrospect.

We therefore consider that the NHS Pathways training materials and licence requirements sufficiently address the need and importance of call handlers speaking directly to patients and recognise that 111 and 999 providers should continue to reinforce this with the call handlers.

3. **Previous concerns raised by [redacted], the Medical Lead for SW111, Care UK, with case references P130273, P132849 and P133040:**

Any issues, incidents or cases that a provider raises are logged in a central clinical issues log (as these were). For accuracy the above references should read PI30723, PI32849 and PI33040.

PI30723 – this related to this specific case and was logged on the 28th June 2018 by Care UK informing NHS Digital that a coroner's case was going to be heard. At the time of logging the issue Care UK did not raise any concerns. Their own documentation submitted, including the local root cause analysis, did not raise specific concerns with the algorithms and identified that the health care professional downgrading the call from an ambulance to a call-back missed opportunities. This was prioritised by Care UK as a non-urgent change, but the actual change requested was not stated in the issue or documentation.

PI32849 – logged on the 23rd September 2018 by Care UK informing NHS Digital to consider asking the type of medication being taken when a patient is vomiting, which is unrelated to this specific case and is still being investigated.

PI33040 – this related to this specific case, and was logged on the 28th November 2018 by Care UK after the inquest, informing NHS Digital to consider asking about recent abdominal surgery / procedure in the abdominal pain pathways as a result of this case. This was prioritised by Care UK as an urgent change request. As set out above in answer to concern 1 the abdominal pain pathways (and the severe pain section specifically) are currently undergoing a review and ***inclusion of a question asking about a recent surgical procedure or intervention has specifically been requested for review as part of this work.*** I can further reassure HM Coroner that this comprehensive review of our abdominal pain algorithms will be concluded by 1st May 2019, and that any changes to NHS Pathways will be implemented later this year, pending successful safety testing.

In Summary:

- We acknowledge that the question about a recent surgical procedure or operation is not specifically asked in a sub-section of our abdominal pain pathways and are reviewing how this might be included as part of a larger clinical review. This is due for completion later this year.
- We do currently require that all users of NHS Pathways seek to talk directly with the patient where possible, as outlined in the training materials included.

I hope that the above alleviates your concerns, but I am happy to answer any further enquiries from HM Coroner.

Yours sincerely

[redacted]

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