

قال تعالى:

﴿وَعَلَّمَ آدَمَ الْأَسْمَاءَ كُلَّهَا ثُمَّ عَرَضَهُمْ عَلَى الْمَلَائِكَةِ فَقَالَ أَنْبِئُونِي بِأَسْمَاءِ هَؤُلَاءِ إِنْ كُنْتُمْ صَادِقِينَ﴾ ﴿31﴾ قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ الْعَلِيمُ الْحَكِيمُ ﴿32﴾

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Dedication

I dedicate this research to God Almighty my creator, my strong pillar, my source of inspiration, wisdom, knowledge and understanding, He has been the source of my strength through this program.

I also dedicate this research work to my supervisor DR. Elias Siddig who never failed to teach and guide me.

To my family who supports me in every things, most of all to my father who taught me the best kind of knowledge to have is that which is learned for its own sake. To my mother who taught me that even the largest task can be accomplished if it is done one step at a time.

To my friends who helped me to finish this project.

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Abstract:

Ionizing radiation can cause harm and a systematic approach should be applied to ensure that there is a balance between being able to utilize the benefits from medical uses of ionizing radiation and minimizing the risk of radiation effects to patients, workers and members of the public.

This study was conducted in Khartoum state hospitals, centers, and a number of private hospitals which are about 12 hospitals and centers in the period from March 2016 to November 2016. The aim of this study was to survey personal radiation protection for technicians, radiologist, patient and other workers, ensure that there are appropriate protective equipment are provided, and to ensure that the standard of radiation protection program in all aspects were applied. Methods used questionnaire, observations, and measurements.

The study revealed that 55% of the study population is concerned about radiation protection program, and recommendations were developed to improve this percentage.

المستخلص:

الإشعاع المؤين يمكن أن يسبب الأذى وينبغي تطبيق نهج منتظم لضمان أن يكون هناك توازن بين القدرة على الاستفادة من فوائد الاستخدامات الطبية للإشعاعات المؤينة والتقليل من خطر الآثار الإشعاعية للمرضى والعاملين والعامه.

وقد أجريت هذه الدراسة في مستشفيات ولاية الخرطوم_عدد من المستشفيات الخاصة والحكومية والمراكز الصحية_والتي عددها 12 مستشفى ومركزا صحيا فى الفتره من مارس 2016 الى نوفمبر 2016 . وكان الهدف من هذه الدراسة تقييم مستوى الحماية من الأشعة الشخصية لفنيي الأشعة ، المريض وغيرهم من العاملين، وضمان أن معدات الوقاية من الأشعة يتم توفيرها، وضمان ان برنامج الحماية من الإشعاع يتم تطبيقه من جميع النواحي. استخدمت طرق الاستبيان والملاحظات والقياسات لتقييم مستوى الحماية.

كشفت الدراسة ان 55% فقط من عينة الدراسة تقوم بتطبيق برنامج الحماية من الإشعاع، ووضعت توصيات لتحسين هذه النسبة .

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Abbreviations:

CT	Computed tomography
UK	United Kingdom
US	United State
FDA	Food and Drug Administration
ICRP	International Commission on Radiological Protection
IAEA	International Atomic Energy Agency
ICRU	International Commission on Radiation Units and Measurements
ALARA	As Low As Reasonably Achievable
RSO	Radiation Safety Organization
RSD	Radiation Safety Division
PIs	Practical Investigation
ED	Emergency Department
TLDs	Thermal luminescent Detectors
SAEC	Sudanese Atomic Energy Commission
PPE	Personal Protective Equipment