

THE PRODUCTION OF AN APPARATUS FOR INFUSE INTO SYRINGE

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Recently, the usage of the short lived radionuclide like ^{99m}Tc has been remarkably increased in the clinical radiological field. As a result, the radiation dose to the fingers of radiation workers is considered to be increased.

Indeed the syringe shield with lead was produced, but the radiation dose to the fingers for radiation workers is not decreased completely.

We developed an apparatus which infuse the radiopharmaceuticals from vial into syringe. We compared the usage of syringe shield with the usage of our apparatus. The radiation dose were measured by TLD (KYOKKO-TLD-1200 TYPE, use MSO-S).

Concerning infusing time, there was not a difference between before method and our method. But in our apparatus, it was not necessary to touch the vial and syringe while infusing.

Accordingly, the radiation dose to the both hands for radiation workers was remarkably decreased.

Our apparatus for infuse into syringe is small and movable.

We report that an apparatus for infuse into syringe which we developed was operated safely and easily.

REDUCTION OF RADIATION EXPOSURE BY USING ALREADY LABELED Tc-99m COMPOUNDS

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Application of Tc-99m compounds for RI imaging markedly reduced internal radiation dose to patients, while external radiation dose to operator is considered to be increased, and exposure to hand fingers of operator during labeling of Tc-99m compounds is especially significant.

Recently we became to be available some Tc-99m compounds in form of already labeled pharmacy, so we compared radiation exposure dose to hand fingers in handling of already labeled compounds with that of non labeled kits that are necessary labeling operations. Radiation dose were measured by attaching TLD elements to hand fingers. By using already labeled compounds of Tc-99m, exposure dose to hand fingers reduced to about 60% of that of handling non labeled compound kits during operation of labeling and dividing to syringes for each patients.

Already labeled Tc-99m compounds are advantageous for reduction of radiation exposure to hand fingers of operator in examinations using radioisotopes.