

2008-R-20

CIO Name: NCPDCID, CCID

Project Title: Developing Measures to Assess Compliance with CDC/HICPAC Recommendations for the Prevention of Healthcare-associated Methicillin-Resistant *Staphylococcus aureus* and related Multidrug-resistant Organisms

Project Description and Objectives:

A recent report indicates that approximately 94,000 invasive MRSA infections occur annually in the United States and over 80% of these are healthcare associated. Although there are evidence-based guidelines with recommendations for the transmission of MRSA and prevention of MRSA infections, there have been significant challenges to the widespread implementation of these recommendations. Many of these challenges pertain to difficulty of behavior modification among healthcare personnel and require considerable expertise and support to overcome. Experience indicates measuring process of care practices, with feedback to frontline healthcare providers, is an important part of effective intervention strategies. However, there is little standardization with regard to measurement of process of care practices to prevent healthcare-associated MRSA and other multidrug-resistant organisms (MDROs). This research project will provide the scientific knowledge to develop and validate actual or surrogate measures that can be used to track compliance with practices for preventing healthcare-associated MRSA and related MDROs.

Awardee Activities:

Awardees will participate in a consortium. The consortium will be overseen by the Prevention Epicenters Program Steering Committee composed of principal investigators and CDC representatives. The steering committee will direct coordinate, and supervise the entire range of scientific project activities, monitor progress and ensure that the strategic plan is implemented.

Awardee activities for this project are as follows:

1. Identify and validate direct and surrogate measures for process of care practices known to reduce the risk healthcare-associated MRSA, particularly those measures that can be assessed through automated retrieval, processing, and analysis of data from

- electronic health records or other electronic information systems in use in healthcare institutions.
2. Additional purposes in the development of such measures are to:
 - a. minimize personnel resources required for data collection;
 - b. directly support and guide prevention efforts by measuring adherence to critical prevention practices; and
 - c. develop measures that are broadly generalizable and applicable across a wide variety of inpatient settings.

CDC Activities: CDC staff is substantially involved in the project activities, above and beyond routine grant monitoring. CDC Activities for this program are as follows:

1. Collaborate, as appropriate, with the recipient in all stages of the program, and provide programmatic and technical assistance. A CDC representative will actively participate in the management, coordination, and supervision of the entire range of project activities, as well as monitor progress and ensure that the strategic plan is implemented.
2. Offer assistance to the recipient in all aspects of the science, including active participation in protocol development.
3. Participate in improving program performance through consultation with the recipient based on information and activities of other projects.
4. Assist in the development of research protocols for Institutional Review Board (IRB) review by all cooperating institutions participating in the research project. The CDC IRB will review and approve the protocol initially and on at least an annual basis until the research project is completed.
5. Participate in the dissemination of findings and information stemming from the project.

Special Requirements:

The successful applicant will be an investigator at a medical school or school of public health who has a demonstrated track record of investigating ways to measure and improve compliance with prevention measures for MDROs and healthcare-associated infections. This track record

will be documented by prior publications in the scientific literature.

Additional Review Criteria: None

Funding Preferences:

1. Demonstrate the ability to utilize current electronic health record capacity enabling automated data collection of events and other electronic information within their healthcare system to develop and validate the process of care measures.
2. Involve multiple healthcare facilities in developing and validating the measures.
3. Propose measures that directly address adherence to hand hygiene, contact precautions, environmental cleaning procedures, and one or more other processes of care designed to prevent MRSA bloodstream infections.

Other Information: None

Project Period Length: No more than 2 years

Approximate Total Project Period Funding: \$600,000 (This amount is an estimate, and is subject to availability of funds and **includes direct and indirect costs, excluding the additional academic partner administrative costs.**)

Approximate Average Award: \$ 300,000 (This amount is for the first 12-month budget period, and **includes both direct and indirect costs, excluding the additional academic partner administrative costs.**)

Approximate Number of Awards: 1

NOTE: Please note that applications must not exceed either the stated Project Period Length or the Approximate Total Budget Period funding per year. Applications in excess of these limits will be considered non-responsive and therefore will not be reviewed.