# Medical Emergencies in the Dental Practice

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<th>Medical Emergency</th>
<th>Signs &amp; Symptoms</th>
<th>Treatment</th>
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| Anaphylaxis       | Signs & symptoms may include:  
- Sudden onset  
- Urticaria  
- Angioedema  
- Flushing & pallor  
- Respiratory distress  
- Stridor, wheeze &/or hoarse voice  
- Hypotension  
- Tachycardia | • ABCDE approach; call 999  
- Lie flat, elevate legs (if breathing not impaired)  
- Administer oxygen 15 litres/min  
- Administer adrenaline 500 micrograms IM (0.5ml of 1:1000 solution)  
- If necessary, repeat adrenaline at 5 minute intervals according to blood pressure, pulse respiratory function |

| Asthma            | Breathlessness & expiratory wheeze  
Severe: inability to complete sentences in one breath, RR>25/min, pulse>110/min  
Life threatening: cyanosis or RR<8/min, pulse < 50/min, exhaustion, confusion, decreased level of consciousness | • ABCDE Approach  
- Sit upright  
- Administer 2 puffs (100 micrograms/puff) of short acting bronchodilator inhaler e.g. salbutamol; repeat doses may be necessary  
- If patient unable to effectively use inhaler, administer additional doses through spacer device  
- Call 999 if no response or if severe or life threatening  
- While awaiting ambulance: administer oxygen 15 litres per minute; up to 10 activations of salbutamol inhaler using a spacer device should also given (repeated every 10 minutes if necessary)  
- Reassure patient |

| Cardiac emergencies | Heart attack (myocardial infarction)  
Severe, crushing central chest pain (may radiate to neck, jaw shoulders, left arm & back)  
Pallor, sweating  
Nausea/vomiting  
Breathlessness | • Call 999  
- ABCDE approach  
- Comfortable position  
- Administer GTN e.g. 2 activations of GTN spray  
- If no known allergy, administer aspirin 300mg orally (crushed or chewed)  
- Cyanosis (blue lips) or if deterioration in level of consciousness: administer oxygen 15 litres/min |

| Epileptic seizure  | Sudden collapse & loss of consciousness  
Tonic phase (approx 30 secs)  
Rigidity & cyanosis  
Clonic phase (few mins)  
Jerking movements of limbs, tongue may be bitten; frothing at mouth & incontinence may occur  
Following seizure  
Patient flaccid and remains unconscious (variable period); gradually regains consciousness, may be confused | • ABCDE approach  
- Ensure safe environment: prevent injury, do not put anything into mouth, do not restrain  
- Administer oxygen 15 litres/min  
- Once jerking movements cease: recovery position  
- Check for slow heart rate (can cause seizure)  
- Check blood glucose (hypoglycaemia can cause seizure): if < 3mmols/litre, treat for hypoglycaemia (see below)  
- Following seizure, place in recovery position  
- Prolonged seizures (lasting 5 mins or longer) or seizures recurring in quick succession: call 999 & administer midazolam 10mg via buccal route  
- Refer to hospital if status epilepticus, high risk of recurrence, first episode, difficulty monitoring patient’s condition (NICE) |

| Hypoglycaemia     | Shaking/trembling  
Slurred speech  
Vagueness  
Sweating  
Double vision  
Confusion  
Unconsciousness  
Children may just appear lethargic | • Measure blood glucose to confirm diagnosis  
- Call 999 if any difficulty experienced or patient does not respond  
- Co-operative, conscious & able to swallow safely:  
  - Offer 10-20g glucose e.g. orange juice, non-diet fizzy drink, 4 x glucose tablets or gelatin capsules  
- Impaired consciousness & unable to swallow safely:  
  - Administer buccal glucose gel &/or glucagon 1mg IM  
  - Once consciousness returns, offer oral glucose  |

| Stroke            | • Facial weakness: smile? mouth or an eye lid drooped?  
- Arm weakness: raise both arms?  
- Speech problems: speak clearly and understand what is being said?  
- Test all three symptoms (FAST: Stroke Association) | • ABCDE approach  
- Call 999  
- Ensure airway patent – may be necessary to place in recovery position  
- Administer oxygen 15 litres/min  
- Do not offer anything to eat or drink |

| Syncope           | Feels faint/dizzy/light headed  
Collapsation, loss of consciousness  
Pallor, sweating, slow pulse, low BP  
Nausea/vomiting | • Lie flat & elevate legs  
- Loosen tight clothing  
- Administer oxygen 15 litres/min  
- If becomes unresponsive, check for signs of life |

### References

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