

**Table 1**

## Selected Studies of Reduction in Medication Errors

<b>Authors (Year)</b>	<b>Study Design</b>	<b>Outcome</b>
Bubalo et al. (2013)	Literature review	Barcode technology coupled with a network during antineoplastic drug preparation necessitated pharmaceutical intervention in only 1.1% of erroneous drug orders during one month.
Kimber (2007)	Direct observation-based methodology	Barcode implementation within a network reduced medication error rates from 1% to 0.2%.
Erickson (2015)	Literature review	A network produced an increase to 97.7% utilization of the barcode technology that aided in maintaining accuracy in preparing chemotherapeutic drugs.
Figge (2009)	Literature review	Utilization of the automated process within a network resulted in a 0.075% dispensing error rate.
O'Neal et al. (2009)	Direct observation-based methodology	Telepharmacy and barcoding resulted in the need for pharmaceutical intervention for only 4 of 363 doses in order to confirm the accuracy of chemotherapeutic preparations.
Cole et al. (2012)	Retrospective chart review	Before telepharmacy was incorporated into rural hospital pharmacy systems, the medication error rate was 30%, compared to 19.2% after the incorporation. The total number of medications ordered after the incorporation (2,378) was more than four times the number (500) before incorporation.

Sankaranarayanan et al. (2014)	Retrospective cross-sectional study	With the aid of a telepharmacy network, the use of interventions significantly increased each year (36% in 2009, 55% in 2010, and 7% in 2011) vs. 3% in 2008 (baseline). Of the total number of remote pharmaceutical care interventions, medication action, medication therapy review, and medication monitoring constituted 67%, 33%, and 4% respectively.
Benizri et al. (2016)	Quantitative and qualitative analysis	A video system that utilized automatic verification procedures during critical stages of chemotherapy preparation was shown to identify 2.1% of preparation errors (244 of 11,640).
Campbell et al. (2016)	Retrospective chart review	A network aided in clarifying 12% (266 of 2219) of medication orders in three freestanding emergency departments.

*Sources:*

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