MSOS Member Briefings
December 2018

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Moderated by: E. Robert Feroli, PharmD, FASHP

Supported by educational grants from Novartis.

NOVARTIS PHARMACEUTICALS

MSOS MEDICATION SAFETY OFFICERS SOCIETY

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Patient Allergies – Design Decisions for Medication Safety

ELIZABETH WADE, PHARMD, BCPS

MEDICATION SAFETY OFFICER

CONCORD HOSPITAL; CONCORD, NH

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Concord Hospital

Acute Care
- 295 bed Community Teaching Hospital
- FY 2017: 20,249 admissions

Primary Care and Specialty Practices
- 29 locations
- 28+ sub-specialties
- FY 2017: 171,817 primary care visits

Previous process:
- Multiple electronic medical record (EMR) systems
- Multiple allergy lists and policies

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Medication-Allergy Errors: Contributing Factors

Multiple allergy lists
- Allergy listed in outpatient EMR but not inpatient EMR or vice versa
  - Ciprofloxacin for ED patient with documented allergy in outpatient EMR with reaction of rash
  - ACEI on discharge for patient with a documented allergy in outpatient EMR with reaction of cough

Lack of clinical decision support/information
- ED/intraoperative areas on paper
  - Oxycodone/acetaminophen for patient with documented allergy to acetaminophen with reaction of hives/vomiting
  - Cefazolin for patient with a documented allergy to "Ancef."
- Medication administration/automated dispensing cabinets
  - Piperacillin/tazobactam for patient in ED with a documented penicillin allergy with reaction of rash

Overloaded "allergy" lists
- Allergy lists contained allergies, intolerances, side effects, etc, leading to alert fatigue
  - Orders for lorazepam (documented reaction: rash) and olanzapine (documented reaction: hives). Due to extensive allergy list, team members did not note specific drug-allergy interaction

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Medication-Allergy Errors: Contributing Factors

Free-text entry of allergy substance/Uncoded allergies
- A penicillin allergy was entered as free text with reaction of swelling/hives in outpatient EMR and therefore did not flag the provider when prescribing amoxicillin/clavulanate.

Lack of reaction documentation
- Ketorolac for patient with a documented allergy to ibuprofen with unknown reaction

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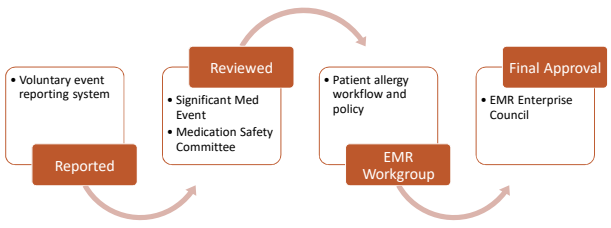
Learning from Medication-Allergy Errors: Decision Flow



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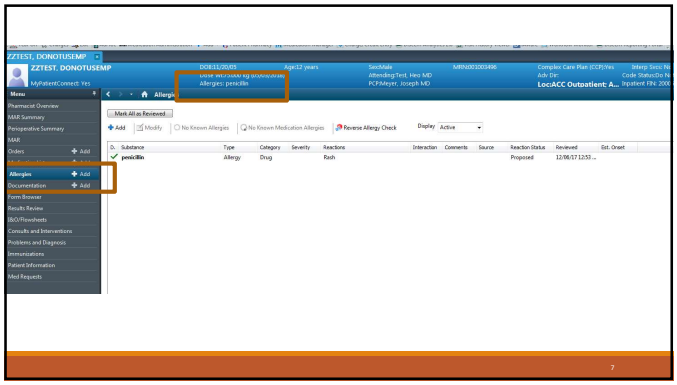

