Strategies for Successful Medication Reconciliation and Management

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Disclosures

The speakers declare no conflicts of interest or financial interest in any service or product mentioned in this program.

Clinical trials and off-label/investigational uses will not be discussed during this presentation.
Objectives

• Describe communication strategies to overcome challenges with medication reconciliation in the home infusion therapy.

• Identify near misses in the review of several medication reconciliation case studies, including steps to take to prevent their recurrence.

• List and explain the most important pieces of information to gather before dispensing some of the most commonly prescribed infusion therapies.
What is Medication Reconciliation?

Steve Kennedy, PharmD
As Defined by APhA and ASHP

- The comprehensive evaluation of a patient’s medication regimen any time there is a change in therapy...

- The purpose? ..to avoid medication errors such as omissions, duplications, dosing errors, or drug interactions, as well as to observe compliance and adherence patterns.

- What is it? This process should include a comparison of the existing and previous medication regimens and should occur at every transition of care in which new medications are ordered, existing orders are rewritten or adjusted, or if the patient has added nonprescription medications to [his or her] self-care.

“Improving care transitions: optimizing medication reconciliation.” APhA. March 2012
Why Is It Important?

• Approximately 1.5 million preventable adverse drug events (ADEs) occur annually as a result of medication errors, at a cost of more than $3 Billion per year

• 20% of all ADEs have been attributed to poor communication at the transitions of care

• ADE’s account for 2.5% of estimated emergency department visits and 6.7% of those leading to hospitalization

Hospital Readmissions

• Estimates are that the total cost of readmissions range from $15-25 billion per year
• 19% of discharged patients experience an ADE after discharge
  — Two-thirds are attributed to medications and one-third to non-adherence

Adverse Events following Hospital Discharge Study

• 11% Adverse drug events
• 27% Preventable
• Common medications: Corticosteroids, anticoagulants, cardiovascular drugs
• Failure to monitor was the most common cause
• Results: Improved patient teaching and communication could decrease ADE’s

Adverse Drug Events in Ambulatory Care Study

• ADE’s stated to be as high as 25%
  – 15% Serious, 28% Ameliorable, 11% Preventable
  – Most related to Medication Related Symptoms that go unmonitored
  – Common Medications: SSRI’s, Beta-blockers, Ace-inhibitors, Calcium channel blockers
  – Results: Increase Patient and Physician communication, increase patient education materials, better strategies to monitor side effects are needed

Benefits of Medication Reconciliation

- A study was conducted to determine medication reconciliation and its effect on admission medication variances
- Comprehensive medical history is obtained initially from multiple sources (interviews with patient or caregiver, examination of medicine vials)
- Pharmacist then compared comprehensive medical history with admission medication report and any difference was considered to be an admission medication variance
- 60% of patients had at least one unintended variance and 18% had at least one clinically important unintended variance
- None of the variances had been detected by usual clinical practice before reconciliation was conducted

Audience Poll

• How many of you have caught medication errors via medication profile review?
• How many of you feel you have a 100% accurate medication profile?
• How many of you thought your profile was accurate and then...you go on a patient visit with a surveyor?
Hospital Medication Reconciliation Process

• Verbally in ED: Home medication review by a Nurse, Pharmacist, or Technician with Physician verification

• Verbally and via order assessment on Admission to Unit by a Nurse, Pharmacist, or Technician with Physician verification

• Every Shift change by a Nurse

• Upon Discharge by a Nurse, Pharmacist, or Technician with Physician verification
Issues Encountered During Hospital Medication Reconciliation

- Improper dose
- Wrong drug
- Wrong time
- Wrong patient
- Mislabeled
- Wrong dosage form
- Omitted medication orders
- Incomplete allergy history
- Omission of medication that patients reported prior to admission

Common Issues Found in Alternate Site Medication Reconciliation

- Interactions with intravenous therapy
- Omitted drug
- Polypharmacy
  - Drugs added to treat side effects of other drugs versus addressing the primary cause
- Herbals
  - Fish oils, Glucosamine
- OTC
  - Acetaminophen, Ibuprofen
- Continuing to take old prescriptions
Why Does This Occur?

