

WILEY-BLACKWELL
House Style Guide



Wiley-Blackwell House Style Guide



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INTRODUCTION

The Wiley-Blackwell Publishing House Style Guide and its online version have been produced for the use of editors, production editors, freelancers, copyeditors, authors, and typesetters. The level of consistency that this guide promotes is intended to assist all those involved in the production of WB publications. The WB definition of copyediting is best described as technical or mechanical editing, which involves language editing, mechanical style (style related to content), and format (visual style). Technical or mechanical editing includes applying house style, technical style, formatting, consistency, and correcting grammar. Creative or substantive editing is not usually within the remit of the WB copyeditor and is not commented upon. This guide is not intended to be a comprehensive account of all that is necessary for the presentation of research material, and should be used in conjunction with texts that have greater scope (see recommended references). Some journals and subject areas employ their own systems and conventions and the intention is not to impose upon them a rigid style, but rather to establish a framework within which they can operate.

The online version of this guide, available at www.blackwellpublishing.com/housestyle/, will be updated on a regular and ongoing basis and should be regarded as the definitive version. A separate guide is available for UK journals.

PART 1: GENERAL EDITING STYLE

1.1 Copyediting

Journals and articles **vary** in the amount of editing required, depending on the thoroughness of the **editor** and the standard of the **text supplied**. Copyediting usually involves:

- applying **journal style**
- applying **Wiley-Blackwell house style** where no specific journal convention exists
- **formatting** text
- making text **consistent**
- **correcting English** to ensure the article is readable

STYLE AND FORMATTING

Check your **journal style sheet** for the styles of authors' names, addresses, and affiliations, correspondence details, keywords, table and figure captions, etc., and for the formatting of text (e.g., use of small text in some sections).

CONSISTENCY

The following should all be used **consistently**: US/UK spellings, alternative spellings, grammar, punctuation, italics, Greek letters, diacritics, hyphenation, capitalization, abbreviations, and contractions. References and their citations should be consistent and complete. Make sure that all figures and tables are present and match their legends, and that they are cited in order.

CORRECTION OF ENGLISH

You may need to **correct** spelling, punctuation, grammar, and syntax, and to **edit** for sense. If text is ambiguous, add a query to the author asking for clarification. Do not rewrite or delete large sections of text.

1.2 English Usage and Grammar

VOICE

The tendency to present scientific text in the passive voice is fading. Most Wiley-Blackwell journals and readers now accept use of the active voice. Unless the journal has a strict requirement for the active or passive voice, **follow the authors' preference**, as long as this is consistent within the manuscript.

Be wary of the passive voice in the **Discussion**, as it can sometimes be unclear whether the authors are talking about their own work or that of other people. You may need to use phrases such as "in the present study, it was found that ..." to clarify this.

TENSE

Methods used and results obtained by the authors should be referred to in the past tense:

- mice were given two types of grain
- mice in group A ate 50 mg of grain

The past tense will therefore generally be employed in the Abstract, Methods, and Results sections.

The past tense should also be used to talk about **specific findings** of previous work:

- Smith (1990) found that yield decreased by 50%

Interpretation of results should be in the present tense:

- the results for groups A and B are significantly different

The present tense will therefore generally be employed in the Introduction (except, for example, when the authors are stating what their hypothesis and aims were before the study commenced).

The present tense should also be used in the Discussion when the results are being interpreted:

- Our study shows that a significant number of Finnish people speak Finnish

Findings of previous studies should also be referred to in the present tense if they have become **generally accepted** “facts”:

- treatment X results in Y, as demonstrated by Jones (1978)
- the expression of class I genes varies among haplotypes

Watch for mistakes in the use of tenses in manuscripts from non-native English-speaking authors (native English speakers tend to use the correct tense instinctively).

SUBJECT AND VERB AGREEMENT

Verbs must agree in **number** with the sense and form of the subject. Check whether a noun is plural or singular and make sure that the verb agrees.

- **Collective nouns**, e.g., school, number, family, and committee, usually take singular verbs but can take plural verbs if the emphasis is on the individual rather than on the unit itself, e.g., the committee has agreed to extend the deadline; the committee have been at odds from the beginning.
- Note the difference between **mass nouns** (which do not have countable elements) and **count nouns** (which identify things that can be counted), when used with **pronouns** (all, any, none, some), e.g., some of the sky was visible; some of the stars were visible.
- **Units** usually take singular verbs, e.g., 150 mL of blood was sampled.
- Take care with **Latin and Greek nouns** such as data, media, errata, criteria, and phenomena, which are plurals; singulars are datum, medium, erratum, criterion, and phenomenon (an exception is data processing): data are presented; dual-medium filters were used; two phenomena were classified using one criterion.

USE OF THAT AND WHICH

That is used for defining or restrictive clauses:

- The patient made a list of the symptoms that were most troublesome

A defining clause is specific (limiting) to a particular person or thing; i.e., the patient had to list only those particular symptoms that were most troublesome.

Which is used in nondefining or nonrestrictive clauses:

- The patient made a list of the symptoms, which were most troublesome

A nondefining clause is general (nonlimiting); it provides additional information, and the use of commas is often important. In this example, all the symptoms were very troublesome.

DANGLING PARTICIPLES

These frequently occur where the passive voice is used, and they can link an action to an agent that is **incapable** of performing it. The clause “the birds were observed by using binoculars” or “by using binoculars, the birds were observed.”

REDUNDANCY

Avoid using a modifying word when the intended meaning is **inherent** in a word already used. Redundancy is obvious in examples such as the results were plotted graphically, past history, bright blue in color, inactivates its activity, and completely filled. Does the term careful monitoring suggest that the alternative is careless monitoring?

DEFINITE AND INDEFINITE ARTICLES

Many non-native English-speaking authors have some confusion about when to use the definite (the) and indefinite (a and an) articles.

“... to determine effect of the salinity on grain yield of wheat”

“... to determine the effect of salinity on the grain yield of wheat”

Also be aware that use of definite and indefinite articles in titles can differ from that in ordinary text:

“Effect of Salinity on Grain Yield of Wheat”

See the recommended usage guides for guidance on the use of the indefinite article with words beginning with “h” (e.g., a hotel; an hour).

INACCURATE PHRASES

Be accurate in your **word choice**. For example, dose is the amount of drug given at one time; dosage is the regulation or determination of doses.

USE OF “ONLY”

The **position** of the word “only” can lead to ambiguity, e.g., “the doctor only sees patients in the morning” could mean “only the doctor sees patients in the morning”; “the doctor sees patients in the morning only,” or “the doctor sees only patients in the morning.”

BALANCING A SENTENCE

It is important to ensure that a sentence balances on either side of certain words (correlatives) that emphasize similarity or contrast and that are used in **parallel**: both and and; either and or; neither and nor; not only and but; between and and; whether and or. For example, “I swam both in the morning and afternoon” should be “I swam both in the morning and in the afternoon” or “I swam in both the morning and the afternoon.” Note the position of the preposition in. (See also the section “Editing for Sense.”)

COMPARATIVES AND SUPERLATIVES

- If you are comparing two things, or two groups of things, or **one thing with a group of things**, you should use a comparative, not a superlative.
 “Jim is tallest compared with David, John, and Mike.”
 “Jim is the tallest of the four men.”
 “Jim is taller than David, John, and Mike.”
- Do not use “**relatively**” with a comparative, e.g., relatively less. This is tautology; “relatively” should be deleted.
- Make sure that it is **clear** what is being compared with what (e.g., “in patient 3, there was greater reactivity for *P. gingivalis* in dental plaque from the first molar”... Is “greater” being used to compare patients, bacteria, or sites in the mouth?).

MISCELLANEOUS POINTS

“Male” and “female” are adjectives, so be careful to use them as such (i.e., a male patient and a female frog, but a 35-year-old man, a French woman, and a group of 25 men and 35 women). Many authors get this wrong.

EXPRESSIONS TO AVOID

- Since should be used only with reference to time, and not for because.
- Although is preferred to though.
- Done, as in the experiment was done, should be replaced with performed or carried out.
- Parameter should only be used to describe a defining limit, and is not interchangeable with variable.
- A lot of should be replaced with many or, preferably, should be defined more precisely.
- Avoid get and got.
- As a result of or because of are preferred to due to.
- Hopefully should be avoided.
- Try to avoid references in the text to see below or in the Results section.
- Use dependency only for foreign territories; otherwise use dependence.

USE WITH CAUTION

Be aware of potentially **litigious** content, for example the naming of patients or criticism of the actions of individuals, organizations, or companies.

POLITICALLY SENSITIVE TERMS

Race and ethnicity

Black and *white* can be used as nouns and adjectives; follow the author on capitalization. *African American* (never hyphenated) is acceptable but not necessary in reference to blacks in the United States.

Mixed race is preferable to half-caste or colored.

Disabilities

- People with disabilities not the disabled
- People with learning difficulties not mentally handicapped

Gender

Use **neutral** nouns: avoid the use of man if not specifically referring to men; for example, for man use humans; for mankind use the human race; for manpower use workforce; for manmade fiber use synthetic fiber. Use inclusive pronouns: use he or she, or rephrase the sentence (rephrasing to the plural form often works):

“Any observer of changes in publishing technology will perceive that he has need of...”

“Observers of... will perceive that they have...”

Beware of referring to people with stereotypical pronouns (e.g., “the doctor treated his patient”; “the secretary tidied her desk”). Social classes and age groups should also not be stereotyped.

Disease

Avoid health-determined categorization. Use people with diabetes not diabetics; people with cancer not cancer sufferers, etc. **Avoid** phrasing that dehumanizes a patient: many authors use case (instance of a disease) when they mean patient (person who is ill with the disease).

AIDS

- Ensure that AIDS is used for the disease and HIV for the virus, e.g., do not use AIDS carrier, AIDS positive, AIDS virus, or catching AIDS.
- AIDS sufferer/victim is inappropriate; use people with AIDS.
- People who practice high-risk activities not high-risk groups.
- The expression full-blown AIDS is unnecessary if the correct distinction has been made between HIV and AIDS.

Sexuality

Avoid the terms homosexual activities (specify which activity is being referred to) and homosexuals (specify homosexual men or lesbians).

Geography

The terms Third World, poor countries, and underdeveloped countries should be **avoided**. Developing or nondeveloped country/society is better, but it is best to specify countries or regions instead. Western society and Western World should only be used in relation to geography; otherwise, use developed world/society or, even better, specify the countries themselves or the region.

Key Points

- It is now acceptable to **use the active or the passive voice**.
- Use the **past tense** for the author’s methods and results, and the **present tense** for interpretation and generally accepted “facts.”
- The **subject and verb** must agree in number.
- “That” is defining; “which” is not.
- Check that **articles** (“a,” “an,” and “the”) are used correctly.
- Sentences must **balance** (e.g., with “both ... and ...”).
- In **comparisons** (e.g., with lower/higher/less/more), make sure it is clear what is being compared with what.
- **Avoid** sexist, dehumanizing, and stereotypical language.

1.3 Editing for Sense

You do not need knowledge of the subject matter to be able to edit for sense. Often it will be obvious what the author is trying to say, in which case you do not need to add a specific query (e.g., “with this investigation the effects of antibiotic treatment were inquired” can safely be changed to “in this investigation, the effects of antibiotic treatment were investigated”). However, if you are having to make substantial changes, add a **query** to the beginning of the article telling the authors that text has been reworded throughout and asking them to check carefully.

Be very careful **not to change the meaning**. It should always be your goal to make **only** the changes that are **necessary**. If in doubt, leave unchanged and ask the author for clarification.

AMBIGUOUS TEXT

When text is ambiguous, the intended meaning is sometimes obvious from the **context** and rewording is straightforward. If this is not the case, you must **query** the authors. It is best, if you can, to give them two (or more) choices rather than just asking what they mean.

Consumer privacy perspectives: corporate, activist, and centrist, have emerged in society.

Query: Do you mean “Consumer privacy perspectives, such as corporate, activist, and centrist, have emerged in society” or “Three different perspectives on consumer privacy have emerged in society: the corporate perspective, the activist perspective, and the centrist perspective” or something else?

Misplaced **modifiers** (words or phrases that limit or qualify the sense of text) can create ambiguity about what they are modifying.

She continued editing after the meeting finished early because she had to send the issue to the typesetter.

Because she had to send the issue to the typesetter, the meeting finished early and she continued editing.

After the meeting finished early, she continued editing because she had to send the issue to the typesetter.

NON SEQUITURS

Look out for text that **does not logically follow** what goes before (e.g., “humans and mammals...” should be changed to “mammals, including humans, ...” because humans **are** mammals).

“Forage turnip is widely grown in northern Europe, but it is distributed over much of northern Asia, northern North America, and southern Oceania.”

“Forage turnip is widely grown in northern Europe and is also distributed...”

Sometimes it is **not clear** what the author means to say.

The sensitivity of barley seedlings changed after 4 weeks of cold treatment, but decreased after 6 weeks.

Query: Do you mean “The sensitivity of barley seedlings began to decrease after 4 weeks... and decreased further after 6 weeks” or “The sensitivity of barley seedlings increased after 4 weeks... but decreased after 6 weeks”?

These results are in conformity with the results of Smith et al. (1984). This provides acid production in vitro observed over a period of time by Jones (1980) also.

Change: These results are consistent with those of Smith et al. (1984). They also provide an explanation for the acid production in vitro observed over a period of time by Jones (1980).

Query: “These results...” Rewording of two sentences OK?

BALANCING SENTENCES

Use **parallel** grammatical constructions with conjunctions (and, but, etc.) and in comparisons.

the titer in week 2 increased by 50% for patient 1, and by 60% for patient 3 in week 4

the titer increased by 50% for patient 1 in week 2, and by 60% for patient 3 in week 4

... to evaluate the relationships between clinical (e.g., stroke impairment, functional status, depression, and side of stroke lesion) and sociodemographic (e.g., age, gender, marital status, and emotional support) factors

... to evaluate the relationships between clinical (degree of stroke impairment, functional status, presence/absence of depression, and side of stroke lesion) and sociodemographic (age, gender, marital status, and extent of emotional support) factors

Detection of immunostained proteins by light microscopy is not as clear as electron microscopy

Detection of immunostained proteins by light microscopy is not as clear as that by electron microscopy

PRONOUNS

Watch out for pronouns that refer back to the wrong noun.

The article in the journal was well regarded by the academic community. This is due in part to the fact that it is very distinguished and has received many accolades.

Change “it” to “the journal.”

FEWER/LESS

Although **more** can be used for both countable (e.g., more stars) and uncountable (e.g., more rain) nouns, **fewer** must be used for **countable** nouns (e.g., fewer stars, fewer cups of tea, fewer examples) and **less** for **uncountable** nouns (e.g., less rain, less tea, less information).

