the Remedi Pulse

SAFE MEDICATION & ORDER WRITING PRACTICES

Remedi SeniorCare EDUCATION Rx

A CLINICAL AND REGULATORY UPDATE FROM REMEDI SENIORCARE

JUNE 2015

Survey Solutions

with William Vaughan, BSN, RN
VP of Education & Clinical Affairs

In Pursuit of the Perfect Medication Order: Part II

Building on concepts presented in the May, 2015 issue of *The Remedi Pulse*, we continue our review of two more processes related to medication orders.

Verbal Orders: Most orders for newly admitted residents will be relayed verbally from the prescriber to the nurse. While expeditious, orders conveyed in this manner have an elevated risk profile as compared to written orders. Issues ranging from sound-alike drugs (e.g., clonidine versus Klonopin), poor cell phone connections, distracted staff, and prescribers' unfamiliarity with residents, all contribute to erroneous orders. Several systemic approaches can decrease the risks associated with verbal orders. First, limit the likelihood that orders will be given verbally by admitting residents when a prescriber is physically present. In facilities that have an active rehabilitation program or accept medically complex residents, it's not unusual for a physician to be in the building 5 days a week. Having nurse practitioners or physician's assistants on staff also minimizes the need for verbal orders.

Next, nurses who accept verbal orders should always read back the order to the prescriber exactly as they have written it. While not required by federal regulation, nurses should insist that any verbal medication order include an indication for the drug. This can alert the nurse to inconsistencies between what she thought the prescriber said and what the prescriber intended to order. Lastly, verbal orders should be authenticated (i.e., signed by the prescriber) as soon as possible. While federal regulations do not define when verbal orders must be authenticated, the generally accepted standard of care requires the process to be completed no later than the prescriber's next visit.

Nurses who accept verbal orders should always read back the order to the prescriber exactly as they have written it.

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Writing Appropriate IV Medication Orders

Prepared by: Rebecca Ogden, BSN, RN, CRNI, Corporate Account Manager

Over the course of their nursing careers, nurses will transcribe over hundreds of thousands of orders. The processes of prescribing and transcribing medication orders are responsible for a great number of adverse drug events. As patient advocates, nurses should actively promote system improvement processes to ensure that complete medication orders are transcribed.

Nurses may not be as familiar with what constitutes a complete IV medication/solution order, especially if not administering IV medications/solutions on a routine basis. This unfamiliarity could lead to a breach of duty – the standard of care owed to the patient not being met. Breaches of duty include:

- Failure to administer IV infusions at the prescribed rate
- Inappropriate administration of an IV medication
- Failure to clarify/follow physician orders or following physician orders not within safe standards of practice.

Ascertaining that the IV order is complete, correct, appropriate, and valid, can assist in avoiding a breach of duty.

The following information includes order components specific to proper IV medication/solution orders (all orders require patient name, full date [month-day-year], nurse and prescriber names). Any special considerations related to the infusion therapy should be included. Note: parenteral nutrition and IV pain management infusions require other specific components in addition to the information listed.

- Continuous parenteral (IV) therapy
  - Fluid type (e.g., D5W, 0.9% sodium chloride [NaCl])
    - Appropriate expression of the electrolyte additives must be included (e.g., milliequivalents [mEq])
  - Duration or volume of fluid to be administered
  - Specific infusion rate (KVO- keep vein open - not appropriate)
  - Method of administration - continuous or intermittent
  - Route of administration
  - Reason/diagnosis
  - Examples:
    - Infuse 1 liter of 0.9%NaCl at 50 mL per hour IV for dehydration.
    - Infuse D5W/0.2%NaCl at 50 mL per hour IV continuously x 2 days for dehydration.
    - Incomplete/order: D5W with 20 KCL KVO.

- Intermittent IV Medication therapy (e.g., IV antibiotics)
  - Medication name
  - Medication strength
  - Route of administration
  - Infusion rate or time period for med administration
  - Medication dose frequency
  - Reason/diagnosis
  - Duration or stop date, as appropriate
  - Example:
    - Infuse Zerbaxa 1.5 GM IV over 1 hour every 8 hours x 14 days for UTI.
    - Incomplete order: Ampicillin 500 every 6 hours.

