Learning Line January 2019

In this edition of Learning Line, we have focused on an emergency situation that one of our colleagues has encountered. They have kindly provided us with a reflective commentary, and we have added the learning points from the event.

REFLECTIVE COMMENTARY

On the 26th November 2018 a patient of mine arrived for his dental appointment (bite registration). Medically there were no concerns (only controlled hypertension). With the appointment being at 5.00pm, he was the last patient of the day and the waiting room was empty. The patient arrived at my surgery door, after being called in, and all of a sudden (with no pre-warning) collapsed on the floor. It was a presumed faint due to the patient initially demonstrating signs of breathing. However, within seconds the patient stopped breathing and was completely unresponsive. The patient had suffered a Cardiac Arrest.

Our dental team was able to mobilise quickly to deliver chest compressions and oxygen delivery (CPR) whilst waiting for the ambulance to arrive. The AED (Defibrillator) was deployed and the patient received two shocks. Chest compressions continued until the Ambulance arrived and thankfully the patient's cardiac function returned. He was then transferred to hospital and received urgent care. The patient survived and is now making a complete recovery.

LEARNING POINTS

1. Emergency situations can occur anywhere at any time and are not restricted to just those with complex medical histories.

2. Defibrillation is a key treatment for Cardiac Arrest
   Defibrillation is the single effective treatment of pulseless ventricular tachycardia or ventricular fibrillation
   Delay from collapse to first shock is the most important determinant of survival
   With every lost minute, the success of defibrillation declines by 7-10%

3. All members of staff must know their role
   All members of staff who might be involved should be appropriately trained

4. The incident highlighted the strict importance of tight regulatory controls and procedures in place within dental surgeries. The patient's life was saved simply by the team being able to mobilise the emergency equipment

(including pocket mask/ oxygen cylinder/ AED) in a matter of seconds and the knowledge of their assembly and use. Any missing items or equipment, or a staff member failing to understand or fulfil their role may well have resulted in a delay which could have resulted in the patient's failure to be revived. Daily and weekly checks of emergency drugs and oxygen together with regular maintenance of the AED (and the replacement of its battery and pads on expiry) are vital and the true importance is not realised until an incident of this nature occurs.

FURTHER RESOURCES

GDC

Medical emergencies

All registrants must follow the guidance on medical emergencies and training updates issued by the Resuscitation Council (UK) (1.5.3 Standards for the Dental Team (242.1 KB, PDF).

The Resuscitation Council's document Quality standards for cardiopulmonary resuscitation practice and training is its main medical guidance document for dental professionals. We endorse this document and expect registrants to apply this guidance in practice.

Equipment requirements – defibrillators and emergency drugs

Defibrillators

We endorse the Resuscitation Council's guidance that all clinical areas should have immediate access to an automated external defibrillator (AED).

What does this mean in practice?

Premises in which patients are seen clinically should have a defibrillator. This includes practices in which patients are seen by:

- A dentist only
- A clinical dental technician only
- A dental hygienist or dental therapist only
- A combination of members of the dental team

Emergency drugs

We endorse the Resuscitation Council's guidance that clinical dental settings staffed by dentists, hygienists, and therapists, should have an emergency drugs kit. Further guidance on what drugs should be contained in emergency drugs kits can be obtained from the Department of Health and via the British National Formulary (you will need to subscribe to the British National Formulary in order to log into their website.)

Clinical dental technicians: We recognise that the Human Medicines Regulations 2012 prohibit clinical dental technicians from purchasing or holding the prescription-only medicines contained within an emergency drugs kit. We do not therefore expect a clinical dental technician to have an emergency drugs kit or be trained in the use of

an emergency drugs kit. We are aware that CDTs who work independently will not have an emergency drugs kit on their premises.

Dental hygienists and therapists: The Human Medicines Regulations 2012 permit dental hygienists and therapists to hold emergency drugs on their premises, but not to purchase the medicines directly. A dental hygienist / therapist practice needs to ensure that they hold emergency drugs on site. Hygienist / therapist practices without an on-site dentist can obtain an emergency kit through a prescribing dentist or doctor under a patient-group directive.

Staff skills requirements
A patient could collapse on any premises at any time, whether they have received treatment or not. It is therefore essential that all registrants must be trained in dealing with medical emergencies, including resuscitation, and possess up to date evidence of capability.

Scope of practice
Registrants must know their role in the event of a medical emergency, and ensure they are sufficiently trained and competent to carry out that role.

If the setting in which you work changes, your role in the event of a medical emergency may change as well. You must ensure that you are suitably trained and competent to carry out your new medical emergency role. This might be the case for:

- A dental hygienist moving to independent practice under direct access
- A clinical dental technician moving from a dentist's premises to independent premises
- A dental nurse working in a school
- A dental nurse assisting with domiciliary visits

Resuscitation Council (UK)
https://www.resus.org.uk/quality-standards/primary-dental-care-quality-standards-for-cpr/

CQC
https://www.cqc.org.uk/guidance-providers/dentists/dental-mythbuster-4-drugs-equipment-required-medical-emergency

Support for Staff involved
Some medical emergencies can prove traumatic or difficult to come to terms with for some members of the dental team.
Trauma is an event or an experience which may be deeply disturbing or distressing. It is important to know that what one person finds traumatic, another person may not. Each person is an individual and will experience events differently. Therefore, there is no definitive list of traumatic events; what is more important is how the event is perceived and experienced by the individual. Immediately after the traumatic event, people can often feel shock or denial. When in shock an individual may feel numb or stunned. They may feel cut off from feelings or the reality of the situation. When an

individual feels denial, they may find it difficult to accept what has happened or may not believe that it has happened. Sometimes people can come across as being "strong" or unaffected by the event when they are experiencing denial.

After feelings of shock and denial have subsided, it is common to experience a wide range of symptoms. It is important to remember the following examples are normal reactions to a traumatic incident, it is not exhaustive and you do not have to experience every symptom on the list following a traumatic event. Sometimes people start to experience symptoms soon after the event, whereas others start to experience them later on.

- Flashbacks
- Intrusive images or thoughts of the trauma
- Unable to make decisions
- Struggling to concentrate/focus
- Racing thoughts
- Ruminating on the event or something related to the event
- Having nightmares
- Constantly thinking about the event
- Not thinking about the event at all
- Angry

It is important to remember to give yourself time following a trauma to recover and start to feel like yourself again. Most people recover from trauma themselves and do not need treatment.
However, some of the following may indicate that you may need to access help from your GP or a healthcare professional.

- You have no one to talk to
- You cannot handle your feelings/feel completely overwhelmed
- Your symptoms are not reducing after six weeks
- You are engaging in destructive behaviours
- You are unable to function day-to-day
- You are having accidents

I would like to thank my Clinical Dental Advisor Colleagues for their help in producing this Learning Line

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