Less people

Fewer people

STRONG/WEAK, HIGH/LOW, AND LARGE/SMALL

Authors sometimes make the wrong choices here.

the values of r were strong

the values of r were high

there was a low correlation

there was a weak correlation

MISCELLANEOUS PROBLEMS

- Words **missing**

The sorbitol and xylitol interaction on sugar metabolism was greater at higher pH.

Change: The effect of the sorbitol and xylitol interaction on sugar metabolism was greater at higher pH.

In this study the relationship between plant resistance to fungi and some physiological processes.

Change: In this study, the relationship... was investigated.

- Words **wrong**

Barley companion crop reduced weed content of herbage by 39-94% related in sowing rate and cutting stage.

Change: The barley companion crop reduced the weed content of herbage by 39-94 % depending on the seeding rate and cutting stage.

- **Strange** wording

All patients were examined and interviewed on a hospital basis.

Change (and query): All patients were examined and interviewed in the hospital.

- Wrong **subject** and **verb**

Key Points

- **If text does not make sense** or is likely to cause the reader problems, **change it** and, if necessary, add a **query** to the author.
- Look out for **ambiguous** text and **non sequiturs**.
- Make sure **parallel** grammatical constructions are used with conjunctions and in comparisons.
- **Pronouns** must refer back to the correct noun.
- **Fewer/less, strong/high/low, and weak/low/small** are often used incorrectly.
- Check that **subject/verb and noun/adjective** pairs make sense (e.g., in “the highest patient for recovery score,” the adjective has been attached to the wrong noun).

1.4 Spelling

Spelling should be consistent within an article. When two or more spellings of a word are given in a **dictionary**, the first listed is generally the one preferred.

US/UK ENGLISH

In the following examples, the US spellings are shown to the left and the UK spellings to the right.

e- ↔ ae-

etiology ↔ aetiology
cesium ↔ caesium
hemoglobin ↔ haemoglobin
leukemia ↔ leukaemia
paleoenvironment ↔ palaeoenvironment

-ic ↔ -ical

anatomic ↔ anatomical
biologic ↔ biological
geographic ↔ geographical
immunologic ↔ immunological

e- ↔ oe-

diarrhea ↔ diarrhoea
esophagus ↔ oesophagus
estrogen ↔ oestrogen
edema ↔ oedema
maneuver ↔ manoeuvre
dyspnea ↔ dyspnoea

-er ↔ -re

center ↔ centre
fiber ↔ fibre
liter ↔ litre
meter ↔ metre
titer ↔ titre

-led ↔ -lled, -ling ↔ -lling

labeling ↔ labelling
modeled ↔ modelled

-yze ↔ -yse

analyze ↔ analyse
catalyze ↔ catalyse
dialyze ↔ dialyse

-or ↔ -our

behavior ↔ behaviour
color ↔ colour
neighbor ↔ neighbour
tumor ↔ tumour

Other Examples

epinephrine ↔ adrenaline (Adrenalin = US trade name)
aging ↔ ageing
alternate ↔ alternative
aluminum ↔ aluminium
among ↔ amongst
cyclosporine ↔ cyclosporin
dispatch ↔ despatch
disk ↔ disc
arrhythmias ↔ dysrhythmias

license ↔ licence
mold ↔ mould
neuron ↔ neurone
norepinephrine ↔ noradrenaline
orient ↔ orientate
practice ↔ practise
program ↔ programme
quantitate ↔ quantify
skillful ↔ skilful

S VERSUS Z SPELLING

S spellings	expertise
advise	franchise
arise	improvise
chastise	incise
circumcise	revise
concise	supervise
despise	surmise
devise	surprise
excise	televisé
exercise	treatise

Z spellings	hypothesize
agonize	metabolize
civilize	minimize
colonize	pasteurize
criticize	realize
emphasize	recognize
equalize	stabilize
familiarize	standardize
finalize	summarize
generalize	temporize
globalize	vaporize

FOREIGN LANGUAGES

Accents and diacritical marks

These are marks attached to **letters** of the alphabet that show (i) how the pronunciation differs from that of the unmarked letter, (ii) where the stress falls in a polysyllabic word, or (iii) what tone or pitch goes with a particular word.

- **German** Use ß (eszett) for ss, but only in lowercase (and note that not all ss are ß); in caps (and small caps), SS is always used. Use umlauts over ä, ö, and ü rather than using the respective diphthongs ae, oe, and ue. Remember that, in German, all nouns have initial caps (e.g., ein Haus, das Sein) and they should retain these when italicized.
- **French** Uppercase letters carry accents, e.g., RÉSUMÉ. The exception is the preposition à, e.g., À la porte.
- **Scandinavian** characters should be alphabetized as follows:
 ...Z, Æ, Ø, Å (Danish, Norwegian)
 ...Z, Þ, Æ, Ö (Icelandic)
 ...Z, Å, Ä, Ö (Finnish, Swedish)

Foreign names

Take care with the **capitalization of particles** in foreign names (e.g., Philippe Du Puy de Clinchamps, Vasco da Gama, Vincent van Gogh). These appear in lowercase except at the start of a sentence or when the name is anglicized. Generally, just use **what the author provides**. In reference lists, lowercase particles are listed under the letter of the name proper but uppercase particles under the letter of the particle (e.g., da Silva under “S” but Von Trapp under “V”). **Do not abbreviate** “Saint” and “Sainte” in French surnames. Some **Japanese** and **Chinese** names are presented with the surname first, so be careful when filing these in a reference list. **Spanish** and **Portuguese** names are sometimes composed of two family names (mother’s and father’s) and should be listed under the penultimate element (e.g., Federico Gutierrez Granier should be listed under Gutierrez). Hyphenated Asian names do not take a full point after the first initial (e.g., Jen-Yi Hwang is J.-Y. Hwang not J.-Y. Hwang; cf. Jean-Marc Lafayette, which is J.-M. Lafayette)

RECOMMENDED SPELLING GUIDES

- US spelling: Merriam-Webster's Collegiate Dictionary
- See The Chicago Manual of Style for information on capitalization, punctuation, and word division in foreign languages.

1.5 Punctuation

Punctuation should be used to **help the reader** understand the text.

COMMAS

Context	Examples
Not essential where a conjunction is used between two clauses unless there is a change of subject	We tried to resuscitate the patient but to no avail. Resuscitation is possible, but brain damage is likely
Used to isolate a word, phrase, or subordinate clause	Resuscitation, although dangerous, is possible. On revival, the patient was monitored regularly. ... days 3, 4, and 10, respectively. Therefore, the experiment was...
Used to isolate nondefining clauses	The novel, which was historical fiction, was given an award. The commas help to isolate the nondefining clause (see difference between “that” and “which” above).
Not used to separate sentences	The cells produced more lactate, however they did not produce acetate. The cells produced more lactate; however, they did not produce acetate.
Used in lists	The solution contained 200 mg of glucose, 100 g of ascorbic acid, and 500 mL of distilled water. US English: authors prefer to place a comma before “and.” UK English: a comma before “and” (known as the Oxford comma or serial comma) is unnecessary in the above example, but it may be used in lengthy lists or to avoid ambiguity.
“Therefore” should not be enclosed within commas when used as an adverb	These samples were therefore discounted.
Used to clarify a sentence	The precipitate formed after shaking on the bottom. makes more sense with the addition of commas, thus: The precipitate formed, after shaking, on the bottom.

APOSTROPHES AND PRIMES

Apostrophes should be used to identify **possessive nouns**, e.g., the body's defense system, the girls' hats. Such words ending in "s" should still be followed with an apostrophe "s," e.g., Claudius's reign. An apostrophe should **not** be used where an acronym, abbreviation, date, or number is pluralized: ANOVAs, 1980s, etc. Where apostrophes are used to indicate **missing letters** in informal English (e.g., I'm, we're, he's; it's not clear; there're many patients; it's been found), it is usually preferable to write the words out in full (e.g., it is not clear; there are many patients; it has been found).

Look out for **its** (possessive; e.g., its tail) and **it's** (contraction of pronoun and verb; "it is" or "it has"; e.g., it's true).

St. Thomas' Hospital
Queens' College, Cambridge
St. John's University, New York

Primes (') are used to denote **derivatives** of mathematical variables (e.g., a and a') and for **minutes of angle** (e.g., 12°14'N). They should **not** be used instead of the standard abbreviation "min" for minutes of time.

HYPHENS

Journals will often have a specific hyphenation style, for which you should refer to your **journal style sheet**. Also check the relevant **dictionary** if necessary. Make a **decision** about hyphenation and apply it throughout the typescript, taking into account the author's style, the likely readership, and the meaning of individual words and phrases. Minimal hyphenation is generally preferred.

Prefixes

DO hyphenate... prefixes that stand as words in their own right (e.g., cross, half, all); these are usually hyphenated when used as adjectives (e.g., cross-section, half-life, all-inclusive). There are, however, more than a few exceptions (e.g., outpatient, crosshatched, overexposed). Hyphens are also needed when a prefix is attached to a word or phrase starting with a capital letter (e.g., anti-HLA, non-Euclidean, subalpine).

DO NOT hyphenate... prefixes that cannot stand as words in their own right (e.g., anti, bi, co, hyper, hypo, infra, inter, intra, micro, multi, paleo, peri, pre, pseudo, re, sub, supra, ultra, uni); these are usually closed up when used as adjectives, unless two vowels or the same consonants abut (e.g., hyper-reactive, pre-operative, anti-inflammatory, co-opted, re-election). Note, however, that this rule may need to be broken (e.g., ultra-high-vacuum environment, pseudo-first-order distribution, re-create). If in doubt, follow the dictionary.

Compound terms

DO hyphenate... many compound terms and adjectives (e.g., iron-rich sediments; salt-leached water; 19-year-old boy **but** boy aged 19 years; T-cell receptor **but** T cell), particularly where the meaning would otherwise be ambiguous. In more complex examples, the second hyphen normally has priority over the first (e.g., "T cell-receptor expression" would often be preferred to "T-cell-receptor expression"; **but** "10-cm-diameter pots," not "10 cm-diameter pots"). The second part of a compound term used in a book case heading should not be capitalized (e.g., Subject-specific Conventions).

DO NOT hyphenate... compound adjectives consisting of a past participle preceded by an adverb ending in “-ly” (e.g., dermatologically tested soap). It is not necessary to use hyphens for well-established compound terms whose meaning is clear (e.g., amino acid residues, freezing point determination). Avoid floating hyphens (e.g., phosphorus- or sulphur-containing compounds). Try to reword the sentence to eliminate the need for the floating hyphen, but be careful not to change the sense (e.g., if the hyphen is removed after “phosphorus” in the sentence above, the sense changes).

Chemical names

Hyphens are often used in chemical names (e.g., 2-mercaptoethanol, a1-antitrypsin).

Miscellaneous

- Avoid bad word breaks at the ends of lines (e.g., pseud-obedding; the-rapist)
- 10-fold but twofold
- Two-thirds, thirty-seven
- Northwest
- Inpatient and outpatient (not hyphenated)

EN/EM DASHES

Authors often confuse en/em dashes and hyphens.

For	You should use	Example
A number or value range	En dash	5–10 (but “from 5 to 10,” not “from 5–10”)
Chemical mixtures/bonds that have retained their individual properties and have not become a new compound	En dash	DEAE–cellulose
Long chemical names, by convention	Hyphen	2-isopropyl-(3,4)-dihydro(carbodiimide)purine
Two names associated with a process, invention, syndrome, or company	En dash	Epstein–Barr virus Hardy–Weinberg equilibrium
A compound expression in which the first part of the compound does not modify the second part	En dash	dermal–epidermal junction dose–response curve case–control study
A compound expression in which the first part is a prefix	Hyphen	Dermo-epidermal junction

continued

For	You should use	Example
Complex associations	Hyphen and en dash or hyphen and shill	oak-forest–hazel-scrub interaction or oak-forest/hazel-scrub interaction
Compound expressions that already contain hyphens	‘To’ not en dash	5- to 10-day interval not 5–10-day interval
Missing data in a table	En dash or em dash	e.g. for ‘not tested’
Missing words or letters	Em dash	It may be journal style in reference lists to indicate the same author(s) as the previous entry by em dashes. Smith, B., and P.G. Pardey. The economics... ———. Funding, structure and management...

SEMICOLONS

- The semicolon is stronger than a comma but not as decisive as a full point. It **can** be used to **separate sentences** (whereas a comma cannot).
- Use a semicolon before, and a comma after, the **conjunctive adverbs** however, that is, nevertheless, etc.

COLONS

Colons are used to introduce material that restates, explains, enlarges upon, or summarizes previous material. They also introduce items in a list set off from text (but a colon is not needed in run-on lists introduced by the words for example, namely, including, etc.; e.g., in the sentence “The dessert looks nice with fruit on it, for example: strawberries, raspberries, and blueberries” the colon should not be there).

- **In US spelling**, if the material introduced by a colon consists of more than one sentence, or if it is a formal statement, quotation, or speech in dialogue it should take a capital after the colon. In **UK spelling**, a capital letter is not used after a colon (except in titles and subtitles).
- **Ratios** containing words should have a thin space on each side of the colon (e.g., the light : dark cycle) but ratios containing numbers should be closed up (e.g., 16:8 h).

Key points

- Use **commas** to clarify sentences.
- **Do not use a comma to separate sentences**; use a semicolon (this is a particularly common error before “however” and “nevertheless”).
- **Do not use apostrophes with plural abbreviations** (e.g., ANOVAs, not ANOVA’s).
- For **hyphenation**, refer to your journal style sheet.
- **Do not hyphenate** adverbs ending in **-ly** (e.g., dermatologically tested soap).
- Use **hyphens in compound terms** to clarify meaning (e.g., much-needed clothing).
- Use **en dashes**, not hyphens, for **associations** (e.g., dose–response curve).

1.6 Units

Check your **journal style sheet** for the use of units (e.g., some journals use a negative index and some use a slash to indicate *per*).

DO USE

- **Abbreviations** for seconds (s), milliseconds (ms), minutes (min), hours (h), million years (Myr), million years ago (Ma), and billion years ago (Ga). (Exceptions in running text are e.g., 5 minutes' walk and five-minute start.)
- A **hyphen** with units as adjectives (e.g., 30-cm ruler, 2-min test, 5-kb fragment), unless this is not journal style.
- Either a slash (/) or a negative index (⁻¹, ⁻³, etc.) for **per** (e.g., 5 m/s or 5 m s⁻¹).
- Figures for **quantities** that are measured in units, but words for **numbers of objects** less than 10 (e.g., 5 years but five dogs; also *fifth* but *15th*). However, it may be better to break this rule if an inventory of objects is presented (e.g., 13 cats, 8 dogs, and 24 mice).
- En rules for **ranges** of values (e.g., 15.4–27.6 g), except for values used with linked prepositions (e.g., *between ... and*).
- Système International (**SI**) units, unless instructed otherwise.
- Closed-up figures for numbers in the **single-digit thousands** (1000–9999), and commas in US English for numbers of five figures and over (UK English uses thin spaces not commas) (e.g., 12 624, 200 000 000). However, it is usually preferable to express **large numbers** using factors of 10 (e.g., 3.75 × 10⁷ cells/L).
- A unit term as a **singular** entity when considering subject–verb agreement (e.g., 5 g was...).
- Numbers and their units in full at the **start of a sentence** (e.g., *Fifty-eight kilograms of grain...*).
- **Thin spaces** between numbers and units, and between units (e.g., 10 min, 6.5 W, 20 °C, 47.6 m/s, 5 mg mL⁻¹, but 4% and sometimes 20°C).

