

# Future Supply Options of $^{99}\text{Mo}$ , $^{99\text{m}}\text{Tc}$

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## ABSTRACT

Global efforts to decrease nuclear proliferation, shifts to full cost recovery, and impending end-of-service of key nuclear reactors are changing production methods, distribution, availability and cost of  $^{99\text{m}}\text{Tc}$ . General Electric has commercial interests across nuclear medical diagnostics, spanning: nuclear cameras,  $^{99}\text{Mo}$  generators, U.S. radio-pharmacies, isotope generation and medical tracers. Combined with infrastructure units (Corporate Global Research, PET Cyclotrons, Nuclear, etc), GE has an opportunity to look across all elements of the developing landscape of  $^{99}\text{Mo}$  and subsequent  $^{99\text{m}}\text{Tc}$  production. The future of  $^{99\text{m}}\text{Tc}$  will most probably evolve to a combination of distribution and local production; built on advancements from academia, national labs, and private industry. A review of the landscape and a potential future supply model will be presented. Technology, regulatory, and distribution advancements will enable secure and affordable patient access to this critical medical diagnostic capability.