

Assessing New Innovation Impact of the DoseEdge Intravenous Workflow System in a Community Hospital

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Assessing New Innovation Impact of the DoseEdge® Intravenous Workflow System in a Community Hospital

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PURPOSE

Based on reported near miss events, medication errors, and the opportunity to standardize IV admixture preparation, an assessment of IV room technology options was performed. The DoseEdge IV workflow system went live in November 2017 and full implementation was completed in approximately 60 days. Following implementation, a review of IV admixtures was performed to evaluate the number of intercepted medication errors.

METHODS

- Six-month review of IV admixtures prepared using the IV workflow system
- Errors were sorted into two types
 - Incorrect Concentration
 - Incorrect Drug

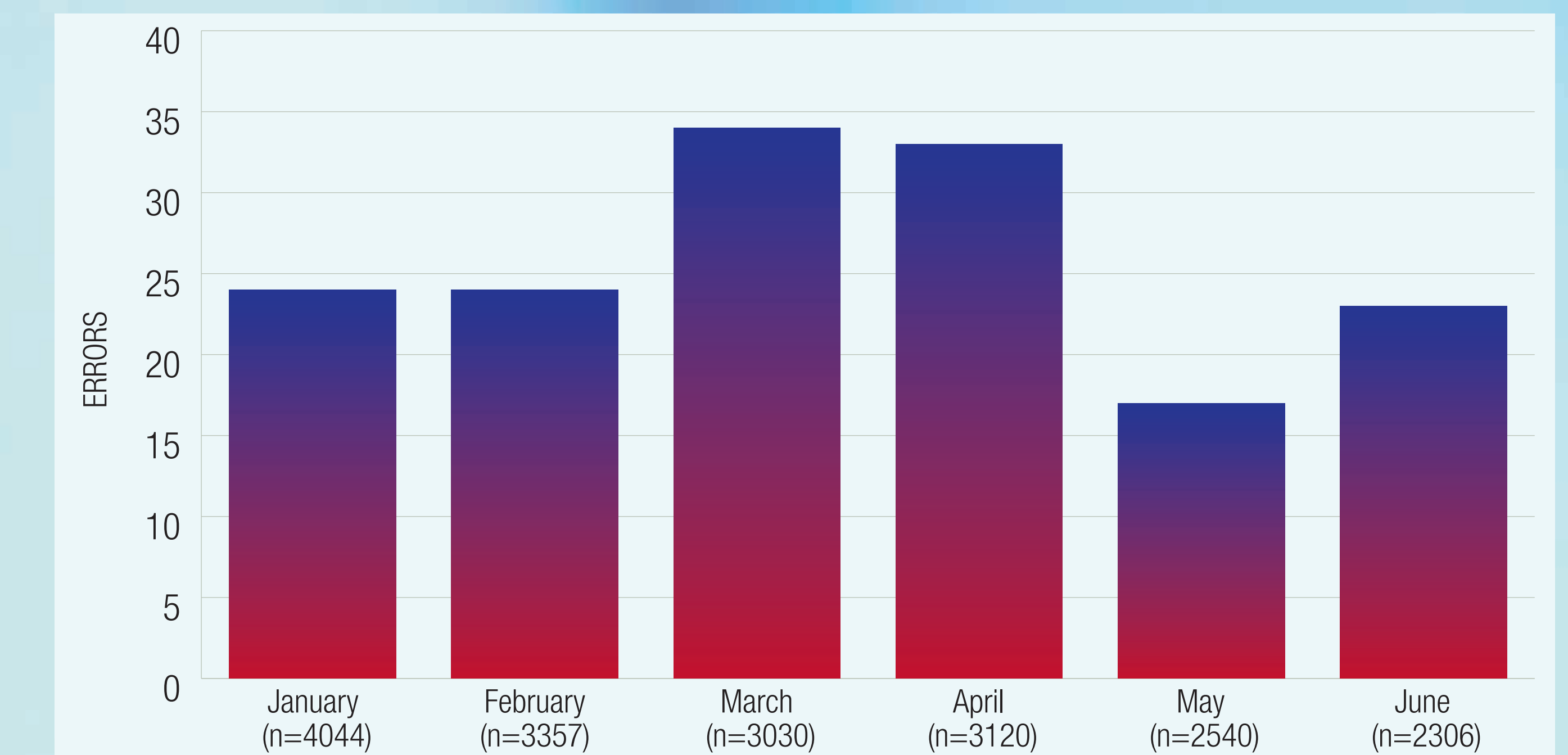
RESULTS

- 18,397 doses prepared over six months
- 155 intercepted errors (error rate 0.84%)
 - Incorrect Drug (75%)
 - Incorrect Concentration (25%)
- Standardization of preparing IV admixtures
 - Staff was able to streamline how IV admixtures were prepared
 - Training time was decreased from 6 weeks to 4 weeks
 - Efficiency was increased by recognizing areas for improvement in training
- Quality improvement
 - Relocated stock to avoid drugs that were being mismatched

