1 Trevelyan Square
Boar Lane
Leeds LS1 6AE

0300 303 5678
0113 397 3614

M E Hassel
Senior Coroner
Inner North London
St Pancras Coroners Court
Camely Street
London
N1C 4PP

By Email: [redacted]

Our Reference LT02120

16th March 2020

Dear Ms. Hassel

**Inquest into the death of Shanté Andreé Marie Turay-Thomas**

I am writing in response to the Prevention of Future Deaths ("PFD") Report received from HM Coroner dated 21st January 2020. This follows the death of Shanté Andreé Marie Turay–Thomas who sadly died on 15th September 2018. This was followed by an investigation and inquest which concluded on 13th January 2020. Firstly, we would like to express our sincere condolences to the family of Ms Turay-Thomas.

NHS Pathways is the clinical decision support software (CDSS) used by all 111 service providers, and some 999 ambulance trusts. For information, we have included a short summary of the functions that NHS Pathways performs and the governance that underpins it (containing background information on NHS Pathways) in Appendix A.

HM Coroner raised matters of concern numbered 1 - 20 in the PFD report. Matters of concern 1 – 14 and 20 are not applicable to NHS Pathways. We set out below our response to matters of concern 15 to 19.

1) Matter of Concern 15

*During the course of the 111 call, a number of errors were made. These were the errors of LCW individuals. When LCW audited the call in the first instance, the audit identified the problem with the address, but failed to recognise how badly the call had gone in other ways. Without effective audit and recognition of failings, it is difficult to see how there can be effective improvement.*

NHS Digital has developed an extensive audit framework that applies to providers using NHS Pathways. This was described in NHS Digital's: supplementary second witness statement dated 20th December 2019; submissions on conclusion dated 3 January 2020; and PFD submissions dated 17 January 2020.

Clinical providers of services using NHS Pathways ('providers') must enter into a Licence Agreement with the Secretary of State for Health and Social Care, including requirements relating to implementation, operation, training and auditing. This licence and the supporting materials are managed by NHS Digital.

The detailed requirements for auditing call handlers (including clinicians) establish audit frequencies, and standards against which audits should occur. These include criteria for auditing and requirements by way of qualification and training of those carrying out any audit. NHS Digital also offers regular 'audit levelling' sessions to providers in order to achieve good and consistent practice.

Ensuring the proper operation of the audit system and management of failed call audits is the responsibility of the provider, within the framework provided by NHS Digital. NHS Digital remains available to support providers in this area.

2) Matter of Concern 16

*The individuals making these errors were working within the context of NHS Digital's categorisation of anaphylaxis as needing a category 2 ambulance rather than a category 1 ambulance, on the Adastra computer system that supports the LCW 111 service.*

*This was the wrong categorisation and not the categorisation that the call would have received if 999 had been called and the London Ambulance Service contacted in the first instance. Acute anaphylaxis is immediately life threatening and must be treated as a category 1.*

*I heard at inquest that NHS Digital has since changed its categorisation. However, I also heard that for those areas (I think approximately half the country, though this is not completely clear to me), where the 999 service and the 111 service are supported by different computer systems rather than the same system being common to both services, there could remain inconsistencies of categorisation between 999 and 111.*

*Even where there are inconsistencies in categorisation, the 999 service will not re-categorise following a 111 clinician's categorisation, unless a 999 clinician has spoken to the patient, so inappropriate 111 categorisation will not be safety netted by the 999 service. This must be recognised and factored in.*

Ambulance response categorisation, and the alignment of different triage systems, is not the responsibility of NHS Digital. This was set out in the following submissions made on behalf of NHS Digital:

- letter to HM Coroner dated 22 July 2019
- letter to HM Coroner dated 9 October 2019
- witness statement dated 14 November 2019
- evidence given at inquest on 12 December 2019
- submissions on conclusion dated 3 January 2020
- PFD submissions dated 17 January 2020.

NHS Pathways and the Medical Priority Dispatch System (MPDS) – (the system used by ambulance trusts not using NHS Pathways) operate by prioritising patients based on symptoms. Although they work differently, neither is designed to make a diagnosis. NHS Digital does not have oversight or detailed knowledge of MPDS; it is a competing system provided by a commercial supplier.

The categorisation of certain symptoms, which may occur in anaphylaxis, as requiring a category 2 emergency ambulance within NHS Pathways was ratified in 2017 during NHS England's review of ambulance standards called the "Ambulance Response Program". This program was implemented from 2nd October 2017, and was approved by the Secretary of State following extensive piloting.

NHS Pathways' ambulance response codes are also ratified by the National Ambulance Services Medical Directors (NASMED) (an advisory group consisting of medical director representatives from all ambulance services in England, Wales, Scotland and Northern Ireland) and the Emergency Call Prioritisation Advisory Group (ECPAG) (a further group of advisors to NHS England).

