Biotext

Writing accurately about evidence

Writing about scientific evidence can be challenging. If you write 'there is good evidence for XXX', what does this mean to your audience? The following tips will help you write about evidence clearly and accurately.

Limit general adjectives about quantity

Avoid general adjectives of quantity (e.g. *limited*, *no*, *much*) when talking about evidence because it is unclear whether they refer to the number of studies, the design of the studies or the size of effect recorded.

Don't leave your reader guessing!

- **No evidence** could mean no studies have been done *or* many studies have showed no statistically significant effect.
- **Limited evidence** could mean (among other things) there have been several studies but the results were inconsistent *or* there has been one large, well-designed study that showed a small but statistically significant effect.
- **Much evidence** could mean (among other things) there have been many studies that all showed a very small effect *or* there has been one well-designed study that showed a very large effect.

Instead, use specific numbers (e.g. *6* trials, *no* change) to describe the number of research studies or the size of the effect measured.

Example

For research studies:

- There have been no studies.
- There have been 5 well-designed randomised controlled trials.

For the size of the effect measured:

- There was no change in blood pressure.
- Four large, well-designed randomised controlled trials consistently showed no significant difference between X and Y.
- One large, well-designed randomised controlled trial showed that X was more effective than Y.
- Four small clinical trials showed inconsistent results, so it is impossible to draw any conclusions about whether X is more or less effective than Y. More well-designed trials are needed to answer this clinical question.

Avoid adjectives about quality

When referring to scientific evidence, don't use adjectives (e.g. *high-level*, *good*, *consistent*, *reasonable*, *compelling*, *poor*) to refer to quality of the **evidence**.

Instead, use adjectives to refer to the **research studies** that collected the evidence. A well-designed research study provides the same quality of evidence, whether the results show a positive effect, a negative effect or no effect.

Example

Use:

- a well-designed randomised controlled trial

instead of:

- high-quality evidence

Try to avoid the word **evidence** altogether. Describing what the results mean is more useful for your audience.

Example

Use:

- X is more effective than Y.
- A meta-analysis of 6 large, well-designed randomised controlled trials showed that X was more effective than Y.

Instead of:

- The evidence showed that X is more effective than Y.

Avoid biased language

If there have not been any studies, you don't know whether X is better or worse than Y. Don't imply comparisons or relationships that might not exist.

Example

Use:

- There have been no studies that compare X and Y.

Instead of:

- There have been no studies that show that X is better than/more effective than/superior to Y.

Avoid language that implies other evidence might exist (and that it might be favourable for your statement or report).

Example

Use:

- Several [include details] studies have shown no effect of X compared with Y.

Instead of:

- Available/existing/current evidence shows little effect of X compared with Y. [which implies that 'the other' evidence may show an effect]

Don't emphasise the minority at the expense of the majority. Present data without bias.

Example

Use:

- Of the 8 trials, 2 showed a positive effect, 5 showed a negative effect and 1 showed no effect.

Instead of:

- Of the 8 trials, only 2 showed a positive effect.