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Mr Hassan Shah,
Assistant Coroner
Coroner area of Northampton
Coroners@northamptonshire.gov.uk

Dear Mr Shah

**Re: REGULATION 28 REPORT ON ACTION TO PREVENT FUTURE DEATHS /
DIANA GUDGEON**

I write in response to your query raised regarding the 111 service as follows:

Triaging by '111' and EMAS call handling systems, including in relation to sepsis. The patient had collapsed, passed out, been confused and had been vomiting. These are signs of central nervous system/neurological problems but were not regarded as urgent. Despite EMAS being told that the patient may have a urinary tract infection, no escalation occurred.

Explanation as follows:

The NHS 111 service and some 999 services, use NHS Pathways software which consists of algorithms developed nationally by the Royal Colleges of GP's, Paediatricians, Emergency Medicine, and Psychiatry etc. All sites using the software contribute to feedback on these algorithms and versions are updated twice yearly. We are using NHS Pathways version 16.0 at the present time which is the most up to date version.

The call has been reviewed against NHS Pathways version 14, which was in use at the time of the call. The key question relates to whether the patient was severely ill. The response from the son was unclear in answering this question. The Health Advisor (who is trained in the use of NHS Pathways, but who is not a clinician) could have probed this question more appropriately by utilising the supporting clarification information within NHS Pathways in order to get a clearer answer to this question. However, in order for this question to have been answered positively there is a second part to the question which asks whether the patient has new marks like bruising or bleeding under the skin. Both severely ill and the new marks have to be present in order for this question to be answered positively.

Answering this question positively is the only way that the disposition of a Category 2 ambulance could have been reached. As the severely ill stem was answered negatively the stem asking about new marks was not asked, but no rash was mentioned on the call. We have reviewed the case and used the other presented symptoms such as a fall, vomiting and behaviour change and the highest disposition we could have reached is a Category 3 ambulance.



A very high blood sugar test over 27.9mmol as opposed to the reported 16 mmol would only have triggered a Category 2 ambulance if the severely ill and new marks question had also been answered positively.

Over the last year we have shared our concerns regarding NHS Pathways ability to pick up possible sepsis effectively and have fed our concerns back to them. This has resulted in changes to NHS Pathways in both versions 15 and 16. We have taken this call through NHS Pathways version 16 to try to identify the likely outcome had this version been in place at the time of the call. In version 16 the severely ill and new marks question has changed significantly. Firstly the 2 parts have now been split into separate questions. Due to concerns that the severely ill part of the question was too subjective this has been altered to “so ill they have stopped doing all normal activities”. The new marks part of the question is separate and triggered by answering the so ill they have stopped doing all normal activities question positively. The wording of the new marks part is unchanged.

Having followed this call through version 16 of NHS Pathways a Category 2 ambulance would only have been triggered if both the so ill they have stopped doing normal activities and the new marks questions had been answered positively.

In summary both the version of NHS Pathways in use at the time and the latest version would have required new marks to have been present in addition to the patient to have been severely ill in order for a Category 2 ambulance to have been triggered. We attach copies of the questions relating to severely ill and marks in both NHS Pathways version 14 and 16 for your information. However the wording of the questions in version 16 has improved and supports Health Advisors to answer the questions in a more straightforward manner. As the question was not asked we are unaware whether a rash was present.

Category 3 ambulance dispositions have a target response time of 90% of calls being reached with 120 minutes and a new target has been added of a mean response within 1 hour. We understand that EMAS have a policy of contacting patients at the point they are likely to breach the 120 minute target to ensure there has been no change in the patient's condition. We note that a clinician from EMAS did call around the time of the anticipated breach to assess the patient. We note that following this call no escalation occurred. Category 2 ambulance dispositions have a target response time of 18 minutes with 90% of calls to be reached within 40 minutes

As part of the NHS pathways training, new Advisors cover sepsis as part of the Distance Learning Pack (DLP), see attached. The information within this pack is formally assessed by means of an exam paper which advisors have to achieve a pass rate of 70% and above to continue with the course. The Advisors cover scenarios in training which aid them with exploring the Pathways system, which include symptoms of sepsis. In addition to this, all Advisors attend Spotting the Sick Child training which covers NICE Guidance of feverish illness in under 5's and the sepsis risk stratification tool (see attached)

The Clinicians all receive the Sepsis Risk stratification tools as part of their clinical training. The Clinicians have all been notified of a free online course on Sepsis in Primary Care on the following website <https://www.e-lfh.org.uk/>

I do hope that the above explanation has addressed your concerns. If however, there are any matters which are still outstanding or points which are unclear please do not hesitate to contact me via the Clinical Governance Department, at the above address or via the clinical governance e mail: DHUL.ClinicalGovernance@nhs.net or telephone 0300 1000 407

Yours sincerely



Dr Ian Matthews

Medical Director

Countersigned by



Jenny Doxey

Clinical Director