

GOOD HANDLING PRACTICE IN MEDICAL X-RAY (MXR 100).

VENUE: MALAYSIAN NUCLEAR AGENCY, BANGI.

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Topic 1: Radiation Protection in X-ray Department.

- This topic provides some general information in understanding radiological problems that may arise when working with radiation. The principles that should be applied and the procedures that should be adopted to minimize these problems are presented mostly based on BSS regulation's. It is not claimed that the use of radiation is absolutely safe. However, the radiological safety of workers, members of the public and patients can be assured with strict adherence to the principle and procedures of radiation protection.

Topic 2: Legislative Requirement Act 304.

- Functions of the act 304: to protect the health of workers and members of the public from the harmful effects of particular sources of ionizing radiation. To minimize danger to life, property and the environment. To improve the quality of diagnostic radiology services provided by both private and public sector.
- Reasons of the act 304: First, radiation potential to affect human health hazard particularly to radiation workers as well as patients and the member of the public. Second, potential incidents and accidents occur during the procedure. Third, law making to support the radiation protection aspect of the radiation workers as well as patients and the member of the public involved.

Topic 3: Quality Assurance Programme.

- To enhance the quality of radiology services.
- To ensure the optimal usage of ionizing radiation to produce the high quality images.
- To ensure the optimum efficiency of imaging equipment and resources.
- To fulfill the requirements of regulatory and legislative atomic energy licensing act 1984.

Topic 4: Routine Check and Record Keeping.

- Licensing activities, rules and quality assurance programme have assured that both the patients and staffs are adequately protected and consistently high quality x-ray images are obtained at all times at minimum dose and cost to the patients.

Topic 5: Evolution For Image Processing.

- From darkroom processor (manual processor and auto processor) to daylight processor. Now dominated by digital radiography either Computed Radiography or Direct Radiography.
- Optimized film/image processing can reduce patient doses and improve image quality.
- To produce quality images for conventional projection or digital radiography; the same rules, theories and laws still apply and can not be overlooked.