

# English Grammar and Style

## Good Writing Practice



Good writing practice is not a formal set of rules about how to write, like the requirements of GCP or GMP. Our aim is to highlight that the focus of all writers should always be on their readers, and that writers should make their texts as easy as possible to understand. We

go beyond the classic style guide and provide advice on practical aspects of writing that we hope will make texts easier to write and read. This means that much of what we will be saying in this column will apply to documents written in any language, although most aspects will be specific to English as the dominant language in our field.

A group of members originally collected a list of ideas to fill these pages (see the December 2010 issue of *TWS*<sup>1</sup>). But we very much hope that this does not mean that these are the only people who will appear as contributors at the end of each

section. This column is open to anyone who wishes to contribute any advice on writing in our field that is not found in classic style guides and that they feel would be useful to their colleagues. The advice may also contradict classic style guides.

Our aim is to keep contributions short so that a variety of topics can be covered in each issue, but 'short' might extend up to about one page (about 750 words). Sometimes a contribution may need to be longer. So, if you have any ideas or wish to agree or disagree with any of the advice or add new aspects, please do send in a contribution to Wendy Kingdom ([info@wendykingdom.com](mailto:info@wendykingdom.com)) or Alistair Reeves ([a.reeves@ascribe.de](mailto:a.reeves@ascribe.de)), however long or short. Ultimately, we hope to bring everything together in an EMWA Publication. Help us to make this a success!

### Reference

1. Reeves A, Kingdom W. Good writing practice. *TWS* 2010;19(4):281.

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## Tables (1) – Table captions – The Dos and Don'ts

Typically, regulatory documents containing more than a few tables have a Table of Tables (ToT)<sup>1</sup>. The authentic Example A shown below makes me wonder why. My scepticism is based on Example A's failure to meet the main objective of any ToT, i.e. helping the reviewers to select – out of a sometimes enormous number of tables – the tables that present the information they are looking for.

How does this happen? I see the combined impact of two contributory factors:

- The ToT is automatically generated from the table captions (nothing wrong with that, of course).
- Striving for the honourable principle of table autarchy (i.e. each table should be fully self-explanatory), and even beyond that, the table author has put a lot of information into the table caption.

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<sup>1</sup>The principles discussed in this communication are applicable to any type of data display, including tables, figures and listings.

In other words, as with many table sets, the table captions in Example A were created without the ToT or its reader in mind.

The easy remedy for this are the following proposed rules:

Rule 1: Each entry of the ToT, thus each table caption, should be restricted to the elements that are needed to differentiate it from the other entries. This should result in brief, or even catchy, captions.

Rule 2: All additional information not serving this purpose but needed to make the table self-explanatory should be put in a subtitle or headnote not appearing in the ToT.

Thus, table captions should be designed with the ToT and the reader in mind. To achieve this, it would certainly help if the author had to pay at least €1 to a charity of their choice for each word in a caption.

Applying the above rules, my proposal for a reviewer-friendly alternative is given in Example B. The difference between Examples A and B in look (and usability) of the ToT is obvious.

Tables 1A and 1B illustrate how burdensome information can be transferred from the caption (Table 1A) to an additional subtitle (or headnote) not appearing in the ToT (Table 1B).

These rules are not black or white, but still leave a lot up to the judgement of the author. In the examples, the unit of measurement is a good illustration for the remaining need for decisions and thoughtful design.

Although frequently done (as in Example A), the units hardly ever need to be displayed in the caption. In our examples, however, some haematological parameters (Tables 1A/B to 11A/B) are analysed and displayed using two different approaches, each applying its own unit of measurement: relative count (%) and absolute count (number of cells per volume). Obviously, in these cases, inclusion of the units in the caption as in Example B is legitimate. Picking ‘relative count’/‘absolute count’ instead of ‘[%]’/ ‘[10E12/l]’ for inclusion in the caption is certainly another option.