Following the Ambulance Response Program, NHS England led (supported by NASMED and ECPAG) a "clinical coding review" in May 2019, reviewing the category 1 ambulance response definition. Consequently, it was decided that symptoms which may suggest life-threatening anaphylaxis should receive a category 1 ambulance response and the necessary changes were made by NHS Pathways. These were beta tested in September 2019 and deployed nationally from October 2019.

The Ambulance Response Program and clinical coding review applied equally to MPDS, whose ambulance dispositions were similarly reviewed and ratified.

Where an ambulance disposition is triggered by a 111 call, the NHS Pathways system is able to trigger ambulance dispatch (subject to local validation procedures which may be applied to category 3 and 4 ambulances). It would not be clinically safe to require re-triage or validation for category 1 and 2 ambulances due to the additional time this would take. As described in NHS Digital's submissions the 111 and 999 questions and responses are identical where NHS Pathways is used (other than an additional first 'nature of call' question for 999). MPDS is an entirely different product with different operating rationale but with ambulance codes still

ratified in the same manner. The 999 service is not designed or intended to be a 'safety net' for 111.

NHS Digital contributes to ECPAG and will continue to support NHS England as far as it is able with the complex challenge of aligning the two very different systems. There is no evidence to suggest that prior to this incident, NHS Digital, through LCW or any other user of NHS Pathways, had been made aware of any issue or concern in respect of the ambulance response category for symptoms that may occur in anaphylaxis. If NHS Digital became aware of such an issue then its response would include raising this with NHS England, NASMED and ECPAG.

NHS England is the organisation charged with overseeing both NHS Pathways and MPDS, and has the remit and ability to review potential inconsistencies or change ambulance categorisation. Accordingly, concerns regarding ambulance categorisation or inconsistencies between MPDS and NHS Pathways can only be properly answered by NHS England.

3) Matter of Concern 17

*In terms of national training for 111 call handlers, the NHS digital distance learning pack contains advice that is in part inadequate and in part wrong. It does not give the crucial information that one dose of adrenaline, whichever device it is administered, is very unlikely to be sufficient in the case of acute anaphylaxis. It contains a photograph to illustrate he use of an AAI, but in the photograph the device is held incorrectly.*

As NHS Digital described in evidence and subsequent submissions, the distance learning pack is provided as a foundation of background information to all call handlers before they start training. It does not direct the progress of specific calls nor is it relied upon to communicate advice which a call handler should give. It would not be clinically safe or appropriate for non-clinical call handlers to be required to exercise knowledge or judgment, or act unprompted by the system, in this way. Call handlers are instead supported by the questions and care advice presented by the NHS Pathways system. The system contains 'supporting information' to help call handlers understand the clinical essence of what is being asked or advised. This is presented in 'real-time' so that the call handler has the required information in front of them, rather than having to rely on memory.

NHS Digital welcomed the evidence given by the expert witness, Professor Fox, at the inquest and immediately recognised that the distance learning pack could be improved, assuring the Coroner (in evidence and in the supplementary second witness statement dated 20th December 2019) that a review would be undertaken, in consultation with Professor Fox, to address the points raised during his evidence.

NHS Digital informed the Coroner in its PFD submissions, dated 17 January 2020, that the review had been completed and an amended version of the Distance Learning Pack had been produced and released to all organisations that use NHS Pathways to support telephone triage. The amendments were made in liaison with the expert witness. In summary the following changes have been made:

*a)* Anaphylaxis is now described as *"a potentially life-threatening sudden, very severe*

*allergic reaction requiring urgent intervention".*

b) A further section has been added in respect of AAIs which states *"A person with anaphylaxis needs emergency treatment with an injection of intramuscular adrenaline and people who have previously had a serious allergic reaction often have an adrenaline autoinjector (AAI) for use in case of future reactions. The AAI should be used as soon as signs of anaphylaxis appear. Further doses are needed at 5-minute intervals if there is no clear sign of recovery."*
c) Pictures of the Emerade, Jext, and Epipen AAI have been included.

Information about the specific dose required in respect of each AAI has not been included. This is because the appropriate dose is a matter for the prescriber, not the call handler issuing system-generated instructions on how to administer the medication.

4) Matter of concern 18

*I am unclear as to whether the Adastra 111 algorithm automatically prompts administering a second AAI Five minutes after the first if there has been no improvement, but it should.*

NHS Pathways has always prompted call handlers to give instructions in respect of a second administration of AAI if there is no improvement, as NHS Digital stated in the PFD submissions, dated 17 January 2020. This is NHS Pathways content and is not affected by the system into which NHS Pathways is embedded (e.g. Adastra in this case).

Currently, NHS Pathways content suggests that a second AAI is administered after 10 to 15 minutes if there has been no improvement in the patient's condition. NHS Digital has reviewed this timeframe and it is being amended to 5 minutes in line with guidelines from the Resuscitation Council. These changes will be made in NHS Pathways Release 20, which was originally scheduled for deployment in May 2020, but has subsequently been delayed due to coronavirus.