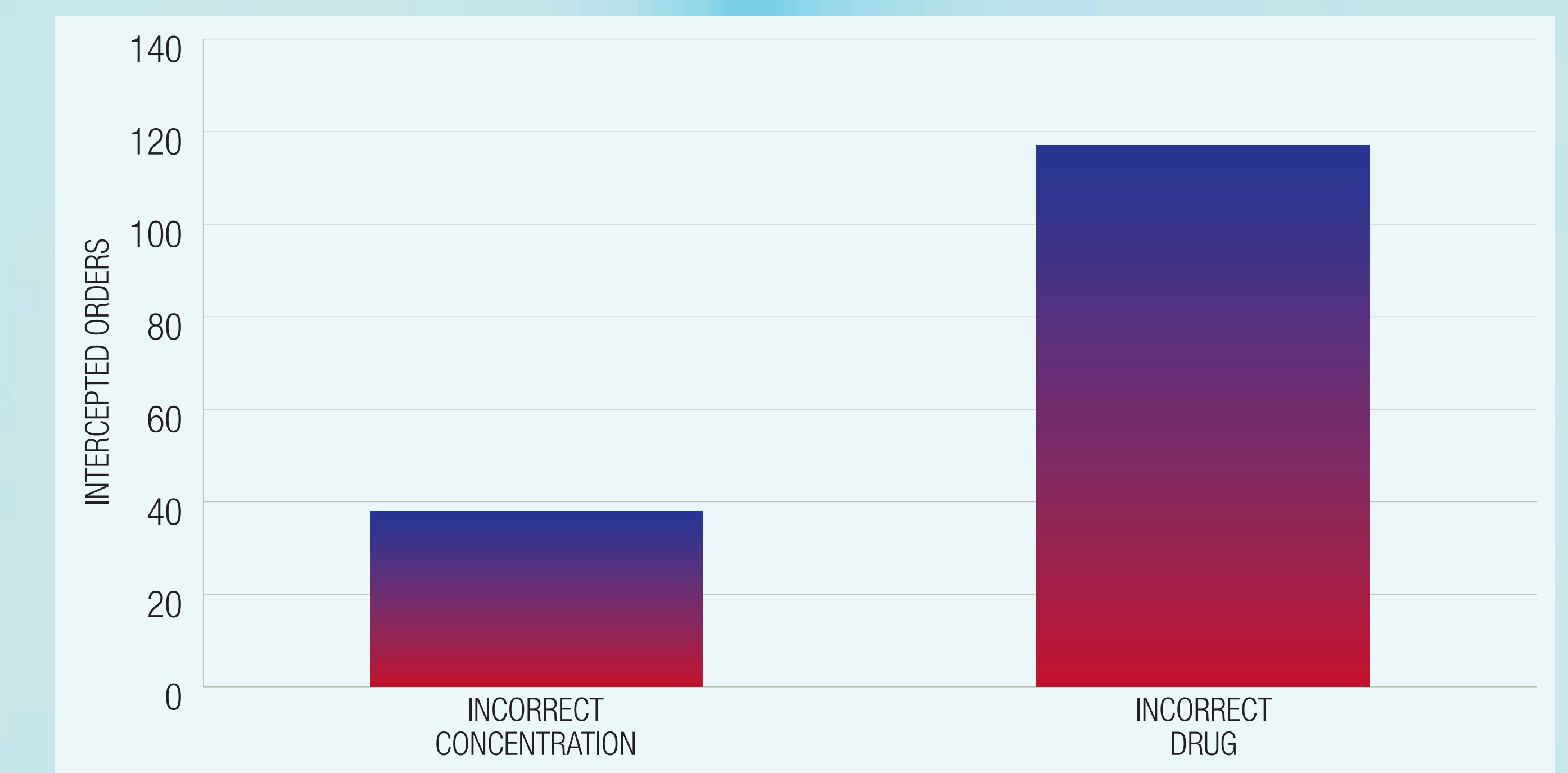
CONCLUSION

- Implementation of barcode technology with use of the DoseEdge IV workflow system identified the potential for incorrect preparation of IV admixtures.
- Based on an average cost per medication error of \$5,857, we potentially saved an estimated \$614,985 during the six-month period.¹ The implementation of barcode technology, image capture, and standardized preparation from an IV workflow system has proven worth the investment.

2018 INTERCEPTED ERRORS BY MONTH



BREAKDOWN OF INTERCEPTED ORDERS



¹Bates, D. W. (1997). The Costs of Adverse Drug Events in Hospitalized Patients. JAMA: The Journal of the American Medical Association, 277(4), 307. doi:10.1001/jama.1997