

Evaluation of Clinical Decision Support Alerts for Medications Contraindicated in Cancer Patients

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Objective

The study was conducted to describe alerts for contraindicated medications of cancer patients and understand the reasoning for alert overrides in order to improve clinical support systems.

Introduction

- In addition to intensive therapies, cancer patients are frequently prescribed medications to treat comorbid illnesses.
- Caution must be taken to prevent harmful drug interactions that may affect patient health.
- Computerized provider order entry-based alert systems are a way to identify medication contraindications.
- Patient safety is compromised when medication contraindication alerts are ignored and overridden.

Methods

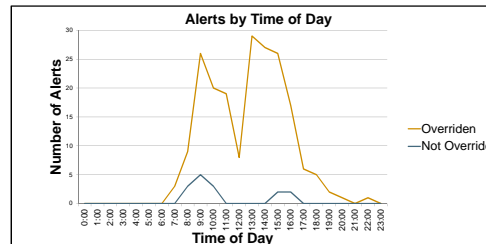
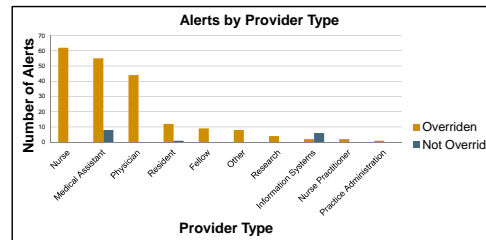
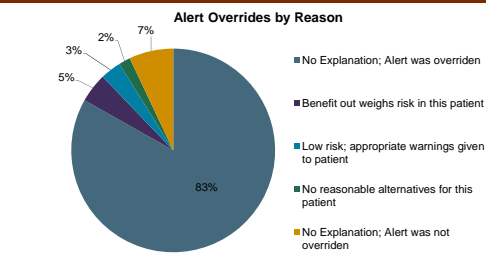
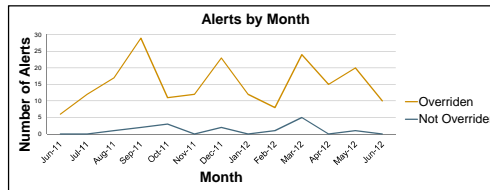
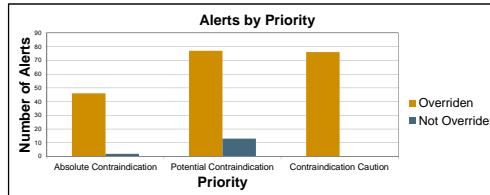
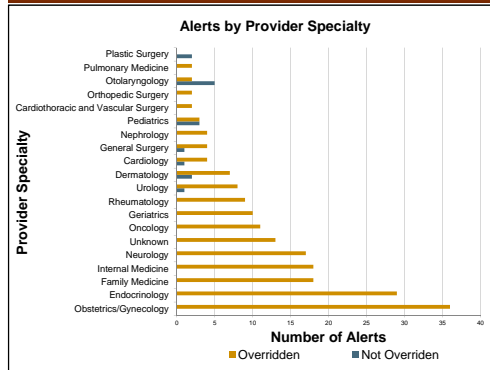
- We assessed e-prescription clinical decision support alerts from Allscripts Enterprise EHR at UT Physicians practice in Houston, TX.
- We then compiled and analyzed using Microsoft Excel to identify characteristics of alert overrides.

Acknowledgements

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Results



Results

- 117 cancer patients experienced a total of 214 contraindicated medication alerts.
- 93% of alerts were overridden.
- On average, each patient experienced 1.7 overridden alerts.
- 83.2% of alerts were overridden and given no explanation by the health care provider.
- Nurses and physicians overrode all presented alerts.
- Health care providers in Obstetrics/Gynecology and Endocrinology overrode the majority of alerts.
- Otolaryngology specialists experienced non-overrides the most.
- Most alert overrides were experienced in September and the least in June.
- Overridden and non-overridden alerts similarly peaked the greatest at 1:00 pm, followed by 9:00 am.

Summary of Conclusions

- Most medication contraindication alerts are overridden.
- The abundance of alert overrides may be credited to insufficient training or poor understanding of alert system by health professionals.
- Appropriate alert presentation, as well as tiered alerting systems may aid efforts in decreasing overrides.
- Improvements in clinical decision support systems are imperative to patient safety.