

6 November 2019

Dear practitioner

## Medical emergencies in dental practice - practice standard review outcome

The Dental Council (the Council) has reviewed and updated its *Medical emergencies in dental practice - practice standard* (2016). The review took place primarily to ensure the document was formatted consistently with other more recent practice standards which clearly set out the standards and provide guidance where appropriate. We also reviewed some additional areas outlined below.

The Council considers that the updated *Medical emergencies practice standard* places **no new obligations on oral health practitioners**, making consultation unnecessary. The purpose of this communication is to make practitioners and stakeholders aware that the practice standard has been updated and provide an overview of the review and the changes made.

### Background

The 2016 *Medical emergencies in dental practice - practice standard* was last fully reviewed in 2014, with new requirements implemented in stages until 30 September 2016.

Subsequent updates were made so adrenaline would be available to oral health therapists and dental therapists to manage anaphylaxis (effective 31 December 2017 and 1 November 2018 respectively).

In June 2019, the Council requested a review of the 2016 *Medical emergencies in dental practice - practice standard* (the 2016 practice standard), and specifically the following:

- format the medical emergencies practice standard consistently with newer practice standard format (standards and guidance)
- review concerns expressed by dental therapists about the administration of adrenaline for anaphylaxis and investigate whether the concentration described for administration in children is appropriate
- in response to the New Zealand Institute of Dental Technologists concerns, re-visit the position on oxygen
- update the New Zealand Dental Association (NZDA) protocols contained in Appendices A and B of the practice standard and investigate whether these protocols are appropriate for children
- liaise with resuscitation providers on concerns about training for dental practitioners administering emergency medicines
- liaise with the New Zealand Resuscitation Council (NZRC) on any key changes to their guidelines that could impact on the practice standard.

## Review summary

### Key document changes

1. The updated *Medical emergencies practice standard* maintains all the information in the 2016 practice standard and has been formatted consistently with more recent Council practice standards (standards and guidance).

In general, the 'must' statements in the 2016 practice standard are set out in the 'Standards' section of the updated practice standard, and the 'should' statements are set out in the guidance.

Written procedures for managing medical emergencies was previously required by the 2016 practice standard. However, standard 8 of the updated practice standard elevates a 'recommendation' from the 2016 practice standard so that a review of the written procedures for managing medical emergencies is now required:

- You must have written procedures for managing medical emergencies where the role of each staff member is clearly defined, and review these regularly as a team to ensure staff members know and understand their role (Standard 8, pg. 11).
2. A small amount of further guidance was added to the updated practice standard for standards 1, 7 and 8 (see Appendix 1 of this document for the details and rationale).
  3. During the review it was noted that the title of the 2016 practice standard was awkward: '*Medical emergencies in dental practice - practice standard*'. The title of the updated practice standard has been simplified to '*Medical emergencies practice standard*'.
  4. To better align with terminology used in New Zealand's legislative framework, references to 'drugs' in the 2016 practice standard have been changed to 'medicines' in the updated version.

### Use of adrenaline for anaphylaxis

We investigated concerns expressed by some dental therapists about administering adrenaline for anaphylaxis and whether the concentration described for administration in children was appropriate.

The New Zealand Resuscitation Council (NZRC) sets the guidelines and standards for resuscitation in New Zealand and combines with the Australian Resuscitation Council to publish ANZCOR (Australian and New Zealand Committee on Resuscitation) guidelines and algorithms.

The ANZCOR guidelines for using adrenaline in anaphylaxis specify the adrenaline dosages for adults and children. NZRC provides a supplementary document to the anaphylaxis flowchart which has the appropriate dosages of adrenaline for children by age, when the weight of the child is unknown. These dosage guidelines are set out in Appendix 2 of this document.

The emergency management of anaphylaxis in Appendices A and B of the updated practice standard have been updated to reflect these guidelines.<sup>1</sup>

The Council acknowledges that not all CORE Immediate or equivalent course providers cover anaphylaxis in full, with opportunities for skills training in this area. The Council believes that dentists, dental specialists, dental therapists and oral health therapists could benefit from such training, to increase confidence in administration of adrenaline in the event of anaphylaxis.

The Council will liaise with the main resuscitation course providers for oral health practitioners and encourage them to include skills training in administration of adrenaline for anaphylaxis in their CORE

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<sup>1</sup> ANZCOR flowchart for anaphylaxis management - p15  
NZRC supplementary dosage information - p16

Immediate or equivalent courses attended by dentists, dental specialists, oral health therapists and/or dental therapists.

### Use of oxygen

The review re-visited the obligation set out in the 2016 practice standard for oral health practitioners providing clinical care, including clinical dental technicians, to have oxygen available for administration in the event of a medical emergency (when indicated).

Following the Council's consideration of the ANZCOR guidelines and NZRC published information, and consideration of international regulatory requirements, the obligations have not changed in the updated version.

ANZCOR guideline, 9.2.10 – *The Use of Oxygen in Emergencies*, includes the conditions where oxygen is recommended. Those most relevant to the dental setting are:

- during cardiopulmonary resuscitation (CPR)
- heart attack with shortness of breath
- asthma
- anaphylaxis.

The Council's minimum requirement is that all oral health practitioners (except dental technicians not undertaking restricted activities) complete CORE Immediate resuscitation training or equivalent.

