A pharmacist-led implementation of smart pump-EMR interoperability led to measurable, data-based improvements in i.v. medication safety and improved accuracy, timeliness, and efficiency of i.v. infusion documentation. Revenue was increased due to improved charge capture for outpatient i.v. infusions” Biltoft and Finneman (2018).

Abstract:

PURPOSE: The pharmacist-led implementation of a smart pump-electronic medical record (EMR) interoperability program at a hospital within a regional health system is described.

SUMMARY: Smart pump-EMR interoperability involves a wireless, bidirectional connection by which infusion information transmitted by the EMR prepopulates infusion devices, reducing keystrokes and opportunities for manual programming errors. The smart pumps transmit time-stamped infusion data to the EMR for nurse documentation. Use of interoperability technology forces the use of dose-error reduction software so that 100% of prepopulated infusions and dosage adjustments are protected. To improve i.v. medication safety and documentation at a 286-bed hospital within an 8-hospital health system, pharmacists led an initiative to implement smart pump-EMR interoperability as a first step toward systemwide implementation. The hospital’s smart pump-EMR interoperability initiative resulted in patient safety and revenue-generation gains in the first 8 months after implementation. The mean number of keystrokes needed to program an infusion was reduced from 15 to 2 (an 86% decrease). Pump alerts, alert overrides, and reprogrammed or cancelled infusions were decreased. In addition, the program improved outpatient charge capture, resulting in $370,000 in incremental revenue.

CONCLUSION: A pharmacist-led implementation of smart pump-EMR interoperability led to measurable, data-based improvements in i.v. medication safety and improved accuracy, timeliness, and efficiency of i.v. infusion documentation. Revenue was increased due to improved charge capture for outpatient i.v. infusions.
Reference:
