Community Academic Partnership for a CA-MRSA Surveillance System in Community Health Centers: Early Results

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Introduction
Methicillin-resistant Staphylococcus aureus (MRSA) infection among persons without recent exposure to a hospital/health care facility is defined as community-acquired MRSA (CA-MRSA). This project builds a research and learning collaborative for case-finding, biological specimen collection, clinical and laboratory testing and outcomes assessment among 8 NYC area Community Health Centers (CHCs), Clinical Directors Network, and Rockefeller University Center for Clinical and Translational Science.

Methods
Six CHCs, adjacent to a NYC Hospital HA-MRSA Surveillance Network are collaborating to prospectively: (1) enroll 129 patients with suspected CA-MRSA skin and soft tissue infections (SSTIs); (2) collect demographics, clinical history, physical examination, photo and quality of life data, (3) develop methods for clinical wound and nasal samples collection, preparation and transport to a clinical lab (for standard microbiologic culture/antibiotic sensitivity; BioReference) and a research lab (for whole genome analysis/identification of genetic determinants of antimicrobial resistance; Dr. Tomasz’s Lab).

Results
Based on the first 67 enrolled patients (52% of the recruitment goal), wound (34% MRSA+) and nasal specimens (18% MRSA+) were cultured and tested for antibiotic sensitivity, with 10% MRSA+ concordance. All CHCs are currently active in recruiting participants, and community-based clinicians and lab partners are engaged through team meetings and CME activities, and are now developing public health outreach activities.

Conclusion
This study demonstrates the feasibility of building a community-academic partnership to form the infrastructure for a CA-MRSA Surveillance Network. The results of this research will contribute to developing methods for evaluating CA-MRSA clinically and microbiologically, and will enable future comparative effectiveness research studies in community-based primary care settings.

Study Steps

Study Instruments

- Inclusion Criteria
  - The patient is between 7 to 70 years of age.
  - The patient presents with signs and symptoms of a skin or soft tissue infection.

- Exclusion Criteria
  - The patient is unwilling to provide informed consent.
  - The patient resides 10 mi from an enrolled CHC.
  - The patient presents with signs and symptoms of a skin or soft tissue infections.

Study Participants

- Recruitment Demographics
  - Clinical Presentation
  - Study Follow-Up Progress

- Antibiotic Resistance in S. aureus isolates

- CA-MRSA Project (CAMP)

- Clinical Presentation (n=67)