

# C-18

## Pharmacist-Led Development of an Adverse Event (AE) Management Algorithm for the Proactive Monitoring of Patients with Neuroendocrine Tumours (NETs) on Everolimus

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**BACKGROUND:** As new oral therapies emerge as standard of care for the treatment of metastatic NETs, standardized proactive AE management is required to ensure patient safety on these therapies.

**METHODS:** The oral chemotherapy pharmacist at the Sunnybrook Odette Cancer Centre performed a literature review to define the timing, grade and management of toxicities experienced by patients treated with everolimus. A proactive telephone follow-up algorithm (table 1) was developed based on the literature review and clinical experience of the interdisciplinary team. We piloted this algorithm in patients enrolled in the proactive callback program to assess feasibility.

**RESULTS:** Sixteen patients (9 female) received proactive callbacks from the pharmacist using the standardized algorithm. The median age was 62, ECOG 0, prior lines of therapy 1 and follow-up 229 days. All patients had at least 1 drug related AE, 10% being grade 3. 61% of all drug related and 54% of grade 3 toxicities were identified by proactive follow up. 43% of proactive calls using the algorithm resulted in treatment interruptions, and only 5% in urgent clinic or ER referrals. 69% of patients had at least 1 dose reduction. Most common AEs were fatigue (14%), stomatitis (13%), infections (13%), rash (11%) and nausea (9%). Median time to onset in days of stomatitis was 13, rash 29, diarrhea 35, fatigue 46, hyperglycemia 55, hyperlipidemia 79, infections 98 and pneumonitis 165. The

most common reason to send patients to ER was infections. The algorithm has been adapted to include assessment and interventions related to fatigue and nausea following these results.

**CONCLUSION:** Our algorithm allows patients treated with everolimus to have standardized proactive monitoring and can serve as a tool for other centres to improve patient safety. Proactive follow-up resulted in early identification and management of AEs with a low rate of referrals for urgent assessment.

Table 1:

Table 1: Pharmacist-led follow up algorithm for proactive callbacks

Day 1 on Everolimus	Day 7, 14, 28 on Everolimus	Day 56 on Everolimus	Day 120 and 180 on Everolimus
Face to face visit with oral chemotherapy pharmacist	Proactive callback by oral chemotherapy pharmacist	Proactive callback by oral chemotherapy pharmacist	Proactive callback by oral chemotherapy pharmacist
Patient education on drug administration and side effects	Adherence	Adherence	Pneumonitis
Preventative measures discussed	Stomatitis	Pneumonitis	Hyperlipidemia
Informed of nursing contact	Diarrhea	Hyperlipidemia	Clinical signs of myelosuppression
Consent obtained for proactive pharmacist-led calls	Rash	Clinical signs of myelosuppression	--
--	Hyperglycemia	Hyperglycemia	--
--	Clinical signs of myelosuppression	--	--

Interventions based on grade were standardized and also part of the algorithm. Proactive calls were in addition to routine clinic and laboratory assessment by the medical oncologist which occurred every 4-6 weeks. Assessments for fatigue and nausea were later added to the algorithm.