#### Table of tables – Example A

Table 1A:	Descriptive statistics of quantitative laboratory parameter ‘leukocytes [10E9/l]’ by treatment and time point – FAS	4
Table 2A:	Descriptive statistics of quantitative laboratory parameter ‘erythrocytes [10E12/l]’ by treatment and time point – FAS	5
Table 3A:	Descriptive statistics of quantitative laboratory parameter ‘hemoglobin (Hb) [g/l]’ by treatment and time point – FAS	6
Table 4A:	Descriptive statistics of quantitative laboratory parameter ‘hematocrit (HCT) [l/l]’ by treatment and time point – FAS	7
Table 5A:	Descriptive statistics of quantitative laboratory parameter ‘MCVolume [fl]’ by treatment and time point – FAS	8
Table 6A:	Descriptive statistics of quantitative laboratory parameter ‘MCHemoglobin [pg]’ by treatment and time point – FAS	9
Table 7A:	Descriptive statistics of quantitative laboratory parameter ‘platelets [10E9/l]’ by treatment and time point – FAS	10
Table 8A:	Descriptive statistics of quantitative laboratory parameter ‘neutrophils, total [%]’ by treatment and time point – FAS	11
Table 9A:	Descriptive statistics of quantitative laboratory parameter ‘neutrophils, total [10E9/l]’ by treatment and time point – FAS	12
Table 10A:	Descriptive statistics of quantitative laboratory parameter ‘lymphocytes [%]’ by treatment and time point – FAS	13
Table 11A:	Descriptive statistics of quantitative laboratory parameter ‘lymphocytes [10E9/l]’ by treatment and time point – FAS	14

#### Table of tables – Example B

Table 1B:	Laboratory: Leukocytes	4
Table 2B:	Laboratory: Erythrocytes	5
Table 3B:	Laboratory: Hemoglobin	6
Table 4B:	Laboratory: Hematocrit	7
Table 5B:	Laboratory: MCVolume	8
Table 6B:	Laboratory: MCHemoglobin	9
Table 7B:	Laboratory: Platelets	10
Table 8B:	Laboratory: Neutrophils, total [%]	11
Table 9B:	Laboratory: Neutrophils, total [10E9/l]	12
Table 10B:	Laboratory: Lymphocytes [%]	13
Table 11B:	Laboratory: Lymphocytes [10E9/l]	14

Table 1A: Descriptive statistics of quantitative laboratory parameter ‘leukocytes [10E9/l]’ by treatment and time point – FAS

Lower range border, value included derived: 4.4  
Upper range border derived: 11.3

Treatment	Time point	n	Nmiss	Mean	SD	Min	Q1	Median	Q3	Max
Treatment A	Screening	12	0	5.798	0.9758	4.13	5.140	5.740	6.280	8.02
	Follow-up	12	0	5.783	0.8428	4.93	5.150	5.495	6.220	7.37
Treatment B	Screening	12	0	5.047	0.4776	4.38	4.645	5.025	5.405	5.96
	Follow-up	12	0	5.494	0.6275	4.74	5.010	5.340	5.850	6.62

Table 1B: Laboratory: Leukocytes

Measurements given in [10E9/l] – FAS  
Lower range border, value included derived: 4.4  
Upper range border derived: 11.3

Treatment	Time point	n	Nmiss	Mean	SD	Min	Q1	Median	Q3	Max
Treatment A	Screening	12	0	5.798	0.9758	4.13	5.140	5.740	6.280	8.02
	Follow-up	12	0	5.783	0.8428	4.93	5.150	5.495	6.220	7.37
Treatment B	Screening	12	0	5.047	0.4776	4.38	4.645	5.025	5.405	5.96
	Follow-up	12	0	5.494	0.6275	4.74	5.010	5.340	5.850	6.62

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## Points of view Etc., etc., blah, blah, blah

The word ‘etc.’ is a contraction of the Latin phrase *et cetera* (‘and the rest; and similar things’) and is used to indicate that a list of information is incomplete. For example, one might refer to the pets that a veterinary surgeon treats thus:

*The vet treats small domestic animals (dogs, cats, rabbits, etc.), but not horses.*

There is no need to list all of the types of animals the vet treats. One can reasonably assume that they also treat hamsters, gerbils, and guinea pigs.

