

Instructions for carrying out statistical procedures and tests using Minitab

These instructions are closely linked to the author's book:

Essential Statistics for the Pharmaceutical Sciences
John Wiley & Sons Ltd <http://eu.wiley.com>
2007
ISBN: 978-0-470-03468-2

For all references to chapters or tables, see the above book.

Using Minitab to perform a Kruskal-Wallis test

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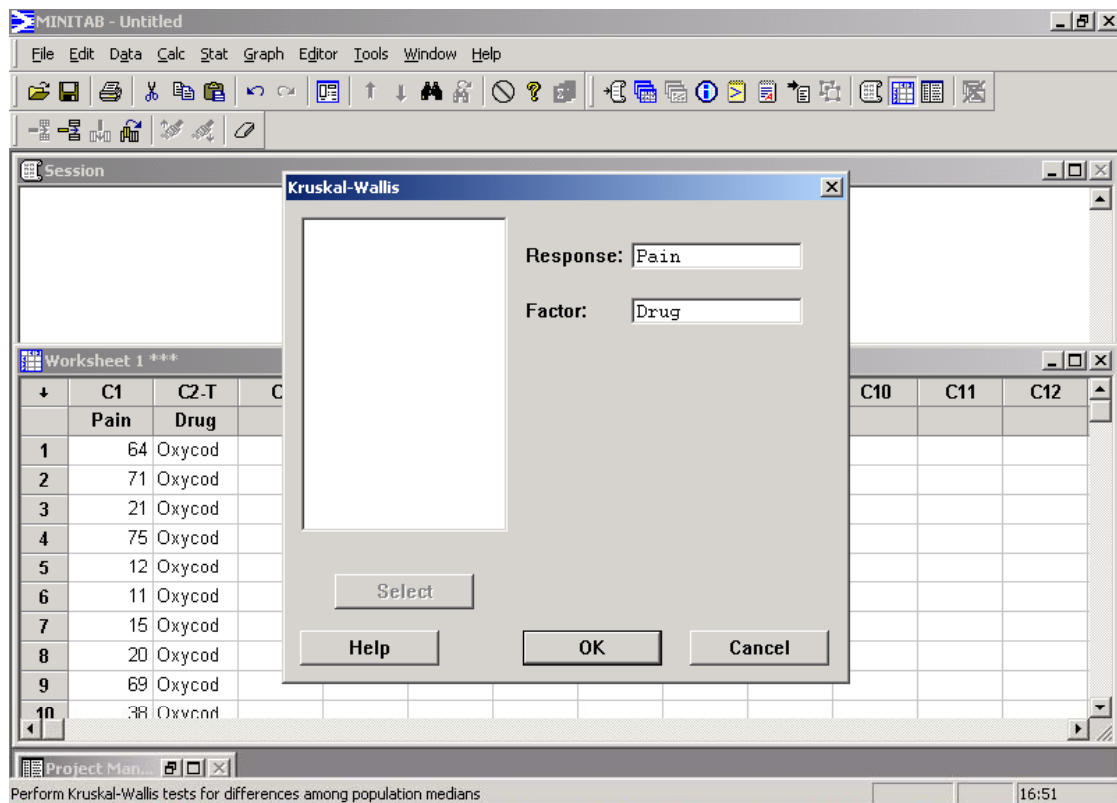
Example: Table 17.7 Pain scores with three different analgesics.

Data are entered in the same pattern as that used for the [one-way analysis of variance](#). The end-point data are all entered into one column and another carries labels indicating the group to which that result belongs.

Follow the menus:

Stat / Nonparametrics / Kruskal-Wallis ...

In the box labelled 'Response:' enter the name of the column containing the values and in the Factor box, the column containing the group labels. Minitab should then appear as:



The output will be as on the next page:

Kruskal-Wallis Test: Pain versus Drug

Kruskal-Wallis Test on Pain

Drug	N	Median	Ave Rank	Z
Diamorph	20	24.00	24.3	-1.94
Morph	20	49.50	36.2	1.80
Oxycod	20	35.00	31.0	0.14
Overall	60		30.5	

H = 4.66 DF = 2 P = 0.097

H = 4.67 DF = 2 P = 0.097 (adjusted for ties)

P values are provided on the last two lines, one of which is corrected for ties. (See Section 17.2.4 for explanation of relevance of ties.)

The data is non-significant (P = 0.097).