Introduction

Antineoplastic chemotherapy provides great benefit to patients with both malignant and nonmalignant diseases. In general, these medications often have a narrow therapeutic window: the difference between the optimum therapeutic dose and doses that are too low to be effective and too high to produce overwhelming toxicities is often small. To promote safe administration of this class of medication, the American Society of Clinical Oncology (ASCO) and Oncology Nursing Society (ONS) developed a set of standards addressing the prescription, preparation, and administration of these medications in 2009, using an integrated process including multistakeholder participation and public comments. An update expanding the standards to include the inpatient setting was published in 2012.

These standards only minimally addressed the use of oral chemotherapy. As opposed to more common medications used to treat chronic medical conditions, oral chemotherapy is often administered on a complex schedule of varied days of dosing, and varied dosing even on one day. When medication is administered outside of a controlled setting (whether by patients, their families, or other caregivers), issues of compliance are magnified as compared with the circumstance of treatment facilities, where drug delivery and drug administration are known and observed. In the worst case scenario, patients are given paper or electronic prescriptions and little instruction or help getting the prescriptions filled. At best, there is rarely documentation of medication being ingested, either by patient logs or metabolic testing.

Further, the use of oral chemotherapy is increasing. During an average year, approximately 1.5% of insurance beneficiaries receive treatment with antineoplastic chemotherapy. Based on a Massachusetts claims analysis, in 2010, 16.1% of these patients received oral chemotherapy. It is estimated that this will soon