– Poor home med list kept by the patient
– Left off the discharge orders
– Patient misunderstands directions
– Poor communication between prescribers and pharmacies
– Financial issues
  • Cost too high
  • Rx Authorization delays
  • Failure to fill script

Medication Reconciliation in the Alternate Site

• Intake / Pharmacy Role:
  – Med Profile received from referral source and entered into computer system prior to dispensing
  – Drug Utilization Review performed by system and Pharmacist
  – Med Profile reviewed with Patient on first contact prior to delivery, issues addressed
Medication Reconciliation in the Alternate Site

• Nurses Role:
  – Compare the discharge orders/Med list to the Med Profile we have
  – Compare the lists to the actual medication in the patients home
  – Address any inconsistency with the Pharmacist and Physician
  – Repeat the process on every visit
Computerized DUR Challenges in Alternate Site

• Most dispensing software has drug utilization review (DUR) screen limits for warnings that can be set based on the severity of the ADE
• Due to the nature of the medication we dispense, systems tend to pop-up a lot of warnings
• Evaluate these warnings and create a good process in your office for what to do about each type
Common DUR Warnings in the Alternate Site

• True warnings
  – Interactions with Anticoagulants – Need to monitor PT/INR closely
  – Drug-Drugs interactions when starting a new antibiotic or other mediation
  – Drug-Disease when adding narcotics
  – Allergies

• False positives
  – Duplicate therapies with Sodium Chloride solutions and flushes
  – Parenteral Nutrition ingredients
Strategies for Successful Medication Reconciliation and Management

Paula Zelle, Pharm. D., FASHP
OBRA ‘90 Pharmacy Provisions

Prospective Drug Utilization Review

• Over/under utilization
• Therapeutic duplications
• Drug-disease interactions
• Incorrect dosage or duration of treatment
• Drug-allergy interactions
• Clinical abuse and/or misuse
OBRA’90 Pharmacy Provisions cont.

Patient Counseling Standards

• Name of the drug
• Intended use and expected action
• Route, dosage form, dosage, and administration schedule
• Common side effects- avoidance and actions to be taken
OBRA ‘90 Pharmacy Provisions cont.

• Techniques for self-monitoring of drug therapy
• Proper storage
• Potential drug-drug or drug-food interactions or other therapeutic contraindications
• Refill information
• Missed dose instructions
OBRA ‘90 Pharmacy Provisions cont.

Maintaining Patient Records

• Patient’s full name
• Address and telephone number
• Date of birth or age
• Gender
• Complete drug profile
• Pharmacist’s comments
• Chronic conditions, allergies, and drug reactions
ASHP Patient Education and Counseling Guidelines

• Medication’s expected onset of action
• Directions for preparing and using or administering the medication
• Precautions to be observed during the medication’s use or administration
• Medication’s potential risks vs benefits
• Techniques for self-monitoring
• Proper disposal
Accreditation Record Expectations

• Medications administered
• Activity restrictions
• Changes in the patient’s condition
• Medical history
• Allergies or sensitivities
• Any adverse drug reactions
• Functional status
• Dietary restrictions
Accreditation Record Expectations cont

• Assessments relevant to services
• Any information required by policy and law and regulation
• Medication profile- dose, frequency, route of adm including OTC’s, herbals and home remedies
• Plan of Care
Sample Organization Policy

• Medical history
• Pertinent physical findings
• Age-specific findings
• Identified problems, needs and strengths
• Psychosocial status
• Educational needs and support system
• Home environment
• Equipment related to the infusion
Sample Organizational Policy cont

- OTC medications
- Health screening
- Recent and past laboratory results, as available
- History of chemical dependency
- Diagnosis (es)
- Medication history
- Allergies and sensitivities
- Height and weight
Referral Data

- Name
- Address
- Diagnosis
- Type of line
- Vancomycin 1 gm every 12 hours
- Doctor name
- As of right now, you are late
Reality Sample Policy

- Medical history *
- Pertinent physical findings *
- Age-specific findings
- Identified problems, needs and strengths
- Psychosocial status
- Educational needs and support system
- Home environment
- Equipment related to the infusion*
Reality Sample Policy cont.

