





MSOS Member Briefing- July 2019

MSOS Member Briefings
July 2019
Moderated by: E. Robert Feroli, PharmD, FASHP



Supported by an educational grant from Novartis.






University of California
San Francisco

Avoiding Errors When Using Insulin Vials

Allison Pollock, PharmD
Medication Safety Specialist
University of California San Francisco Medical Center

University of California, San Francisco Medical Center (UCSFMC)

- University affiliated tertiary care, academic teaching hospital spread over 3 hospital locations
- 794 inpatient beds, Adult and Pediatric services



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Background For Use of Vial Insulin

- UCSFMC has had errors with vial insulin and implemented process improvements prevent.
- Low volume use of vials/needles for regular insulin, NPH, and detemir
 - ~3-5 administrations per day of non-pen insulin in adult hospital
- Primarily use insulin pens for basal and nutritional insulin¹
 - 600 administrations per day of pen insulin
- Vial insulin has become low volume, high risk administration at our hospital
 - Some new RNs may have never used insulin syringe to give insulin

1) Jt Comm J Qual Patient Saf. 2019 May;45(5):380-386. doi: 10.1016/j.jciq.2018.08.006. Epub 2018 Sep 26.

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Process Improvements: Overview

- Goal: reduce number and chance of errors with insulin vials
- Multidisciplinary review the process
- Multi angle approach to prevent future errors:
 - Changed eMAR display
 - Updated automatic dispensing cabinet (ADC) information
 - Standardized syringe types available on the unit
 - Implemented 2 RN check for vial SQ insulin
 - Updated nursing education

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Changed eMAR display

- Updated all insulin to remove "Expected dispense volume"

Insulin regular (Humulin R/NovoLIN R) injection 100 units/mL : Dose 10 Units : Intravenous : Once :

Product Instructions: If for IV push, use INSULIN USER LOCK syringe (in UNITS)

Ordered Admin Amount: 10 Units
Frequency: Once
Order Date: 8/1/2019
Reference: Last Comp
Dispense Location: PHARMACY
Next Admin Due: 8/1/2019 12:00

Insulin NPH (Novolin N/Humulin N) injection 100 units/mL : Dose 7 Units : Subcutaneous : Bedtime :

Product Instructions: If patient becomes NPO for procedures/surgery waiting for greater than 12 hours: Call MD for SQ insulin NPO orders. Carefully shake or roll this insulin suspension several times as this product should appear uniformly cloudy.


Ordered Admin Amount: 7 Units
Frequency: Bedtime
Order Date: 8/1/2019
Reference: Last Comp
Dispense Location: PHARMACY
Next Admin Due: 8/1/2019 00:01
Expected Dispense Volume: 3 mL


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Changed eMAR display

- Updating MAR to remind for use of insulin syringe

Insulin NPH (NovoLIN N, Humulin N) Injection 100 units/mL : Dose 30 Units : Subcutaneous : 2 Times Daily : 

Admin Instructions:
If patient becomes NPO for procedure/stops eating for greater than 12 hours: Call MD for SQ insulin NPO orders.
Product Instructions:
Only use an INSULIN SYRINGE. 
Carefully shake or roll the insulin suspension several times as this product should appear uniformly cloudy.

Ordered Admin Amount	30 Units	Last Admin	Today 06/20/19 at 0820 (Given)
Recent Admin Within 24 Hours:	06/20/19 0820 (Given)		

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Updated ADC Information

- Added alert to ADC to remind of use of insulin syringe
- Assessed only regular insulin stored in ADC

Clinical Data

If IV Push: Use a Leur-Lok INSULIN syringe (in units).
Perform ZRN double check for this IV insulin order BEFORE administration

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Standardized syringe types available on the unit

- Assessment by nursing into what insulin syringes are stocked on units
- Some units have moved stocking locations
- Medical Center is moving to streamline the number of insulin syringes available to help standardize



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Implemented 2 RN Check for Vial SQ insulin

- Added 2 RN check for vial insulin
 - IV insulin already had 2 RN check
 - Inconsistent policies lead to confusion
- Vetting through numerous multidisciplinary committees
 - Discussions of balance between limited resources of 2 RN checks and safety needs, given out low frequency
- Incorporating to EMR

Dual Signoff Summary

Documented By: WILLOW WINTANT, PHARMACIST Schedule Date/Time: 6/22/19 12:00

insulin regular (Humulin R, Novolin R) injection 100 units/mL

Class: 10 Units / Subcategory: Other

Check: ☐ Double Check: ☐

Order Concentration: 100 U/10mL

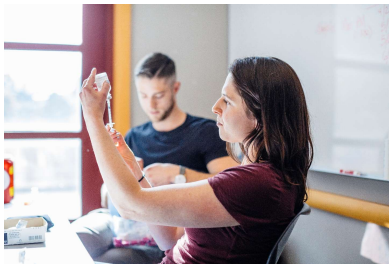
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Updated Nursing Education

- Included in Nursing Annual Review
 - Review appropriate syringes and other workflow considerations
- Incorporated into nursing orientation

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Questions?



