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INFECTION CONTROL

LETTERS TO THE EDITOR

To the Editor:

The recent article by Veney and Kaiser [Infect Control 1980, 1(4):264-269] contains several significant errors. One error is in the t-formula on page 264. The proper form is

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{s_p^2 (1/n_1 + 1/n_2)}}$$

The form published in the article appears to assume that

$$\frac{1}{n_1} + \frac{1}{n_2} = \frac{1}{n_1 + n_2}$$

which is never true. The accompanying calculations of t in the article are in error and should be ignored (e.g., the t on page 265 should be 8.82).

The formula for t′ on page 268 also contains a typographical error. It should read

$$t' = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{(s_1^2/n_1) + (s_2^2/n_2)}}$$

The t-test shown in the middle of the second column of page 268 uses the incorrect formula on page 264; in addition, the value is labeled t′ instead of t, a potentially misleading use of terms.

The choice of equal sample sizes for the two groups in this example is also unfortunate since use of the proper formulae for t and t′ will give the value 1.41 in both cases. This kind of result can mislead the reader into thinking that t and t′ will always have the same value, which is not true when $n_1 \neq n_2$.

I trust that the authors will supply corrigenda and be more sensitive to these kinds of errors in the future articles of their series.

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NOTE: See "Applied Statistics in Infection Control" in this issue for a reply to Dr. Browne's letter.

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