Erratum

Sample size calculations: basic principles and common pitfalls

Marlies Noordzij, Giovanni Tripepi, Friedo W. Dekker, Carmine Zoccali, Michael W. Tanck and Kitty J. Jager

Nephrol Dial Transplant 2010; doi:10.1093/ndt/gfp732

The publisher regrets that this article was published with the following errors:

2 rules in Table 1 are missing. The table should have been displayed as follows:

**Table 1. Overview of errors in clinical research**

<table>
<thead>
<tr>
<th>Study sample</th>
<th>Population</th>
<th>Difference does not exist</th>
<th>Difference exists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difference does not exist</td>
<td>False negative result</td>
<td></td>
<td>Type II error (beta)</td>
</tr>
<tr>
<td>Difference exists</td>
<td>False positive result</td>
<td>Type I error (alpha)</td>
<td>Power (1-beta)</td>
</tr>
</tbody>
</table>

In Box 1 the line in the formula is too long. The formula should have been displayed as follows:

**Box 1**: Simplest formula for a continuous outcome and equal sample sizes in both groups, assuming: alpha = 0.05 and power = 0.80 (beta = 0.20).

\[
N = \frac{2 \left[ (a + b)^2 \sigma^2 \right]}{(\mu_1 - \mu_2)^2}
\]

- \(n\) = the sample size in each of the groups
- \(\mu_1\) = population mean in treatment Group 1
- \(\mu_2\) = population mean in treatment Group 2
- \(\mu_1 - \mu_2\) = the difference the investigator wishes to detect
- \(\sigma^2\) = population variance (SD)
- \(a\) = conventional multiplier for alpha = 0.05
- \(b\) = conventional multiplier for power = 0.80
Finally, in box 2 the word “subjects” is missing. This should have read:

**Box 2**: Simplest formula for a binary outcome and equal sample sizes in both groups, assuming: alpha = 0.05 and power = 0.80 (beta=0.20).

\[
\begin{align*}
n &= \text{the sample size in each of the groups} \\
p_1 &= \text{proportion of subjects with hypertension in treatment Group 1} \\
q_1 &= \text{proportion of subjects without hypertension in treatment Group 1} \ (= 1 - p_1) \\
p_2 &= \text{proportion of subjects with hypertension in treatment Group 2} \\
q_2 &= \text{proportion of subjects without hypertension in treatment Group 2} \ (= 1 - p_2) \\
x &= \text{the difference the investigator wishes to detect} \\
a &= \text{conventional multiplier for alpha} = 0.05 \\
b &= \text{conventional multiplier for power} = 0.80
\end{align*}
\]

\[
N = \frac{[(a + b)^2 (p_1 q_1 + p_2 q_2)]}{x^2}
\]