Spanning the Bridge to Patient Safety Through Medication Bar Code Scanning in the Emergency Department (ED) Setting

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Spanning the Bridge to Patient Safety

Through Medication Bar Code Scanning in the Emergency Department (ED) Setting

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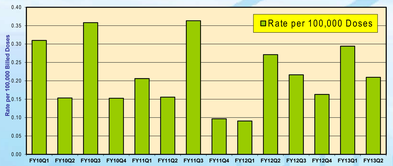
Overview:

Point of care medication bar code scanning successfully utilized on inpatient units within an academic, community Magnet™ hospital since 2003

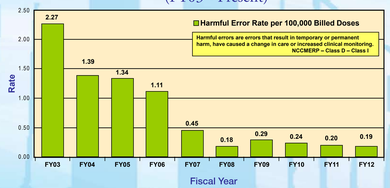
- Inpatient bar code compliance rate of 98%
- Sustained decrease in medication errors results in improved patient safety

LVHN Harmful* Medication Error Rate



Harmful Medication Error Rate

(FY03 - Present)



*Harmful errors are events that reach the patient and result in temporary or permanent harm, have caused a change in care or increased clinical monitoring.

Plan:

Bridge the Gap of Medication Bar Code Scanning:
From Inpatient Setting to the ED Areas

Implementation:

Multidisciplinary Team:

All stakeholders involved from the beginning is key!

- ED nursing leadership and staff nurses
- Nursing Director of Emergency Services
- Nursing Informatics Systems Specialist
- Information Services
- Administrator of Emergency Services
- ED Physician or Physician Assistant (PA)
- Director of Pharmacy

Following a successful go-live, the team scaled back to unit management, staff nurses, Nursing Informatics, Information Services, a PA and pharmacy representation

Workflow Challenges:

Utilize workflow observations to determine issues unique to the ED setting:

- Limited physical space for equipment
- Equipment needs – carts, laptops, scanners
- Computerized Physician Order Entry compliance
- Staff engagement
- Perceived increase in ED LOS

Bi-monthly Team Meetings:

Essential for developing process and strategizing for best mode of delivery in ED setting - Considerations:

- Verify all meds/IVs in ED automated dispensing machine; stock items bar-coded and to be scanned against orders
- Budget equipment costs
- Installation of equipment
- Educate management and super user staff
- Stagger rollouts to allow for adequate support staff during go-live
- Plan to scan all non-emergent medications

Initial Outcomes:

- Compliance September 2010 = 90.6%
  - Number of doses scanned 310
  - Number of doses charted 342
- LOS did not increase; number of ED visits increased

Month	ED Visits	ED LOS (minutes)
March 2010	993	119
April 2010	1113	103
May 2010	1218	103
June 2010	1224	96

Future Plans:

- Discuss lessons learned to improve next implementation
- Monitor individual and unit compliance on a monthly basis - Share findings with administration, unit management and staff
- Implement bar code scanning of medications and intravenous fluids at the other ED sites in our health network
- Investigate other scanner options due to limited physical space in ED

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