

approximately four centimetres depth and in older children five centimetres depth

- Use two fingers to compress the chest in an infant younger one year; use one or two hands for a child older than 1 year to achieve an adequate depth of compression.

Defibrillation is rarely needed in children. Although it is advised to use paediatric electrode pads for defibrillation of children under eight years of age. If they are not available, adult electrodes placed in an antero-posterior orientation will suffice.⁶

TEAM APPROACH TO RESUSCITATION

Resuscitation requires a system to be in place to optimise the chances of the patient surviving. This system requires technical and non-technical skills (teamwork, situational awareness, leadership, decision making).⁶ An effective team leader is paramount. Ideally, the dentist should assume the role of team leader, allocating team members specific roles they understand and are able to undertake.

Whether the emergency is in the dental surgery itself, or in another part of the building, it is important to ensure there is 360 degree access to the patient ('Circle of Life'):⁶

Position 1

Airway & ventilation – if a bag/valve/mask device is used, then ideally two persons are needed; one to open the airway and ensure a good seal with the mask while a second person squeezes the bag. The person holding

the mask on will find sitting on the dentist's stool more comfortable.

Position 2

High quality chest compressions – at patient's left side. The dental chair should be horizontal and at a comfortable height for the person performing chest compressions. Be prepared to alternate with the operator at position 3 to avoid fatigue.

Position 3

AED use and alternative chest compressions provider (avoiding fatigue) – ideally the opposite side of position 2.

Position 4

Team leader (usually the dentist) standing at the foot end of the dental chair – by standing back and overseeing the resuscitation attempt, the dentist will be in a better position to help ensure that the resuscitation attempt runs smoothly, effective resuscitation is provided, appropriate decisions are made and the patient and rescuer's safety is maintained.

PREVENTION OF CARDIAC ARREST

In the majority of sudden cardiac deaths outside hospital, there is a history of heart disease and warning symptoms (usually chest pain) in the hour preceding cardiac arrest.⁸ The prompt recognition of cardiac chest pain and rapid activation of the emergency services where appropriate remains a priority for dentists, as well as ensuring immediate access to an AED.

CONCLUSION

In the event of a cardiac arrest in the dental practice, dentists should ensure a swift, effective and safe resuscitation response to help optimise the chances of the patient surviving. The Resuscitation Council (UK)'s Guidelines 2015 stress the importance of calling 999, performing effective chest compressions and switching on the AED and following its instructions as soon as possible.

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Clarification

General Article (*BDJ* 2016; **220**: 133–142)

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