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Discharge Prescription “Test Claims” – Mitigating Potential for Harm

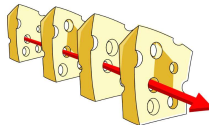
Meghan D. Swarthout, PharmD, MBA, BCPS
Division Director,
JHHS

The Problem

- Issue: Inadvertent duplicate therapy during transitions of care
- Underlying causes:
 - Prescribers typically don't have access to outpatient prescription cost information
 - High variability between insurance plans
 - Coverage changes
 - When other clinical factors are equivalent, medication selection may be based on patient's ability to pay
- Common example: VTE treatment post-PE
 - Direct oral anticoagulant
 - Vitamin K antagonist ± low molecular weight heparin

Potential for Harm

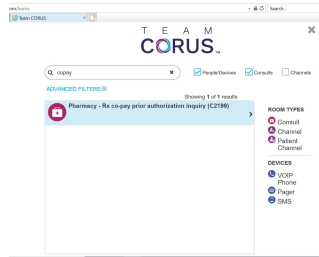
Wanting to find out the potential out of pocket cost for the patient and ascertain if a prior authorization is needed, the prescriber sends duplicate therapy prescriptions with the intent to discontinue one medication prior to the pharmacy dispensing



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Solution

- Created an alternative pathway to assess insurance coverage and patient co-pay for discharge medications
- Submit a request via internal, secure communication service (CORUS)
- Pharmacy technicians review claim and enter note in EMR
- Flagged in outpatient pharmacy dispensing software as a “test claim” prescription type and reports run for this prescription type for safety net check



Pharmacy - Rx co-pay prior authorization inquiry (C2188)

Form fields for Pharmacy - Rx co-pay prior authorization inquiry (C2188):

- Patient Name
- DOB or MIB
- Medication Name
- Medication Strength
- Dose and Frequency
- Number of doses requested
- Contact person to notify once inquiry has been completed
- Preferred Contact Method (dropdown menu)
- Comments

User fills out form

Transmits as a secure email to Patient Access Team

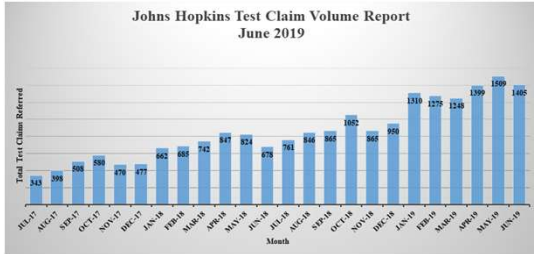
Patient Access Team runs claim and enters note in EMR

Internal Marketing and Communications

- Sent email to all prescribers via the Vice President of Medical Affairs
- Developed standardized training materials
- Include service information in the Pharmacy and Therapeutics Committee newsletter regularly
- Review purpose and functionality of tool at medical resident orientation and training
- Present in-services to inpatient care teams (prescribers, case managers, social workers)
- Conduct ad-hoc education to individuals and teams as needed based on safety event reports

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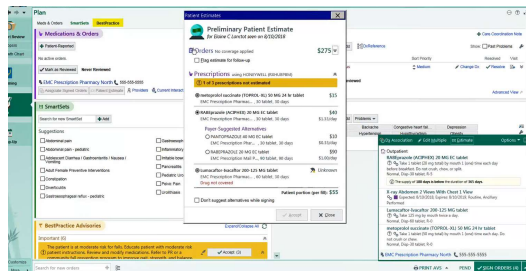
Utilization



Limitations

- Service only available Monday – Friday during business hours
- Requires significant manual effort
- Some coverage may vary for different outpatient pharmacies

Next Steps – Surescripts Real Time Prescription Benefit



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Other Potential Areas for Failure with Discharge Prescriptions

