Barrier Testing Methods

To the Editor:

Congratulations to ASTM for its successful effort to produce a barrier test method. It culminates my dream of 40 years.

In 1952, Colette and I wrote "False Faith in the Surgeon's Gown and Drape," attesting to the fallacy of expecting the materials then in use to provide resistance to liquid-borne microorganisms between septic and aseptic zones.[1] Some ten years later, industry responded by creating liquid-resistant materials that we called aseptic barriers.[2] Under the aegis of the Association for the Advancement of Medical Instrumentation (AAMI), an attempt was made to create a voluntary standard or at least a "good practice document" to guide manufacturers and the health professions, ultimately for the protection of the patient and wearer.[3] After trying in vain to achieve a test method acceptable for both single-use and reusable materials, the committee gave up.[4]

ASTM now has published two test methods, ASTM ES-21-1992 and ASTM ES-22-1992. The former is a method to validate the barrier quality for existing liquid penetration, and the latter, for virus protection. At long last, we do have a test method with the imprimatur of a standards organization. Now, to avoid overkill and excessive cost, we need a companion "good practice document" that will tell us when we need to use gowns and drapes that have passed these tests.

It may have weaknesses. Constant reference is made to suggest the semantically contradictory equality of fluids and liquids. Greater pressures than those demanded by the standard may occur. But, at last, a standard exists. All praise to ASTM.

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https://doi.org/10.1086/646793 Published online by Cambridge University Press