This level of resuscitation training has been developed by the NZRC as the foundation level of resuscitation training that is appropriate for New Zealand's health professionals. Oropharyngeal airway insertion, bag-mask ventilation and oxygen delivery for adults are covered in CORE Immediate or equivalent courses.

The General Dental Council (UK) has similar requirements for their registered dental and clinical dental technicians to have "immediate access (within the first minutes of a cardiorespiratory arrest) to oxygen....".

The Council acknowledges the extent of the training received in the safe administration of oxygen through the CORE Immediate or equivalent courses is variable. We encourage practitioners to discuss their training needs with their resuscitation course providers, to enable them to competently administer oxygen in a medical emergency, when indicated.

### Update of Appendices A and B

Appendix A, *Medical emergency situations: specific response*, and Appendix B, *Emergency situations –quick reaction guide*, have been updated to reflect current ANZCOR guidelines and NZRC published information.

In overview:

- The current algorithm for anaphylaxis (2019) is included which covers management of anaphylaxis in adults and children.
- The information on angina and myocardial infarction has been expanded and comes under the new heading of 'Acute coronary syndrome' (although the management of these conditions essentially remains the same).
- There is a change in the emergency management of asthma, reflected in the updated appendices.
- The algorithm for foreign body airway obstruction (2016) has been included.
- Management of maternal collapse has been added.

The protocols contained in Appendices A and B are applicable to adults and children, with the exception of the emergency situations which are highly unlikely to occur in a child (e.g. cardiac conditions).

The Council acknowledges the NZDA who earlier developed these Appendices, which are included in their code of practice – *Medical Emergencies in Dental Practice*.

The updated Appendices (in draft form) were shared with NZRC and NZDA for their feedback. NZRC confirmed that the information in the Appendices accurately represents ANZCOR guidelines and NZRC published information. NZDA also provided feedback—they were supportive of the updates made by the Council and will consider these when reviewing their code of practice.

### Liaison with NZRC

NZRC confirmed there were no imminent changes planned to ANZCOR guidelines or NZRC published information that would impact upon the standards, guidance or other information contained in the updated practice standard.

### Review outcome

In summary:

1. The title of the practice standard has been simplified to *Medical emergencies practice standard*
2. The [updated practice standard](#) maintains all the information in the 2016 practice standard, and has been formatted consistently with other, more recent, practice standards (standards and guidance)
3. A small amount of further guidance has been added to the updated practice standard for standards 1,7, and 8—see Appendix 1 of this document for details
4. References to ‘drugs’ in the 2016 practice standard have been changed to ‘medicines’ in the updated version
5. Practitioners’ obligations for the use of oxygen have not changed, including for clinical dental technicians
6. Practitioners are encouraged to discuss their training needs with their resuscitation course providers when booking, to enable them to competently administer adrenaline or oxygen, as relevant, in a medical emergency
7. Appendices A and B of the practice standard have been updated to reflect current ANZCOR guidelines and NZRC published information.

Yours sincerely



Marie Warner  
Chief Executive

## Additional guidance and rationale for adding

Standard	Additional guidance not in 2016 medical emergencies practice standard
1	<ul style="list-style-type: none"> <li>➤ Include in the medical history: past medical history, current medical conditions, current medications (prescribed and non-prescribed), and allergies</li> <li>➤ Update the medical history at each appointment (this may be done verbally) and document any changes in the patient record.</li> </ul> <p><i>Rationale:</i> to provide consistency with the guidance given related to medical history in the <i>Sedation</i> and <i>Patient records and privacy of information</i> practice standards.</p>
7	<ul style="list-style-type: none"> <li>➤ Check the availability and expiry dates of medicines at least 6 monthly</li> </ul> <p><i>Rationale:</i> to align the checking of medicine expiry dates with checking of equipment and review of procedures for managing medical emergencies so that all take place at least 6 monthly, and most probably at the same time.</p>
8	<ul style="list-style-type: none"> <li>➤ Consider incorporating role play or 'staging' of a medical emergency in the review, to give staff members the opportunity to practise their respective roles.</li> </ul> <p><i>Rationale:</i> to create more active involvement of staff members to promote a team approach to the management of medical emergencies, to ensure an appropriate and coordinated response.</p>

### Guidelines for adrenaline dosages

ANZCOR guidelines for use of adrenaline in anaphylaxis specify the following:

- Adrenaline via intramuscular injection (IM) (1:1,000), preferably into lateral thigh:
  - Adults: 0.5mg (0.5mL of 1:1,000)
  - Children: 10mcg/kg (0.01mL/kg of 1:1,000) (min dose 0.1mL, max dose 0.5mL)
- Repeat every 5 minutes as needed.

NZRC anaphylaxis flowchart with appropriate dosages of adrenaline for children by age, when the weight of the child is unknown.

## Dosage of IM Adrenaline for Anaphylaxis

**Adrenaline 1:1000** dosage is 0.01 mL/kg  
up to a maximum of 0.5mL

**If the weight is unknown use the following:**

AGE	DOSE
Infants less than 2 years	0.1mL
2-4 years	0.2mL
5-11 years	0.3mL
Over 12 years	0.5mL
Adult	0.5mL



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