

NUCLEAR MEDICINE IMAGING – EFFECTIVE COST SAVING OF RADIO TRACERS

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There are FDA approved radiopharmaceuticals for various nuclear medicine imaging procedures. Examples will include ^{99m}Tc DTPA as a radioaerosol for ventilation studies and ^{99m}Tc sulphur colloid for milk scans. We now live in the era of health economics and it has become essential for resource constraint facilities to develop means to save cost while maintaining acceptable standards. The use of one radiopharmaceutical for different nuclear medicine studies for example may offer opportunities to do so.

Aim: To show how radiopharmaceuticals may be used cost-effectively in a busy nuclear medicine practice.

Methods: We looked at two studies that have been conducted in our facility over the last 2 years. One was a randomized prospective study where ^{99m}Tc MDP and MIBI were compared with ^{99m}Tc DTPA for lung ventilation scintigraphy in patients with suspected pulmonary embolism. The second study was a retrospective study where ^{99m}Tc nanocolloid was used in place of ^{99m}Tc sulphur colloid for performing milk scans.

Results and Conclusion: The alternative agents in both studies were shown to be cost saving to the department with good quality images. ^{99m}Tc MIBI was also shown to be a better radioaerosol for ventilation when compared to ^{99m}Tc DTPA. Spare doses drawn up from a vial being used for myocardial perfusion imaging can be used for ventilation scintigraphy. Spare doses of ^{99m}Tc nanocolloid drawn up from a vial being used for lymphoscintigraphy, sentinel lymph node mapping or bone marrow imaging can be used for performing milk scans.

Biography

Dr Evbuomwan has completed his masters in medicine (MMED, Nuclear medicine) from the University of the Witwatersrand, Johannesburg, South Africa. He is currently a nuclear medicine specialist practicing in Charlotte Maxeke Johannesburg Academic Hospital. He has published lots of papers in reputed journals. He is also a presenter in both local and international conferences and a reviewer for high impact journals.

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