

■ CNE Article

# Knowledge Assessment and Information Needs of Oncology Nurses Regarding Inpatient Medication

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Although several studies have evaluated the frequency and consequences of medication errors, few have explored their causes. In particular, nurses' knowledge regarding medications has been evaluated minimally. This survey was conducted to determine how nurses master medications prescribed to their patients to determine problems nurses may have with prescribed drugs and identify possible support tools. A questionnaire was created and presented to nurses in a French cancer center. A majority of the respondents correctly identified pharmaceutical classes and medications, as well as administration and storage conditions. However, side effects, contraindications, and drug-drug interactions were not adequately identified. Nurses reported facing problems mainly related to drug administration, drug storage, and generic drugs and their therapeutic equivalence. Multiple tools are in development to help nurses in these areas. This collaborative study between pharmacy and care wards identifies some difficulties nurses have regarding drugs and will help to establish improvement measures within the hospital.

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Patient safety and medication errors have become a major concern for healthcare institutions and authorities worldwide (Michel, Quenon, Djihoud, Tricaud-Vialle, & de Sarasqueta, 2007). The Enquête Nationale sur les Événements Indésirables graves liés aux Soins, or the French National Study on Adverse Events Related to Care (ENEIS), estimates the human toll to be 50,000–80,000 serious adverse events linked to medications per year during patient hospitalization, whereas about 2% of hospitalizations are the result of serious adverse events related to medications. Events occurring during hospitalization are evaluated at 1.4 per 1,000 hospitalization days in the sector of medicine, surgery, and obstetrics (Michel et al., 2007). An estimated 44,000–98,000 patients die each year in the United States as a result of preventable medical errors, exceeding the annual mortality rates attributable to breast cancer (Berenholtz, Dorman, & Pronovost, 2003). Although such mortality data are not available in France, an update of the ENEIS study estimated preventable life-threatening adverse events linked to care at 0.7% (Michel et al., 2010).

Medication errors are classified according to the degree of achievement (i.e., whether the error reached the patient),

the seriousness of the clinical consequences, the error type, the stage in the medication use process, and the causes (National Coordinating Council for Medication Error Reporting and Prevention, 1996). Twenty-seven percent to 54% of patients have a history of medication errors, and 19%–75% are unintentional. More than 27% of medication errors could be avoided if medical training was improved, the pharmacy provided access to drug databases, and closer contact with patients occurred (Barber, Rawlins, & Dean Franklin, 2003; Tam et al., 2005). Many errors are related to nurses' preparation of treatments before administration (e.g., wrong drug, solvent error, wrong dose, omission), the stage of administration itself (e.g., wrong patient, wrong route of administration, physicochemical incompatibility), and noncompliance with the duration of infusion (Taxis & Barber, 2003; Wirtz, Taxis, & Barber, 2003). Physicians, pharmacists, pharmacy technicians, and nurses all are sources of medication errors. However, nurses, pharmacists, and pharmacy technicians notice about 90% of medical errors that could or have occurred (Ashcroft & Cooke, 2006). Therefore, collaboration between pharmacists and nurses is paramount to improve the quality of the drug supply