

Missouri Healthcare-Associated Infection Reporting System (MHIRS)

Identifying Healthcare-Associated Infections (HAIs) in MHIRS*

Any infection reported to MHIRS must meet the definition of a MHIRS healthcare-associated infection (HAI), that is, **a localized or systemic condition resulting from adverse reaction to the presence of an infectious agent(s) or its toxin(s)**. There must be no evidence that the infection was present or incubating at the time of admission. Other important considerations include the following:

- Clinical evidence may be derived from direct observation of the infection site or review of information in the patient chart or other clinical records.
- A physician's or surgeon's diagnosis of infection derived from direct observation during a surgical operation, endoscopic examination, or other diagnostic studies or from clinical judgment may be an acceptable criterion for a MHIRS infection, unless there is compelling evidence to the contrary.

HAIs may be caused by infectious agents from endogenous or exogenous sources.

- Endogenous sources are body sites, such as the skin, nose, mouth, GI tract, or vagina that are normally inhabited by microorganisms.
- Exogenous sources are those external to the patient, such as patient care personnel, visitors, patient care equipment, medical devices, or the healthcare environment.

Surveillance

The MHIRS modules require active, patient-based, prospective surveillance of events and their corresponding denominator data by a trained infection control professional (ICP). This means that the ICP shall seek out infections during a patient's stay by screening a variety of data sources, such as laboratory, pharmacy, admission/discharge/transfer, radiology/imaging, and pathology databases; and patient charts, including history and physical exam notes, nurses/physicians notes, temperature charts, etc. Others may be trained to screen data sources for infections, but the ICP must make the final determination. Retrospective chart reviews should be used only when patients are discharged before all information can be gathered.

Before an infection is reported to MHIRS, the person performing surveillance must decide that the clinical, laboratory, and other diagnostic information gathered on the patient satisfy the criteria for a MHIRS infection. To assist surveillance personnel in making these decisions consistently, the MHIRS manual sections include criteria for determining the presence of an infection through the use of site-specific definitions.

Special Considerations

The following special considerations are important when identifying HAIs:

- Infections occurring in infants that result from passage through the birth canal are considered HAIs.

- The following infections are **not** considered healthcare associated:
 - Infections associated with complications or extensions of infections already present on admission, unless a change in pathogen or symptoms strongly suggests the acquisition of a new infection.
 - Infections in infants that have been acquired transplacentally (e.g., herpes simplex, toxoplasmosis, rubella, cytomegalovirus, or syphilis) and become evident ≤ 48 hours after birth.
 - Reactivation of a latent infection (e.g., herpes zoster [shingles], herpes simplex, syphilis, or tuberculosis).
- The following conditions are **not** infections:
 - Colonization, which means the presence of microorganisms on skin, on mucous membranes in open wounds, or in excretions or secretions but are not causing adverse clinical signs or symptoms.
 - Inflammation that results from tissue response to injury or stimulation by noninfectious agents, such as chemicals.

**Taken in part from The National Healthcare Safety Network (NHSN) Manual, Patient Safety Component Protocol, Updated January 2009*

July 2009