

For Debate . . .

Uniform requirements for manuscripts submitted to biomedical journals

International Steering Committee of Medical Editors*

British Medical Journal, 1978, 1, 1334-1336

The editors of the journals listed at the end of this paper (Appendix 1) have agreed to receive manuscripts prepared and submitted in accordance with the requirements described here. Authors must also consult the instructions printed in the journal to which they plan to submit their manuscripts for information concerning the clinical or scientific material that is suitable for submission to the particular journal and for additional requirements, such as the types of papers that may be prepared—for example, original articles, review articles, case reports, and brief reports—acceptable languages, length of articles, approved abbreviations besides those listed in this paper, and requirements concerning transfer of copyright.

These guidelines will be revised at suitable intervals. Direct inquiries and comments about material in this paper to an editor of one of the participating journals.

Summary or requirements

Type manuscripts double-space, including title page, abstract, text, acknowledgments, references, tables, and legends.

The manuscript should include the following components, each to begin on a new page, in this sequence: title page; abstract and key words; text; acknowledgments; references; tables: each table, complete with title and footnotes, on a separate page; legends for illustrations.

Illustrations should be good quality, unmounted glossy prints no larger than 20.3 × 25.4 cm.

Submit three copies of manuscript and figures (in heavy-paper envelope). Submitted manuscript should be accompanied by covering letter and permissions to reproduce published material or to use illustrations that may identify subjects. Keep a copy of everything submitted.

Preparation of manuscript

Type manuscripts on 20.3 × 26.7 cm or 21.6 × 27.9 cm (8 × 10½ in or 8½ × 11 in) or ISO A4 (212 × 297 mm) white bond paper with margins of at least 2.5 cm (1 in). Use double spacing throughout, including title page, abstract, text, acknowledgments, references, tables, and legends for illustrations. Submit three copies of the complete manuscript and three sets of glossy prints of all figures.

Begin each of the following sections on separate pages: title page, abstract and key words, text, acknowledgments, references, individual tables, and legends. Number pages consecutively, beginning with the title page. Type the page number in the upper right-hand corner of each page.

Manuscripts are reviewed for possible publication with the understanding that they are being submitted to one journal at a time and have not been published, simultaneously submitted, or already accepted for publication elsewhere. This does not preclude consideration of a manuscript that has been rejected by another journal or of a complete report that follows publication of preliminary findings elsewhere, usually in the form of an abstract. Copies of any possible duplicative published material should be submitted together with the manuscript that is being sent for consideration.

TITLE PAGE

The title page should contain: (1) the title of the article, which should be concise but informative; (2) a short running head or footline of no more than 40 characters (count letters and spaces) placed at the foot of the title page and identified; (3) first name, middle initial, and last name of each author, with highest academic degree(s); (4) name of department(s) and institution(s) to which the work should be attributed; (5) disclaimers, if any; (6) name and address of author responsible for correspondence about the manuscript; (7) name and address of author to whom requests for reprints should be addressed, or statement that reprints will not be available from the author; (8) the source(s) of support in the form of grants, equipment, or drugs.

ABSTRACT AND KEY WORDS

The second page should carry an abstract of not more than 150 words. State the purposes of the study or investigation, basic procedures (study subjects or experimental animals and observational and analytical methods), main findings (give specific data and their statistical significance, if possible), and the principal conclusions. Emphasise new and important aspects of the study or observations. Use only approved abbreviations (see Appendix 2 for commonly used abbreviations).

Key (indexing) terms—Below the abstract provide and identify as such three to 10 key words or short phrases that will assist indexers in cross-indexing your article and that may be published with the abstract. Use terms from the Medical Subject Headings list from *Index Medicus* whenever possible.

TEXT

The text of observational and experimental articles is usually, but not necessarily, divided into sections with the headings Introduction, Methods, Results, and Discussion. Long articles may need sub-headings within some sections to clarify their content, especially the Results and Discussion sections. Other types of articles need not conform to this format, and authors should consult individual journals for further guidance.

*Members of the International Steering Committee are: William R Barclay, Susan Crawford, Edward J Huth, Stephen Lock, Harriet R Meiss, Ian Munro, Frances Porcher, Arnold S Relman, David Shepard, Therese Southgate, John F Murray (chairman).

Introduction—State clearly the purpose of the article. Summarise the rationale for the study or observation. Give only strictly pertinent references and do not review the subject extensively.