- OTC medications
- Health screening
- Recent and past laboratory results, as available *
- History of chemical dependency
- Diagnosis (es) *
- Medication history *
- Allergies and sensitivities *
- Height and weight *
Summary Reality Initial Data

• Medical history *
• Pertinent physical finding *
• Equipment- as related to the infusion *
• Recent and past laboratory results *
• Diagnosis (es)*
• Medication history*
• Allergies and sensitivities*
• Height and weight*
Enough Data Gut-Check

• The therapeutic appropriateness of the medication
• Any therapeutic duplication in the patient’s medication regimen
• The appropriateness of the dose, frequency and route of administration
• The real or potential interactions which may include drugs, foods or diagnostic tests
• Disease contraindications
“Say It Out Loud” Test

- Missing data or information
- Confusing data or information
- Known previous negative experiences that are not checked off- Don’t ignore!
- Common drug for mistakes
- High risk or high alert medication or situation
Lessons Learned from the FAA

https://www.youtube.com/watch?v=lCqPGkt03Yo

Eastern Airlines Flight 401
Obstacles to Data Collection

- Late referral
- Routinely accept sloppy referrals
- Short staffed or not “team players”
- Wrong information - inaccurate or not current from the discharge planner
- Expectation from leadership that the customer’s expectations be met ALWAYS
- Delivery time is prioritized over the services you actually provide
Change Your Culture

• Own your expertise- push back respectfully
• Create your short data requirements
• Retrain your referral sources
• Openly discuss known medication errors that you agree you will not repeat
• Create one liners to express your hesitation
• Reward and encourage hesitations for safety
Vancomycin

• Dose appropriate for weight and kidney function?
  – Labs: baseline BUN, serum creatinine peak and trough
    Or trough only
• Pump
• Breastfeeding
• Auditory consult: pt elderly, renal problems
• Infusion rate- Redman Syndrome
• Other nephrotoxic drugs?
Summary Reality Initial Data

• Medical history *
• Pertinent physical finding *
• Equipment- as related to the infusion *
• Recent and past laboratory results *
• Diagnosis (es)*
• Medication history*
• Allergies and sensitivities*
• Height and weight*
Aminoglycosides

• Labs: baseline BUN, Ser Cr
• Appropriate dose per wt and kidney function
• Other nephrotoxic/ototoxic medications?
• Allergies? First or test dose given in hospital? No history of hypersensitivity?
• Can patient operate the pump
Amphotericin B

• Labs- Baseline BUN, Ser cr, Mg, K, Hgb, Hct, Plt
  Liver tests: alkaline phosphatase bilirubin

• Signs or symptoms of diarrhea?
• Pregnant, planning to be, breastfeeding
• Pt with previous history of GI disease?
Amphotericin B

• Drug interactions, continued
  – Azole antifungals
  – Aminoglycosides, antineoplastics, cyclosporine, pentamidine
  – Corticosteroids, corticotropin
Ganciclovir

• Labs- baseline CBC with diff
• No allergies or hypersensitivities
• Pt able to understand disposal instructions
• Pump
• Drug or food interactions- zidovudine, clozapine, certolizumab, deferiprone, etanercept, and similars
Cephalosporins

• Allergic or hypersensitive to PCN?
• Drug interaction with warfarin- increased bleeding time
• Alcohol intake?
• Labs- baseline CrCl adjust dose to renal function
• First or previous doses? MTT side chain-decrease Vit K dependent clotting factors
Questions?