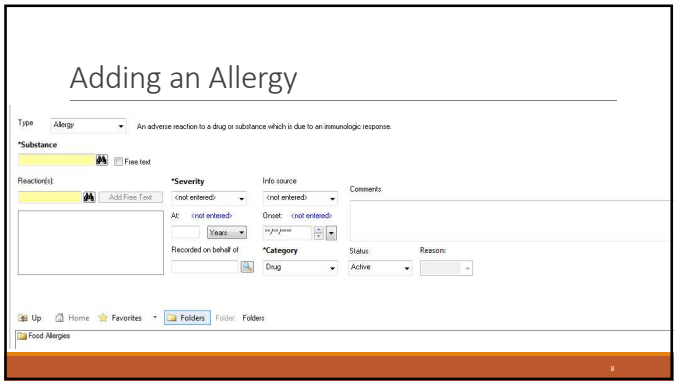

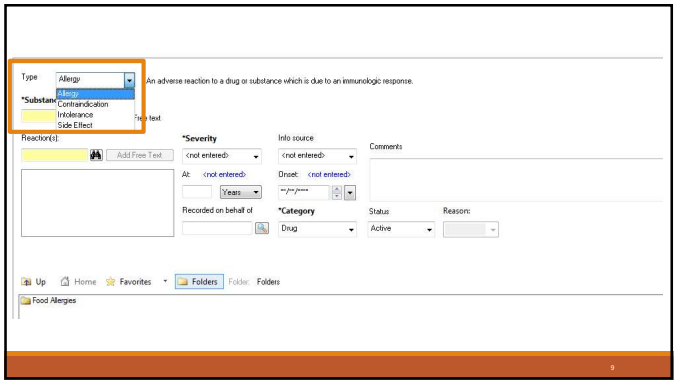

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Allergy Types

Type	Definition	Alert
Allergy	Adverse reaction to drug or substance that is due to an immunologic response (e.g., rash, anaphylaxis)	Yes
Contraindication	A condition or factor that serves as a reason to with-hold a treatment due to the harm that it would cause the patient	Yes
Intolerance	Lowered threshold to normal pharmacological actions of a drug (e.g., thrush)	No
Side Effect	Undesirable response to a drug which occurs at normally used doses (e.g., drowsiness, nausea, diarrhea)	No

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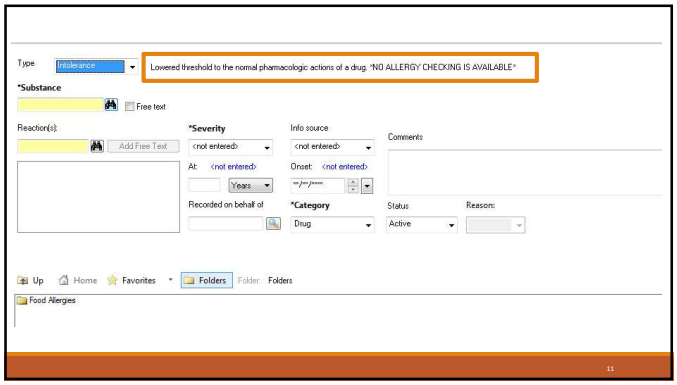

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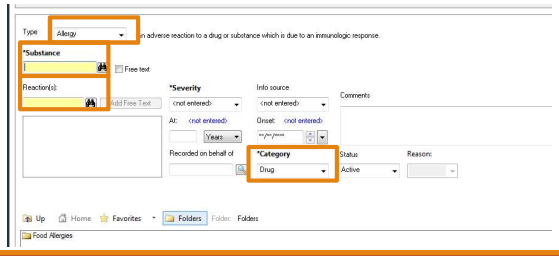
Required Fields



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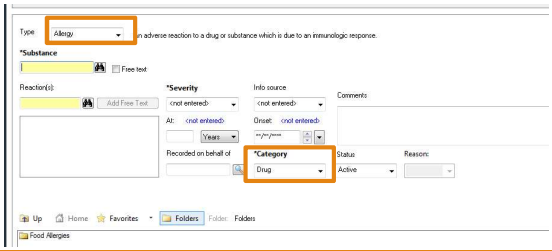
Defaulted Fields



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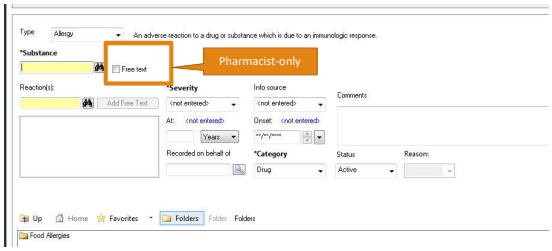
Restricted Fields



