• Alerts are “warnings or informational pop-ups” in electronic healthcare record systems that can warn providers about potential issues regarding treatments.1
• Alerts can include drug-drug interactions, drug allergies, inappropriate dosages, and other warnings.
• Alerts help prevent adverse patient outcomes, but frequent alerts can lead to provider alert fatigue, wherein providers may “become desensitized to safety alerts” and “ignore or fail to respond appropriately to such warnings.”1
• Pharmacy informaticist teams can examine the underlying information for each alert to understand its context.
• Using this information, pharmacy informaticists can identify areas for improvement, filtering unnecessary alerts before providers see them and making sure that alerts that adjust providers’ care decisions always appear.

The goal was to measure the current quality of medication alerts in the system. This was done by analyzing alert filtering rates, overrides, and identifying patterns for potential successes or improvements.

A Microsoft SQL Server® query performed on-site gathered 12 weeks of hospital alert data, comprising 954,777 total alerts.

Data was deidentified and irrelevant categories were removed.

All alerts were examined in Microsoft Excel® using pivot tables, to see what alerts are already filtered, which are overridden by providers, and which are seen and help adjust treatment decisions.

78.5% of total alerts are filtered before reaching providers; of non-filtered alerts, 66.7% are overridden.

Drug-Drug interactions have varied override rates.

Higher importance level alerts are filtered less.

Duplicate Medication Order, Drug-Allergy, Duplicate Therapy, and Error when checking interactions alert categories have the lowest filter rates.

It is appropriate that the High and Very High importance categories are filtered less, since they encompass medication warnings with greater concern.

There is an opportunity to optimize drug-drug alert filtering given the varied override rates shown in the Top 10 table. The Drug-Drug category is an effective tool for finding potential optimization opportunities.

This override rate (66.7%) is in-line or better than previous studies from other healthcare systems.2,3

There is an opportunity to optimize drug-drug alert filtering given the varied override rates shown in the Top 10 table. The Drug-Drug category is an effective tool for finding potential optimization opportunities.

References

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