1989 ASM ANNUAL MEETING
New Orleans, La. 14-18 May 1989

Official Abstract Form

(Read all instructions before typing)

<table>
<thead>
<tr>
<th>Start →</th>
<th>ORGANISM SHEDDING RATE BY PERSONNEL IN OPERATING ROOMS, C.F. Croghan, A.J. Streifel, F.S. Rhame, B.Juni, University of Minnesota, Minneapolis</th>
</tr>
</thead>
<tbody>
<tr>
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<td>We assessed shedding of microorganisms by operating room (OR) personnel (ORP) by air culture in occupied (O) and unoccupied (U) operating rooms. ORs under positive pressure were supplied with air from a central HEPA filter (99.97% removal of 0.3μ particles) at ~25 air changes/hr. Two min samples were collected on Inhibitory Mold, Mannitol Salt and McConkey agar using a Casella slit impactor (700 l/min). Following 48 hr incubation, plates were evaluated for gram negative bacilli (35°C), total Staphlococci (35°C) and total fungi (25 &amp; 35°C). Organisms were identified by standard methods. The following equation was used to determine ORP shedding rate (S): [ S = (C_O - C_U)AV ], where ( C_O )=air microbial concentration in O rooms, and ( C_U )=concentration in U rooms, ( A )=air exchange rate and ( V )=room volume. Sixty-nine samples from 5 ORs were cultured. Shedding rate was calculated from 3 ORs.</td>
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<tr>
<td></td>
<td><strong>MEAN CFU/M³</strong></td>
</tr>
<tr>
<td>ORGANISMS</td>
<td>OCCUPIED</td>
</tr>
<tr>
<td>total fungi(25°C)</td>
<td>6.79</td>
</tr>
<tr>
<td>total fungi(37°C)</td>
<td>1.71</td>
</tr>
<tr>
<td>gram (-) rods</td>
<td>0.43</td>
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<tr>
<td>Staphlococci</td>
<td>37.93</td>
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</table>

Because of the high shedding rate of microorganisms by ORP, air change rates are of great importance in the provision of relatively organism free air. When filtration efficiency is reasonable high, the primary determinant of airborne microbial load is the air change rate.

Instructions

Indicate below the subject category number designation from the list on p. ii–iii, complete the check list on the reverse side of this sheet, and sign your name in the space provided.

Indicate category designation from p. ii–iii. [L-3]

Category designation

Poster/Slide Session Assignment

Because of the flexibility in programming afforded by poster sessions, the Program Committee will attempt to schedule all abstracts which (i) are considered by elected divisional officers to be of acceptable quality and (ii) conform to rules established by the Program Committee. The decision on whether an abstract is scheduled in a slide or a poster session will be made by the elected Program Committee. Approximately 75% of the abstracts will be scheduled in poster sessions. By submitting an abstract, the author agrees that the paper will be presented as scheduled.

Please provide telephone number of signing author ( ) Area code

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