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Major Policy Decisions

Marking allergies as reviewed
- Every encounter with the patient, where feasible
- Include review of reaction

Unable to obtain

"Unknown" reaction

Addition of free-text substances

Latex allergy workflow

Who may update (add, modify, discontinue):
- Prescribers
- Registered nurses
- Pharmacists and medication history specialists
- Dietitian or Diet technician (food only)
- Radiology staff (contrast only)
- Medical/dental assistants (proposed allergies only)

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Education and Implementation

Introductory video
- How to add/modify/discontinue

Web-based compliance module
- Allergy types and cases

Training curriculum with go-live

Quick reference card

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Review

Contributing Factor	Resolution
Multiple allergy lists	☑ One EMR
Lack of clinical decision support/information – ED/Periop areas on paper	☑ All areas on EMR
Overloaded "allergy" lists	☑ Four allergy types
Free-text entry of allergy substance/Uncoded allergies	☑ Restriction of free-text entry of substances
Lack of reaction documentation	☑ Required field
Lack of clinical decision support/information – Medication administration/Automated dispensing cabinet	✗

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Post-Implementation Reflections

Side effects/intolerances not triggering drug-allergy decision support
- Haloperidol with reaction of hallucinations documented as side effect

"Prescriber clinical judgment" as override reason
- Other healthcare team members less likely to question overrides

"Mark as Reviewed"
- Delineating responsibility

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Questions?

ELIZABETH WADE, PHARMD, BCPS
MEDICATION SAFETY OFFICER
CONCORD HOSPITAL; CONCORD, NH

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DEVELOPMENT OF A SYSTEM-WIDE DIVERSION OVERSIGHT COMMITTEE

Amanda Wollitz, PharmD, BCPS, FISMP
Program Director of Policy and Quality, Florida Hospital

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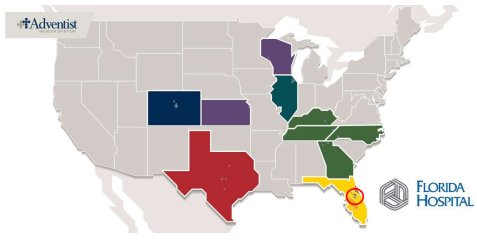

- 8 Hospitals
- 2 Free Standing Emergency Departments
- 592 Automated Dispensing Cabinets
- 9,857 ADC Active Users
- 186,980 Controlled Substances Dispensed / Mo

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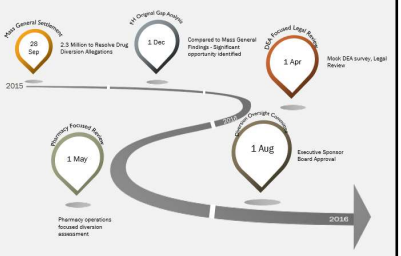
Purpose of Journey

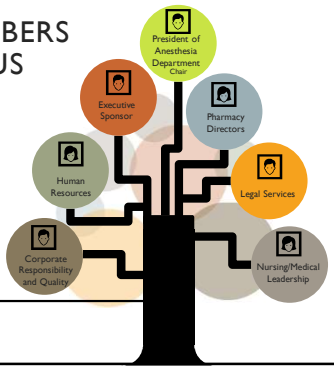
- Staff Safety
- Patient Safety
- Community Safety
- Regulatory Compliance

Diversion Oversight Committee



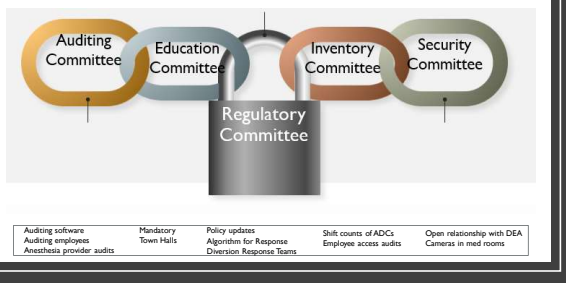
Settlement Agreement: Department of Justice and Massachusetts General Hospital. Available at: https://www.justice.gov/usao-ma/file/778651/download

