

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\left(\frac{(N_1 - 1)s_1^2 + (N_2 - 1)s_2^2}{N_1 + N_2 - 2}\right)\left(\frac{1}{N_1} + \frac{1}{N_2}\right)}}$$

Social Science Statistics

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\left(\frac{(N_1 - 1)s_1^2 + (N_2 - 1)s_2^2}{N_1 + N_2 - 2}\right)\left(\frac{1}{N_1} + \frac{1}{N_2}\right)}}$$

Success! The contingency table below provides the following information: the observed cell totals, (the expected cell totals) and [the chi-square statistic for each cell].

The chi-square statistic, *p*-value and statement of significance appear beneath the table. Blue means you're dealing with dependent variables; red, independent.

You'll notice we've also calculated a chi-square statistic with the popular Yates correction. There's probably a consensus now that the correction is over-cautious in its desire to avoid a type 1 error, but the statistic is there if you want to use it.

Want to know how to report the result of your chi-square test (APA style)? (Opens in a new tab so you don't lose your result.)

How to Report a Chi-Square Result

	myeloerythroid	lymphoid	Marginal Row Totals
wt	4312 (8443.1) [2021.29]	15480 (11348.9) [1503.75]	19792
mut	7630 (3498.9) [4877.52]	572 (4703.1) [3628.67]	8202
Marginal Column Totals	11942	16052	27994 (Grand Total)

The chi-square statistic is 12031.2304. The p -value is < 0.00001 . Significant at $p < .05$.

The chi-square statistic with Yates correction is 12028.3182. The p -value is < 0.00001 . Significant at $p < .05$.

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AD

INDICATION

ZEPOSIA® (ozanimod) is indicated for the treatment of relapsing forms of multiple sclerosis (MS), to include clinically isolated syndrome, relapsing-remitting disease, and active secondary progressive disease, in

[Full Prescribing Information](#)



Alternative Chi-Square Calculators

5 x 5 (or less) contingency table

Fisher exact test

Goodness of fit calculator

AD

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