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Hospital to Home - Bridging the Gap

Randy Curry
Southwestern Oklahoma State University, randy.curry@swosu.edu

Kalie Kerth
Southwestern Oklahoma State University, kalie.kerth@swosu.edu

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Bridging the Gap: Hospital to Home

Randy Curry, DPh

Rural Health Coordinator

Kalie Kerth, PharmD

Rural Health Clinical Pharmacist

rural health network

SWOSU COLLEGE OF PHARMACY

Rural Health Network

- Our purpose is to elevate rural healthcare by funneling information, developing services and assisting rural pharmacists in the advancement and improvement of patient care.

    - Rural Rocks
    - Health Fairs
    - Immunization Training
    - Pharmacy and Hospital Visits
    - Mission Trip
    - Ipad Medication Use Counseling videos
    - Rural Health Network Website and Resources
        - http://www.swosu.edu/academics/pharmacy/rhn/index.aspx
    - Remote Medication Order Processing
    - Transitional Care Medication Reconciliation Discharge Counseling
    - Medication Therapy Management

Rural Healthcare
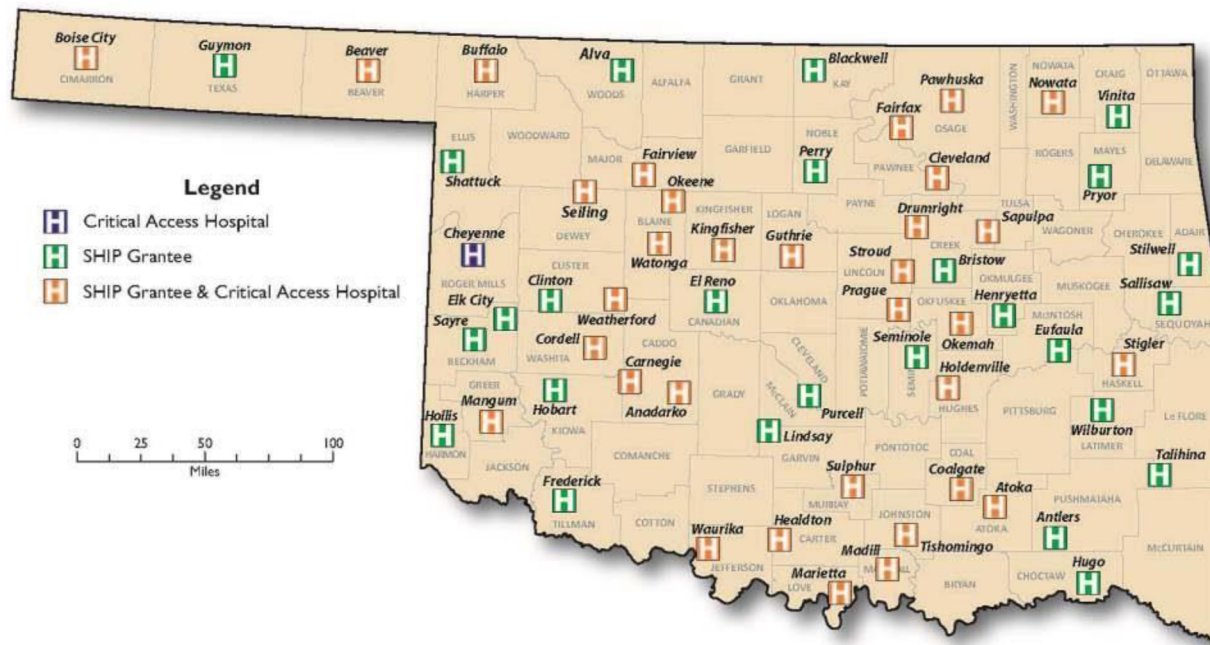
- Rural residents have access to fewer healthcare services, lower economic and insurance status, fewer physicians per capita, and higher chronic disease rates than their urban peers.

- In the past year alone, more rural hospitals closed than in the prior 15 years combined.

Maintaining long-term viability of critical access hospitals (CAH) will be essential for rural healthcare delivery.

Medicare Beneficiary Quality Improvement Project

Critical Access Hospitals & Small Hospital Improvement Program Grantees in Oklahoma 2013

Source: Oklahoma Office of Rural Health (2013); Health Resources Services Administration (2013)   © 2014 Oklahoma State University

Map Produced by
OSU Center for Rural Health
OSU Center for Health Sciences
Tulsa, Oklahoma
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http://ruralhealth.okstate.edu

Adverse Drug Events

- Account for 34.2 % of all hospital acquired conditions.

