

# COMPUTERIZED PHYSICIAN ORDER ENTRY IMPACT ON MEDICATION ERRORS IN A PAEDIATRIC UNIT

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## □ Objectives

- To evaluate the impact of Computerized Physician Order Entry (CPOE) on the frequency of medication errors in the ordering process in a paediatric unit

## □ Methods

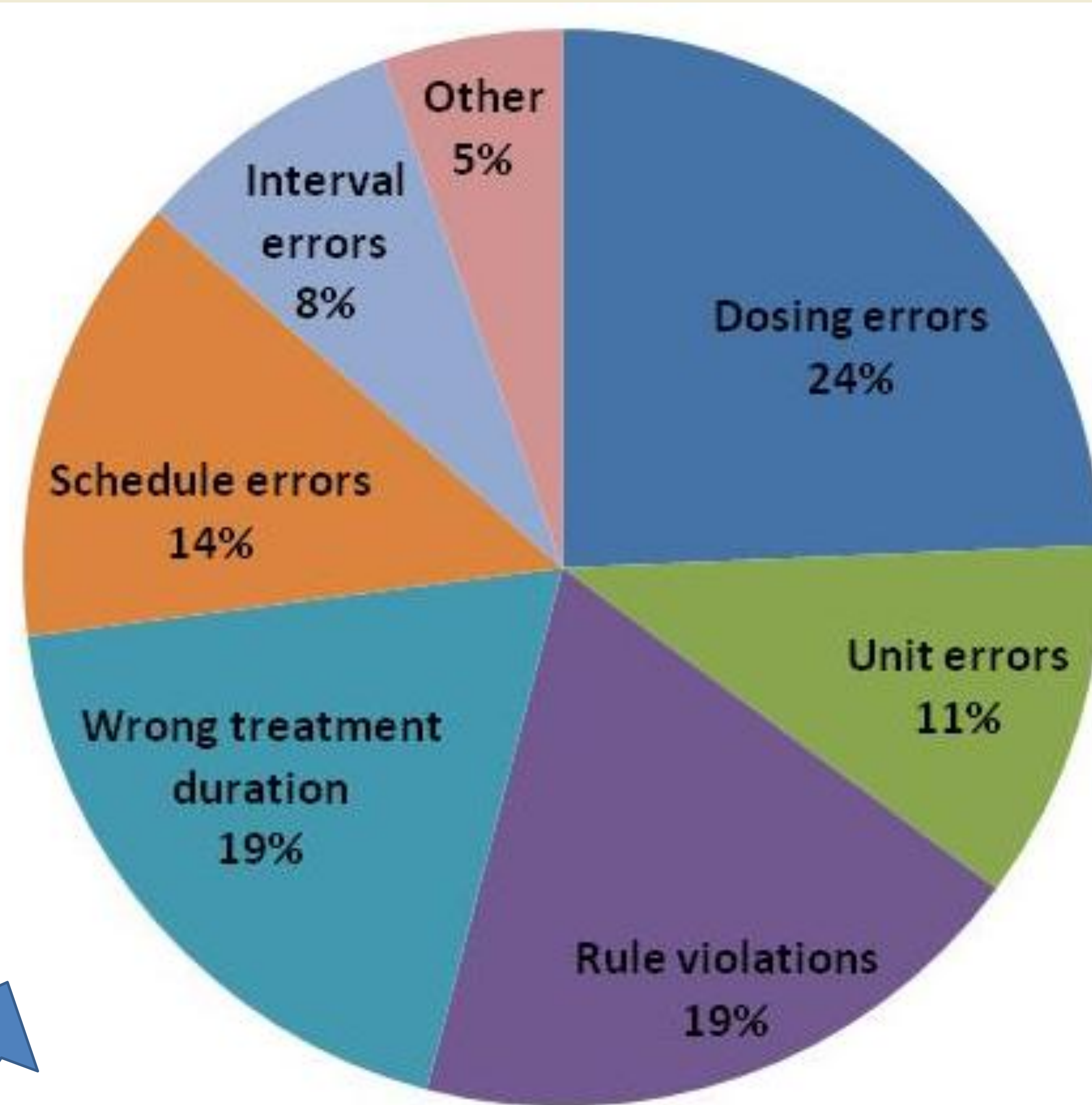
- Prospective and observational
- 30-bed paediatric unit of a tertiary teaching hospital
- Physician's orders reviewed for 1 month before and 1 month after CPOE implementation
- Medication errors classified into errors of: dosing, interval, units, route of administration, treatment duration, schedule, wrong drug, incomplete order and rule violation

## □ Results



	Pre-CPOE	Post-CPOE
Dosing errors	7 (35,0%)	9 (24,3%)
Incomplete orders	5 (25,0%)	-
Unit errors	4 (20,0%)	4 (20,0%)
Rule violations	-	7 (18,9%)
Wrong treatment duration	-	7 (18,9%)
Schedule errors	-	5 (13,5%)
Interval errors	-	3 (8,1%)
Other errors	4 (20,0%)	2 (5,4%)
<b>Total errors</b>	<b>20</b>	<b>37</b>
<b>Rate per 100 orders</b>	<b>3,3</b>	<b>6,6</b>

### Post-CPOE errors



## □ Discussion

- Lack of robust studies showing the impact of implementing CPOE in paediatrics
- Several studies reported a decrease in prescription errors. However, new "computer-related errors" have emerged.
- It has been difficult to demonstrate a significant reduction in patient harm

## □ Conclusion

- The implementation of CPOE resulted in an increase of the number of medication errors, but the type of them was clearly different.
- Handwritten errors were the result of calculation errors, missing information or confusion writing
- CPOE errors were mainly due to the inexperience of using the program. The consequences of the CPOE errors seem to be less harmful than handwritten prescription errors, but more long-term studies are needed