

ISRP 1999 abstract

Presenter/author	Title	Abstract
Cardarelli, Ron Schaefer, O. <i>CN Associates Inc. 249 Ayer Road, Suite 205 Harvard, MA 01451 USA</i>	Intelligibility of Speech Through Personal Respirators Used During Bronchoscopy	<p>Pulmonologists often perform flexible bronchoscopy to aide in the diagnosis of infections of the lower respiratory tract. The procedure may cause the subject to cough and thereby generate potentially infectious aerosols. This is of particular concern as the incidence of tuberculosis (TB) has been on the rise, and is transmissible with such exposure. To retard the nosocomial spread of TB, the Centers for Disease Control and Prevention has stated that the use of effective respiratory protection is required for those working in high risk procedures. The use of respirators with HEPA filters have been recommended.</p> <p>At the University of Massachusetts Medical Center pulmonary physicians, and others exposed to potentially infectious aerosols use the 3M Series 6000 half faced personal respirators for respiratory protection. Problems with the current units, though anecdotal, have include: 1) muffled speech, 2) discomfort, 3) need for additional eye protection (exposure to HIV). As effective communication is critical at many levels we decided to embark on a study to compare the intelligibility of speech through different respirators of comparable protection. We compared the 3M model to three models made by Mine Safety Appliance, Inc. (MSA)- the Advantage 1000 with and without sound projection equipment and the Ultra Elite. Comparisons were made with two different tests of intelligibility the Phonetically Balanced Word List test (PBWL), and the Modified Rhyme Test (MRT). Respirator use was compared to the control condition of No Respirator.</p>