Methods—Describe your selection of the observational or experimental subjects (patients or experimental animals, including controls) clearly. Identify the methods, apparatus (manufacturer's name and address within parenthesis), and procedures used in sufficient detail to allow other workers to reproduce the results. Give references to established methods, including statistical methods; provide references and brief descriptions of methods that have been published but are not well known; describe new or substantially modified methods, give reasons for using them, and evaluate their limitations. When reporting experiments on human or animal subjects, indicate whether the procedures followed were in accord with the ethical standards of the committee of human experimentation of the institution in which the experiments were done or in accordance with the Helsinki Declaration of 1975. Identify precisely all drugs and chemicals used, including generic name(s), dosage(s), and route(s) of administration. Do not use patients' names, initials, or hospital numbers. Include numbers of observations and their statistical significance when appropriate. Detailed statistical analyses, mathematical derivations, and the like may sometimes be suitably presented in the form of one or more appendixes.

Results—Present your results in logical sequence in the text, tables, and illustrations. Do not repeat in the text all the data in the tables or illustrations, or both; emphasise or summarise only important observations.

Discussion—Emphasise the new and important aspects of the study and conclusions that follow from them. Do not repeat data given in the Results section. Include in the Discussion the implications of the findings and their limitations and relate the observations to other relevant studies. Link the conclusions with the goals of the study but avoid unqualified statements and conclusions not completely supported by your data. Avoid claiming priority and alluding to work that has not been completed. State new hypotheses when warranted, but clearly label them as such.

ACKNOWLEDGMENTS

Acknowledge only persons who have made substantive contributions to the study. Authors are responsible for obtaining written permission to do so because such an acknowledgment may imply endorsement of the data and conclusions.

REFERENCES

Number references consecutively in the order in which they are first mentioned in the text. Identify references in text, tables, and legends by arabic numerals (within parentheses). References cited only in tables or in legends to figures should be numbered in accordance with a sequence established by the first identification in the text of the particular table or illustration.

Use the form of references adopted by the United States National Library of Medicine and used in *Index Medicus*. For references not included in *Index Medicus* use the style of the examples cited subsequently; these adhere to the abbreviated form of references established by the American National (ANSI) Standard for Bibliographic References and have been approved by the National Library of Medicine.

The names of journals should be abbreviated according to the style used by *Index Medicus*; consult the "List of Journals Indexed," which is printed each year in the January issue of *Index Medicus*.

Try to avoid the use of abstracts as references; "unpublished observations" and "personal (written, not verbal) communications" may not be used as references, although references to them may be inserted (within parentheses) in the text. Include manuscripts accepted but not yet published among the references as in press; designate the journal followed by "in press" (within parentheses). Cite manuscripts submitted but not yet accepted in the text as "unpublished observations" (within parentheses).

The references must be verified against the original documents. Examples of correct forms of references are given below.

Journal

- (1) *Standard journal article*—(List all authors when six or less; when seven or more, list only first three.)

Solter, N A, Wasserman, S I, Auster, K F: Cold urticaria: Release into the circulation of histamine and eosinophilic chemotactic factor of anaphylaxis during cold challenge. *N Engl J Med* 294: 687-690, 1976

(2) Corporate author

The Committee on Enzymes of the Scandinavian Society for Clinical Chemistry and Clinical Psychology. Recommended method for the determination of gamma-glutamyltransferase in blood. *Scand J Clin Lab Invest* 36: 119-125, 1976

Anonymous. Epidemiology for primary health care. *Int J Epidemiol* 5: 224-225, 1976

Books and other monographs

(3) Personal author(s)

Osler, A G: *Complement: mechanisms and functions*. Englewood Cliffs, Prentice-Hall, 1976

(4) Corporate author

American Medical Association Department of Drugs. *AMA drug evaluations*. 3rd ed. Littleton, Publishing Sciences Group, 1977.

(5) Editor, compiler, chairman as author

Rhodes, A J, Van Rooyen, C E: *comp. Textbook of virology: for students and practitioners of medicine and other health sciences*. 5th ed. Baltimore, Williams & Wilkins, 1968.

(6) Chapter in book

Weinstein, L, Swartz, M N: Pathogenetic properties of invading microorganisms. pp. 457-472. In: Sodeman, W A Jr, Sodeman, W A, ed. *Pathogenic Physiology: Mechanisms of disease*. Philadelphia, W B Saunders, 1974.

