

September 22, 2009

Dear Nuclear Medicine Professional,

Focused on global patient care, Covidien continues working toward obtaining molybdenum 99 (Mo 99) from sources around the world to mitigate shortages resulting from reactor shutdowns. Our efforts toward Mo 99 supply diversification coupled with increased production have helped in responding to demand and should continue to do so over the coming months. We also remain committed to critical open communication throughout this challenging situation.

We anticipated the possibility of an unplanned overlap in reactor shutdowns early next year, which now appears likely. Our efforts continue toward maximizing Mo 99 supply arrangements with all viable sources. Based on the expected status¹ of the National Research Universal (NRU) reactor and the 26-week repair shutdown of the High Flux Reactor² (HFR) in 2010, we estimate intermittent ability to fully meet existing customer orders (pre-NRU shutdown) mixed with periods of more severe shortages for technetium 99m (Tc 99m) generators. This variability will be due to already scheduled shutdowns of the remaining Mo 99 reactors from which we anticipate securing supply during that time. We continue to evaluate other potential sources of Mo 99 that might improve the outlook.

It is very important to maximize the availability of technetium 99m (Tc 99m) for patients by using as much as possible in procedures rather than allowing it to decay on the shelf. Covidien – through its Mallinckrodt Inc. radiopharmacies – recently implemented Tc 99m conservation policies designed to encourage unit dose customers to adjust their ordering practices to a more “just in time” approach. To illustrate the benefits to Tc 99m conservation, consider how ordering habits can affect supply:

- A department orders a 30mCi dose of Tc 99m calibrated for use at 2:00 p.m.
- The order requests a delivery on the first morning run at 6:00 a.m., requiring 75mCi of Tc 99m to meet the 30mCi dose requirement.
- Conversely, if the same order was placed for delivery at noon—ample time to meet the procedural need at 2:00 p.m.—only 38mCi of Tc 99m would be needed to meet the 30mCi target.
- **This is a Tc 99m savings of 37mCi –enough activity for one bone or cardiac imaging dose, and up to five or six doses for certain other nuclear studies. *That’s ONE MORE PATIENT—maybe more--who can benefit from a nuclear medicine procedure.***

We are pleased to report this program has already proven successful in a few short weeks. In one compelling example, a single pharmacy has been able to free up enough Tc 99m to provide an additional 23 doses per day to patients.

Extended projections of Covidien’s expected Tc 99m generator production were developed based on supply estimates from the four major medical isotope reactors in Europe and South Africa.



The resulting calendar for the U.S., Canada and Latin America extended through November is shown below.

SEPTEMBER							OCTOBER							NOVEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
		1	2	3	4	5					1	2	3	1	2	3	4	5	6	7
6	7	8	9	10	11	12	4	5	6	7	8	9	10	8	9	10	11	12	13	14
13	14	15	16	17	18	19	11	12	13	14	15	16	17	15	16	17	18	19	20	21
20	21	22	23	24	25	26	18	19	20	21	22	23	24	22	23	24	25	26	27	28
27	28	29	30				25	26	27	28	29	30	31	29	30					
Generator standing orders met with some extra; minimal Tc-99m UD impact							Majority of generator standing orders met but no extra; some Tc-99m UD impact							Shortage to generator standing orders, significant Tc-99m shortage and UD impact						

NOTE: Daily projections are based on current information and are subject to change.

As additional updates are available, we will share them with you. To learn more about the current Mo 99 supply situation and related information, please visit the special update page on our web site at www.covidien.com/Mo99supply.

Sincerely,

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¹ NRU Status Report #21 - AECL provides update on NRU activities. (last accessed September 22, 2009)
http://www.aecl.ca/NewsRoom/Community_Bulletins/090812.htm

² Maintenance Stop High Flux Reactor Petten (last accessed September 22, 2009)
<http://www.nrg.eu/general/nieuws/2009/20090709en.html>