

# Oral Antineoplastics in Nononcology Units: Moving Toward Safer Ordering, Administration, and Handling

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About 25% of all chemotherapy agents prescribed for patients with cancer are oral formulations. As a result, more patients in the acute care setting and tertiary care settings are receiving oral chemotherapy agents on nononcology units. This creates concerns about safe handling for patients, caregivers, and staff.

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Oral antineoplastic agents are steadily becoming more prevalent in cancer treatment (Halfdanarson & Jatoi, 2010). Because the products appear similar to ordinary oral medications, patients and healthcare workers are sometimes unaware of the significant safety hazards posed by oral antineoplastics (Trovato & Tuttle, 2014). This safety challenge exists not only in the home, but also when patients are admitted to nononcology units where staff members may not have been trained in the proper ordering, handling, and administration of oral antineoplastics.

The publication of the 2013 updated American Society of Clinical Oncology (ASCO)/Oncology Nursing Society (ONS) chemotherapy administration standards (Neuss et al., 2013) provides an opportunity for hospitals to standardize the administration of oral antineoplastics on nononcology units. By doing so, they can help fulfill the Joint Commission's goals for improving the safety and quality of hospital care (Joint Commission, 2006).

At the 504-bed Overlook Medical Center in Summit, NJ, nursing, pharmacy, and physician leaders have used the up-

dated ASCO/ONS standards as the basis for a thorough overhaul of procedures for oral antineoplastic administration on nononcology units. At the medical center, as at many others, this is a significant and growing challenge. In January 2014, for example, 13 patients received a total of 50 oral chemotherapy doses in the medical center's nononcology units, including neurology, psychiatry, orthopedics, cardiology, cardiac care, and intensive care. An estimated 82 nurses were exposed to those 13 patients, and the number of other staff members (e.g., patient care technicians, physicians, respiratory therapists, transporters, physical therapists) who also were potentially exposed is difficult to quantify.

## Updating Procedures

In the spring of 2013, a committee of nursing, pharmacy, and physician leaders at the medical center began to design a new standardized system for ordering, administering, and handling antineoplastics on nononcology units. They wanted to ensure that all of the practices throughout the medical center

consistently conformed to the updated ASCO/ONS standards. The process was arduous and involved several disciplines. In the end, rather than creating a new policy solely for oral antineoplastics, two of the medical center's existing policies were amended: safe handling of antineoplastics and administration of antineoplastics.

The first question the team wanted to address was which medications count as antineoplastics. Before the updated ASCO/ONS standards, frequent disagreements arose about that topic at the medical center. If a patient's home medication list included erlotinib, for example, physicians would sometimes order it on a standard form rather than a specialized chemotherapy order form. If challenged, they might state, for example, "It is not chemotherapy; it is a targeted agent." No set policies or clear guidelines for practice were in place.

The updated ASCO/ONS standards helped clarify procedures. The committee chose to adopt the ASCO/ONS standards' broad definition of medications that require special procedures: "targeted agents, alkylating agents, anti-metabolites, plant alkaloids and terpenoids, topoisomerase inhibitors, antitumor antibiotics, monoclonal antibodies, and biologics and related agents" (Neuss et al., 2013, p. 6s). The only anticancer therapies excluded from the ASCO/ONS definition are hormone therapies.

After resolving that question, the committee devised a system for ensuring that oral antineoplastics are ordered appropriately when patients are admitted to nononcology units. The group determined that the pharmacy department would assume the monitoring role for oral chemotherapy orders. All antineoplastic drugs,