Yalow, R S: New insights with radioimmunoassay. Special Lecture, Western Association of Physicians, Feb 1, 1978, Carmel, Ca.

National Center for Health Statistics. Acute conditions, incidence and associated disability, United States July 1968-June 1969, Series 10, No 69, 1972, DHEW Pub No (HSM)72-1036.

(7) Newspaper article

Shaffer, R A: Advances in chemistry are starting to unlock mysteries of the brain: Discoveries could help cure alcoholism and insomnia, explain mental illness. *The Wall Street Journal*. Aug 12, 1977, 1(col.1), 10(col.1).

TABLES

Type each table on a separate sheet; remember to double-space. Do not submit tables as photographs. Number tables consecutively and supply a brief title for each. Give each column a short or abbreviated heading. Place explanatory matter in footnotes, not in the heading. Explain in footnotes all non-standard abbreviations that are used in each table. For footnotes, use the following symbols in order: *, †, ‡, §, ¶, ||, **, ††, etc. Identify statistical measures of variations such as SD and SEM.

Omit internal horizontal and vertical rules.

Cite each table in the text in consecutive order.

If you use data from another published or unpublished source, obtain permission and acknowledge fully.

A number of tables that is excessive in relation to the length of the text may produce difficulties in the layout of pages. Examine issues of the journal to which you plan to submit your paper to estimate how many tables may be used per 1000 words of text.

On recommendation of the editor after acceptance of a manuscript, additional tables containing important backup data too extensive to be published may be deposited with the National Auxiliary Publications Service or made available by the author(s). In that event an appropriate statement will be added to the text. Submit such tables for consideration with the manuscript.

ILLUSTRATIONS

Submit three complete sets of figures. Figures should be professionally drawn and photographed; freehand or typewritten lettering is unacceptable. Instead of original drawings, roentgenograms, and other material, send sharp, glossy black and white photographic prints no larger than 20.3 × 25.4 cm (8 × 10 in). Letters, numbers, and symbols should be clear and even throughout, and of sufficient size that when reduced for publication each item will still be legible. Titles and detailed explanations belong in the legends for illustrations, not in the illustrations themselves.

Each figure should have a label pasted on its back indicating the number of the figure, the names of the authors, and the top of the figure. Do not write on the back of the figures or mount them on

cardboard, or scratch or mar them using paper clips. Do not bend figures.

Photomicrographs must have internal scale markers. Symbols, arrows, or letters used in the photomicrographs should contrast with the background.

If photographs of people are used, either the subjects should not be identifiable or their pictures must be accompanied by written permission to use the photograph.

Cite each figure in the text in consecutive order. If a figure has been published, acknowledge the original source and submit written permission of the copyright holder to reproduce the material. Permission is required, regardless of authorship or publisher, except for documents in the public domain.

For illustrations in colour, supply colour transparencies and, when necessary, accompanying drawings that are marked to indicate the part to be reproduced; in addition, send two positive colour prints to assist editors in making recommendations. Some journals publish illustrations in colour only if the author assumes the extra costs.

LEGENDS FOR ILLUSTRATIONS

Type legends for illustrations double-space on a separate page with arabic numerals corresponding to the illustrations. When symbols, arrows, numbers, or letters are used to identify parts of the illustrations, identify and explain each one clearly in the legend. Explain internal scale and identify method of staining in photomicrographs.

Abbreviations

Use only standard abbreviations (see Appendix 2). Consult the *Council of Biology Editors Style Manual* (4th edition) and the *ELSE Manual* for lists of additional standard abbreviations. Avoid abbreviations in the title. The full term for which an abbreviation stands should precede its first use in the text unless it is a standard unit of measurement.

In many countries the International System of Units (SI) is standard or is becoming so. Report measurements in the units in which they were made. Journals may use these units, convert them to another system, or use both.

Submission of manuscripts

Mail manuscripts in a heavy paper envelope, enclosing the manuscript and figures in cardboard, if necessary, to prevent bending of photographs during mail handling. Place photographs and transparencies in heavy paper envelopes.

Manuscripts should be accompanied by a covering letter from the author who will be responsible for correspondence regarding the manuscript. The covering letter should contain a statement that the manuscript has been seen and approved by all authors. The letter should give any additional information that may be helpful to the editor, such as the type of article the manuscript represents in the particular journal; information on publication of any part of the manuscript and whether the author(s) will be willing to meet the cost of reproducing colour illustrations. Include copies of any permissions needed to reproduce published material or to use illustrations of identifiable subjects.

