**Association of Ambulance Chief Executives**
25 Farringdon Street
London
EC4A 4AB

30 January 2024

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[redacted]

HM Area Coroner for Essex
Sonia Hayes

Dear Ms Hayes

**WILLIAM GRAY (DECEASED)**

I am writing in response to the preventing future deaths report we received at the Association of Ambulance Chief Executives (AACE) dated 8th December 2023, and I respond as the Director of Operational Development and Quality Improvement on behalf of the AACE. On behalf of AACE, I would also like to extend our sincere condolences to the family of William.

It may be helpful for us to explain that AACE is a private company owned by the English and Welsh NHS ambulance services. Its purpose is to support its members, UK NHS ambulance services, in the implementation of national agreed policy and to act as an interface, where appropriate at a national level, between them and their stakeholders. It is a company owned by NHS organisations and possesses the intellectual property rights of the Joint Royal Colleges Ambulance Liaison Committee UK ambulance service clinical practice guidelines (the "JRCALC guidelines"). AACE is not constituted to mandate or instruct ambulance services however it has national influence via the regular meetings of ambulance chief executives and chairs along with a network of national specialist sub-groups.

With regard to your matter of concern relating to ambulance services:

> *Life threatening childhood asthma is a rare occurrence for ambulance paramedics and the Joint Royal Colleges Ambulances Liaison Committee (JRCALC) Guidelines sets out treatment for it, however as paramedics rarely attend:*
>
> *a. Clarity is required on what should be categorised as a life-threatening asthma. With guidance to enter the algorithm immediately to administer intramuscular adrenalin the purpose being to avoid cardiac arrest. Paramedics are more familiar with administration of intravenous adrenalin during resuscitation once cardiac arrest has occurred.'*
>
> *b .Does not contain clear guidance or advice on what to do when crew cannot ventilate, cannot oxygenate.*
>
> *c. or when to abort repeated unsuccessful attempts to secure an airway and progress to hospital*
>
> *d. Inflation pressure being a potential cause of failure to secure a paediatric airway adjunct in life threatening asthma the consequence of this being increased ventilations pressure would be required.*

Thank you for bringing these tragic circumstances to our attention and allowing us to consider how our own guidance might be improved. The JRCALC guidelines are advisory and have been developed to assist paramedics make decisions about the management of the patient's condition , including treatments and to support clinical practice.

The advice is intended to support the clinician's decision-making process and is not a substitute for sound clinical judgement. We recognise that the guidelines cannot always contain all the information necessary for determining appropriate care and cannot address all individual situations; therefore, we expect that paramedics using JRCALC guidelines ensure they have the appropriate knowledge and skills to enable suitable interpretation. JRCALC guidance is not intended to be a full medical textbook, and therefore underpinning knowledge around conditions such as asthma is expected, and this should include an understanding of the pathophysiology of asthma and how the condition affects the airways.

JRCALC provides specific guidance for asthma in adults and children. Many of the guidelines contain key points, and included in the key points in the asthma guidance are:

- Asthma is a common life-threatening condition.
- Its severity is often not recognised.
- A silent chest is a pre-terminal sign.
- Bronchodilators are the mainstay of treatment.
- Ipatropium bromide should be considered in severe cases.
- Clinical assessment should determine the severity of the asthma attack.
- Consider magnesium in life-threatening asthma not improving with continuous nebulised salbutamol.
- Consider adrenaline for life-threatening asthma continuing to deteriorate with continuous nebulised salbutamol.

The guideline highlights that that there should be a specific assessment of the severity of the asthma attack and contains a table describing the features of severity. It also contains an algorithm detailing how to manage an asthma attack depending on the severity. It does also detail when to consider administering adrenaline.

At the JRCALC committee meeting on 9th January 2024 we discussed this preventing future deaths report as an agenda item. A decision was made to undertake a review of the guideline and particularly the assessment and management algorithm and decide if it can be made clearer and have more detail and emphasis on the use of adrenaline.

With regard to airway management, the JRCALC guidelines provide guidance in the resuscitation sections on managing an airway and using a stepwise approach including considering when to progress from one airway technique to another. As you will be aware, airway management is a practical skill and needs regular training and practice which is beyond the scope of JRCALC to mandate. It is for the individual clinicians and the organisation that they work for to ensure the competency of airway skills and agree which advanced airway skills and airway adjuncts should be used. In managing a difficult airway such as in the case of life threatening or near fatal asthma, part of the training of a paramedic would be to understand the potential difficulties that may be encountered and the strategies that may need to be considered in each individual case. This includes decisions about calling for enhanced help and urgent transport to definitive care.

We are aware that most ambulance services do not support intubation by all paramedics. We know that it is a skill used by some paramedics, mainly where they have received additional training and are able to maintain their competency. Our guidance states in relation to tracheal intubation:

*The tracheal tube is a challenging airway device to insert successfully and requires both adequate initial training and ongoing practice. Paramedics must ensure that they have appropriate competence to undertake it safely and that this skill has been regularly updated and evidenced through maintaining an airway skills log.*
*There is no evidence that patient outcome is any better following tracheal intubation compared with any other type of airway.*
*Where, as a paramedic, the governance system you work within allows you to intubate, you should only do so if you have maintained your skills and have evidence of self-audit with a success rate of greater than 95% success rate within two attempts.*

In the advanced life support (ALS) for children guidance it states:

*During ALS, the priority remains the delivery of high-quality chest compressions and effective ventilations with high-flow oxygen. Particular focus should be to ensure reversal of any hypoxia.*

*Supraglottic airways (SGAs) may be considered if BVM (bag valve mask) ventilation is ineffective.*

*Intubation is rarely indicated and should only be undertaken by those with appropriate skills, according to local protocols and only when waveform capnography is available.*

In summary, we have reviewed our JRCALC guidance in relation to the matters of concern you have raised and will now review the asthma guideline and make changes if these are deemed to be required. We will also share the details of your concerns with our national ambulance service medical directors' group (NASMeD). They have regular meetings where learning from incidents and preventing future death reports are discussed. We will suggest that medical directors of the UK ambulance services consider if they believe any further education or awareness is needed for their clinicians, in relation to airway management and asthma and particularly in relation to considering administering adrenaline in asthma.

I hope this response has adequately addressed the concerns that you have raised. If you have any further questions, please do not hesitate to get in touch.

Yours sincerely

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Director of Operational Development and Quality Improvement