

Dear Mr Bridgman,

Re: Regulation 28 Report to Prevent Future Deaths – Martin Keith Sullivan (24 November 2019)

Thank you for your Regulation 28 Report dated 2 March 2021 concerning the death of Martin Sullivan on 24 November 2019. Firstly, I would like to express my deep condolences to Martin's family.

The Regulation 28 Report concludes Martin Sullivan's death was a result of multiple organ failure.

Following the inquest you raised concerns in your Regulation 28 Report to NHS England regarding the MPDS script and algorithm.

MPDS has been in operation across the world triaging millions of 999 calls since 1979. The International Academy Emergency Despatch continually reviews and updates the 36 protocols covering the full range of emergency call reasons from Abdominal Pain and Burns to a specific pandemic protocol. One of the fundamental principles of the triage tool is the identification of priority symptoms such as choking or breathing problems. The MPDS algorithm, where applicable, does combine answers to questions to determine a higher level of acuity. Emergency Medical Despatchers (999 call handlers or EMDs) are trained to elicit the main reason for the emergency call using a number of different methods, set out below.

The case entry process establishes the main reason for the emergency call and is referred to as chief complaint selection (this is which of the 36 protocols to choose); it is also designed to elicit the level of consciousness and breathing status. This leads to the early identification of patients in, or at risk of, airway obstruction, life threatening breathing compromise, and cardiac arrest.

The use of an open-ended question at the beginning of the call has been proven to elicit an appropriate response from the caller to enable appropriate categorisation. "Tell me exactly what's happened?" gives the caller the opportunity to state why they have called. This information is combined with the responses to specific questions about breathing.

The understanding of ineffective breathing and its trigger phrases is a crucial part of using the MPDS system, and EMDs must have a thorough understanding of what ineffective breathing means. In the context of a patient with severe respiratory distress, on most occasions the caller will answer with some form of description of the breathing problem. Research of millions of emergency calls led to the development of trigger phrases, or any reasonable alternatives, as descriptors for ineffective breathing. The eight phrases cover a wide spectrum of life threatening respiratory compromise from 'turning blue', 'barely breathing' to 'can't breathe at all'. These patients are recognised as fighting for air and have ineffective breathing. If a description of the patients breathing is not offered as part of "Tell me exactly what's happened" it is then directly asked in case entry, **is s/he breathing?**"

EMDs are trained in active listening, and it is vital they use this skill throughout the entirety of the call for any information that is offered; this may be additional information relevant to a previous answer which could indicate deterioration or provide the answer to a later question that does not now need to be repeated. The identification that the patient has asthma is of relevance to identifying ineffective breathing, as the threshold for asthma patients to be identified as ineffective breathing is lower. Rule 6 protocol 6 sets out very clearly:

Asthma patients are usually very experienced in managing their disease. When the status of these patients is reported "Can't breathe", "Unable to breathe", or similar description this should be considered INEFFECTIVE BREATHING

It is not the case that the system is relying on the information being offered/volunteered but rather that the questions within Protocol 6 will elicit the information required. It is in response to both the open and closed questions that the EMD must recognise ineffective breathing in a patient with asthma. When applied correctly this is a very reliable method of determining life threatening respiratory distress including life threatening asthma. Any patient who is identified as ineffective breathing should receive a category 1 response. Acute severe asthma is allocated a category 2 emergency response. This reflects the absolute urgency for patients with ineffective breathing.

As per MPDS procedure, any patient with severe breathing problems who is at risk of deterioration the EMD is required to stay on the line and monitor for deterioration. Information gained during this period should be triaged accordingly; additional information such as "he can't breathe properly" (Rule 6 for Asthma patients) should be upgraded to a category 1 response.

For the reasons set out above, it is the view of NHS England and NHS Improvement that the algorithm, when used correctly, does identify life threatening asthma and will result in a Category 1 response.

In order to ensure that the process of identifying ineffective breathing is embedded within all ambulance services NHS England and NHS Improvement will hold a learning event with all ambulance services, inviting the involvement of triage system providers, to share best practice and ensure ambulance services are enabled to utilise the triage systems safely and effectively.

Thank you for bringing this important patient safety issue to my attention and please do not hesitate to contact me should you need any further information.

Yours sincerely,

Professor **Medical Director** National Medical Director NHS England and NHS Improvement