

عنوان مقاله:

A Study on Performance and Safety Tests of Defibrillator Equipment

محل انتشار:

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خلاصه مقاله:

Introduction: Nowadays, more than ۱۰,۰۰۰ different types of medical devices can be found in hospitals. This way, medical electrical equipment is being employed in a wide variety of fields in medical sciences with different physiological effects and measurements. Hospitals and medical centers must ensure that their critical medical devices are safe, accurate, reliable and operational at the required level of performance. Defibrillators are critical resuscitation devices. The use of reliable defibrillators has led to more effective treatments and improved patient safety through better control and management of complications during Cardiopulmonary Resuscitation (CPR). Materials and Methods: The metrological reliability of twenty frequent use, manual defibrillators in use ten hospitals (۴ private and ۶ public) in one of the provinces of Iran according to international and national standards was evaluated. Results: Quantitative analysis of control and instrument accuracy showed the amount of the obtained results in many units are critical which had less value over the standard limitations especially in devices with poor battery. For the accuracy of delivered energy analysis, only twelve units delivered acceptable output values and the precision in the output energy measurements especially in weak battery condition, after activation of discharge alarm, were low. Conclusion: Obtained results indicate a need for new and severe regulations on periodic performance verifications and medical equipment quality control program especially for high risk instruments. It is also necessary to provide training courses on the fundamentals of operation and performane parameters for medical staff in the field of meterology in medicine and how .one can get good accuracy results especially in high risk medical devices

کلمات کلیدی:

Meterology, reliability, Defibrillator, Electroshock, Patient Safety, Medical Electrical Equipment

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