

crisprpd 1.0



Abstract

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PI Title: NUTTING CHAIR IN CLINICAL NURSING

Project Title: STAFF HAND HYGIENE AND NOSOCOMIAL INFECTION IN NEONATES

Abstract: *DESCRIPTION: Nosocomial infections are one of the most prevalent and devastating complications among hospitalized and high-risk neonates. Although hand hygiene of health care professionals is one of the primary mechanisms to reduce risk of transmission of infectious agents in high-risk health care settings, adherence to recommended hand-washing practices is universally suboptimal, indicating a critical need to enhance adherence with acceptable hand hygiene regimens. Further, the need for frequent washing and gloving among staff in critical care settings causes skin damage with concomitant changes in normal flora and shedding of more organisms into the environment, ironically increasing risk of nosocomial transmission from the hands of personnel. The challenge is to maximize the antimicrobial effectiveness of hand hygiene practice while minimizing changes to the skin's health of microflora. The aim of this 3-year clinical trial is to compare effects of two hand hygiene protocols used by staff in neonatal ICU on nosocomial infection rates among the neonates and on the skin health and microbiology of staff hands. In a sequential design, the staff of two NICUs in NYC (100 beds) will be assigned to one of two-hand care regimens (traditional antiseptic detergent and scrub of non-antiseptic detergent with alcohol-based rinse and emollient) in two alternative 12-month blocks of time. Outcome measures include infections (using standardized prospective surveillance protocols), skin condition (measured by validated, standardized tools), and microbiology of staff hands. Molecular epidemiologic techniques (pulsed field gel electrophoresis) will be used to identify genetic relatedness of clinical isolates from infected neonates and isolates from hands of personnel. This is the first clinical trial of the role of staff hand hygiene in nosocomial transmission to neonates using*

molecular epidemiologic methods, and the first to compare alcohol degerming and traditional soap and water while controlling for potential confounders such as gloving and lotion use. Results of this study can be generalized to many clinical settings.

Thesaurus Terms:

neonatal intensive care, nosocomial infection control, nursing research, nursing skill /technique

alcohol, antiseptic sterilization, clinical trial, detergent, hand, health care cost /financing, microbiology

clinical research, human subject

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