KEY TEAM MEMBERS & KEY FOCUS



Goals
Patient Safety
Employee Safety
Community Safety
Health System Integrity

Consultants + Self Analysis = 219 Recommendations



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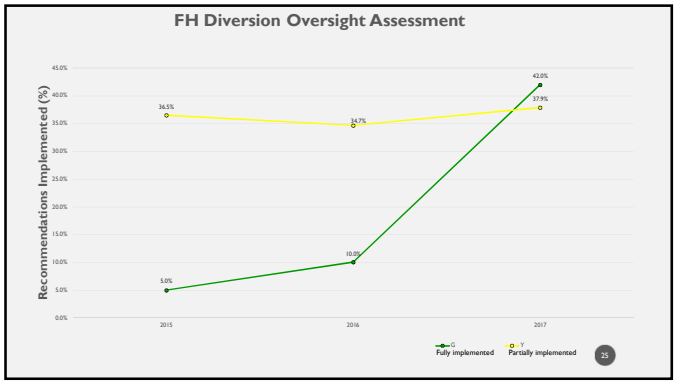

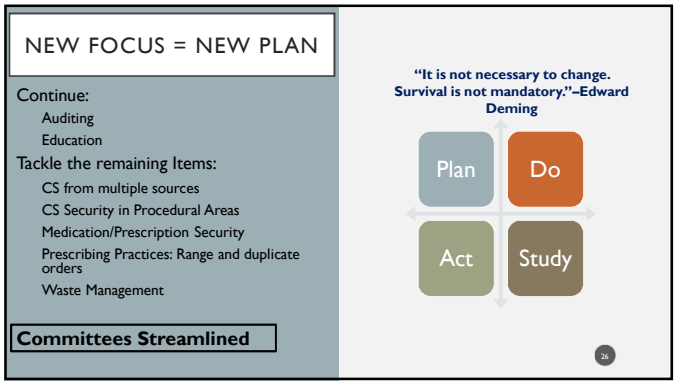

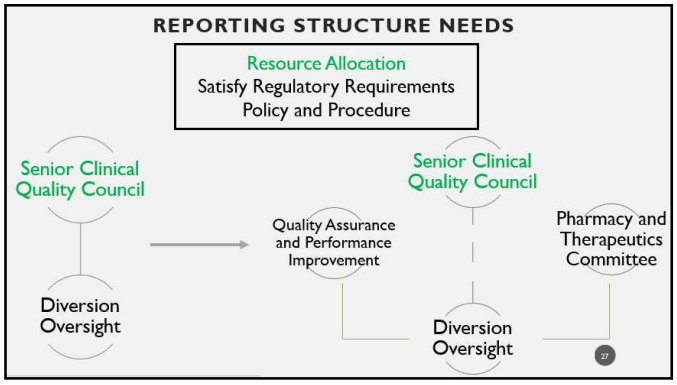

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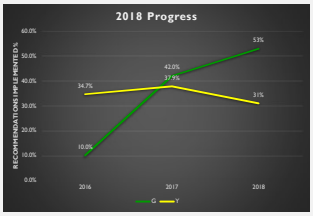
2018 ACCOMPLISHMENTS



DISCREPANCIES NOT RESOLVED WITHIN 24 HOURS DASHBOARD

ANESTHESIA STATION IMPLEMENTATION

PCA KEY CONTROL

PROPOFOL SECURITY

DUPLICATE PRN THERAPY

GLOBAL EDUCATION- **SUBSTANCE USE DISORDER FOCUS**

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CALL TO ACTION

Continually reassess your work

Start small; End goals take time and continued effort

Focus on prevention not corrective action

Identify your state's venues for healthcare worker assistance

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QUESTIONS?