DO NOT USE

- **Abbreviations** for days, weeks, months, and years.
- **Acre**; use hectare (1 acre = 0.4047 ha).
- **Ångström**; use nanometers (1 Å = 0.1 nm).
- **Calorie**; use joules (1 cal = 4.186 J).
- × before **gravitational force** (e.g., 15,000 g not 15,000 × g). Also, do not use r.p.m. as the unit for gravitational force, except for ultracentrifugation, where r.p.m. is usually given together with the centrifuge model and manufacturer and the rotor code (e.g., SS34).
- En rules with **linked prepositions** (*from* and *to*; or *between* and *and*) (e.g., *between 10 and 15 days, not between 10–15 days*).
- m for **micron**; use μm.
- N or N (small caps) for **normal concentration**: ask authors to provide the molar concentration.
- p.p.b. for **parts per billion**; use ng/g.
- p.p.m. for **parts per million**; use mg/g.
- **Percent**. Use either % or percent.

- A unit term as a **plural** (e.g., *10 mL was... not 10 mL were...*).
- **Repeated** units (e.g., *between 10 days and 15 days should be written between 10 and 15 days*).
- **Superfluous** material in units. For example, in the expression “organic carbon at a concentration of 56 mg C/L” the symbol for carbon is superfluous in the unit; “organic carbon at a concentration of 56 mg/L” is sufficient.
- Lots of **zeros** in numbers. Add unit prefixes so that values are ≥ 1 and < 1000 (e.g., 0.081 g/L should be changed to 81 mg/L, and 1.67×10^{-7} m to 167 nm). However, always inform the author/editor of such changes and seek their approval.
- Expressions such as **20 mg/100 mL**; use 200 mg/L.

MISCELLANEOUS UNITS

CFU	colony-forming units
Da	daltons (do not use d)
IU	international units
L	liter; this is now preferred to l (lower-case L)

mL = milliliter = cm³ (do not use cc)

mmHg millimeters of mercury **only** in medical work; otherwise, use pascals (1 mmHg = 133 Pa)

Unit prefixes

m	milli (10^{-3})	k	kilo (10^3)
μ	micro (10^{-6})	M	mega (10^6)
n	nano (10^{-9})	G	giga (10^9)
p	pico (10^{-12})		

MOLE AND MOLAR

It is recommended that you use **mol** for mole and **mol/L** or **mol L⁻¹** for molar. However, some styles use M for mole and M (small caps) for molar

Key points

- There should be a **thin space** between numbers and units (e.g., 10 days), or a **hyphen** in compound adjectives (e.g., *10-day cycle*).
- For **per**, use a slash or a negative index, depending on journal style.
- For **quantities**, use figures (e.g., *5 mL*); for **numbers of objects** less than 10, use words (e.g., *five patients*).
- A unit term is **singular** (e.g., *10 mL was added...*).
- **Do not** use **en dashes** with linked **prepositions** (e.g., *between 10 and 15 days, not between 10–15 days*).
- **Do not repeat units** unnecessarily (e.g., not *10 days and 15 days*).
- L for **liter** is now preferred to l.
- Use Da for **daltons**, not d.

1.7 Italics

To find out whether a word should be italicized, check the latest edition of the recommended *dictionary*. You should also refer to your **journal style sheet** for journal-specific usage (e.g., for *et al.* and variables such as *P*).

DO italicize	DO NOT italicize
Foreign language phrases that are not common usage (e.g., <i>ad libitum</i> , <i>en bloc</i> , <i>sensu lato</i>). These are better presented in italics than single quotation marks.	Foreign language phrases that are common in usage (i.e., alias, per annum, vice versa). The fact that a word has made it into an English dictionary is a good indication that it is familiar (or at least can be looked up), so it can be set in roman.
Book and journal titles Names of parties in legal cases	Names of people (except in legal cases), places, or institutions
Genus and species names (e.g., <i>Homo sapiens</i>)	Family, order, and class names (e.g., Hominidae, Primates, Mammalia) Modifiers to species names (e.g., cv., var., ex., ssp.), and authorities (e.g., L.)
Abbreviations for genes (e.g., <i>ced-3</i> for <i>C. elegans</i> cell-death gene)	Abbreviations for gene products (enzymes/protein) (e.g., CED-3)
Symbols and abbreviations that represent variables (e.g., <i>x</i> -axis, <i>n</i>)	Symbols, abbreviations, and whole words that represent constants (e.g., e, π), functions (e.g., f, exp, log), or modifiers (e.g., n_a , n_{air})
<i>Parentheses (like these) within italic text</i>	Parentheses (<i>like these</i>) around italic text
	Italic words used in italic headings (e.g., <i>Preparations of P. gingivalis</i>)

EXAMPLES

a posteriori

a priori

ad libitum

bona fide

debris

en bloc

in situ

in toto

in vitro; *in vivo*

inter alia

laissez-faire

levee

mise-en-oeuvre

motif

née

par excellence

per annum; per capita

post-mortem

raison d'être

role (**not** rôle)

sensu late; *sensu stricto*

tour de force

via

vice versa

1.8 Quotations

Every quotation should be accompanied by a reference to its source (e.g., Author 2003).

Short quotations (< 30 words) “should run on within the normal sentence structure” (Author 2003). Use quotation marks to distinguish the quote, and, if appropriate, precede by a comma (for shorter quotations) or a colon (for longer quotations).

Long quotations (>30 words) should be displayed.

Displayed quotations do not require quotation marks. They should be set smaller than normal text type and indented by the normal paragraph indent, with no extra space above or below.

(Author 2003)

The spelling, grammar, etc. of direct quotations is **not edited**. Check that direct quotations have not been changed by any macros that have been run on the paper. Use “[*sic*]” (always in square brackets and italic) to signify a direct quote of an error.

Direct speech is the exact quotation of another person’s words. **Punctuation** should be placed **inside** the quote marks when it belongs to the quotation or before mention of the speaker.

- “This is an important finding,” the Director-General said.
- He asked, “Why did you do it?”

Punctuation should be placed outside the quote marks when it does not belong to the quotation.

- WHO declared TB “a global emergency”.

SINGLE OR DOUBLE?

It is **US style** to use “double” quotation marks, with closing punctuation (except colons and semicolons) inside marks, and ‘single’ marks for quotes within quotes.

It is **UK and Australian style** to use ‘single’ quotation marks, with closing punctuation outside marks (unless it belongs to the quoted material), and “double” marks for quotes within quotes.

Use a thin space between single and double quotation marks if they occur next to each other.

1.9 Lists

An itemized list that is part of the text should continue the **punctuation** of the sentence that precedes it, so:

- if preceded by a **colon** the list should begin with a **lowercase** letter;
- there should be a **full point** at the end of the sentence.

For long, **complicated** lists with internal sentences, each item of the list should start with an initial capital, in which case the sentence preceding the list should be rewritten to **end in a full point**.

1. Check your journal style sheet for the **style** of numbered lists. Often, a bold number followed by a tab is used. Lists within lists should be indented, and have a different style of numbering from the main list (e.g., Roman numerals).
2. Some styles have **extra space** above and below lists, but some do not.
3. Lists of definitions of **abbreviations** should be displayed or, if set in continuous text, should have individual entries separated by commas and semicolons, not equals signs (e.g., Y, young; M, middle-aged; O, old; VO, very old).

1.10 Footnotes

- See your journal style sheet for the **formatting** of footnotes. On the title page, there may be a mixture of footnotes using numbers and symbols (e.g., for author affiliations or “correspondence” details), depending on the journal style.
- Check for **consistency** of footnote links in text/tables with the footnotes themselves.
- Footnote links should be placed **after punctuation**.
- The preferred **order** of footnote symbols (which should not be superscripted) is *, †, ‡, §, ¶ (these are doubled up if more footnotes are required, e.g., **, ††).
- When **superscript** numbers or letters are used, beware of potential confusion with other superscripts (e.g., ² for “squared”).

IN TEXT

Footnotes in the text are not encouraged for journals that are full text online. Sometimes it may be possible to eliminate a footnote by moving the text it contains to the main body of the article, especially if the footnote is short and just adds extra details.

✗ We randomly selected 24 individuals from each of six groups.¹

✓ [Footnote: 1. Groups 3, 5, 11, 28, 30, and 34.]

We randomly selected 24 individuals from each of six groups (groups 3, 5, 11, 28, 30, and 34).

- **Numbers** in the text indicating footnotes should be superscripts (do not use parentheses, punctuation, or slash marks). Numbers for the notes themselves should be on the line and followed by a full point.
- When a footnote is **continued** on the next page, there should be a hairline rule above it. Avoid beginning a continued footnote with a full sentence, as this will make it look like a separate footnote.
- If the first mention of an **abbreviation** occurs in a footnote, it should be defined there.

UNDER TABLES

Footnote links. Notes about the table as a whole can be left unlinked (i.e., no linking letters/numbers/symbols) or linked to, for example, a relevant column heading. Notes about specific parts of the table should be linked using superscript lowercase letters (preferred), superscript numbers or symbols (see Table 1 for examples). If lowercase letters could be confused with the table data, use symbols or numbers instead. Avoid the use of superscript numbers in parentheses.

If an **abbreviation** is mentioned for the first time in a table (e.g., “CE” in Table 1), it must be defined in a footnote to that table.

Asterisk footnotes are reserved for probability values in tables and usually signify the following values: *, $P \leq 0.05$; **, $P \leq 0.01$; ***, $P \leq 0.001$. The asterisk is often used in mathematics and should therefore be avoided as a footnote symbol.

Order

Footnote **links** within the table itself should be ordered, according to first mention, across columns by row (see ^a, ^b, ^c in Table 1).

The **actual footnotes** should appear in the following order:

- source notes
- other general notes
- notes on specific parts of the table
- (following the order in the table itself)
- notes on level of probability

Table 1. Ratios for wheat in 1989

Group ^a	First ratio	Second ratio
1	1.31	4.56
2	6.57*	33.87***
3	15.89**	17.55
4	ND ^b	2.35
5	10.66**	2.13
6	67.43***	23.56*
7 ^c	1.29	ND ^b
CE	3.45	6.57*

Data were obtained from Smith (1990).
All yields were measured in April–June 1989.
CE, controlled-environment plots; ND, not done.
^aEach group consisted of three separate plots.
^bPest infestation prevented data collection.
^cThe plots in Group 7 were not irrigated in April.
* $P \leq 0.05$, ** $P \leq 0.01$ and *** $P \leq 0.001$,
according to a *t*-test.

1.11 Abbreviations

Keep the number of abbreviations in an article (particularly in the Abstract) to a **minimum**. If a term is not used often, do not use its abbreviation: it will not help readers if they have to search back through the article for its definition.

Use of abbreviations such as etc., i.e., and e.g., is best **avoided** in running text and is more suitable for use with parentheses.

Abbreviations are shortened forms of words or phrases.

Acronyms are abbreviations form from the initial letter(s) of individual words in phrases. True acronyms serve as pronounceable words (e.g., QUANTAS, ANZEC, NOW); others are technically called “initialism” (e.g., ECG, LDL).

Contractions are abbreviations that include the first and last letters of a word (e.g., Ltd.).

DEFINING ABBREVIATIONS

Some abbreviations are so **common** that they do not need defining (e.g., DNA, PCR, d.f.). Whether to spell out or not will depend on the subject matter of your journal.

Define all other abbreviations (term in full followed by abbreviation in parentheses) on **first mention** in the Abstract, text, figure legends and table legends, or footnotes; thereafter, use the abbreviation only, except at the beginnings of paragraphs (it is acceptable to use abbreviations at the beginnings of sentences). If abbreviations are defined in an Abstract, they must be **redefined** at first mention in the main body of the text. Do not define or use abbreviations in titles or headings.

When defining a series of abbreviations in legends, use commas and semicolons (e.g., Y, young; M, middle-aged; O, old). Never use equals signs in definitions.

PUNCTUATION

Full points

- Abbreviations that are **all caps** generally do not take periods (e.g., USA, NSW), but abbreviations that are all **lowercase** or end with a lowercase letter do (e.g., i.v., b.i.d., Co., Ed.).
- When referring to authors by their **initials**, use periods and thin spaces [e.g., “One of the authors (D. M. D.)...”].
- Periods are used at the end of **contractions** (e.g., St., Mr., Dr., Natl., Figs.) in US English, but they are not used in UK English.
- When an abbreviation that takes a period comes at the **end of a sentence**, another period is not necessary.

Apostrophes

An apostrophe should **not** be used when an abbreviation is pluralized, but it can be used to indicate possession.

FORMATTING

Roman type is generally used for scholarly **Latin** abbreviations (see below for some common examples). The notable exception is *et al.*, which is usually italicized.

There is no need to use capital letters in the **full term** (unless it is a proper name), even though the abbreviation might be in capital letters.

NAMES

Abbreviations should not be used for **given names** (e.g., William **not** Wm). When a person is referred to by initials only (e.g., JFK), do not use periods. **Titles** should be spelled out before last names (e.g., General Washington) but abbreviated before full names (e.g., Sen. Robert A. Taft). “Reverend” and “Honorable” are only spelled out when preceded by “the.” “Jr.” and “Sr.” are set off by commas after the name.

Agencies and organizations can be abbreviated in running text, in all caps with no periods (e.g., NAACP). They should be defined at first mention as usual.

SOME COMMON EXAMPLES

For more examples, see *The Chicago Manual of Style*, *the Concise Oxford Dictionary*, *Merriam-Webster's Collegiate Dictionary*, and subject-specific lists in this guide.