The following two sentences come from the same paragraph of a shoddily written (and conceived) recent book on bioethics that I *can* put down:<sup>1</sup>

*‘The Case Western site has projects in family studies, community, enhancement, commercialization, etc.’*

*‘The University of Washington site aims at: assessing the clinical utility of genomics, looking at the uptake for and impact on underserved communities, training, etc.’*

Use of ‘etc.’ relies on the reader having a good idea of what completes the list of things it follows. In the two sentences above, this is not likely to be the case. Few readers will have any idea what other kinds of projects the Case Western site has, or what else the University of Washington site aims at. Misuse of ‘etc.’ in this way gives the impression that the writer just can’t be bothered and can leave the reader feeling ignorant and frustrated.

### Between you and me...

Cycling to work in Malmö in the south of Sweden one day in January, I spotted a number of billboards advertising a lottery offering the opportunity to win *mellan X-Y kronor* (‘between X and Y crowns’).<sup>1</sup> ‘Not in Sweden too!’, I thought.

My objection lay not with the lottery itself, but rather with the construction ‘between X–Y’ (equivalent to ‘between ... to’), which blights a fair proportion of the (English) science writing I read. The word ‘between’ gives no indication of direction; it merely indicates that something or someone lies, or is, in the space separating two physical objects or points in time. That said, if a journey is described as being ‘between place A and place B’, most readers will infer that place A is the start point and place B the destination.

‘To’ (or ‘–’ [the N-dash or N-rule]), by contrast, does have direction; it indicates a destination, or the end point or upper or lower limit of something. The words ‘between’ and ‘to’ are simply incompatible. If

Sometimes, ‘etc.’ is erroneously combined with ‘including’, as the following sentence exemplifies:

*Our patients had a number of autoimmune diseases, including type I diabetes, Sjögren’s syndrome, and Hashimoto’s thyroiditis, etc.*

Here, use of ‘etc.’ is totally unnecessary. The word ‘including’ indicates that the list of autoimmune diseases is not comprehensive, allowing us to conclude that the patients had other autoimmune diseases in addition to the ones listed. It should, however, be noted that it is not at all uncommon for authors to write ‘including’ and to then list everything. For example: ‘We studied four proteins, including TGF-β1, MMP-9, IL-6, and TNF-α.’ While this is fine in American English, it is not generally accepted in British English.

Some authors choose to use a series of dots instead of ‘etc.’ For example, ‘Our patients had a number of autoimmune diseases, including type I diabetes, Sjögren’s syndrome, Hashimoto’s thyroiditis...’ This device is sometimes used in the literature to allow the reader to imagine what happened next. In medical writing, the reader should not be *imagining* what comes next, but *reading* what comes next!

### Reference

1. McGee G. *Bioethics for Beginners. 60 Cases and Cautions from the Moral Frontier of Healthcare.* John Wiley & Sons, Chichester, UK; 2012.

you want to pair ‘between’ with anything, use ‘and’; a suitable partner for ‘to’ is ‘from’.

The examples below illustrate the point:

Between heaven *and* hell

Between 19:00 *and* 21:00

Between 5 *and* 10 ml of blood

From me *to* you

From the cradle *to* the grave

If you are describing the range for a set of values, for example, a range of volumes or the reference range for a protein, ‘to’ or ‘–’ suffices<sup>2</sup>:

Blood samples (5 to 10 ml) *or* (5–10 ml)

The reference range for serum protein XYZ is 11 to 19 mg/dl *or* 11–19 mg/dl.

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<sup>1</sup>I didn’t notice what figures X and Y were due to my total disinterest in gambling.

<sup>2</sup>Vancouver referencing specifies a hyphen for page ranges, however.