Amanda Wollitz, PharmD, BCPS, FISMP
Program Director of Policy and Quality, Florida Hospital

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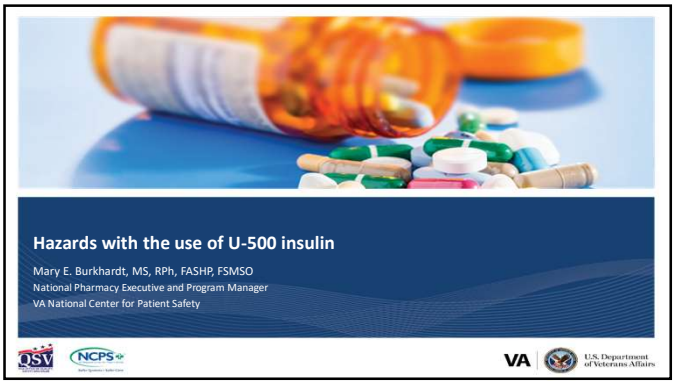

Hazards with the use of U-500 insulin

Mary E. Burkhardt, MS, RPh, FASHP, FSMSO
National Pharmacy Executive and Program Manager
VA National Center for Patient Safety

VA | U.S. Department of Veterans Affairs

Objectives

- To simply highlight the potential hazards faced with the use of U-500 concentrated insulin
- Not here to comment on any official position of the VA or the preference or formulary status of any product

My history with U-500

- My first report to ISMP Was in 1997 when a nurse called the pharmacy to ask how to measure "20 units" of something that was 500 units per mL".
  - Biggest issue was the use of insulin syringes from a different concentration insulin
  - Only partially solved by using TB syringes (not patient friendly needles)
- I had been advocating for U-500 syringes (along with Mike Cohen) to BD and to other syringe manufacturers for years
- I had a 1 ml U-500 insulin syringe in review at the FDA since approximately 2009
- Usability studies done at VA showed that there was still confusion about the use of the syringe
- In my most recent chief/director role, we had approximately 70 patients on U-500
  - We did a look back and found some did not even need U-500 (prescribing error)
  - Some doses were under 100 units per day
  - Despite a national requirement to use TB syringes, not all RXs had the directions in mL
  - Some close calls issuing U-500 syringes to patients not on U-500
  - Most patients converted over to pens when the pen was introduced
  - Still worried about 100% pen conversion and then a shortage of pens so many sites maintain both pens (outpatients and vials for drawing up for inpatients)

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What is known to be hazardous from case reviews

- The placement of U-500 vials anywhere near the patient care area
  - Solution: Pharmacy supplies individually issued U-500 pens (still risk multi-patient use)
    - Individual patient bar codes could dissuade usage on a different patient
  - Solution: Pharmacy draws up U-500 (in place before I arrived and still today)
    - Great option for sites that draw up long acting insulins (safe practice recommendation for pharmacy draw)
  - Solution: Pharmacist review of floor stock drug issuance (bar coded preferably). Have seen non-VA case of U-500 going out on FS resulting in many patients getting U-500 " SSI coverage" by accident
- The use of U-500 syringes for patients on other insulin concentrations
  - Solution: Control the issuing of the syringes AND the insulin both (don't FS syringes)
  - Solution: Use of order sets for prescribing concentrated insulin
- The medication reconciliation process
  - Have seen some cases where pharmacy technicians did med rec not under supervision of a pharmacist and misunderstood what patient was taking at home.
  - Solution: Insulin product board (show patient the types of insulins/systems)
- Not "watching" your U-500 population
  - Solution: review and re-review the SIGs and product issuances regularly (easy MUE)

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Questions?

Mary E. Burkhardt, MS, RPh, FASHP, FSMSO
National Pharmacy Executive and Program Manager
VA National Center for Patient Safety

QSV NCPS VA U.S. Department of Veterans Affairs

ISMP Update

Institute for Safe Medication Practices

Michael R. Cohen, RPh, MS, ScD (hon.), DPS (hon), FASHP
President, ISMP

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MSOS Member Briefing

Mike Cohen, ISMP President

- Enoxaparin syringe issues
- Drug name safety
- Vanderbilt case
- Bupivacaine-Penicillin G mix-ups in obstetrics

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Questions?

- A copy of today's slides will be posted on our website
- Don't forget to mark you calendar:
  - Our next MSOS Briefings webinar will be held on January 24, 2019.

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