

**The Management of Medical Emergencies:  
A Guide for Dental Care Professionals**

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**The Management of Medical Emergencies:  
A Guide for Dental Care Professionals**

**By**

**Colette Balmer and Lesley Longman**



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# Acknowledgements

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*Colette would like to dedicate this book to her mother Maureen Balmer and her late father Norbert Balmer for their unfailing love and support.*

*Lesley would like to dedicate this book to her husband Peter.*



# Foreword

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Around 300,000 people visit the dentist every day in England. A medical emergency could potentially occur during any of these visits. The sheer numbers mean it is likely that every dental care professional will at some stage in their career be faced with dealing, as part of a team, with a medical emergency. Increasingly, as patients with complex medical problems lead fuller and longer lives, the chance of encountering medical emergencies within the dental practice are even further increased.

Dealing effectively with medical emergencies is of vital importance as it can, and often does, save lives. All members of the dental team need to have comprehensive training in the management of such emergencies, so that, if they are called upon to manage such a situation, they have both the knowledge and the confidence to tackle emergencies appropriately. Competency around management of medical emergencies is a core requirement of continuous professional development and therefore fundamental to maintain registration on the General Dental Council register. Indeed, our patients have a right to expect that all members of the dental team are proficient in the management of such emergencies.

I spent over 25 years in a general dental practice and we dealt with a range of medical emergencies over that time. They ranged from simple fainting in the waiting room, through epileptic fits and hypoglycaemia, to a cardiac arrest following general anaesthesia in the primary care setting. This last example should certainly now not occur, but other emergencies will continue to occur. As the role of dental care professionals increasingly expands within primary care dental services, providing more complex treatments and increasingly, possibly, working without a dentist on site, it is imperative that this group of professionals have the necessary preparation to be able to handle medical emergencies in the most effective and timely manner.

Dealing with any medical emergency is extremely stressful, and the importance of good quality and regular training, along with hands on simulated role play, cannot be underestimated.

I was delighted to be asked to write the foreword for this book. I am certain it will prove to be a valuable resource in assisting the primary care dental team both in training around this vitally important subject, as well as updating and maintaining the competencies around dealing with medical emergencies in clinical dental practice. It is to be hoped that it will be used by all members of the team to enable them to both train together and work together to improve outcomes for patients.

*Dr Barry Cockcroft, Chief Dental Officer*



# Introduction

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A wide range of people visit a dental surgery during the course of an ordinary working day. Examples include practice staff, regular, new and prospective patients (often accompanied by relatives and friends) dental company representatives, potential job applicants and service personnel. The health of these visitors will be variable and sometimes unknown. It is not surprising therefore that any of these individuals may become unwell and need urgent treatment. As healthcare professionals all members of staff should have the ability to provide immediate care for medical emergencies that may arise in a dental surgery setting.

## What is a Medical Emergency?

A medical emergency can be described as any situation in which a patient becomes ill. They may or may not lose consciousness, but ultimately their life may be at risk due to a failure of an effective oxygenated circulation to the brain and vital organs.

In order to remain alive all human beings have several essential basic requirements. Fundamentally there must be:

- An adequate supply of oxygen available for gas exchange to be possible in the alveoli of the lungs. This means that air needs to be able to flow into the upper airway in order that oxygen can enter the alveoli (or air sacks) of the lungs. The lower airway consisting of the trachea, bronchi and alveoli must be clear of obstruction and patent to allow the passage of oxygen and gases both in and out of the lungs.
- Sufficient blood supply being pumped around the body to the important organs — the lungs, the brain and the heart. In other words the cardiovascular system needs to be working to ensure that vital organs receive the oxygen they need to continue to function.
- A functioning brain and the nervous system that is in overall control.

A medical emergency will arise when there is a failure in one or more of these pivotal core systems, and unless function can be restored or compensated for it will quickly progress to a shutdown of the other essential organs. The basic functions of the respiratory, cardiovascular and nervous systems are described later in separate chapters. Knowledge of these organ systems and how they depend on each other — their interrelationships — is helpful in understanding what goes wrong when a patient becomes acutely ill and why certain procedures