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# Oncology Nurses' Perceptions About Involving Patients in the Prevention of Chemotherapy Administration Errors

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**M**edication errors are among the most serious class of errors and may cause considerable harm. Although any drug is susceptible to errors, chemotherapy presents special dangers because many agents have a narrow therapeutic index and are toxic even at therapeutic dosages, chemotherapy regimens are highly complex, and patients with cancer are a vulnerable population with little tolerance (Muller, 2003). Adverse event studies have reported that errors in administration of chemotherapy occur frequently (Gandhi et al., 2005; Lustig, 2000). Walsh et al. (2009) observed an error rate of 8.2 per 1,000 medication orders among adult patients with cancer in the outpatient setting. Five medication errors per 1,000 orders had the potential to cause harm, and one error per 1,000 orders resulted in injury (Walsh et al., 2009). Common errors included under- and overdosing, schedule and timing errors, and other incidents, such as infusion rate errors. Analysis of the MEDMARX® database revealed that, of 310 pediatric chemotherapy errors reported, 85% reached patients and 16% required additional monitoring or intervention (Rinke, Shore, Morlock, Hicks, & Miller, 2007). Almost 50% of errors occurred in medication administration. The diffusion of oral and infusion chemotherapy to the outpatient setting introduces additional hazards. For example, parents have major difficulties in preparing, dispensing, and administering medication to their children (Taylor, Winter, Geyer, & Hawkins, 2006).

In addition to professional activities such as electronic prescribing and standardized ordering entry, involving patients in error prevention has been recommended widely by the Institute of Medicine (2000), the American Hospital Association, and oncology experts (Coulter, 2006; Kloth, 2002; Vincent & Coulter, 2002).

**Purpose/Objectives:** To explore oncology nurses' perceptions and experiences with patient involvement in chemotherapy error prevention.

**Design:** Qualitative descriptive study.

**Setting:** In- and outpatient oncology units of a community hospital in Switzerland.

**Sample:** 11 actively practicing oncology nurses working in an ambulatory infusion unit or on wards.

**Methods:** Oncology nurses participated in two focus groups on two occasions. Participants discussed their personal experiences with patients intervening to intercept errors, attitudes toward patient involvement in error prevention, and changes in relationships with patients. A content-analysis framework was applied to the transcripts and analytical categories were generated.

**Main Research Variables:** Perceptions about patient involvement in error prevention.

**Findings:** Participants shared affirmative attitudes and overwhelmingly reported positive experiences with engaging patients in safety behaviors, although engaging patients was described as a challenge. Nurses intuitively chose among a set of strategies and patterns of language to engage patients and switch between participative and authoritative models of education. Patient involvement in error prevention was perceived to be compatible with trustful relationships. Efforts to get patients involved have the potential for frustration if preventable errors reach patients. Considerable differences exist among organizational barriers encountered by nurses.

**Conclusions:** Nurses acknowledged the diverse needs of patients and deliberately used different strategies to involve patients in safety. Patient participation in safety is perceived as a complex learning process that requires cultural change.

**Implications for Nursing:** Oncology nurses perceive patient education in safety as a core element of their professional role and are receptive to advancing their expertise in this area.