- Each hospitalized patient on average is subjected to more than one medication error per day.

- Processing a prescription drug order through a Computerized Provider Order Entry (CPOE) system cuts the likelihood of error on that order by 48%.

MBQIP Meaningful Use Phase 3 Measure

- Pharmacist CPOE/Verification of Medication Orders within 24 hours
  - Numerator: Number of <u>electronically entered</u> medication orders for an inpatient admitted to a CAH (acute or swing-bed), verified by a pharmacist <u>or</u> directly entered by a pharmacist within 24 hours
  - Denominator: Total number of <u>electronically entered</u> medication orders for an inpatient admitted to CAH (acute or swing-bed) during the reporting period
- Inclusion/Exclusion Criteria:
  - Included: Inpatients admitted to acute care bed, swing bed; observation patients
  - Excluded: Outpatients; ED patients

Pharmacist Verification Report

➢ Generated by your computerized pharmacy system or electronic health record (EHR).

- Minimum data elements in report should include:
  - Date for each order
  - Time ordered
  - Time verified (or "no verification required" because it was entered by the pharmacist)
  - Total number of orders verified or entered by pharmacist within 24 hours
  - Total number of orders entered

Remote Medication Order Processing (RMOP)

- Serves small rural hospitals in Oklahoma
- Reviews medication orders remotely for contracted hospitals in the absence of a pharmacist
  - Hospital Drug Room--152 in Oklahoma
  - Consultant Pharmacist--52 visits per year
- All orders reviewed within 24 hours, 7 days a week
  - Appropriateness of drug, dose, route, frequency, allergies and other drug or disease interactions
  - Clinical knowledge for review of inpatient chart

Adverse Drug Events

- Defined as harm experienced by a patient as a result of exposure to a medication

- Account for nearly 700,000 emergency department visits and 100,000 hospitalizations each year

- Affect nearly 5% of hospitalized patients, making them one of the most common types of inpatient errors

By detecting and preventing adverse drug events, a hospital can reduce expenses while providing better quality care to its patients.

STAGE	SAFETY STRATEGY
Prescribing	• Avoid unnecessary medications by adhering to conservative prescribing principles
	• Computerized provider order entry, especially when paired with clinical decision support systems
	• Medication reconciliation at times of transitions in care
Transcribing	• Computerized provider order entry to eliminate handwriting errors
Dispensing	• Clinical pharmacists to oversee medication dispensing process
	• Use of "tall man" lettering and other strategies to minimize confusion between look-alike, sound-alike medications
Administration	• Adherence to the "Five Rights" of medication safety (administering the Right Medication, in the Right Dose, at the Right Time, by the Right Route, to the Right Patient)
	• Barcode medication administration to ensure medications are given to the correct patient
	• Minimize interruptions to allow nurses to administer medications safely
	• Smart infusion pumps for intravenous infusions
	• Patient education and revised medication labels to improve patient comprehension of administration instructions

*Table provided by Agency for Healthcare Research and Quality Patient Safety Network ©2013

Southwestern Oklahoma State University College of Pharmacy
Remote Medication Order Processing Pharmacy
Policy and Procedure Manual
Table of Contents

- Compliance with Federal and State Laws and Regulations
- Minimum Technical Standards and Specifications
- Confidentiality, Privacy and Security and General Issues
- Pharmacist Training, Orientation, and Competencies
- Workload Balancing and Staffing Levels
- Drug Information Resources
- Communication and Problem Resolution
- Quality Assurance and Medication Error Reporting Systems
- Medication Errors
- Pharmacist Order Verification and Exceptions
- Medication Orders
- Questionable Medication Orders
- Pharmacist Therapeutic Intervention
- Creatinine Level Assessment
- Renal Dosing Adjustments
- Performance Improvement Plan
- Record Keeping, Reports, Annual Review, Documentation
- Pharmacist Consult Form
- Potential Adverse Drug Reaction Form
- Adverse Drug Reaction Reporting Form

Adverse Drug Reaction Reporting Form

Date of Reaction: _____ Known Allergies: _____

Suspected Drug: _____ Start Date: _____

Concurrent Drugs: _____

Describe Reaction: _____

Circle all that apply:

