

Facemasks on Patients for Source Control in Health Care: A Pilot Study Testing Influenza Transfer to Bedside Tables at the Salem Veterans Affairs Medical Center

Objective: This study answers the question, “In influenza-positive veterans, what is the effect of facemask wearing in comparison to not wearing a facemask on influenza transfer to a bedside table measured for two hours per condition?”

Design: A quasi-experimental evidence-based project pilot study design was used.

Population/Setting: Influenza-positive veterans admitted to the Salem Veterans Affairs Medical Center on medical/surgical floors, the progressive care unit, or the Community Living Center were recruited to participate in this study.

Variables studied/Intervention: The independent variable was the veteran wearing/not wearing a facemask for two hours during each arm of the study while placed within three feet of a bedside table. The dependent variable is whether influenza virus was transferred onto the bedside table.

Method: Influenza-positive veterans were identified by enzyme immuno assay (EIA) on nasopharyngeal swabs. Environmental swabs were used to measure the amount of influenza on bedside tables using polymerase chain reaction (PCR) and viral plaque assay testing. Each used facemask was also tested for influenza. A study questionnaire captured information on tolerability and feasibility of wearing the facemask.

Findings: Quantitative research was obtained by testing for influenza transfer onto the bedside tables. Qualitative research included tolerability and feasibility of wearing a facemask when veterans were sick with influenza.

Implications: Results of this study could lead to future clinical trials studying the effects of wearing facemasks for source control with a secondary aim to change human behaviors to include containing influenza virus at the source.