Ms. (not Mrs. or Miss)	ISSN 1023-4567 (International Standard Serial No.) ISBN 0 123 45678 9 hardback (International Standard Book No.) CIP (Cataloging in Publication)
Bro., Bros., Co., Corp., Inc., PLC, Ltd (no need to spell out)	r.p.m. avoid ; ask for g value 2D (two-dimensional)
ed. (editor) eds. (editors) edn. (edition) p. (page) pp. (pages) Suppl. (supplement) Vol. (volume)	etc. e.g. and i.e. (use mainly in parentheses; comma before and after) vs. (use between numerals only; spell out in text) ca. (circa; use before dates instead of ~) cf. (compare with [<i>confer imperative</i>]; use only in parentheses) viz. (namely; with comma before not after)
PO Box Tel.: (617) 555-1000 Fax.: (617) 555-2000	Eq. (equation; e.g., Eq. 2) no. ("number" or "number of")

Key points

- **Define** all abbreviations (except very common ones such as DNA) at first mention in the Abstract and again in the main text.
- **Punctuate lowercase** (e.g., b.i.d.) but not uppercase (e.g., USA) abbreviations.
- Do not use capitals in the **full term** (e.g., LSD stands for least significant difference; not Least Significant Difference).

1.12 Time

DATES

- In **US English**, the form August 24, 1964 (8/24/64) is used. In **UK English**, dates are given in the form 24 August 1964 (24/8/64).
- Do **not** use **ordinal** numbers in dates (e.g., 1st, 11th, 22nd or 23rd). For **year ranges**, use an en dash and do not elide (e.g., 1995–1999 not 1995–99). Decades should be written as e.g., 1960s not 1960's or '60's.
- For **centuries**, use the form 18th century.

AD	ANNO DOMINI (e.g., AD 1945)
BC	BEFORE CHRIST (e.g., 3000 BC)
BP	BEFORE PRESENT (e.g., 10,000 BP, NOT 10,000 YEARS BP)

TIMES OF DAY

If AM and PM are used (US English), they should be small caps. In UK English, the 24-hour clock is preferred (e.g., 1600 h, 16.00 hours, or 16:00 h, depending on journal style).

Major time zones

UT	Universal Time
USA	
cdt	Central Daylight Saving Time
cst	Central Standard Time
edt	Eastern Daylight Saving Time
est	Eastern Standard Time
mdt	Mountain Daylight Saving Time
mst	Mountain Standard Time
pdt	Pacific Daylight Saving Time
pst	Pacific Standard Time
UK	
BST	British Summer Time
GMT	Greenwich Mean Time

UNITS OF TIME

Ma	million years ago
Myr	million years
Ga	billion years ago (10^9 years)
year	year (not a or yr)
day	day (not d)

1.13 Special Characters

Special characters are characters that are **not** found on a **conventional keyboard**. These include mathematical symbols, and symbols used in linguistics and foreign languages (Greek, Latin, Arabic, Russian, Asian languages, etc.). For more information on special characters used in linguistics and mathematics, please see the relevant sections in this guide.

BEWARE AMBIGUOUS CHARACTERS!

Care must be taken to distinguish between **upper and lowercase letters** (particularly if subscripts and superscripts are used), between **Greek and other** characters and between **roman and italic** characters.

Examples

α (alpha)	versus	∞ (proportional to)
d (differential)	versus	d (variable)
δ (delta)	versus	∂ (partial differential)
e (exponential)	versus	e (variable)
i (letter)	versus	ι (iota)
k (letter)	versus	κ (kappa)
l (ell)	versus	1 (one) versus I (capital i letter)
O (letter)	versus	0 (zero)
p (letter)	versus	ρ (rho)
μ (mu)	versus	υ (upsilon) versus ν (nu) versus ν (letter ν italic)
x (letter)	versus	\times (multiplication sign) versus χ (chi)
' (apostrophe)	versus	' (prime)

1.14 Computing Terms

- Computer and word-processing **languages** should be given as their trade names (e.g., WordPerfect). Those that are acronyms should be given in caps (e.g., BASIC, PASCAL).
- Computer **programs** should be given in small caps (e.g., SPSS for “Statistical Package for the Social Sciences”).

Some common terms		
database	hard copy	program, programming, programmer
debug	Internet (capital I; not Net)	World Wide Web or the Web (caps)
disk	log on (verb)	website
email (no hyphen)	online (no hyphen), offline	

1.15 Currency

- **Symbols** (and **abbreviations** for non-US/UK currencies) for units of currency generally precede the figure (e.g., £58.00, \$4580, 120, EUR 350). The exceptions are those written in full (e.g., 12 rupees). Use \$ for \$US unless other dollar types are mentioned (e.g., \$A, \$HK).
- In book reviews, etc., **prices** should be given with values for the two decimal units after a decimal point (e.g., \$A38.00 not \$A38).
- For “**million**” use “m” (e.g., £75m); for “**billion**” use “bn” (e.g., £75bn). Note that “billion” means “a thousand million” in US English, but “a million million” in UK English.
- Use whole figures and decimals **consistently** (e.g., \$4.25 and \$7.00, not \$4.25 and \$7).
- The following EU countries are now using the **euro** (former currency in parentheses): Austria (schilling), Belgium (franc), Finland (markkaa), France (franc), Germany (mark), Greece (drachma), Ireland (punt), Italy (lira), Luxembourg (franc), the Netherlands (guilder), Portugal (escudo), and Spain (peseta).

ct cent (cts cents); \$ dollar

fl. florin

kr. krone

p pence; £ pound

¥ yen

€, EUR euro

1.16 Qualifications

Qualifications after a person's name should be listed in the following **order**.

1. **Academic** qualifications, in ascending order (e.g., BA MA PhD)
2. **Professional** qualifications (e.g., RN RM)
3. **Honorary/fellowship** qualifications (e.g., FAAN OBE)

Note that some qualifications automatically **supersede** others (e.g., to be a fellow of a college you must already be a member, so there is no point in putting MRCP if someone is also FRCP).

SCIENTIFIC/ENGINEERING/ARTS

BA or MA	Bachelor of Arts or Master of Arts; Bachelor of Science (Oxford/Cambridge)
BEng	Bachelor of Engineering
BS	Bachelor of Science (BSc, in the UK)
DPhil	Doctor of Philosophy
MPhil	Master of Philosophy
MS	Master of Science (MSc, in the UK)
PhD	Doctor of Philosophy

MEDICAL

BMedSci	Bachelor of Medical Science
FFARCS	Fellow of the Faculty of Anaesthetists of the Royal College of Surgeons
FFCM	Fellow of the Faculty of Community Medicine
FFOM	Fellow of the Faculty of Occupational Medicine
FRCGP	Fellow of the Royal College of General Practitioners
FRCOG	Fellow of the Royal College of Obstetricians and Gynaecologists
FRCP	Fellow of the Royal College of Physicians
FRCPath	Fellow of the Royal College of Pathologists
FRCPsych	Fellow of the Royal College of Psychiatrists
FRCS	Fellow of the Royal College of Surgeons
MB BChir	Bachelor of Medicine and Surgery
MB BS	Bachelor of Medicine and Surgery
MB ChB	Bachelor of Medicine and Surgery
MD	Doctor of Medicine

DENTAL

BChD	Bachelor of Dental Surgery
BDS	Bachelor of Dental Surgery
DDS	Doctor of Dental Surgery
DMD	Doctor of Dental Medicine
MDS	Master of Dental Surgery

VETERINARY

BSc(Vet)	Bachelor of Veterinary Medicine and Surgery
BVMS	Bachelor of Veterinary Medicine and Surgery
BVM&S	Bachelor of Veterinary Medicine and Surgery
BVSc	Bachelor of Veterinary Science
DVM	Doctor of Veterinary Medicine
MRCVS	Member of the Royal College of Veterinary Surgeons

TITLES

- Use **Dr.** for physicians (i.e., medics who are not surgeons) and for scientists or others (e.g., dentists) with a doctoral degree (PhD, DPhil, or DSc).
- Use **Mr./Mrs./Miss/Ms.** for dentists without a doctoral degree and for surgeons.
- Use **Professor** for professors who are still working or who have retired but been made Professor Emeritus (otherwise they lose the title “Professor” on retirement).
- Check the *Medical Directory*, *Who’s Who*, etc. for **honors** such as OBE, CBE, and DBE.

1.17 Organizations

Abbreviation	Organization
ANA	American Nurses Association
CERN	Conseil Européen de la Recherche Nucléaire
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CSIRO	Commonwealth Scientific and Industrial Research Organization
DEFRA	Department for Environment, Food and Rural Affairs (<i>London</i>) (formerly MAFF)
DoE	Department of the Environment (<i>London</i>)
DoH	Department of Health (<i>London</i>) (formerly DHSS)
DWP	Department for Work and Pensions (<i>London</i>) [DWP was formed from the Department of Social Security (DSS) and the Department of Education and Employment]
EU	European Union (no longer EC)
HMSO	Her Majesty's Stationery Office (<i>London</i>)
ICN	International Council of Nurses
IUPAC	International Union of Pure and Applied Chemistry (<i>Oxford</i>)
NHS	National Health Service (<i>UK</i>)
NIH	National Institutes of Health (<i>US</i>)
PAHO	Pan American Health Organization
UN	United Nations [not UNO] (<i>New York</i>)
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization (<i>Paris</i>)
USDA	United States Department of Agriculture (<i>Washington, DC</i>)
WHO	World Health Organization (<i>Geneva</i>)

1.18 Places

COMPASS DIRECTIONS

- Northwest, south-southeast, etc. should be **abbreviated** if used extensively, particularly if used as part of a compound adjective (e.g., *SW-facing slope*, *NNE-trending escarpment*). Note that north/south comes before east/west in the abbreviations.
- **Adjectives** using north, south, east, or west take the forms northeast, northeastern, northerly, northeasterly, northward, and northernmost.

LATITUDE AND LONGITUDE

Use the form 44°56'N, 71°45'E (north/south first then east/west). There is no reason to use the abbreviations "lat." and "long." in front of the coordinates because the compass directions show which of the two is being given. Coordinates are usually given with an altitude (not elevation), which should be given in meters above sea level (m.a.s.l.).

UK GRID REFERENCES

Use the form “NZ 684 018.”

COUNTRIES

- Avoid the terms *America* and *North America* unless it is clear that the continent is being referred to; otherwise, use **USA** (always abbreviate; do not use *U.S.A.* or *the States*). *US* is used as the adjectival form of *USA* (e.g., “US aircraft carriers stationed in the Persian Gulf”).
- Use **UK** (always abbreviate). Note that *UK* = Great Britain plus Northern Ireland; *Great Britain* = England, Scotland and Wales; *the British Isles* = UK plus the Irish Republic. UK can be used as an adjective (e.g., “UK harrier jets flying over the Falkland Islands”).
- Use **the Netherlands** not *The Netherlands* (although a capital T is usually used in addresses — this rule also applies for *the Philippines*) or *Holland* (a region).
- **Republics**. Use *China* not People's Republic of China/PRC (and Taiwan not Republic of China); Korea not Republic of Korea/ROK; *Germany* not Federal Republic of Germany/FRG; *Ireland* not Republic of Ireland (nor Eire); *South Africa* not Republic of South Africa/RSA.
- Other. Use *Russia*, *the Ukraine*, *Belarus*, *Georgia*, *Latvia*, *Lithuania*, *Estonia*, etc., not the USSR (use the former USSR if countries are not specified). Use the *Czech Republic* and *Slovakia*, not Czechoslovakia. Use *Bosnia and Herzegovina*, *Croatia*, *Serbia and Montenegro*, and *Slovenia* (or *the former Yugoslavia* if in doubt). Check the latest edition of an atlas to confirm any recent changes.

AUTHOR ADDRESSES

Universities, street names, etc. are better given in the native tongue of the author (e.g., Université de Lyon should be preferred to *Lyon University*, and Universität München to *Munich University*). However, the names of **cities and countries** should be given in the language in which the paper is to be published.

CAPITALIZATION

- Use **initial caps** for proper nouns (*Western Australia*, *South West Africa*, and *Northern Ireland*), but not for descriptive terms (*southern Scotland* or *eastern India*).
- When **climates or regions** are described using an adjective that is a proper name, the name is capitalized (e.g., *Mediterranean climate*, *Alpine region*, *sub-Saharan desert*).
- Northern Hemisphere, Southern Hemisphere (caps).

MISCELLANEOUS POINTS

- Use *Asia–Pacific* (en dash; not *Asian-Pacific*) and South-East Asia (initial caps; hyphen).
- Use *Island(s)* (do not abbreviate to *Is.*) and *River(s)* (do not abbreviate to *Riv.*).
- Use *Mount* (not *Mt.*). Note that “yama,” “dake,” and several other suffixes mean *mountain* in Japanese; however, they should not be removed from the name unless it has been anglicized; check with the author or leave as supplied (e.g., Mount Tanakami-yama but Mount Fuji).

ABBREVIATIONS

American states

AK	Alaska	ID	Idaho	MT	Montana	RI	Rhode Island
AL	Alabama	IL	Illinois	NE	Nebraska	SC	South Carolina
AR	Arkansas	IN	Indiana	NC	North Carolina	SD	South Dakota
AZ	Arizona	KS	Kansas	ND	North Dakota	TN	Tennessee
CA	California	KY	Kentucky	NH	New Hampshire	TX	Texas
CO	Colorado	LA	Louisiana	NJ	New Jersey	UT	Utah
CT	Connecticut	MA	Massachusetts	NM	New Mexico	VA	Virginia
DC	District of Columbia	MD	Maryland	NV	Nevada	VT	Vermont
DE	Delaware	ME	Maine	NY	New York	WA	Washington
FL	Florida	MI	Michigan	OH	Ohio	WI	Wisconsin
GA	Georgia	MN	Minnesota	OK	Oklahoma	WV	West Virginia
HI	Hawaii	MO	Missouri	OR	Oregon	WY	Wyoming
IA	Iowa	MS	Mississippi	PA	Pennsylvania		

Canadian provinces

AB	Alberta	NU	Nunavut
BC	British Columbia	ON	Ontario
MB	Manitoba	PE	Prince Edward Island
NB	New Brunswick	QC	Quebec
NF	Newfoundland	SK	Saskatchewan
NS	Nova Scotia	YT	Yukon
NT	Northwest Territories		

Australian states

NSW	New South Wales	Tas.	Tasmania
NT	Northern Territory	Vic.	Victoria
Qld	Queensland	WA	Western Australia
SA	South Australia		

UK regions and counties

You should usually delete region and county names from UK addresses, giving only the city or town and the postcode. However, it will occasionally be necessary to give the county or region (e.g., for rural addresses).

1.19 URLs in Text

CAPITALIZATION

- For consistency and ease of reading, always type URLs and email addresses in **lowercase letters** (e.g., <http://www.blackwellpublishing.com>; person@wiley.com). Both URLs and email addresses are case-insensitive, but there is a clear international trend to present both in all lowercase text. In many other electronic contexts (e.g., Web searches), a capital letter represents only the capital letter, whereas the lowercase letter represents both, so it seems sensible to retain the distinction for URLs and email addresses.
- There may be **exceptions** when the capitals have been used extensively in branding a website (e.g., <http://www.GastroHep.com>).

