

Supplemental Information

STANDING EHR ORDER: PHARMACIST CHANGING FROM IV TO ENTERAL FORMULATION

Purpose

Outline the criteria to initiate and implement standing orders for pharmacists to change IV antibiotics to enteral.

General Information

1. IV-to-enteral conversion provides an enteral medication dosage form with comparable bioavailability to the IV form
2. Advantages of an IV-to-enteral antimicrobial conversion include but are not limited to
 - a. A reduction in length of hospital stay
 - b. Avoidance of added risks associated with continued IV therapy
 - c. A decrease in overall medication and associated costs of treatment

Patient Population

Patients who are >2 months of age and admitted as inpatient.

Policy

1. Indications
 - a. The patient has received the IV antimicrobial for ≥ 24 hours
 - b. For patients with blood cultures
 - i. pharmacists may not initiate transition to enteral until initial blood culture result is negative for ≥ 48 hours
 - ii. do not switch patients with positive blood culture results
 - c. The patient demonstrates clinical improvement, as documented by the provider in the patient's medical record
 - d. The patient is receiving enteral nutrition

- e. The patient is receiving other enteral medications
- f. Availability of equivalent enteral formulation, as noted in the procedures
2. Contraindications:
 - a. Bacteremia
 - b. Severe sepsis
 - c. Central line associated bloodstream infection
 - d. Endovascular infection
 - e. Central nervous system infection
 - f. Perforated appendicitis
 - g. Abscess
 - h. Fever and neutropenia
 - i. Presence of vomiting or nausea in the previous 24 hours
 - j. Perioperative antimicrobial agents for surgical procedures
 - k. Patient is receiving continuous enteral feeds that cannot be interrupted, and the antimicrobial must be given on an empty stomach
 - l. Gastrointestinal obstruction, malabsorption syndrome, or ileus, as documented in the patient's electronic medical record
3. If the clinician is concerned about the application of the standing order to a specific patient, he or she may defer to the provider for assessment and patient care orders

Procedures

1. Assess for indications and contraindications.
2. The following antimicrobial agents have an oral analogue:
 - a. Rifampin
 - b. Metronidazole
 - c. Levofloxacin
 - d. Ciprofloxacin
 - e. Clindamycin

- f. Linezolid
- g. Fluconazole
- h. TMP-SMX
3. Convert dosage to be same dose, frequency, and duration
 - a. Note: the dose may be rounded per the pharmacy: dose standardization standing order as appropriate
4. Place order indicating authorizing provider by using "standing order" mode
5. Notify the attending provider or designee of change
6. Documentation:
 - a. IV to enteral if patient is prescribed an above IV antimicrobial
 - i. If yes, document switch to oral
 - ii. If yes, but the primary team disagrees with the switch
 1. pharmacist discusses with team attending physician who has the final decision of the change. This is documented as IV to enteral
 2. If no, document why patient does not meet criteria so the managing pharmacist can reassess when patient may meet criteria
 - b. Formatted progress note in the patient's electronic medical record outlining the change from IV antimicrobial to oral therapy and verbal communication with primary team
7. Follow-up note within 48 hours of antimicrobial change to document whether the patient is tolerating oral therapy
 - i. Tolerating: continue oral therapy
 - ii. Not tolerating: discuss with the provider regarding switching back to IV or another oral option