5) Matter of concern 19

*One of the errors made by the first 111 call handler was a failure to ask to speak direct to the patient. This was the error of an individual.*

*However, this is not the first time that the issue has been brought to the attention of NHS Digital. At inquest, I asked the witness who appeared on behalf of NHS Digital, and indeed had been chosen by NHS Digital as the person best able to assist the court, if this had been an issue in the past. He said no. However, on 18 December 2018, Peter Harrowing, HM Assistant Coroner for Avon, sent a prevention of future deaths report to NHS Digital following the inquest touching the death of David Longden.*

*It was only when I asked the witness appearing on behalf of NHS Digital specifically about Coroner Harrowing's report in respect of Mr Longden, pointing out that Coroner Harrowing had raised the need for NHS Digital to place greater emphasis on the call handler speaking to the patient, that the witness remembered that he had indeed seen that report.*

*I choose to characterise this as a memory lapse rather than as an intention wilfully to mislead the court. (A witness who lies whilst giving evidence on oath at inquest may be found in contempt of court and may even be prosecuted for the crime of perjury.) Nevertheless, if NHS Digital does not have a grasp of this sort of detail, specifically brought to its attention by a coroner in a prevention of future deaths report, it is difficult to see how there can be effective improvement.*

For accuracy the Prevention of Future Death Report that the Coroner refers to was that for Mrs Susan Longden and not Mr David Longden.

Speaking to the Patient

In NHS Digital's supplementary second witness statement, dated 20th December 2019, the following was addressed:

- The importance of call handlers speaking to the patient where safe and appropriate is a fundamental principle and core competency for NHS Pathways use. This is emphasised through initial training, call critiques, supervised practice, use of toolkits and completion of written and practical assessments.

- Speaking with the patient is also a competency indicator assessed during auditing of new and experienced call handlers.

- NHS Digital was not made aware of the inquest touching the death of Ms Susan Longden in advance and therefore was unable to assist Dr Harrowing in his inquiry. NHS Digital's response to Dr Harrowing explained (as in the above bullets) the emphasis placed on the importance of speaking to a patient.

- NHS Digital 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 enforce this with call handlers.

- In version 19.3.0 of NHS Pathways, which was released to 111 and 999 on the 13th January 2020, the following changes were made to the NHS Pathways content to further enhance and support call handlers in attempting to speak to the patient:

a) *"Inclusion of a new question for calls received from 3rd party callers asking, "Is it possible for me to speak to them?", which will follow establishing that the patient is conscious and breathing. This will force call handlers to ask this; and*
b) *in questions asking, "[is the patient] so breathless that speaking more than a few words is impossible?" addition of a statement on the supporting information to remind call handlers to again try to speak with the patient, even if the 3rd party caller has refused in response to the question above. The supporting information now states (new language in capitals) "To find out if there are features of life-threatening breathing difficulty. THIS WILL BE EASIER TO ASSESS BY SPEAKING TO THE PATIENT."*

Governance

NHS Pathways has robust governance processes in place.

There is a well-established procedure (the "clinical issues log") for providers to submit issues, and for these to be reviewed and responded to by NHS Pathways in specified timelines. The clinical issues log captures details of any serious incidents, near misses, requests, suggestions for enhancements or referrals to a Coroner relevant to NHS Pathways. The log, including all responses and resolutions issued by NHS Pathways, is visible to and searchable by all providers.

The NHS Pathways content is continually under review to take account of clinical issues log feedback, latest available data and evidence, guidelines from Royal Colleges and other respected bodies and Coroner feedback. Any changes to NHS Pathways clinical content are overseen by the National Clinical Governance Group (NCGG), and details of Priority 1 and Priority 2 issues (those where possible clinical risk associated with NHS Pathways has been raised) and Coroner referrals are submitted to NCGG as a standing agenda item.

NHS Digital is familiar with the Coronial process, and takes its role in such inquiries and any PFD Report received very seriously. NHS Digital wish to reassure the Coroner that it fully investigates and responds to PFD Reports accordingly.

NHS Digital is also well aware of court rules and strongly refutes any suggestion that the witness in this case was acting improperly. The PFD Report relating to Ms Susan Longden was not raised in advance as an issue and a copy was not provided to the witness. NHS Digital has reviewed a transcript prepared of the evidence and it can be seen that once the Coroner was specific as to the case referenced, the witness recalled it.

I am happy to answer any further enquiries from HM Coroner.

Yours sincerely,

[redacted]

Professor Jonathan Benger MD,FRCS,DA,DCH,DipIMC,FRCEM
Interim Chief Medical Officer, NHS Digital

**Appendix A**

## BACKGROUND INFORMATION

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 problems 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