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Implementation of Cyclotron-Produced Tc-99m

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ABSTRACT

ARTMS Products, Inc. holds the global commercialization rights to technology created by a consortium of research organizations including TRIUMF, the BC Cancer Agency, Lawson Health Research Institute (LHRI) and the Centre for Probe Development and Commercialization (CPDC), for producing the world's most-used diagnostic imaging isotope, technetium-99m (Tc-99m), using local, hospital-based medical cyclotrons.

This presentation will provide a status update on the implementation of commercial scale (TBq), direct cyclotron-production of Tc-99m in Canada and the UK. Proton irradiation of ^{100}Mo coated plates has been demonstrated on various cyclotrons at energies up to 24 MeV, culminating in an approach that has been approved by Health Canada for human use in clinical trials. Sixty clinical trial scans are now complete and quality data from three representative radiopharmaceutical kits (anionic, neutral, and cationic) is being collected en route to a request for full market approval.