

# Summary of a 3-Year Study of the Clinical Applications of the Disinfection of Air by Glycol Vapors.

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**Abstract :** This paper records an extension of work already reported [this *Bulletin*, 1944, v. 19, 382] on the use of vaporized propylene and triethylene glycol as aerial disinfectants to control the spread of upper respiratory tract infection among children in a convalescent seaside hospital. Details of the investigation were given in the earlier abstract. Analysis of three winters' experience (1941-4) showed that during 81 ward-weeks, there were 13 instances of respiratory infection in the treated wards and 132 in the control wards. During the winter 1942-3, when the common cold was prevalent, there were three cases of coryza in the treated wards and 79 in the control wards; the corresponding figures for other respiratory infections (tracheobronchitis, otitis media and acute pharyngitis) were 2 and 21. **Aerial disinfection may, therefore, be more effective against virus than against bacterial infections.** Propylene glycol was more practicable to use and more effective in reducing the bacterial content of the air than was triethylene glycol, probably because of the narrow margin between bactericidal and condensing concentrations of the latter substance. The usual concentration of propylene glycol was one part in 15 millions, or 0.069 mgm. per litre; the concentration of triethylene glycol ranged from 0.0018 to 0.0033 mgm. per litre. It is emphasized that conditions were particularly suitable for the control of respiratory infection by aerial disinfectants since most of the children were confined to bed, there was little ward traffic and little dust, and the patients were in the ward only during the colder part of the day. *Robert Cruickshank.*

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