GI	SKIN	CV	CNS	LABS	OTHER
Nausea	Rash	Hypertension	Headache	LFTs	Short of Breath
Vomiting	Itching	Hypotension	Confusion	Scr/BUN	Wheezing
Diarrhea	Flushing	Chest Pain	Anxiety	Neutropenia	Fever
Constipation	Swelling	Arrhythmias	Sedation	Anemia	Chills
GI Upset	Phlebitis	Bradycardia	Depression	Electrolyte	Seizures
GI Pain	Erythema	Tachycardia	Malaise		Shock

Was the Physician Notified: ❑ Yes   ❑ No

Treatment of reaction: (Circle or list drugs prescribed or actions taken.)

Discontinued drug	Epinephrine	Kayexalate	Benztropine	Vancomycin PO
Decrease dose	Hydroxyzine	Naloxone	Physostigmine	Other: _____
Obtain drug level	Insulin	Phytadione	Blood Products	_____
Diphenhydramine	Digibind	Protamine	Romazicon	_____
Dextrose	Glucagon	Meclizine	Steroids	_____

PREVENTABILITY ASSESSMENT

1. Was the drug involved in the ADR inappropriate for the patient's clinical condition?
2. Were the dose, route and frequency of administration appropriate for the patient's age, weight, organ function and disease state?
3. If the reaction was due to a drug allergy, was this allergy previously documented?
    ❑ Admitting orders   ❑ Pharmacy computer   ❑ Nursing Kardex
4. Were appropriate therapeutic drug monitoring or other laboratory tests performed, which may have predicted this reaction? (include toxic serum levels)
5. Reaction involved a drug-drug, drug-food or drug-lab interaction.

SEVERITY ASSESSMENT

1. An ADR occurred but required no change in treatment with the suspected drug.
2. The ADR required that treatment with the suspected drug be held, discontinued or otherwise changed. No antidote or other treatment required. No increase in length of stay.
3. The ADR required that treatment with the suspected drug be held, discontinued or otherwise changed **AND/OR** an antidote or other treatment was required.
4. Serious ADR, but drug's benefits outweigh the adverse effects; drug is continued.
5. The ADR was the reason for admission.
6. The ADR treatment required intensive medical care. Increase length of stay.
7. The ADR caused permanent harm to the patient.
8. The ADR directly or indirectly led to the death of the patient.

THESE TYPES OF ADR ARE REPORTABLE TO THE FDA - MED WATCH

1. The suspected drug has been on the market for less than two years.
2. The reaction is not listed in the package insert.
3. The reaction is attributed to an investigational drug.
4. The reaction contributed to the death of the patient.
5. The reaction was life-threatening or permanently disabling.

This information will remain confidential. Upon completion of the form, return to the _____ Department.

Completed by: _____ Date: _____

Pharmacist Intervention Form

- Initiated by: _____, RPH _____, MD
- _____, RN _____ Other
- Patient Name: _____ Room #: _____ Medical Record #: _____
- **Nature of Consult:** Date/Time: _____
- Order clarification required (omission of dose, route, etc.) _____
- Dosing is too FREQUENT/INFREQUENT
- Medication: _____ Dosing Interval: _____
- Duration of therapy too PROLONGED/PROTRACTED _____
- Potential drug-drug INTERACTION/INCOMPATIBILITY
- Drugs involved: _____
- Potential need to change medications secondary to allergy history
- Allergy: _____ Medication: _____
- Questionable indication for use
- Indication: _____ Medication: _____
- Alternative agent recommended in view of patient's condition. (Include IV to PO as less costly therapeutic alternative)
- Prescribed Agent: _____ Alternative: _____
- Medication: _____
- Non-Formulary drug
- Medication Requested: _____ Recommended Alternative: _____
- Drug information requested (briefly describe) _____
- Other/further explanation: _____
- **OUTCOME OF CONSULT**
    - ❑ Order clarified/drug information provided
    - ❑ Change made according to Pharmacist's suggestion
    - ❑ Justification by physician acceptable to Pharmacist
    - ❑ Case resolved, forward to Pharmacy and Therapeutics Committee
- Date/Time Resolved: _____
- Pharmacist: _____ Date: _____

2014	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Total Hours Pharmacist on Duty												
Total Number of Orders Reviewed												
Total Number of Orders Entered												
Potential Drug Interactions Communicated[1]												
Total Number of Interventions												
Breakdown												
Medication Errors[2]												
Transcription Errors												
Medication Error Rate[3]												
Order clarifications[4]												
Therapeutic Change Recommendations[5]												
Therapeutic Monitoring Recommendations[6]												
Dosing Issues[7]												
Request for Orders[8]												
Request for Additional Information[9]												

[1] This is a service to make the practioner aware of potential drug interactions that can occur due to multiple medications that the patient is taking and to indicate how the adverse result may present.

