

The Problem of Artifacts in Patient Monitor Data during Surgery: A Clinical and Methodological Review.

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Abstract

Artifacts are a significant problem affecting the accurate display of information during surgery. They are also a source of false alarms. A secondary problem is the inadvertent recording of artifactual and inaccurate information in automated record keeping systems. Though most of the currently available patient monitors use techniques to minimize the effect of artifacts, their success is limited. We reviewed the problem of artifacts affecting patient monitor data during surgical cases.

Methods adopted by currently marketed patient monitors to eliminate and minimize artifacts due to technical and environmental factors are reviewed and discussed. Also discussed are promising artifact detection and correction methods that are being investigated. These might be used to detect and eliminate artifacts with improved accuracy and specificity.