

Cardiac arrest in the perioperative period: a consensus guideline for identification, treatment, and prevention from the European Society of Anaesthesiology and Intensive Care and the European Society for Trauma and Emergency Surgery.

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Authors: From the University Department of Anaesthesiology, Intensive Care Medicine and Emergency Medicine, Johannes Wesling Klinikum Minden, University Hospital Ruhr-University Bochum, Minden, Germany (JH), Department of Anaesthesiology and Intensive Care Medicine, Medical Faculty and University Hospital of Cologne, Cologne, Germany (BWB, JS), Department of Anaesthesiology and Intensive Therapy, Jagiellonian University Medical College, Krakow, Poland (JA), Department of Surgical Sciences, University of Turin, Turin (LB), Division of Anaesthesia, Analgesia and Intensive Care, Department of Medicine and Surgery, University of Perugia, Italy (EdR), Intensive Care Unit, Shaare Zedek Medical Center and Hebrew University Faculty of Medicine, Jerusalem, Israel (SE), Department of Anaesthesia, Salford Royal NHS Foundation Trust, Salford, UK (CG), Department of Anesthesiology and Reanimation, Dokuz Eylül University, İzmir, Turkey (BK), Department of Anesthesiology and Intensive Care Medicine, Jagiellonian University Medical College, Krakow, Poland (PK), Department of Anaesthesiology, Antwerp University Hospital, Edegem, Belgium (PM), Department of Anesthesiology, Vanderbilt University Medical Center, Nashville, Tennessee (MDM), Division of Critical Care Anesthesiology, Department of Anesthesiology, Columbia University, New York, USA (VKM), Anesthesiology Department, Dr Balmis General University Hospital, Alicante Institute for Health and Biomedical Research (ISAB), and Biomedical Research (ISABIAL), Alicante, Spain (JN-M), Department of Anesthesiology, Perioperative Care, and Pain Medicine, NYU Grossman School of Medicine, New York (MEN), Department of Anesthesiology & Critical Care, University of Chicago, Illinois, USA (MO'C), Institute for Patient Safety and Simulation Team Training InPASS, Reutlingen, Germany (MR), Departments of General Anesthesiology and Outcomes Research, Anesthesiology Institute, Cleveland Clinic, Cleveland, Ohio, USA (KR), Department of Anaesthesiology and Critical Care, EvKB, OWL University Medical Center, Bielefeld University, Campus Bielefeld-Bethel, Germany (KT), Department of Surgery, Hull University Teaching Hospitals, Hull, UK (JT), General & Emergency Surgery Division, Department of Surgery, A. Manzoni Hospital, Milan, Italy (MZ) and Department of Paediatric and Obstetric Anaesthesia, Juliane Marie Centre, Rigshospitalet, Denmark and Department of Clinical Medicine, University of Copenhagen, Denmark (AA).

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Cardiac arrest in the operating room is a rare but potentially life-threatening event with mortality rates of more than 50%. Contributing factors are often known, and the event is recognised rapidly as patients are usually under full monitoring. This guideline covers the perioperative period and is complementary to the European Resuscitation Council (ERC) guidelines.

The European Society of Anaesthesiology and Intensive Care and the European Society for Trauma and Emergency Surgery jointly nominated a panel of experts to develop guidelines for the recognition, treatment and prevention of cardiac arrest in the perioperative period. A literature search was conducted in MEDLINE, EMBASE, CINAHL and the Cochrane Central Register of Controlled Trials. All searches were restricted to publications from 1980 to 2019 inclusive and to the English, French, Italian and Spanish languages. The authors also contributed individual, independent literature searches.

This guideline contains background information and recommendation for the treatment of cardiac arrest in the operating room environment, and addresses controversial topics such as open chest cardiac massage (OCCM), resuscitative endovascular balloon occlusion (REBOA) and resuscitative thoracotomy, pericardiocentesis, needle decompression and thoracostomy.

Successful prevention and management of cardiac arrest during anaesthesia and surgery requires anticipation, early recognition and a clear treatment plan. The ready availability of expert staff and equipment must also be taken into consideration. Success not only depends on medical knowledge, technical skills and a well organised team using crew resource management but also on an institutional safety culture embedded in everyday practice through continuous education, training and multidisciplinary co-operation.