[2] Many of these errors are transcription errors involving a wrong medication, dosage form, dose, frequency, route of administration, or scheduling when the medication is entered into the computer system or onto the MAR. The errors may or may not have been corrected prior to the first dose given and therefore may or may not have resulted in an actual medication error involving the patient.

[3] Number of medication errors as a per cent of total number or orders reviewed. (Not total number of doses.)

[4] These result when there is inadequate information contained in the physician's order. More information is needed to complete entry into the computer system or review of the order previously entered.

Pharmacists also use this to communicate the need for home medications to be brought from home as well as any automatic substitutions that may have been used during order entry.

[5] These result when there is a therapeutic or economic reason to change an order. (ex. Duplicate therapy, change of route from IV to oral, etc.)

[6] These result when a high dose or drug potentiation merits monitoring clinical lab values or vitals.

[7] Such as exceeding maximum recommended dose, inappropriate frequency or route of administration.

[8] Results when medication administration record indicates an order entered without the faxed order available for review. (a performance improvement monitor)

[9] Includes discussion such as patient allergies, lab values, age, weight, etc.

Transitional Care

- Care transitions are complex and vulnerable to medical error, especially adverse drug events
- Occur when a patient moves from one health care provider or setting to another
- Nearly 1 in 5 Medicare patients discharged from a hospital is readmitted within 30 days
- Of the 1.5 million medication errors that harm patients each year, approximately **60%** occur during transitions of care.

The Joint Commission's National Patient Safety Goals require health care organizations to "accurately and completely reconcile medications across the continuum of care."

Transitional Care

- Nearly **two-thirds** of post-discharge adverse events are medication related

- **29%** of these adverse drug events (ADE's) are serious or life threatening, resulting in emergency department visits and unscheduled hospital admissions

- As many as **60%** of post discharge ADE's could be prevented with intervention by health care professionals at discharge or shortly thereafter

- Preventable ADE's resulting in hospital admissions are estimated to increase the cost of care to the health system by $3.8 million per year, with **nonadherence** being the main cause for ADE admissions

Role of the Pharmacist

- Redesigned discharge processes that incorporate:
  - Pharmacist-specific interventions
    - Medication reconciliation
    - Patient counseling
    - Follow-up telephone calls

- Results in identification and resolution of medication discrepancies
- Reduces the incidence of preventable adverse drug events after discharge
- Decreases the number of return visits to the emergency department

Medication Therapy Management (MTM)

- Handoff from Transitional Care to the pharmacy
  - Continuity of information transfer
  - Keeps pharmacy updated on current treatment
  - Enhances patient understanding

- Focuses on Patient Centered Care
  - Complete Medication Review
  - Target Interventions
  - Patient Adherence
  - Monitors patient's clinical condition
  - Control Cost

Medication Therapy Management

- Performing necessary **assessments of the patient's health status;**

- Formulating **a medication treatment plan;**

- **Selecting**, **initiating**, **modifying**, or **administering** medication therapy;

- Monitoring and evaluating the **patient's response to therapy**, including safety and effectiveness;

- Performing a **comprehensive medication review** to identify, resolve, and prevent medication-related problems, including adverse drug events;

- **Documenting the care delivered and communicating** essential information to the patient's other primary care providers;

- Providing verbal education and training designed to **enhance patient understanding** and appropriate use of his/her medications;

- Providing information, support services and resources designed to **enhance patient adherence** with his/her therapeutic regimens;

- **Coordinating and integrating medication therapy management services** within the broader health care-management services being provided to the patient.

Southwestern Oklahoma State University

Rural Health Clinical Services

100 Campus Drive
Annex 108
Weatherford, Ok 73096

College of Pharmacy
Rural Health Clinical Pharmacist
Kalie Kerth, PharmD
Phone: 580.774.3043
Fax: 580.774.6027
kalie.kerth@swosu.edu