- Direct IV Injection (e.g., IV push or bolus)
  - Medication name
  - Medication strength
  - Medication dose frequency
  - Rate of administration, as appropriate
  - Route of administration
  - Reason/diagnosis
  - IV flushes
    - Type of vascular access device
    - Amount of flush solution
    - If using heparin lock flush, specify the concentration (e.g., 100 u/mL)
  - Examples:
    - Lasix 40mg x1 over 2 mins IV push for fluid overload.
    - Flush PICC with 5 mL 0.9%NaCl flush before and after each medication dose and PRN to maintain catheter patency.
    - Incomplete order: Flush IV per policy.

Properly transcribing IV orders and abiding by institutional policies and procedures, state nurse practice acts, and national standards of infusion therapy, assist the nurse as the last link in the medication process and assures the safety of the residents she/he serves.

References:
Infusion Nurses Society. Infusion Nursing: An Evidenced-Based Approach. Ed. M Alexander, et al. 3rd ed. St Louis: Saunders/Elsevier, 2010.

Infusion Nurses Society. "Infusion Nursing Standards of Practice." Journal of Infusion Nursing 34.(suppl 1S) (2011).

NEW DRUG UPDATE: Zerbaxa® (ceftolozane/tazobactam)

Prepared by Mayank Patel, Pharm.D., Clinical Consultant Pharmacist

Zerbaxa (ceftolozane/tazobactam), approved in December 2014, is a new antibacterial drug product to treat adults with gram positive or gram negative organisms. It is a combination product containing ceftolozane, a cephalosporin antibacterial drug, and tazobactam, a beta-lactamase inhibitor. Cephalosporins work by preventing bacteria cell wall synthesis. Zerbaxa can be used in combination with metronidazole to treat complicated intra-abdominal infections and for the treatment of complicated urinary tract infections, including kidney infections.

- Zerbaxa is available as an injection:
  - Dosed as 1.5 mg (1g/0.5g) administered every 8 hours by intravenous infusion over one hour in adults.
  - Once reconstituted and admixed, the solution color can range from a clear, colorless solution to a clear, slightly yellow solution - this variation of color does not affect the potency of the product.
  - Duration of therapy can vary from 4 to 14 days varying on the severity and site of infection.
  - Is excreted un-metabolized and eliminated via the kidneys; hence hepatic dosing adjustments are not necessary.
  - No dose adjustments required for the geriatric population.
  - Dose adjustments are required for patients with renal insufficiency.

- Generally, Zerbaxa is a well-tolerated medication. However, the following should be noted:
  - Contraindicated if hypersensitivity to any other beta-lactam class of medications exists (i.e., cross-sensitivity to Penicillins).
  - Clostridium difficile-associated diarrhea is a rare, but serious, side effect that can occur even up to two weeks after the last dose administered.
  - More common side effects include:
    - Nausea
    - Diarrhea
    - Fever
    - Headaches
  - Less common side effects include:
    - Tachycardia
    - Infusion site reactions
    - Hyperglycemia
    - Renal Failure

As one of the newest injectable antibiotic medications, studies demonstrated that Zerbaxa's clinical cure rate was comparable to levofloxacin when used for complicated urinary tract infections. Studies also showed that when used in combination with metronidazole to treat complicated intra-abdominal infections, it was comparable to Meropenem. While this medication may not be a first line therapy - due in part to its cost and for the indications mentioned above, Zerbaxa is an available, safe, and effective treatment option for physicians to provide to patients.

References:

Solomkin, J, Hershberger, E and Miller, B. "Ceftolozane/tazobactam Plus Metronidazole for Complicated Intra-abdominal Infections in an Era of Multidrug Resistance: Results from a Randomized, Double-Blind Phase 3 Trial (ASPECT-cIAI)." Clin Infect Dis 60.10 (2015): 1462–1471.

Zerbaxa® Package Insert; Cubist Pharmaceuticals, Inc. December, 2014.