PREFERRED ADDRESSES

- “**http://**” is needed in URLs in articles so that the link becomes live on Wiley InterScience.
- The ScholarOne Manuscripts URLs do not start with “www,” so the URL should be written in full (e.g., <http://mc.manuscriptcentral.com/jags>).
- The “www” part of a URL doesn’t appear at the start of all Web addresses, so when writing a URL that does start with “www,” it cannot be left out.
- There are a few variants of the company website URLs, but the preferred versions are as follows:

www.wiley.com

www.blackwellpublishing.com

www.blackwellpublishing.com/<journal acronym>

www3.interscience.wiley.com/

BREAKING A URL

- When a URL must be broken over a line in a printed work, breaking after a **slash or double slash** is preferable.
- Try **not** to break after a **dot**, leaving the dot at the end of the line of text. **Do not use hyphens** to break long words at the end of a line.
- A hyphen **within** a URL shouldn’t appear at the end of a line.

SETTING OFF URLs FROM SURROUNDING TEXT

- **Do not** set off URLs with angle brackets, because angle brackets are used in some markup languages.
- **Do not underline** URLs in printed text.
- **Avoid** placing **punctuation** directly after a URL, as it may be unclear whether the punctuation is part of the URL.

PART 2: DEALING WITH OTHER MATERIAL

2.1 Electronic Submission

PREPARATION OF ELECTRONIC ARTWORK

- Authors should be asked to **submit** EPS (line art) or TIFF (halftone/photographs) files only.
- For scanned images, the **scanning resolution** (at final image size) should be as follows to ensure adequate reproduction: > 800 dots per inch (d.p.i.) for line art; > 300 d.p.i. for halftones; > 600 d.p.i. for figures containing both halftone and line images.
- **EPS** files should be saved with fonts embedded (and with a TIFF preview if possible).
- **Black and white** images should be supplied as grayscale.
- **Color** images should be supplied as CMYK, not RGB.
- **Multipart** figures should be supplied in the final layout in one file.
- For **further details**, see <http://www.blackwellpublishing.com/authors/digill.asp>
- The following artwork **packages** give suitable quality formats when dealing with electronic artwork and allow you to “save as” or “export” as TIFF and EPS, the preferred standardized formats:

Adobe Illustrator 7.0 and above (EPS)

Adobe Illustrator 9.0 (EPS; also export as TIFF)

CorelDRAW 7.0 and above (EPS)

Deneba Canvas 6.0 and above (EPS)

Adobe Photoshop 4.0 and above (TIFF)

2.2 Disks

- **CDs** and **floppy disks** are both OK, but there is no current facility to process optical disks.
- Any word-processing format can be handled.
- The author must check that the **final version** of the hard copy and the file on the disk are the same.

2.3 Artwork

There are many journal-specific requirements for artwork, so refer to your **journal style sheet** and, if necessary, the “**Instructions for Authors**” guidelines (usually on the inside back cover of the journal). See “**Electronic Submission**” for information on electronic artwork.

GENERAL CHECKLIST

- Do the figures **match** the legends?
- What **level of intervention** is appropriate for figures in this journal? (There is always a “cost versus quality” trade-off.)
- What **reduction** is appropriate for the figure? Consider (1) the size of any lettering and line art, and (2) the column width of the journal.

- Do you need to add (a), (b), etc. to the various parts of the figure?
- Is the text in the figure **legible** and **error-free**?
- Do any **tints, areas of shading, etc.** have to be redrawn? After reproduction, fine tints may become solid black, and light shading may disappear. A crude way to check whether this could be a problem is to photocopy the figure at the appropriate reduction.
- Is the figure to be processed as **color**? If so, special attention needs to be paid to the authors' and editor's requirements as money is often involved! There is a requirement in some journals to minimize color—please consult the Wiley-Blackwell production editor if you are unsure whether or not color is acceptable.

2.4 Tables

WHEN IS A TABLE NOT A TABLE?

A **table** concisely presents numerical or factual information in a grid format. A table usually contains at least two rows (including the column headings) and two columns; otherwise the information may be better presented as a **list**. A “table” containing graphics (e.g., arrows in a flowchart) is probably better treated as a **figure**, although occasionally figures may be embedded in tables (e.g., chemical structures); in this case, alert the typesetter to the fact that graphics need to be dropped into the table.

FORMATTING

- Make sure column headings are **aligned** (using tabs) with the entries below them.
- The first word of an entry should normally have an **initial capital**.
- Complex tables may benefit from **extra spaces** between groups of rows (see example overleaf).

EDITING

- The table **legend** should usually be treated as a title, and should stand on its own as a description of the content. It should contain only a brief, general description of what is shown in the table. Details about methods, statistics, and specific parts of the table (e.g., “Standard errors are given in parentheses”) should be confined to footnotes.
- **Units** should be given in column headings, rather than repeated for every entry in the body of the table.
- Define any **abbreviations** in a footnote.
- See “Footnotes” (1.10) for how to deal with table **footnotes**.
- Make sure that **rules** in hierarchical column headings are correct (i.e., that they span the appropriate text).
- In the column or row **headings**, authors sometimes neglect to include the top level of the hierarchy (i.e., they do not tell you what the numbers in the table actually are!). You may find that this information has been included in the legend (e.g., “leaf dry weight” in the example table overleaf).

BEFORE...

Table 1. Leaf dry weight of three pea varieties grown at different temperatures (g). Values are given as means (n = 30). Within a column, means followed by the same letter are not significantly different at $P < 0.05$, using the Tukey test. Heat events were introduced at weekly intervals.

Varieties	Temperature		Days after sowing			
	Mean	HE	40	55	70	
EC-12876	18°C	35°C	0.40 a	3.88 a	0.17 a	
EC-12876	22°C	38°C	0.52 a	0.43 b	1.20 b	
EC-12876	25°C	38°C	1.35 b	5.36 a	4.20 c	
P-116	18°C	35°C	0.54 a	0.48b	1.99 b	
P-116	22°C	38°C	0.75 a	1.25b	1.56 b	
P-116	25°C	38°C	0.22 a	2.07b	1.43 b	
T-163	18°C	35°C	0.08 a	0.12a	0.97 a	
T-163	22°C	38°C	2.34 c	2.44a	1.67 b	
T-163	25°C	35°C	0.31 a	0.29 a	3.30c	

...AND AFTER

Table 1. Leaf dry weights of three pea varieties grown at different temperatures.

Variety	Temperature (°C)		Leaf dry weight (g)		
	Mean	HE	Days after sowing		
			40	55	70
EC-12876	18	35	0.40 a	3.88 a	0.17 a
	22	38	0.52 a	0.43 b	1.20 b
	25	38	1.35 b	5.36 a	4.20 c
P-116	18	35	0.54 a	0.48 b	1.99 b
	22	38	0.75 a	1.25 b	1.56 b
	25	38	0.22 a	2.07 b	1.43 b
T-163	18	35	0.08 a	0.12 a	0.97 a
T-163	22	38	2.34 c	2.44 a	1.67 b
T-163	25	35	0.31 a	0.29 a	3.30 c

Values are given as means (n = 30).

HE, heat event (introduced at weekly intervals).

Within a column, means followed by the same letter are not significantly different at $P < 0.05$, using the Tukey test.

2.5 References

Check your **journal style sheet** for how to style references in the list and their citations in the text. In general, there are two main systems, **Harvard** and **Vancouver**, although there are some hybrids with features of both styles (e.g., alphabetical Vancouver).

HARVARD

Citations in the text take the form of **author names and dates** (e.g., Smith *et al.* 1990), and references in the list are sorted alphabetically by **author name**.

In the text

Sort references in the text **chronologically** (e.g., Smith 1990; Jones 1995), and **then alphabetically** within dates (e.g., Smith 1990; Brown 2001; Walton 2001).

For references with **three or more authors**, use the first author's name and "et al." in the text (e.g., Smith *et al.* 1990).

In the list

Sort references in the list **alphabetically** by first author, then by **number of authors** (one; two; three or more), then chronologically within the **one-author** group, alphabetically within the **two-author** group, and chronologically within the \geq **three-author** group:

Smedley, P. (2002)

Smith, G. (1983)

Smith, G. (2001)

Smith, G., and Jones, B.N. (1997)

Smith, G., and Stevens, D. (1996)

Smith, G., Wheeler, A., Lawrie, S., and von Hoffman, C. (1992)

Smith, G., McDonald, D.W., and Jones, B.N. (1994)

If two or more references have the **same first author and date**, you must use "a," "b," etc. after the date to distinguish them (e.g., Smith *et al.* 1990a). **NB** For two-author references, you need only do this if **both** authors are the same.

Lowercase **particles** are listed under the letter of the name proper but uppercase particles under the letter of the particle (e.g., da Silva under "S" but Von Trapp under "V").

VANCOUVER

- In **straight Vancouver**, references are numbered sequentially as they occur in the text. Citations in the text take the form of superscript or parenthetical **numbers**, which refer the reader to the references in the list. References in the list are ordered according to these numbers.
- In **alphabetical Vancouver**, the references are ordered **alphabetically** in the list and **then numbered**, and it is these numbers that appear in the text. Please note that they will be out of sequence in the text. For example, reference 51 might come before reference 6.

In the text

Reference numbers are set as **superscripts** or within **brackets** (usually square brackets), depending on the journal style. Superscripts should appear after,¹ and square brackets within [1], punctuation. Use en rules for ranges; e.g., [1,2,3,4] becomes [1–4] and ^{24,25,26} becomes ^{24–26}.

In the list

Numbers in the list are set **on the line**.

- 1 Smith G, 1990
- 2 Author CD, 2001

EXAMPLES OF REFERENCE LIST STYLE

Check your **journal style sheet** for the style you should follow. These are just **examples**.

Article in journal

Author, A.B., & Author, B.C. (2000) *Title of article. Journal Title in Italics in Full*, **00 (Suppl. 2)**, 000–000.
 Author, A.B., & Author, B.C. (2004) *Title of article. Journal Title in Italics in Full*, in press.

Article within conference proceedings or book

Author, A., Author, B., Author, C. et al. [if e.g., > 6] (2002) *Title of article*. In: A. G. Smith & C. H. Jones (eds), *Conference or Book Title in Italics*, pp. 000–000. Publisher, City.

Book or conference proceedings

Smith, A.G., & Jones, C.H. (eds) (2002) *Conference or Book Title in Italics*. Publisher, City.
 Book-Author, T. (1997) *Book Title*. Publisher, City.

Court cases

Adkins v. Thomas Solvent Co., 440 Mich 293, 487 NW2d 715 (Mich 1992).

DOIs (digital object identifiers)

Mazmanian, S. K., Ton-That, H., & Schneewind, O. (2001) Sortase-catalyzed anchoring of surface proteins to the cell wall of *Staphylococcus aureus*. *Molecular Microbiology*, **40**, 1049–1057.
 doi:10.1046/j.1365-2958.2001.02411.x

Government departments

Use the Department as the author and publisher:

U.S. Department of Health, Education and Welfare. (1973). *Records, computers and the rights of citizens*. Secretary's Advisory Committee on Automated Personal Data Systems, Washington, DC: Author.

If the report is available from the Government Printing Office (GPO), the reference should show GPO as the publisher:

National Institute of Mental Health. (1990). *Clinical training in serious mental illness* (DHHS Publication No. ADM 90-1679). Washington, DC: U.S. Government Printing Office.

Institutions cited as authors

Institutions cited as authors should be given in abbreviated form where referred to in the text (e.g., WHO 1989) and in abbreviated form (for the authors) and in full (for the publisher) in the reference list: WHO (1989) *Fisheries Handbook*. World Health Organization, Geneva.

Newspapers

Cracknell, D., and Porter, A. Brown set for new tax bombshell. *Sunday Times*, 31 August 2003, p.1.

Thesis

Author, J. (2002) Title of thesis. PhD Thesis, University, City.

URLs

Full reference details must be given along with the URL, i.e., authorship, year, title of document/report, and URL. If this information is not available, the reference should be removed and only the Web address cited in the text.

Smith A. (1999) Select committee report into social care in the community [WWW document]. URL <http://www.dhss.gov.uk/reports/report015285.html> [accessed on 7 November 2003]

UNPUBLISHED REFERENCES

Unpublished references should only appear **in the list** if they are “**in press.**” Otherwise, they should be cited **in the text only**, and should give the authors’ names and (unless one of the authors is also an author of the present article) their main institution and city to enable the reader to trace them (do **not** give the article title or other details). Use, for example, “unpublished results,” “manuscript in preparation” (in prep.), “personal communication” (pers. comm.) or “personal observations” (pers. obs.) depending on the context (e.g., authors of the present article can't make a personal communication with themselves!) and the journal style.

- ...was also found to be effective (S. Smith, University of Cardiff, Cardiff, unpublished results).

GENERAL RULES

- **Avoid *in litt.*** and op. cit., for example, “(Jones et al. 1958, cited in Smith 1990).”
- **Avoid *ibid.*** (*ibidem*, as above) in the text and the list. The full details should be repeated.
- **Initials** should be spaced when they occur before the surname and closed up when they occur after it.
- **Jr., III**, etc. go after the name and initials in both the text and the list (e.g., A. B. Author Jr.; Author A.B., III).
- Do **not** give the **total page extents** of books and theses in the list.
- Refer to the *Index Medicus* or the *World List of Scientific Periodicals* for the correct way to **abbreviate** a journal title.

CHECKING REFERENCES

References can be checked at the following sites:

- **PubMed:** <http://www.ncbi.nlm.nih.gov/entrez/query/static/citmatch.html>
- **Medline:** <http://intapp.medscape.com/px/medlineapp/medline?cid=med&adv=1>

2.6 Commercial Products

Any commercial product mentioned in the text (e.g., equipment, drugs, or computer software) should be accompanied at **first mention** by the name, city, and (US) state/country of the company that made it (usually in parentheses). Add a query to the author if this information is missing.

- ...incubated in the basal broth medium Easy-Grow (Biology Solutions, Boston, MA, USA)...

2.7 Permissions

- Authors must have written permission to reproduce **figures, tables, or any other material from another source**. This also applies to **data** from which a figure or table has been produced. If you suspect that an author has taken material from another source, but either has not acknowledged this or has supplied incomplete information, add a query (we assume that authors have followed their responsibility to seek permission—refer them to our Copyright Assignment Form).
- **Acknowledge sources** in figure and table legends in the format “Reproduced from Smith *et al.* (1990), with permission from Mercat Press.” Some publishers may require the use of a particular copyright line. Make sure that there is a **reference** to the source of the material—ask the author to supply one if there is not.
- **Photographs** of equipment or company products should be checked for reference to the manufacturer. It may be necessary to obtain permission for their use, particularly if the product is referred to in a negative light.

