The exact pervasiveness of medication errors linked to the administration of chemotherapy is unknown (Bonnabry et al., 2006; Gandhi, Weingart, et al., 2005; Ranchon et al., 2012), and a national benchmark for chemotherapy-related errors does not exist (Walsh et al., 2009). Surprisingly little evidence is available about the extent or nature of these errors, which demonstrates how safety issues related to the administration of chemotherapy are under-researched (Kullberg, Larsen, & Sharp, 2013). Despite the lack of research, some evidence suggests that errors are related to prescribing (Aita et al., 2013; Ranchon et al., 2012).

In 1995, a report of a patient death from an overdose of chemotherapy at a major medical center prompted many cancer centers to reexamine their processes for safe chemotherapy administration (Schulmeister, 2005). At the same time, care delivery shifted significantly from the inpatient to the outpatient setting, presenting new challenges related to higher volumes, time constraints, and lower levels of clinician control (Gandhi, Bartel, et al., 2005). The heightened awareness of the risks in chemotherapy administration processes brought on by this major error, coupled with the transition of care to the outpatient setting, hastened the need to explore ways to reduce risk and increase safety in chemotherapy prescribing, dispensing, and administration.

Measures to reduce the incidence of medication errors range widely, such as the implementation of computerized physician order entry (CPOE), computerized clinical decision support systems, standardization of prescribing vocabulary, communication improvements, and barcode technology (Ranchon et al., 2012; Schulmeister, 2005; Watts & Parsons, 2013). Recommendations like CPOE may improve safety related to the use of standardized templates, as well as the opportunity to imbed alerts when deviations from the guidelines occur (Bonnabry et al., 2006; Cheng et al., 2012; Kullberg et al., 2013). However, the sophistication of such a system is largely dependent on the extent to which it is maintained and updated. The system’s implementation can further influence its function by allowing advanced entry of orders and copying of previous orders to a future date if these orders are identical.

Although the actual rate of chemotherapy errors reported in the literature is low (Walsh et al., 2009; Watts & Parsons, 2013),