

Clean air symposium—Part I

Introduction

Carl L. Nelson, M.D.*

*Department of Orthopaedic Surgery
Head, Section on Orthopaedic Research*

Controversy is not unprecedented in the practice of surgery and usually precedes any new development in the field. One of the most controversial issues is the use of laminar air flow systems or perhaps better termed "clean air systems" in the operating room. Statements based on emotion rather than on fact have been made, and questions have been raised about the design of units, direction of air flow, premarketing testing, the federal role in legislation, and the medicolegal implications of infection.

Adequate information regarding these systems has not been available to the surgeon; consequently, rumor, impression, and dogma have been substituted for scientific study and statistical evaluation.

In November 1972 a Clean Air Symposium was sponsored at The Cleveland Clinic Educational Foundation by the Department of Orthopaedic Surgery. Specialists from many fields interested in evaluating the effectiveness of clean air systems discussed their findings. From the symposium, papers presenting the pros and cons of clean air systems have been selected for publication in the Fall and Winter issues of the *Cleveland Clinic Quarterly*.

* Chairman, Clean Air Symposium, November 10, 1972.

The data probably do not provide answers to all questions, but present the most significant and recent developments in the prevention of airborne contamination during surgery. The purpose of the symposium is not to condone or condemn the use of clean air systems, but to make available the data and opinions of experts in the field.

It should be pointed out that whatever the final state of the art on clean

air systems, there is no substitute for standard methods of effective operating room control, such as restriction of movement in the operating room, exclusion of the inadvertent visitor from the operating room, careful and thorough preparation of the patient and the operating personnel, and gentle handling of tissue. Finally, it is important that everyone in the hospital is aware of the problems of nosocomial infections.