Appendix 1

PARTICIPATING JOURNALS (TENTATIVE LIST)

American Journal of Diseases of Children	Archives of Surgery
American Review of Respiratory Disease	British Medical Journal
Annals of Internal Medicine	Canadian Journal of Public Health (Revue Canadienne de Sante Publique)
Archives of Dermatology	Canadian Medical Association Journal
Archives of General Psychiatry	Clinical and Investigative Medicine
Archives of Internal Medicine	Circulation
Archives of Neurology	Journal of the American Medical Association
Archives of Ophthalmology	Lancet
Archives of Otolaryngology	New England Journal of Medicine
Archives of Pathology and Laboratory Medicine	

Appendix 2

COMMONLY USED APPROVED ABBREVIATIONS

TABLE I—Standard units of measurements and statistical terms

Term	Abbreviation or symbol	Term	Abbreviation or symbol
<i>Standard units of measurement</i>			
ampere	A	joule	J
Angstrom	Å	kelvin	K
barn	b	kilogram	kg
candela	cd	liter, litre	l
coulomb	C	meter, metre	m
counts per minute	cpm or counts/min	minute	min
counts per second	cps or counts/sec	molar	M
curie	Ci	mole	mol
degree Celsius	°C	newton	N
disintegrations per minute	dpm or dis/min	normal (concentration)	N
disintegrations per second	dps or dis/sec	ohm	Ω
electronVolt	eV	osmol	osmol
equivalent	Eq	pascal	Pa
farad	F	revolutions per minute	rpm or r/min
gauss	G	second	s
gram	g	square centimeter	cm ²
henry	H	volt	V
hertz	Hz	watts	W
hour	h or hr		
international unit	IU		
<i>Statistical terms</i>			
correlation coefficient	r	probability	P
degrees of freedom	df	standard deviation	SD
mean	\bar{x}	standard error of the mean	SEM
not significant	NS	"Student's" t test	t test
number of observations	n	variance ratio	F

TABLE II—Combining factors

Name and factor	Symbol	Name and factor	Symbol	Name and factor	Symbol
tera- (10 ¹²)	T	deca- (10 ¹)	da	nano- (10 ⁻⁹)	n
giga- (10 ⁹)	G	deci- (10 ⁻¹)	d	pico- (10 ⁻¹²)	p
mega- (10 ⁶)	M	centi- (10 ⁻²)	c	femto- (10 ⁻¹⁵)	f
kilo- (10 ³)	k	milli- (10 ⁻³)	m	atto- (10 ⁻¹⁸)	a
hecto- (10 ²)	h	micro- (10 ⁻⁶)	μ		

TABLE III—Other common abbreviations

Term	Abbreviation or symbol
adenosinediphosphatase	ADPase
adenosine 5'-diphosphate (adenosine diphosphate)	ADP
adenosine 5'-monophosphate (adenosine monophosphate, adenylic acid)	AMP
adenosine triphosphatase	ATPase
adenosine 5'-triphosphate (adenosine triphosphate)	ATP
adrenocorticotrophic hormone (adrenocorticotropin)	ACTH
bacillus Calmette-Guérin	BCG
body temperature, pressure, and saturated	BTPS
basal metabolic rate	BMR
central nervous system	CNS
coenzyme A	coA
deoxyribonucleic acid (deoxyribonucleate)	DNA
dihydroxyphenethylamine	dopamine
electrocardiogram	ECG
electroencephalogram	EEG
enteric cytopathogenic human orphan (virus)	ECHO
ethyl	Et
ethylenediaminetetraacetate	EDTA
gas-liquid chromatography	GLC
guanosine 5'-monophosphate (guanosine monophosphate, guanylic acid)	GMP
haemoglobin	Hb
logarithm (to base 10; common logarithm)	log
logarithm, natural	ln
methyl	Me
Michaelis constant	K _m
negative logarithm of hydrogen ion activity	pH
partial pressure of CO ₂	PCO ₂
partial pressure of O ₂	PO ₂
per	/
per cent	%
radiation (ionising, absorbed dose)	rad
respiratory quotient	RQ
specific gravity	sp gr
standard atmosphere	atm
standard temperature and pressure	STP
ultraviolet	uv
volume	vol
volume ratio (volume per volume)	vol/vol
weight	wt
weight per volume	wt/vol
weight ratio (weight per weight)	wt/wt