2.8 Appendices

Appendices contain **extra material** (usually tables, lists, equations, or lengthy sections of text) and should be placed at the very end of the article.

- The **style** of appendices varies from journal to journal, but generally they are named “Appendix 1” and cited in the main body of the text as you would cite a figure or table. Equations in appendices are numbered separately (e.g., Eq. A1, etc.).
- An appendix may have its own **reference list**.
- **Supporting information** (in the online publication) is now replacing appendices in many journals.

PART 3: SUBJECT-SPECIFIC STYLES

3.1 Scientific Names

The scientific name of a species is known as a **binomen** (zoology) or **binomial** (botany). There are differences in the naming conventions of animals, plants, bacteria, and viruses (see *Scientific Style and Format* for detailed naming conventions and style for each kingdom, or the individual codes—listed below), but below are the basic guidelines.

International Code of Zoological Nomenclature

International Code of Botanical Nomenclature

International Code of Nomenclature for Cultivated Plants

International Code of Nomenclature of Bacteria

International Code of Virus Classification and Nomenclature

- **Genus and species** names are presented in italics (e.g., *Caenorhabditis elegans*) and they have singular endings. **Higher taxa** (i.e., family, order, class, phylum, and kingdom) are set in roman type with an initial capital (e.g., Coleoptera, Insecta, and Rosaceae). These taxa have plural endings.
- **Modifiers** to species names are presented in roman after the species name and are always abbreviated.
- **Spell out** genus and species names in full at the first citation in the Abstract and text (e.g., *Bufo marinus*); **abbreviate** genus names thereafter (e.g., *B. marinus*—note the full point and thin space after the abbreviated genus name). However, use the full name at the start of paragraphs, in tables, and whenever there could be ambiguity if the abbreviated name is used. If two genera with the same initial letter are referred to, it may be beneficial to use partial genus abbreviations (e.g., *Picea abies* → *Pi. abies* and *Pinus sylvestris* → *P. sylvestris*; *Staph. aureus* and *Strep. faecalis*). Alternatively, use the full name to make it clear which genus each species belongs to. If a new species of the same genus as another, already cited species is introduced, the full name of the new species (i.e., repeat the genus name) should be given at its first citation (e.g., if *Xenopus laevis* has already been named, you still need to spell out *Xenopus* at the first mention of *Xenopus tropicalis*).
- Adjectives and nouns **derived** from genus names become roman with a lowercase initial (e.g., *Felis* → feline, *Libellula* → libellulids, *Streptococcus* → streptococcal infection). Those derived from higher taxonomic groups also begin with a lowercase letter and are presented in roman (e.g., Ostracoda → ostracods, Cactaceae → cacti).
- A scientific name given at its first mention **after a vernacular name** should be separated from it by a comma if the two names are exact synonyms (e.g., ...the two-spotted cricket, *Gryllus bimaculatus*, ...) but not if the vernacular name may apply to more than one species (e.g., the starfish *Asterina pectinifera*, the medaka *Oryzias latipes*).
- The genus name is sometimes referred to **alone**, even in titles (e.g., *Xenopus*, *Asterina*), but the species name cannot be (*laevis*, *pectinifera*). Species within a genus can be referred to in general terms by the abbreviations sp. (singular) or spp. (plural) after the genus name (e.g., *Xenopus* sp.).

Common modifiers

ssp.	subspecies	sp. n.	species nova
cv.	cultivar	var.	variety
×	cross (hybrid)		

AUTHORITIES

The “authority” of a scientific name is the **name of the person** who originally classified the species. It is particularly important to include the authority if there is some controversy about the classification.

- The authority should be given at **first mention** of the species, set in roman after the scientific name (e.g., *Anthomyza elbergi* Andersson). Alternatively, a reference may be cited.
- If a **date** of classification is given with the authority, it should be separated from the authority by a comma (e.g., *Anthomyza bellatrix* Roháček, 1984).
- When a species or subspecies is **transferred** to a genus other than that in which it was first classified, the original authority is placed in parentheses. In botany and microbiology, the authority of the new combination follows and is not placed in parentheses. For example, *Calluna vulgaris* (L.) Hull, *Shigella dysenteriae* (Shiga) Castellani & Chalmers. In zoology, the authority of the new combination is not given, as in this example: *Lepomis gulosus* (Cuvier).

L. (Linnaeus)	the most well-known authority (e.g., <i>Paragea aegeria</i> L.)
gen. & sp. indet.	“genus and species indeterminate” (no need to define)

BACTERIA NAMES

- Names of all bacterial taxa are **italicized**, as in this example: *Pseudomonadales* (order), *Pseudomonadaceae* (family), *Pseudomonas* (genus), etc.
- Some organisms that cannot be differentiated taxonomically at the level of subspecies are given the **infraspecific designations** pathovars (pv.), biovars (b.), serovars (sv.), phagovars, chemovars, and morphovars.
- **Vernacular** names of bacteria are always set in roman lowercase (e.g., mycobacteria, salmonella, klebsiellae).

VIRUS NAMES

- Virus names **end** in *virales* (order), *viridae* (family), *virinae* (subfamily), and *virus* (genus). They do **not** follow normal binomial naming.
- **Approved** (by the International Committee on Taxonomy of Viruses) international names for orders, families, subfamilies, and genera are set in italics with initial capitalization. The name of the taxon should precede the term in formal use (e.g., the family *Paramyxoviridae*, the genus *Orthopoxvirus*).
- Names that have **not yet been approved** and **vernacular** names are set in lowercase roman (e.g., maize dwarf mosaic virus, herpes simplex virus type I, rhabdovirus, yellow fever virus). Virus names are also set in roman when used in an adjectival form. Be careful not to jump hierarchical levels in vernacular usage (because it is not always easy to identify which level is being referred to): add taxon identification wherever needed.
- The first letter of a **proper noun or proper adjective** incorporated into the name of a virus is capitalized (e.g., West Nile virus). If part of the vernacular name incorporates a **Latin name**, the Latin name is capitalized and italicized.

RECOMMENDED TEXT

Council of Biology Editors (1994) *Scientific Style and Format: The CBE Manual for Authors, Editors, and Publishers*, 6th edn. Cambridge University Press, Cambridge.

3.2 Aquaculture and Veterinary Science

AQUACULTURE

Names of **organisms** should be given in full, i.e., common name and Latin name with authority, when cited for the first time. Latin names should be given in italics.

Use of **parentheses** in scientific names follows strict protocols, and generally what is supplied will be correct.

Common terms

a.s.l.	above sea level	<i>I</i>	index
m.s.l.	mean sea level	<i>I_G</i>	gonado-somatic index
CPUE	catch per unit effort	<i>I_H</i>	hepato-somatic index
		<i>L</i>	length
fish	plural for one species	<i>L_F</i>	fork length
fishes	plural for multiple species	<i>L_S</i>	standard length
		<i>L_T</i>	total length

RECOMMENDED TEXTS

American Fisheries Society Special Publication No. 20, *A List of Common and Scientific Names of Fishes from the United States and Canada*.

For fishes occurring in British waters, give precedence to Wheeler A. (1992) A list of the common and scientific names of fishes of the British Isles. *Journal of Fish Biology* **41**, Supplement A. www.fishbase.org

VETERINARY SCIENCE

Common abbreviations

ALS	advanced life support	IT	intratracheal
CI	cardiac index	LDPI	laser Doppler perfusion imaging
CO	cardiac output	MAP	mean arterial pressure
CPCR	cardiopulmonary cerebral resuscitation	MHC	major histocompatibility complex
CVP	central venous pressure	OD	optical density
DAP	diastolic arterial pressure	OD	right eye
DSH	Domestic Short Hair	OS	left eye
Fe'CO ₂	end tidal carbon dioxide	OU	both eyes
FeLV	feline leukemia virus	PACO ₂	partial pressure of alveolar carbon dioxide
FHV-1	feline herpes virus	PaCO ₂	partial pressure of arterial carbon dioxide
FIV	feline immunodeficiency virus	PV	papillomaviruses
g	not rpm or rev min ⁻¹	PVR	pulmonary vascular resistance
H&E	hemotoxylin and eosin stain	RAU	relative antibody unit
IO	intraosseus	SAP	systolic arterial pressure
IOP	intraocular pressure	SVR	systemic vascular resistance
		w/v	weight/volume

- Q12 hours, Q8 hours, Q24 hours (every 12 hours, every 8 hours, every 24 hours)

3.3 Linguistics

Follow either the style of the Modern Language Association (MLA) or that of the American Psychological Association (APA):

- <http://www.apastyle.org/aboutstyle.html>
- <http://www.mla.org>

3.4 Business, Economics, Math, and Statistics

BUSINESS AND ECONOMICS

Common terms

APT	arbitrage pricing theory	London Stock Exchange	
the	Bank of England (also “the Bank”)	LOOP	law of one price
BEA	Bureau of Economic Analysis	Nasdaq	
Bear-Sterns		Nikkei 225	
below-market performers		NYSE	New York Stock Exchange
bertrand corporation		OECD	Organisation for Economic Co-operation and Development
book-to-market adjustments		OPEC	Organization of the Petroleum Exporting Countries
buy-and-hold strategy		ROW	rest of world
CAP	Common Agricultural Policy	RPI	Retail Price Index (in UK)
CPI	consumer price index	RTAs	regional trade agreements
cut-and-run behavior (but “to cut and run”)	DAX100	S&L	
DF	Dickey–Fuller test	S&P500	
DTI	Department of Trade and Industry	SEC	Securities and Exchange Commission
ECB	European Central Bank	spillover (n.)	
EMU	European Monetary Union	spin-off (n.)	
EPO	European Patent Office	<i>t</i> -statistics	
ERM	exchange rate mechanism	<i>t</i> -value	
formulas (not “formulae”)		takeoff (n.)	
FTSE100		tip-off (n.)	
GATT	general agreement on trade and tariffs	turnover (n.); turn over (v.)	
GDP	gross domestic product	VAR	vector autoregression
GNP	gross national product	WTO	World Trade Organization
IMF	International Monetary Fund		
IRPP	Institute for Research on Public Policy		
London’s Seaq			

MATH

Equations

- **Simple** equations should run on in the text and should be punctuated as part of the sentence (e.g., “...was calculated as $h = a + B_2$ ”). **Complex** equations should be displayed for clarity. Note that reactions and inequalities should be neither referred to nor numbered as equations.
- Even for displayed equations, **definitions** of symbols should run on in the normal sentence structure within the text:

$$s = 1 - [n(2 + y)],$$

where s is the growth rate, n is the number of cells...

- The order of **brackets** should be $\langle \{ [()] \} \rangle$.
- If an equation (displayed) runs over more than one line, **line breaks** should occur before a relational sign (i.e. =, >, \supset , \neq , ∞ , etc.). The turnover line should then be aligned with previous relational signs. Breaks can also occur before operational signs (i.e., +, -, \pm , $_$, \div , Σ , etc.); the turnover line then aligns to the right of the relational sign.
- Operational and relational **signs** have **fixed thin spaces** on either side of them (e.g., $x + y$).
- **Fractions** in run-on equations can be represented by use of a slash [e.g., $x/(y + 1)$] to prevent disruption to the line of text above. Parentheses often need to be added when converting fractions to the slash form.
- The **radical** (root sign) is set using the symbol ($\sqrt{\quad}$) or a superscript index ($^{-1/2}$), rather than taking a line (vinculum) across the whole equation. This is most important in run-on equations to prevent disruption to the line of text above.

Formatting

For	Use	Examples
Variables	Italics	x -axis, n , χ^2
Constants	Roman	e , π
Functions and operators	Roman	f, exp, log, sin
Modifiers	Roman, subscript	d_E , n_a , n_{air}
Scalars	Italics	A , V , M
Vectors	Italics, bold (sometimes arrow over letter)	a , AB , eb
Tensors	Sans serif, italics	T , $T:S$

Functions and operators

ad	adjoint	GL	general linear	s.t.	subject to
arg	argument	inf	infimum	sin	sine
cos	cosine	lim	limit	sinh	hyperbolic sine
cosh	hyperbolic cosine	ln	natural logarithm	sup	supremum
cov	covariance	log	logarithm	tan	tangent
det	determinant	max	maximum	tanh	hyperbolic tangent
dim	dimension	mod	modulus	tr	trace
E	expectation	prob	probability	var	variance
EU	expected utility			trn	transition
exp	exponential				

STATISTICS

Statistical tests

ANOVA (analysis of variance)	F -test	Student's t -test
ANCOVA (analysis of covariance)	Mann-Whitney U -test	χ^2 -test (chi-squared test)
MANOVA (multiple analysis of variance)		

Common abbreviations

CI	confidence interval	OR	odds ratio
CL	confidence limits	P	probability (always abbreviate)
d.f.	degrees of freedom	r	coefficient of variation
F	variance ratio	RMS	root mean square
$F_{x,y}$	variance ratio, where x and y are d.f.	SD	standard deviation
LSD	least significant difference	SE	standard error
n	number of observations	EM	standard error of the mean
ND	not done	\bar{x}	average/mean
NS	not significant		

RECOMMENDED TEXT

AMS (1986) Mathematics into Type (rev. edn). American Mathematical Society, Providence, RI.

3.5 Computing and Engineering**COMPUTING**

Programming languages should be given in CAPS; software names in SMALL CAPS.

Common terms

Apple	email	MS-DOS
BASIC	FORTRAN	PASCAL
BIOSYS-1	GenBank	PAUP
BLAST, BLASTX	GLM	program
CD-ROM	Google	Prolog
CELLSIM	IBM	SPSS
CLUSTALX	Internet	TreeView
COBOL	Lotus 1-2-3	URL
DECORANA	Macintosh	WordPerfect
disk	MEDLINE	

Microsoft
Access
Excel
Outlook
PowerPoint
Word

ENGINEERING**Common terms**

COD	crack opening displacement	LBB	leak-before-break
EIFS	equivalent initial flaw size	LCF	low cycle fatigue
ERS	enhanced reference stress	RS	reference stress
FEM	finite element method	SCF	stress concentration factor
HCF	high cycle fatigue	SEM	scanning electron microscope

3.6 Law

- The official title of the **Supreme Court** is the Supreme Court of the United States. US Supreme Court is acceptable. Supreme Court is also acceptable if the context is clear (e.g., the article does not make frequent references to state supreme or other courts). Do not use United States Supreme Court.

- **Washington, D.C.**—use comma and periods.
- **Case names** should be in italics.

