

# Medication Safety in Oncology Care: Mapping Checking Procedures From Prescription to Administration of Chemotherapy

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## Abstract

**Purpose:** To increase medication safety in oncology, checking procedures are increasingly applied by nurses, physicians, and pharmacists. However, little is known about the number, types, and consistency of implemented checks. The aim of the study was to assess the number and types of different checking procedures that are performed along the lifecycle of a chemotherapy prescription across three hospitals, different care settings, administration routes, and professional groups.

**Methods:** A scheme to evaluate checking procedures and a mapping approach to illustrate the checks along the phases of the medication process were developed. Checking procedures were assessed on the basis of analysis of internal guidelines and interviews with nurses and physicians who work on wards and in ambulatory infusion units of three hospitals.

**Results:** There were considerable differences in number and type of checking procedures among administration routes, professional groups, wards and ambulatory infusion units, and hospitals. During the prescribing phase, the lowest number of checks was performed. In internal guidelines, checking procedures were documented poorly, though the pharmacy process was an exception.

**Conclusion:** In contrast to the pharmacists, nurse and physician clinician checking procedures are less standardized within and across hospitals. The results point to different checking habits for the professional groups; for example, physicians would rather perform plausibility reviews than checks. Our evaluation scheme to categorize checks and the visualized mapping approach was feasible and understandable for practitioners.

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