Justifying Inpatient Stay after Intravenous to Oral Antimicrobial Switch

This purpose of this document is to provide guidance on justifying hospitalization for patients who are ready to be switched from intravenous (IV) to oral (PO) antimicrobials but are not ready for discharge. Transitioning IV antimicrobial therapy to PO is strongly recommended by the CDC and can facilitate discharge in patients who have no other medical issues for continued hospitalization. Unnecessarily maintaining patients on IV antimicrobial therapy for the sole purpose of justifying hospitalization can potentially expose them to other undesirable events as noted below.

Intravenous antimicrobials are frequently initiated in hospitalized inpatients suspected to have infections. If an indication for antimicrobials continues to exist, change in the route of antimicrobial administration from IV to PO should be strongly considered. Criteria for route of administration change can include:

- Use of antimicrobials with high oral bioavailability
- Patient has functional gastrointestinal tract and tolerating oral diet
- Patient is not nauseous or vomiting
- Patient is tolerating other oral medications
- Patient is clinically improving

There are a number of benefits to changing IV to PO antimicrobial therapy. These can include:

- Reducing the risk of catheter-related bloodstream infections
- Reducing the risk of infusion site complications
- Decreasing the potential for infusion-related reactions
- Minimizing the concern for fluid overload in fluid-restricted patients
- Liberating patients from IV poles and potentially increasing patient satisfaction
- Allowing patients to be discharged sooner
- Reducing medication preparation and administration time
- Decreasing overall costs of care

While there are many benefits to transitioning patients from IV to PO therapy, IV antimicrobial therapy is often used as a justification for inpatient hospitalization. After transition to PO antimicrobials, the necessity for hospitalization may come into question for patients who may not be ready for discharge. These patients may already be managed for other conditions that justify their inpatient stay. For patients that require continued hospitalization clinicians should document that need based on careful examination of the patient history and current clinical condition. Examples of conditions that may justify continued inpatient hospitalization include, but are not limited to, the continued evaluation or monitoring of the following:

- Abnormal or worsening renal functions (>2 times increase in creatinine or ≥50% reduction in glomerular filtration rate)
- Abnormal hepatic functions
- Pulse oximetry less than 89%
- Persistent or unresolved hypotension (SBP <90 mmHg) or tachycardia (HR >100 beat per minute)

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- Hypercarbia (PCO_2 >46 mmHg), hypoxia (PO_2 <60mmHg), or PEF 26-39% of normal in an asthmatic
- Hyponatremia (serum sodium <124 mEq/L) or hypernatremia (serum sodium >150 mEq/L) with accompanying symptoms
- Hypokalemia (serum potassium <2.5 mEq/L) or hyperkalemia (serum potassium >6.0 mEq/L) with accompanying symptoms
- Abnormal neurology findings requiring neuro-checks more frequently than q4h
- New onset seizure
- Abnormal mental status with Glasgow Coma Scale (GCS) <15
- Continued abnormalities in clinical parameters despite improvement in infection such as
    - WBC >12,000 cells/µL or <1,000 cells/µL
    - Bandemia with >10% bands
    - Absolute neutrophil count (ANC) <500 cells/ µL
    - Temperature ≥99.4 °F (37.4 °C) or <97.0 °F (36.1 °C)
    - Respiratory rate ≥22 breaths per minute for sustained period of time

Demonstrating justification for inpatient hospitalization after IV to PO antimicrobial switch requires **careful documentation and explanation** of the clinical picture in the medical record, particularly documenting the complexity of the patient and need for ongoing hospital care. The goal is to document in an accurate and realistic fashion the clinical criteria requiring ongoing evaluation and management. Whenever possible, the word "evaluation" or "monitoring" should be used along with documentation of the plan for doing so. Patients who are ready to be switched to PO antimicrobials and are not being managed for any other conditions that necessitate inpatient stay should be switched to PO therapy and be discharged from the hospital. **Consultation with local case management experts is strongly recommended when questions arise regarding justification of hospitalization.**