infectious isolation, HEPA filters should be used on the return air if air is being recirculated or exhausted near public areas or air intakes. Controlling sources of contamination inside the rooms or in spaces around the rooms (ceilings) and controlling colonization of the patients also must be given attention.

An alternative approach to the use of tracer gases involves the use of particle generators with measurement of the distribution and mixing of air by means of particle counters. The advantage of this approach versus tracer gases is that it is possible to produce particles of defined sizes, which permits not only the dispersal of particles but the assessment of the efficiency of filtration. This technology routinely is used to test and rate air in clean rooms for industrial use, and it was used by the author in testing a ventilation filtration unit designed specifically for respiratory isolation rooms.[6]

It should be noted that it is possible to measure the volume and direction of airflow in rooms directly with equipment designed for this purpose. Smoke sticks and other visual systems may have some usefulness as well in assessing the direction of air flow.

Risk factors for transmission of infection include not only the concentration of bacteria in the air but also the duration of exposure (length of surgical procedure or duration of immunosupression) and susceptibility of the host (patients and staff).

Finally, with respect to infectious isolation, it should be noted that protection of patients and staff depends on a hierarchy of controls, including in order of importance, identification and treatment of patients, isolation of patients, and use of protective devices by staff.[5]

These considerations suggest that protection of patients and staff must include a broad set of considerations, with reduction of all risk factors and implementation of effective and redundant control systems.

It is likely that the primary application of new methodologies using tracer gas for measurement of ventilation and ventilation efficiency near term will be in the design of more effective infectious (respiratory) isolation facilities.

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Educational Blitz in Texas

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The Texas Department of Health's Division on Infectious Disease Epidemiology and Surveillance (IDEAS) recently initiated an educational program for Texas public health professionals. The two major components of the new program are continuing medical education (CME) and a biweekly newsletter, *Disease Prevention* News. The IDEAS Division CME staff sponsor quarterly conferences at state, regional, and local health departments. The newsletter, produced in cooperation with the CDC, is sent to nearly 9,500 professionals in the state and also is available on the Internet's World Wide Web. For further information on the CME program or newsletter, contact Julie Rawlings, IDEAS Division, Texas Department of Health, (512) 458-7228.

FROM: IDEA Place. *CDC/NCID Focus.* 1995;5(10):8.

https://doi.org/10.1017/S0195941700005981 Published online by Cambridge University Press