Initial capitals	Lower case
Court, Bench, Justice, Term, Brethren, and Chambers when referring to the Supreme Court	court in references to lower courts
Attorney General, Solicitor General, President, Vice President and Cabinet-level titles	ambassador, judge, assistant attorney general, etc. – i.e. any national position under Cabinet level ; any state position
Progressive Era, Federalist, Anti-Federalist and Prohibition	presidents or chairmen of commissions or companies
Framers of the Constitution and Founding Fathers	'party' when referring to a political party
Amendments to the Constitution and clauses within the Constitution (e.g. First Amendment, Commerce Clause)	government and parliamentary as adjectives

Useful websites

Modern Law Review website: <http://www.lse.ac.uk/collections/law/modernLawReview.htm>
<http://www.law.buffalo.edu/baldycenter/styleinfo.html>
<http://dictionary.law.com/>

3.7 Life and Physical Sciences

Note: for general biology, see also general medicine.

CHEMISTRY/BIOCHEMISTRY

Common terms

C ₄ , C ₃	carbon-4 pathway, carbon-3 pathway	<i>N</i>	substituted nitrogen but N-terminus, C-terminus
chlorophyll <i>a</i> , <i>b</i> , <i>c</i>		<i>o</i>	ortho
<i>cis</i> -	same side	<i>O</i>	sub-oxygen
D	dextro	<i>p</i>	para
<i>fac</i> -	facial	P680	photosystem II [photosynthesis]
fMet	formylmethionine	P700	photosystem I [photosynthesis]
G ₁ , G ₀ ,		PGA ₁ /PGA ₂	prostaglandin A ₁ /A ₂
S, G ₂ , M	phases of cell cycle	<i>P_i</i>	inorganic orthophosphate
<i>gem</i> -	geminal	p <i>K</i> , pH	
Hb	haemoglobin	<i>R</i>	recto
<i>K_m</i>	Michaelis constant	<i>S</i>	sinister
L	laevo	T ₄	bacteriophage
<i>m</i>	meta	<i>trans</i>	opposite side
M	molar	<i>vic</i> -	vicinal
<i>mer</i> -	meridional	<i>V_{max}</i>	maximal rate
N	normal concentration	v/v	volume in volume
<i>n</i>	normo	w/v	weight in volume

Useful website

- **Standard nomenclature and symbols** can be found at:
<http://www.chem.qmw.ac.uk/iubmb/nomenclature/>

ECOLOGY**Vegetation classifications/plant community assemblages**

- The **UK National Vegetation Classification (NVC) scheme** (co-ordinated by J. S. Rodwell) uses an en rule between species names, which are italicized (e.g., *Phragmites australis*–*Peucedanum palustre* tall herb fen).
- The **phytosociological classifications (continental European) scheme** (J. Braun-Blanquet) uses a hyphen between class names, which are not italicized (e.g., Class Oxycocco-Sphangetea, Order Sphagnetalia magellanici, Alliance Sphagnion magellanici, and Pallavicinio-Sphagnetum).

Common terms

blowdowns	quadrat, not quadrate
capture–mark–recapture	relative growth rate (RGR)
cold-water species	root : shoot ratio
DEFRA, Department of Agriculture, Food and Rural Affairs (was MAFF, Ministry of Agriculture, Fisheries and Food)	root–shoot allocation
flood-plain alder forests (but ‘on the floodplain’)	semi-arid
medium- and high-light treatments	semi-natural
nutrient-poor or nutrient-rich habitats	subalpine
plant functional type (PFT)	sub-blocks
post-dispersal	subpopulation
	tree line (not tree-line or treeline)

GENETICS

For	Use	Examples
Gene abbreviations	Italics	<i>lacA</i> , <i>amp^r</i>
Protein abbreviations	Roman	LacA
Phenotypes	Roman	Lac ⁺
Transposons	Roman	Tn5

- Restriction endonucleases: *HindIII*, *HinfI*, *EcoRI*, *MboI*, etc.
- Strains of mice: BALB/c, C57B1/6, BD/V, BD/IX, LEW, etc.
- Always abbreviate: mtDNA, mRNA, rRNA, tRNA
- *R388::Tn1721* represents transposon Tn 1721 encoding gene *R388*
- Chromosome locations: 6q22-24, 11p15.5
- DNA sequence: 5′-ATCGGAG-3′

Common terms

AFLP	amplified fragment length polymorphism	ORF	open reading frame
bp	base pairs	PAGE	polyacrylamide gel electrophoresis
BLAST	Basic linear alignment sequence tool	PCR	polymerase chain reaction
bloodmeal	not blood meal	QTL	quantitative trait loci
CAPS	cleaved amplified polymorphic sequence	r	recombinant (e.g., <i>lac</i> ^r)
Da	daltons (not d)	RAPD	random amplified polymorphic DNA
FISH	fluorescence in situ hybridization	RecA-	recombinant strain; but <i>recA</i> is a gene
F ₁	first filial generation	RFLP	restriction fragment length polymorphism
F ₂	second filial generation	RT	reverse transcriptase
(GATA) ₄	key genetic sequence	SMM	stepwise-mutation model
GBA	genetic bit analysis	SNP	single nucleotide polymorphism
H _E	expected heterozygosity	SPAR	single primer amplification reaction
H _O	observed heterozygosity	ssDNA	single-stranded DNA
IAM	infinite allele model	SSOP	sequence-specific oligonucleotide probes
ITS	internal transcribed spacer	SSP	sequence-specific primers
kb	kilobases (e.g., 10.3-kb fragment)	SSR	single sequence repeat
Mb	megabase (a unit of length for DNA fragments)	Tc ^R , Ap ^R	antibiotic resistance
M _r	relative molecular mass	TDT	transmission/disequilibrium test
N _e , N _e m	Nei's value	TGF	transforming growth factor
		UTR	untranslated region

Useful websites

- Birgid Schlindwein's Hypermedia Glossary of Genetic Terms:
<http://hal.weihenstephan.de/genglos/asp/genreq.asp?list=1>
- The Laboratory of Statistical Genetics at Rockefeller University:
<http://linkage.rockefeller.edu/wli/glossary/genetics.html>
- National Genome Research Institute:
<http://www.genome.gov/glossary.cfm>

GEOLOGY

Websites for glossaries

- <http://college.hmco.com/geology/resources/geologylink/glossary.html>
http://www.evcforum.net/WebPages/Glossary_Geology.html

PLANT SCIENCES

Light

In general, use units based on **energy** for heat or energy balance; use units based on **photons** for photochemical processes such as photosynthesis or photomorphogenesis. The **waveband** over which measurements are made should be specified (e.g., energy fluence rate [irradiance] of 650 W m⁻² over the waveband 300–1000 nm; photosynthetic photon fluence rate [PPFR] of 720 μmol m⁻² s⁻¹ over the waveband 400–700 nm).

Units based on photons or energy

Recommended nomenclature	Units	Near-equivalent terms
Based on photons		
Quantity of photons	mol	
Photon fluence	mol m ⁻²	Photon density
Photon rate	mol s ⁻¹	Photon flow; Photon flux
Photon fluence rate	mol m ⁻² s ⁻¹	Photon flux density; Photon irradiance
Based on energy		
Radiant energy	J (W s)	
Energy fluence	J m ⁻² (W s m ⁻²)	Energy density
Energy rate	J s ⁻¹ (W)	Energy flow; Energy flux; Radiant flux
Energy fluence rate	J m ⁻² s ⁻¹ (W m ⁻²)	Irradiance; Energy flux density Radiant flux density

Common terms

chlorophyll *a* and *b* or Chl *a* and *b*

cytochrome *c* or cyt *c*

d. wt dry weight

EDTA ethylenediaminetetraacetic acid

f. wt fresh weight

F_o initial fluorescence

$F_v : F_M$ the ratio of variable to maximum fluorescence

g_c stomatal conductance to CO₂

g_s stomatal conductance to water vapour

glasshouse or controlled environment room **not** greenhouse

HPLC high-performance liquid chromatography

mycorrhiza formation or mycorrhiza development **not** mycorrhization

mycorrhizas **not** mycorrhiae for plural of mycorrhiza

PAR photosynthetically active radiation

photo usually closed up (e.g. photoprotective, not photo-protective)

PSI photosystem I

PSII photosystem II

UV-A, UV-B **not** UVA, UVB

vesicular–arbuscular

WUE water-use efficiency

xanthi (always roman)

Soil classifications

The names of units of the USDA *Soil Taxonomy* should begin with upper case initials. The hierarchy is as follows:

Order (e.g. Spodosols)

Suborder (e.g. Orthods)

Great Groups (e.g. Fragiorthods)

Families

Series

The FAO/UNESCO *Soil Map of the World* is divided into World Classes (e.g. Fluvisols, Lithosols, Podzols, Redzinas, Chernozems, Phaeozems), which are divided into Soil Units.

3.8 Medicine**GENERAL MEDICINE**

Drug names have recently changed; most now take American spellings (e.g., ganciclovir, not gancyclovir). Use generic names of drugs whenever possible. Brand names, if mentioned, should be capitalized and in parentheses.

Common terms

α -interferon, γ -interferon	but IFN- α , IFN- γ when abbreviated	IDDM	insulin-dependent diabetes mellitus (but WHO recommends use of the term “type 1 diabetes” instead)
AIDS	acquired immunodeficiency syndrome	Ig	immunoglobulin
BNF	British National Formulary	IL	interleukin
BSA	bovine serum albumin	i.m.	intramuscular(ly)
BU	Bethesda units	INR	international normalized ratio
CHD	coronary heart disease	IU	international units
CNS	central nervous system	i.v.	intravenous(ly)
COPD	chronic obstructive pulmonary disorder	LD ₅₀	lethal dose 50%
c.p.m.	counts per minute	LDL	low-density lipoprotein
CSF	cerebrospinal fluid	LOS, LES	lower (o)esophageal sphincter
CT	computed tomography	LPS	lipopolysaccharide
CVD	cerebrovascular disease	mAb	monoclonal antibody
DBP	diastolic blood pressure	MEM	minimal essential medium
DMEM	Dulbecco’s modified Eagle’s minimal essential medium	mmHg	
dose–response curve		MW	molecular weight
EBSS	Eisen’s balanced salt solution	NICE	National Institute for Clinical Excellence
EBV	Epstein–Barr virus	NOS	nitric oxide synthase
EC	Enzyme Commission	NSAID	nonsteroidal anti-inflammatory drug
EC	effective concentration	OD	optical density
ECL	enhanced chemiluminescence	PBMC	peripheral blood mononuclear cells
ED ₅₀	50% effective dose	PBS	phosphate-buffered saline
EDTA	ethylenediaminetetraacetic acid	PCR	polymerase chain reaction
EEG	electroencephalogram	PET	positron emission tomography
EGTA	ethyleneglycoltetraacetic acid	PGA ₁	prostaglandin A ₁
ELISA	enzyme-linked immunosorbent assay	p.o.	<i>per os</i> (orally)
EMBL	European Molecular Biology Laboratory	PRP	platelet-rich plasma
<i>Escherichia coli</i> (<i>E. coli</i>)		q.d.s./q.i.d.	four times daily
FACS	fluorescence-activated cell sorter	QoL	quality of life
FasL	Fas ligand	RNase	(not RNase) deoxyribonuclease
FB	fast blue	RPMI-1640	(no need to define)
FCA	Freund’s complete adjuvant	RR	relative risk
FCS	fetal calf serum	SBP	systolic blood pressure
FDA	Food and Drug Administration (US)	s.c.	subcutaneous(ly)
FITC	fluorescein isothiocyanate	t.d.s./t.i.d.	three times daily
GI	gastrointestinal	TEQ	toxic equivalents
HAART	highly active antiretroviral therapy	TG	triglyceride
haematoma/hamartoma	are often confused	TNF	tumour necrosis factor (usually a)
H&E	haematoxylin and eosin	tumour stages:	stage I, stage II, etc.
HDL	high-density lipoprotein	VCAM	vascular cell adhesion molecule
HIV	human immunodeficiency virus	VF	ventricular fibrillation
HPLC	high-performance liquid chromatography	w/v	weight/volume
hyperkalaemic		Xray (n.), X-ray (v., adj.)	
ICU	intensive care unit		

ANESTHESIOLOGY

Variables

<i>C</i>	concentration in liquid
<i>F</i>	fractional concentration
<i>P</i>	pressure
<i>Q</i>	volume (blood)
<i>V</i>	volume (gas)

Gas modifiers

<i>A</i>	alveolar
<i>B</i>	barometric
<i>D</i>	deadspace
<i>E</i>	expired
<i>I</i>	inspired
<i>T</i>	total (tidal)

General modifiers

.	first time derivative
-	mean (over variable)
-	mixed (over gas)
'	end value

Blood modifiers (subscript)

<i>a</i>	arterial
<i>b</i>	blood (general)
<i>c</i>	capillary
<i>p</i>	pulmonary
<i>s</i>	shunt
<i>t</i>	total (of CO)
<i>v</i>	venous

Examples

P_a	mean arterial pressure
V_{CO_2}	production rate of CO ₂
$P_{A_{N_2}}$	pressure of N ₂ in alveolar gas
$F_{E_{CO_2}}$	fraction CO ₂ in mixed expired gas
C_{a,O_2}	end-tidal O ₂ concentration in arterial blood

Common terms

ARDS	Acute Respiratory Distress Syndrome (use initial caps for full term)
b min ⁻¹	not bpm
<i>CBF</i>	cerebral blood flow
<i>CPP</i>	cardiopulmonary pressure
<i>CPR</i>	cardiopulmonary resuscitation
endtidal	not end tidal
<i>EPS</i>	electrophysiological studies
epinephrine	not adrenaline
FEV_1	forced expiratory volume in 1 s
<i>FVC</i>	forced vital capacity capacity
<i>HR</i>	heart rate HR heart rate
<i>IPPV</i>	intermittent positive pressure ventilation
<i>IPPV</i>	intermittent positive pressure ventilation
IRDS	Infant Respiratory Distress Syndrome
IRDS	Infant Respiratory Distress Syndrome
laryngotracheo-oesophageal cleft	not laryngo-tracheo-oesophageal cleft
$LVdP/dt$	rate of change of left ventricle pressure
nasopharyngeal	nasopharyngeal
$P_{E_{CO_2}}$	not $PECO_2$
<i>PEEP</i>	positive end-expired pressure
RA, RV	right atrium, right ventricle
RFA	radiofrequency ablation
TCAD	tricyclic antidepressant drugs
TOF	train of four

No need to define

ASA	American Society of Anesthesiologists
ASA PE	ASA physical status
AV	atrioventricular
CVP	central venous pressure
EMLA cream	$P_{E_{CO_2}}$
LMA	laryngeal mask airway
MAC	minimum alveolar concentration
NIBP	non-invasive blood pressure
PO	per oral

