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Is There a Correlation of Positive Methicillin Resistant Staphylococcus Aureus Nasal Swabs with Diabetic Foot Infections?

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The objective of this study was to evaluate the prevalence of Methicillin Resistant Staphylococcus Aureus (MRSA) in patients admitted to the hospital for diabetic foot infections. We also evaluated the positive and negative predictive value of nasal cultures obtained at the time of hospital admission to determine MRSA in diabetic foot infections. **Methods:** We evaluated 70 subjects admitted to our Facility with diabetic foot infections. During this fourteen-month period all subjects had nasal swabs at the time of admission to determine carriers of MRSA. All subjects evaluated also had incision and drainage or amputations in which deep soft tissue or bone cultures were obtained. We compared these intra-operative cultures to nasal swab results. Common risk factors for MRSA were also evaluated, such as previous hospitalization, extended care facility or nursing home residents, previous oral or intravenous antibiotic therapy, glycosolated hemoglobin, peripheral vascular disease and peripheral neuropathy. **Results:** 70 subjects were evaluated. 87.1% had type II diabetes, and 67.1% were male. The average age was 58.6 years. 80% of subjects had a glycosolated hemoglobin > 7%. The prevalence of MRSA in cultures obtained from diabetic foot infections was 31.4% and 17.1% of patients had positive nasal swabs. The positive and negative predictive value of nasal swabs in identifying MRSA in diabetic foot infections was 66.7% and 75.9%. The sensitivity and specificity of nasal swabs in predicting a MRSA infection was 36.4% and 91.7%. **Conclusions:** MRSA is not as prevalent as generally accepted in this population. Nasal swabs are not a reliable indication as to the bacterial pathogen associated with diabetic foot infections; however a negative MRSA nasal swab is rather specific to a diabetic foot infection without MRSA as the pathogen.