

Physician MEMO

To | FMC Medical Staff and Referring Physicians

From | Ted Kerner, M.D. Radiology Medical Director

Date | March 1, 2010

Re | Upcoming Tc-99m Shortage

Technetium-99m (Tc-99m) is the most commonly used radioisotope in nuclear medicine. Each year in the United States, approximately 16 million imaging procedures are completed using Tc-99m based compounds as these exams are essential for accurately diagnosing and treating patients with cancer, heart disease, and other potentially life-threatening conditions.

Molybdenum-99 (Mo-99) is the precursor to Tc-99m and there are only five major reactors in the world that produce it. In an effort to maximize patient access to Tc-99m, these reactors (located in Canada, The Netherlands, Belgium, France, and South Africa) share maintenance schedules and coordinate the scheduling of required maintenance and refueling. However, at the end of this month, all five reactors will be offline – and the major supplier to the United States (in Canada) will remain offline until the end of April. ***This will result in an unprecedented global shortage of Tc-99m from March 21 through April 30.***

During the temporary shortage, we must optimize the use of available Tc-99m to support the most clinically important tests. Prioritization will be based upon each patient's needs, the required urgency of the test, and the availability of alternative diagnostic procedures. Possible alternative tests to consider include the following:

Condition	Nuclear Medicine Test	Alternative Test
Bone lesion	Bone Scan	CT, MR, or PET
Metabolic bone disease	Bone Scan	X-ray or CT
Screening for bone disease	Bone Scan	X-ray Bone Survey
Ventricular function	MUGA	Echocardiogram
Coronary artery disease	Cardiolite	Thallium
PE	V/Q Scan	CT PA or Ultrasound of Legs
GI bleed	GI bleed	Mesenteric Arteriogram or Endoscopy
Gallbladder dysfunction	Gallbladder emptying	Ultrasound
Gallbladder leaks	Gallbladder emptying	NO ALTERNATIVE

Patients who are scheduled for a nuclear medicine test should be aware that we may need to change their appointment time or change the type of test to be conducted. But they should also be aware and assured that this shortage will *not* affect the quality of their nuclear medicine tests that are performed using the Tc-99m that is available during the shortage.

Thank you for your cooperation during this temporary situation that will hopefully end in May. If you have any questions (including about the availability of Tc-99m on a daily basis), please contact Nuclear Medicine at 718-2757.