

Isotope Shortage Survey Final Results August 10, 2009

With help from the National Association of Nuclear Pharmacies¹ (NANP), SNM conducted this survey with the intent of collecting anecdotal information from centralized nuclear pharmacies and nuclear pharmacists relating to the current shortage of Mo-99 caused, in part, by the current shutdown of the National Research Universal (NRU) Reactor in Chalk River Canada, along with the High Flux Reactor (HFR), in Petten, The Netherlands. In particular, we were looking to collect information from centralized nuclear pharmacies and pharmacists who are experiencing reduced, or no shipment of generators during the current shutdown. This information will be used to help SNM develop strategies as we begin to approach decision makers about the impact of this problem.

Total Respondents: 97

Q1. Is your pharmacy impacted by the current molybdenum-99 shortage?

Yes: 59.77%

No: 1.15%

Do not use 99Mo/99mTc generators: 2.3%

Q2. Do you have access to an alternate source of 99Mo/99mTc generators?

Yes: 29.31%

No: 33.91%

Q3. If you answered yes to the above question, what is your alternate source of 99Mo/99mTc generators?

Different manufacturer: 21.84%

Sharing resources with other pharmacies: 6.32%

Keeping larger generators on hand: 0%

Other: 2.87%

Q4. What percentage of prescriptions for 99mTc-radiopharmaceuticals have you been able to fill during the shortage?

0-25%: 6.32%

26-50%: 14.37%

52-75%: 20.69%

76-100%: 18.97%

Q5. If you have been unable to fill all prescriptions for 99Mo/99mTc radiopharmaceuticals, how long do you anticipate the interruption to last?

One week: 7.47%

Two weeks: 3.45%

Three weeks: 2.3%

One month: 2.3%

Longer than one month: 36.21%

¹ The National Association of Nuclear Pharmacies (NANP) is a non-profit trade association founded in 1984, comprised of over 400 hundred nuclear pharmacies and includes the majority of the pharmacies that prepare and distribute radiopharmaceuticals in the United States. NANP differs from other "nuclear" organizations because it represents "pharmacies," rather than pharmacy professionals, manufacturers, or physicians. This enables NANP to focus on the specific business, regulatory, and professional issues that affect nuclear pharmacies. More information is available at <http://www.nanp.net>. NANP's goal is to represent the unique interests of nuclear pharmacies. Since its inception, NANP has focused on three main areas: legislative and regulatory activities, education, and member services.



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Q6. Please indicate any and all changes that have been made in response to this shortage.

Reschedule of patient orders to another day or time 76.29%
Cancellation of orders: 64.95%
Change in radiopharmaceutical used: 82.47%
Decrease in dosage: 81.44%
Cancelled backup doses: 71.13%
No bulk orders: 81.44%
Changed delivery schedules: 71.13%
Eliminated standing order: 68.04%
Shifted dosing times: 58.76%
Eluting older generators more often: 84.54%
Modified preparation: 34.02%
Sent doses with later calibration times: 21.65%
Delay and divide deliveries: 65.98%
Eliminate all contingency doses: 63.92%
Other: 8.25%

Q7. If you answered "change in radiopharmaceutical used", please indicate which isotopes/radiopharmaceuticals have been substituted.

TI-201 instead of Tc-99m agents for cardiac imaging: 82.47%
In-111 Oxine: 5.15%
FDG for bone imaging: 6.19%
Ga-67: 2.06%
N-13 ammonia: 1.03%
F-18 NaF: 9.28%
Other: 5.15%

Q8. Approximately how many prescriptions for 99Mo/99mTc radiopharmaceuticals did the pharmacy in which you work fill during the week of August 3, 2009?

0-500: 14.94%
501-1000: 16.67%
1001-1500: 6.9%
1501-2000: 6.32%
2001-2500: 2.87%
>2501: 3.45%

Q9. Have you seen a shift from Tc sestamibi and other Tc labeled heart agents to TI-201?

Yes: 40.23%
No: 14.37%

Q10. If you answered yes to Question 9, how much has the utilization of TI increased?

0-20%: 12.07%
21-40%: 9.2%
41-60%: 6.9%
61-80%: 3.45%
81-100%: 8.62%

Q11. As a follow up, what percentage of the cardiac unit doses has shifted from Tc to TI imaging?

0-20%: 21.84%
21-40% :9.2%
41-60%: 8.05%
61-80%: 5.75%
81-100%: 2.3%