User Evaluation: Disposable Ambu Blue Sensor SU electrodes vs. Re-usable Vacuum System Electrodes for Resting ECG

Year: 1999

Hospital: Department of Internal Medicine, University Hospital of Ulm, Germany.

Aim: The aim of the study was to compare re-usable vacuum ECG electrodes (Quickels System) and disposable Ambu Blue Sensor SU ECG electrodes in regards to handling, performance and hygiene.

Number of patients: 300

Summary: The disposable Blue Sensor SU electrodes were found to be significantly superior to the vacuum system electrodes regarding ease of application, skin adherence and number of recordings needed before achieving an acceptable ECG trace. Both electrodes were rated as easy to remove and good ECG signal quality could be obtained with both types of electrodes. A minority of the patients (7%) reported that they felt pain during removal of the SU electrode while the re-usable vacuum ECG electrodes regularly (88%) left red marks in the skin after removal. Bacteria were found in the filters of the reusable vacuum system electrodes. The number of bacteria increased with increased number of patient contacts.