

الآية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
وَالْعَصْرِ ﴿١﴾ إِنَّ الْإِنْسَانَ لَفِي خُسْرٍ ﴿٢﴾ إِلَّا الَّذِينَ ءَامَنُوا
وَعَمِلُوا الصَّالِحَاتِ وَتَوَاصَوْا بِالْحَقِّ وَتَوَاصَوْا بِالصَّبْرِ ﴿٣﴾

صدق الله العظيم

سورة العصر

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Dedication

*To my lovely parents and family, my mother that candle that burn
to light others life.*

*To my brothers and my sisters and my friends and all my family who
contributed much in my great success in life.*

Abstract:

This study was aimed to assessment of kVp accuracy for x-ray departments in Khartoum state.

A total of 15 x-ray units in radiology departments in Khartoum state were tested by KV meter tool.

In this study the final results were analyzed by Microsoft Office Excel Program, the results showed that the percentage of acceptable for x-ray machines (80%) greater than unacceptable for x-ray machines (20%). The final assessment of KVp accuracy acceptable for x-ray departments is most in Khartoum state.

It is clear that implementation of QC program concerning kV accuracy is very important to the production of image quality.

المخلص:

هدفت هذه الدراسة إلى تقييم دقة الكيلوفولت لأقسام الأشعة السينية في ولاية الخرطوم.

تم اختبار 15 وحدة أشعة سينية في أقسام الأشعة في ولاية الخرطوم بواسطة أداة الكيلوفولتميتتر. في هذه الدراسة تم تحليل النتائج النهائية بواسطة برنامج مايكروسوفت أوفيس إكسيل، وأظهرت النتائج أن النسبة المقبولة لأجهزة الأشعة السينية (80%) وغير المقبولة لأجهزة الأشعة السينية كانت (20%).

التقييم النهائي لدقة الكيلوفولت المقبول لإدارات الأشعة السينية هو الأكثر في ولاية الخرطوم ومن الواضح أن تنفيذ برنامج ضبط الجودة بشأن دقة الكيلو فولت مهم جدا لإنتاج صورة ذات جودة.

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List of abbreviation

KVp: kilovoltage peak

mAs: milliAmpere second

QA: Quality Assurance

QC: Quality Control

SID: Source to image distance

HVL: Half value layer

ICRP: International Commission on Radiation Protection

IAEA: International Atomic Energy Agency