UPCOMING EVENTS

DATE	EVENT	LOCATION
Jun 1-4	Exhibiting at Medical Care Facilities	Lansing, MI
Jun 3-5	Exhibiting and presenting at VANHA/LeadingAge Virginia Annual Conference: "Nursing Home Council: Perfecting the Medication Pass: Lessons Learned from the 2567" by: William Vaughan and Jennifer Hardesty	Roanoke, VA
Jun 11	Exhibiting and presenting at DCHCA Annual Conference: "Perfecting the Medication Pass" by: William Vaughan and Jennifer Hardesty	Hyattsville, MD
Jun 17	CEU Event sponsored with Concept Rehab: "Strategies for Market Positioning in Post-Acute Care," presented by Caryn Enderle of Concept Rehab, Inc.; "Cost Savings with Generic Inflation," presented by Rob Shulman	Ann Arbor, MI
Jun 18	CEU Event sponsored with Concept Rehab: "Strategies for Market Positioning in Post-Acute Care," presented by Caryn Enderle of Concept Rehab, Inc.; "Cost Savings with Generic Inflation," presented by Rob Shulman	Grand Rapids, MI
Jun 17-19	Exhibiting at LeadingAge PA Annual Conference	Hershey, PA

Nurse of the Month

NICOLE COMBS, LPN
Abingdon Health and Rehab Center, Abingdon, VA

CONGRATULATIONS to Nicole Combs, LPN, wound nurse, at Abingdon Health and Rehab Center in Abingdon, VA, as the Remedi "Nurse of the Month." Nicole was nominated by Lee Anne Carroll, RN, BSN, BS, WCC, Senior Clinical Services Specialist, Commonwealth Care of Roanoke, Inc. Per Lee Anne, "Nicole has grown tremendously in her role since joining us and successfully completed the wound care certification course. She serves as a regional trainer for the southwestern part of the state, helping orient and mentor new wound care nurses to CCR. In addition, Nicole is a team player and goes above and beyond to help the center, e.g., picking up extra shifts for nursing, often on the weekends, when there is a staffing need. She was recognized as Abingdon's Employee of the Month in the past. During that time, her car had broken down and she rode her bike to work (about an hour one-way) instead of calling in. Nicole is not only knowledgeable of the standards of care for treating wounds, but she is also an advocate for prevention and works alongside the front-line staff helping to ensure prevention plans of care are carried out. Her efforts showed in her recent stretch of zero acquired pressure ulcers at the center over a couple of the most challenging winter months of norovirus and influenza. She often is seen with Chick-fil-A gift cards and small tokens of recognition in her scrub pockets to share with staff, who have carried out wound care regimens over the weekend or successfully managed a challenging wound dressing change. What else can I say to brag on Nicole?"

Remedi acknowledges a "Nurse of the Month" in each of our newsletters. DONs/ADONs/LNHAs, now is the time for you to reward the nurse(s) at your facility, who exemplify excellence in nursing practice. The "Nurse of the Month" will receive an award and a certificate of commendation from Remedi. Please submit the following information: nominated nurse's name/title, facility name, state, years at facility, years of experience and why this nurse should be chosen, such as leadership abilities, clinical expertise, teamwork, professional and personal strengths.

Email your Nurse of the Month nomination(s) by the 30th of the month to Rebecca.Ogden@RemediRx.com. Nurses Rock!!

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Challenging/Disputing a Medication Order: Even the most respected and admired prescriber in your facility can order medications incorrectly. Nurses have a duty to critically evaluate all orders and advocate for residents by engaging prescribers regarding questionable orders **BEFORE** implementing them. While such conversations can be uncomfortable, most prescribers recognize the complexity of medication management and welcome the collaborative efforts of nurses and pharmacists. Issues that can't be resolved with the prescriber must be elevated to the Director of Nursing and/or Medical Director. From a regulatory perspective, medication errors, which originate from a failure on the part of a prescriber and are not promptly recognized or acted upon by the nursing or pharmacy staff, often lead to deficiencies that are cited at an elevated scope and severity level.

Making every day the best it can be for your residents requires intense attention to detail. Insist on nothing less than "perfect" medication orders and the health of your residents, along with the regulatory health of your facility, will be optimized.

Coming in July/Aug: Med Pass and Medication Storage and their regulatory implications.

Note: Bill was a surveyor with the Maryland State Survey Agency from 1988 until 2001. He became Chief Nurse of the agency in 2001 and remained in that position until joining Remedi SeniorCare in 2013.