No need to provide manufacturer for LMA or Tuohy needle

HEMATOLOGY

Common terms

APTT	activated partial thromboplastin time	PE	pulmonary embolism
AT	antithrombin	PT	prothrombin time
BUN	blood urea nitrogen	PTT	partial thromboplastin time
CRP	C-reactive protein	Rco	Ristocetin co-factor (not RcoF)
CVP	central venous pressure	rFVIIa	recombinant factor VIIa
DDAVP	1-8-deamino-d-arginine vasopressin (also known as desmopressin)	TED	thromboembolic disease
DIC	disseminated intravascular coagulation	TGT	thrombin generation time
DVT	deep vein thrombosis	TIA	transient ischemic attack
factor (F)V Leiden		TM	thrombomodulin
FVII	factor VII	von Willebrand disease, not von Willebrand's disease	
hemophilia A, hemophilia B		(type 1, 2A, 2B, 3); VWD, not vWD.	
INR	international normalized ratio	von Willebrand factor, not von Willebrand's factor;	
LMWH	low molecular weight heparin	VWF, not vWF.	
MCV	mean corpuscular volume	VPC	ventricular premature contractions
PCF	platelet contractile force	VTE	venous thromboembolism
PCV	packed cell volume		

Drug names

Note use of capitals and trademarks (superscript).

beneFix [®]	Haemate-P	Kogenate [®]	OctanoI [™]
FEIBA [™]	Havrix [®]	NovoSeven [®]	

OBSTETRICS AND GYNECOLOGY

Common abbreviations

CIN	cervical intraepithelial neoplasia
FIGO	International Federation of Gynecologic Oncology (no need to give in full)
HPV	human papillomavirus
LOH	loss of heterozygosity
LVSI	lymphovascular space invasion (not lymphovascular)
SCC	squamous cell carcinoma
VAIN	vaginal intraepithelial neoplasia
VIN	vulvae intraepithelial neoplasia

Common terms

birthweight (not birth weight)
bottle-feed
breastfeed
breastmilk
gynecology (US spelling)
gynaecology (UK spelling)
Kaplan-Meier
Pap test
paraprofessional

IMMUNOLOGY

common terms

Anti-	
antibody	antimicrobial
antiserum	antitetanus
anti-goat	anti-human
anti-mouse	anti-rabbit

Immunoglobulin heavy chains	
IgA α	IgG γ
IgD δ	IgM μ
IgE ϵ	

ADCC	antibody-dependent cell-mediated cytotoxicity cellular	H-2	mouse version of MHC
α IL-4	anti-interleukin-4	HDL	high-density lipoprotein
Antigens:	<i>Der p</i> III, <i>Der f</i> III	HLA	human leukocyte antigen
APC	antigen-presenting cell autoantigen, autoimmune	[³ H]TdR	[³ H]thymidine
C3	the third component of complement	I-A ^b	(not I-Ab)
CALL	common acute lymphocytic leukemia	ICAM-1	intercellular adhesion molecule type 1
CD45RO ⁺		LCL	lymphoblastoid cell line
CD8 ⁺ CD4 ⁺ (thin space between parts)		mAb	monoclonal antibody
CDR	complementary determining region	MACS	magnetic antibody cell sorting
cIgM	cytoplasmic immunoglobulin G	MHC	major histocompatibility complex
CMC	cell-mediated cytotoxicity	MIP	macrophage inflammatory protein or medial intraparietal (area)
CTL	cytotoxic T lymphocyte	MOI	multiplicity of infection
CTLA	cytotoxic T-lymphocyte antigen	NK	natural killer
DLN	draining lymph nodes	PMN	polymorphonuclear cells/leukocytes
EIA	enzyme immunoassay	TCGF	T-cell growth factor (= IL-2)
F(ab') ₂		TCR	T-cell receptor (not TcR)
Fab'	(no brackets if not a dimer)	TDL	thoracic duct lymphocytes
FLI	Fos-like immunoreactivity	TGF	transforming growth factor
GM-CSF	granulocyte-macrophage colony stimulating factor	Th	T helper (Th1 never Th-1 or Th 1)
gp60	glycoprotein 60	TNF- α	Tumor necrosis factor- α
GVH	graft-versus-host	TRF	T-cell replacing factor

PHARMACOLOGY

Devices, products, and drugs

At **first mention** of a device, product, or drug, give its generic name (in lowercase; e.g., amoxicillin) followed (in parentheses) by its **brand name** (with initial capitals; e.g., Amoxil) and the **manufacturer's name, city, and state** (include Inc., Corp., Ltd, and Co.). **Trademark** (™) symbols are not used unless referring to a registered trademark (®), and then only at first mention.

- A siliastic catheter (Catheter X, Manufacturer, City, State) was used.
- Patients were given furosemide (Lasix, Hoechst-Roussel Pharmaceuticals, Inc., Somerville NJ).

In all subsequent references, only the **generic name** of the device, product, or drug should be used, unless a clear distinction is being made between two or more such products with different brand names.

Dosage/dose

- A **dosage** is a regimen, usually expressed as a quantity per unit of time. Always **abbreviate** b.i.d., t.i.d., q.i.d. (two, three, and four times daily, respectively) and h.s. (*hora somni*, at bedtime).
- A **dose** is a quantity to be administered.

Abbreviations

- In **drug administration**, always abbreviate i.d. (intradermal), i.m. (intramuscular), i.p. (intraperitoneal), i.v. (intravenous), p.o. (per os, oral), p.r. (per rectum, rectal), s.c. (subcutaneous), and s.l. (sublingual). Abbreviations **for drugs and other humoral mediators** use a roman or Greek character with an additional alphanumeric or numeric designator (usually subscript) (e.g., $\alpha 1A$, $\alpha 1B$ [alpha-adrenoceptors]; D_1 , D_2 [dopamine receptors]).

Common terms

AUC_{0-24}	area under the concentration–time curve measured from $t = 0$ to $t = 24$ h (mg h/L)	ED_{50}	median effective dose (mg)
α	absorption-rate coefficient	LD_{50}	median lethal dose (mg)
β	elimination-rate coefficient	NSAIDs	nonsteroidal anti-inflammatory drugs
beta-blocker		pKa	dissociation coefficient
β -adrenoceptor		Q	blood flow (L/h)
C_{max}	maximum concentration (of a drug)	$t_{1/2}$	half-life
Cl	clearance (L/h)	$t_{1/2\alpha}$	absorption half-life
D	dose (mg)	$t_{1/2\beta}$	elimination half-life
		$V_{d(\text{area})}$	volume of distribution (l)
		$V_{d(ss)}$	volume of distribution at steady state (L)

3.9 Nursing, Health and Dentistry

NURSING, MIDWIFERY AND ALLIED HEALTH

Common terms

audiotape/videotape (n.), audio-/video-tape (v.), audio-/video-taped (adj.)	Likert scale (5-point Likert scale)
birthweight (not birth weight)	low-birthweight/very low-birthweight
bottle-feed	meta-analysis
breastfeed/breastmilk	NHS Modernisation Agency
caregiver, caregiving	NHS trust (generic), NHS Trust (specific)
case finder, finding, manage, manager, management, study but caseload, caseworker	Pap test
day care	Pearson product–moment correlation coefficient (with en dash, not hyphen)
endpoint	pretest
firstborn	primigravadas (pl.)
full-term/preterm	Registered Nurse (RN)
health care	tape-record (v.); tape recorder, tape recording (n.); tape-recorded (adj.)
healthcare (adj.)	well-being
in utero (roman)	wet nurse
inpatient/outpatient	World Health Organization (WHO) or Organisation mondiale de la Santé (French) or Organización Mundial de la Salud (Spanish)
life span	
life-event	

Common abbreviations

ANA	American Nurses Association	ICNP®	International Classification for Nursing Practice
APTs	Acute Pain Teams	NHS	National Health Service (UK)
CINAHL	Cumulative Index to Nursing and Allied Health Literature	NIH	National Institutes of Health
DoH	Department of Health (UK)	PAHO	Pan American Health Organization
ICN	International Council of Nurses (US)		

DENTISTRY

Common terms

ABL	alveolar bone loss	OSCC	oral squamous cell carcinoma
AgNOR	argyrophilic nucleolar organizer	PBL	problem-based learning
BMD	bone mineral density	PDGF	platelet-derived growth factor
CK	cytokeratin	PGE2	prostaglandin E2
DMFT	decayed, missing, or filled permanent teeth	Sjögren's syndrome	
dmft	decayed, missing, or filled primary teeth	TGFβ1	transforming growth factor, 1
GCF	gingival crevice fluid	TIMP	tissue inhibitor of matrix metalloproteinase
GSTM	glutathione S-transferase μ1	TMD	temporomandibular disorder
HGF	hepatocyte growth factor	TMJ	temporomandibular joint
IGF-1	insulin-like growth factor-1	TNF	tumor necrosis factor
MMP	matrix metalloproteinase	VEGF	vascular endothelial growth factor
OHIP	oral health impact profile		
OLP	oral lichen planus		

RECOMMENDED TEXTS

Blackwell's Dictionary of Nursing (1994). Blackwell Science, Oxford.
Zwemer T.J. (1998) Mosby's Dental Dictionary. Mosby, London.

3.10 Social and Behavioral Sciences

GEOGRAPHY

See the section "Places" in Part 1 of this guide.

Common terms

destination choice	interregional	subarea
distance-related	intraregional	subnational
economies-of-scale	nonsurvey	town-wide
export-demand	per capita	tract-level geography
export-sector	policymaker	trade-area survey
graph-theoretic	shortest-path	worldwide
gross and net migration	shortest-route/path	
in- and out-migration	street-front	

SOCIOLOGY

Please refer to the "Politically sensitive terms" section of "English Usage and Grammar" in Part 1 of the guide. In particular, you should avoid gender bias and ethnic stereotyping.

DO use	DO NOT use
person, people, humankind	man, men, mankind
"he or she," "her or him," "his or hers" (varying the order occasionally) or change to plural "they"	"he/she," "him/her," "his/hers"

PSYCHOLOGY

Please refer to the "Politically sensitive terms" section of "English Usage and Grammar" in Part 1 of the guide.

Common terms

Asian American (n. and adj.)	cross section (n.); cross-sectional (adj.)
Black	Likert
bipolar	midlife (n.)
bivariant	multiscale
broad-based	neo-Freudian
covariance	sociocultural
Cronbach's alpha	well-being
cross-cultural	White

Common abbreviations

ANOVA	analysis of variance	CES-D	Center for Epidemiology Depression Scale
BPI	Basic Personality Inventory	DIF	differential item functioning
CECS	Courtauld Emotional Control Scale	WAI	Weiberger Adjustment Inventory

RECOMMENDED TEXTS

APA (2001) *Publication Manual* (5th edn). American Psychological Association, Washington, DC (available from <http://www.apastyle.org/pubmanual.html>).

ASA (1996) *American Sociological Association Style Guide* (2nd edn). American Sociological Association, Washington, DC (available from the ASA Executive Office, 1307 New York Avenue NW, Suite 700, Washington, DC 20036, USA).

3.11 Resources for Journal Abbreviations

- **Index Medicus**
<ftp://nlmpubs.nlm.nih.gov/online/journals/ljiweb.pdf>
- **PubList** (You need to register before using this one, but it's free to do so.)
<http://www.publist.com/>
- **ISI Journal Abbreviations Index**
<http://library.caltech.edu/reference/abbreviations/>
- **Guide to Journal Abbreviations**
<http://www.library.uiuc.edu/vex/vetdocs/jnabbrev.htm>

3.12 Recommended Reference Books

STYLE MANUALS

The Chicago Manual of Style: The Essential Guide for Writers, Editors, and Publishers, 15th ed. (2003)
by The University of Chicago Press, Chicago, IL.

- The “essential reference for authors, editors, proofreaders, indexers, copywriters, designers, and publishers” in all subject areas.

American Medical Association Manual of Style: A Guide for Authors and Editors (AMA), 9th ed. (1998)
by Cheryl Iverson (Editor), American Medical Association, Chicago, IL.

MLA Style Manual and Guide to Scholarly Publishing, 2nd ed. (1998)

by J. Gibaldi, The Modern Language Association of America, New York, NY.

- Guide for graduate students, teachers, and scholars in the humanities and for professional writers in many fields.

Publication Manual of the American Psychological Association, 5th ed. (2001)

by the American Psychological Association, Washington, DC.

(available from the following link: <http://www.apastyle.org/pubmanual.html>)

- Style manual for behavioral and social sciences.

Scientific Style and Format: The CBE Manual for Authors, Editors, and Publishers, 6th ed. (1995)

by E. J. Huth, Cambridge University Press, Cambridge, UK.

- Covers all sciences, not just biology and the medical sciences.
- Both US and UK preferences are recognized.

American Sociological Association Style Guide, 2nd ed. (1996)

American Sociological Association, Washington, DC.

(available from the ASA Executive Office, 1307 New York Avenue NW, Suite 700, Washington, DC 20036, USA).

DICTIONARIES AND REFERENCE WORKS***Merriam-Webster's Collegiate Dictionary, 11th ed. (2003)***

For standard US spelling.

Dictionary of Medical Acronyms and Abbreviations, 4th ed. (2001)

by S. Jablonski, Hanley & Belfus, Philadelphia, PA.

List of Journals Indexed in Index Medicus (published annually)

US Department of Health and Human Sciences, National Library of Medicine, Bethesda, MD.

See also <http://www.nlm.nih.gov/tsd/serials/lji.html>

Mathematics into Type (1999)

by E. Swanson, American Mathematical Society, Providence, RI.

Medical Directory (2003)

See <http://www.informalaw.com/LPP863/?source=healthcare>

Stedman's Medical Dictionary, 27th ed. (2000)

Lippincott Williams & Wilkins, Hagerstown, MD.

Who's Who

See <http://www.marquiswhoswho.com/>

The Elements of Style, 4th ed. (2000)

by W. Strunk Jr. and E.B. White, Allyn & Bacon, Needham Heights, MA.

GENERAL BOOKS***How to Copyedit Scientific Books and Journals (1986)***

by M. O'Connor, ISI Press, Philadelphia, PA.

Woe is I: The Grammarphobe's Guide to Better English in Plain English (1996)

by P. T. O'Conner. Riverhead Books, New York, NY.

On Writing, Editing and Publishing, 2nd ed. (1986)

by J. Barzun, University of Chicago Press, Chicago, IL.

Acknowledgments

We are grateful to the "Define Editorial Standards" project team (Patrick Baker, Helen Birchall, Erin Bogle, Donna Cole, Maria Cusano, Ruth Gibb, Rachel Leslie, Kim Marelo, Steve Raywood, and Ruth Swanney) who researched this guide, to Jane Farquharson for writing it, and to Helen Holt and Annie Wilson for proofreading it. We thank Beth Remmes and Jennifer Henriquez for the US translation and proofread.

We are indebted to Alice Franek and her colleagues in Asia for allowing us to make extensive use of their excellent style guide. We are very grateful to all those who contributed to and commented on earlier drafts of this guide.