- Complex dosing instructions
 - Different doses different times of day
 - Steroid tapers
 - Variable dosing by day
- Discontinuation/cancelling a medication after e-prescribing
- Changing prescriptions after discharge summary/instructions are provided to patient
- Changing therapy when the patient has existing medication supply

Questions and Discussion

Email: mdavlin1@jhmi.edu

Long-Acting Insulin Safety: Extending System Initiatives to Critical Access Sites

Natalie Gardner, PharmD.
Clinical Pharmacy Advisor | OhioHealth Pharmacy Services

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The System - OhioHealth

11 Hospitals

- 9 Traditional (50->1000 beds)
- 2 Critical Access (CAH)
- 7 Free-standing EDs (FSED)

Critical Access Hospitals (8,9)

- Very small (25 beds)
- Short LOS (96 hours)
- Remote (35 miles)



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The System - OhioHealth

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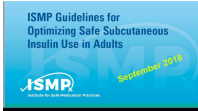


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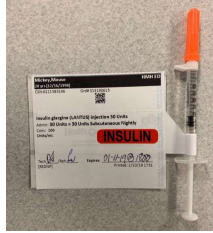
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The System Initiative



2.6 The pharmacy prepares and dispenses BASAL INSULIN doses in patient-specific prefilled syringes (if stability permits) for patients who are not using a patient specific insulin pen or insulin pump in the inpatient setting.



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The Solution

☐ Define success - "Critical Elements"

- Limited access
- Drug/Dose check
- No batching
- Clean area

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The Solution

✓ Define success - "Critical Elements"

☐ New Technology – RPh Double Check

- Video Conferencing
- 3 touches to RPh independent double check
- Movable camera
- Hands-free "FaceTime!"



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The Solution

- ✓ Define success - “Critical Elements”
- ✓ New Technology – RPh Double Check
- ❑ Optimize ADC – Limit Access
 - Single ADC location for the campus
 - Profiled station
 - Remove over-ride option
 - Reminder to video conference with Pharmacist

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The Solution

Pharmacist double-check of LAI utilizing teleconferencing device

AND

Increased utilization of existing ADC controls

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Measures of Success

- Process: Compliance with the Double Check Process
 - RPh documentation for each administered dose
 - Short learning curve for nurses and pharmacists
 - Daily feedback from MSP
 - Reached 100% by week 2 & sustainable x 1mo
- Outcome: Safety
 - No reported wrong dose/wrong drug events
 - No batching reported
- Staff Feedback: RN & RPh Survey
 - Other processes that might benefit?
 - Meds compounded outside of Rx hours
 - Open-ended Comments
 - Significant desire for Rx syringes when Rx open
 - Still some proponents of “nurse double check”

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Next Steps

- Explore options for Rx syringes during open hours
- Develop a CAH/FSED venue to allow for idea sharing and standardization among these sites
- Expand to medications that nurses are compounding
- Further education/explore attitudes re: double checks, "time for safety"

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Learnings

Critical Access Hospitals have unique challenges

Don't count them out of safety initiatives
Provide support & allow extra time

Video-Conferencing is a feasible option to allow direct visualization of LAI preparation.

Rally around the "critical elements"

When faced with "impossible" or "impractical" initiatives, tease out the "critical elements" and create a unique solution that provides the nearly the same outcomes.

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A FAITH-BASED, NOT-FOR-PROFIT HEALTHCARE SYSTEM

RIVERSIDE METHODIST HOSPITAL + GRANT MEDICAL CENTER + DOCTORS HOSPITAL
GRADY MEMORIAL HOSPITAL + DUBLIN METHODIST HOSPITAL + HARDIN MEMORIAL HOSPITAL
MARION GENERAL HOSPITAL + REHABILITATION HOSPITAL + O'BLENESS HOSPITAL + MANSFIELD HOSPITAL
SHELBY HOSPITAL + WESTERVILLE MEDICAL CAMPUS + HEALTH AND SURGERY CENTERS
PRIMARY AND SPECIALTY CARE + URGENT CARE + WELLNESS + HOSPICE
HOME CARE + 28,000 PHYSICIANS, ASSOCIATES & VOLUNTEERS

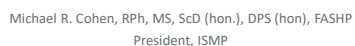
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Natalie Gardner, PharmD.
Clinical Pharmacy Advisor | OhioHealth Pharmacy Services

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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 Thursday, September 26, 2019.
 - **Register now:**
<https://attendee.gotowebinar.com/register/792096273610244877>

Supported by an educational
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