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CLINICAL SCIENCE

Guidance for Authors

CONTENTS

	<i>page</i>
1. Policy of the Journal	
1.1. Scope	i
1.2. The Editorial Board	i
1.3. The editorial process	i
1.4. Ethics of investigations on human subjects	ii
1.5. Originality of papers	ii
2. Submission of Manuscripts: General Information and Format	
2.1. General	ii
2.2. Full papers	ii
2.3. Short Communications	iii
2.4. Correspondence	iii
2.5. Arrangements for large amounts of information	iii
2.6. Proof corrections	iii
2.7. Offprints.	iii
2.8. Availability on MEDLINE	iii
3. Miscellaneous Notes	
3.1. Abbreviations	iv
3.2. Anatomical nomenclature	iv
3.3. Animals, plants and micro-organisms	iv
3.4. Buffers and salts	iv
3.5. Computer modelling	vi
3.6. Doses	iv
3.7. Enzymes	iv
3.8. Evaluation of measurement procedures	iv
3.9. Figures and Tables	iv
3.10. Footnotes	v
3.11. Isotope measurements	v
3.12. Radionuclide applications in man	v
3.13. Methods	v
3.14. Nomenclature of disease	v
3.15. Powers in Tables and Figures	v
3.16. References	v
3.17. Solutions,	vi
3.18. Spectrophotometric data	vi
3.19. Spelling	vi
3.20. Statistics	vi
3.21. Trade names	vi
4. Units: The SI System	vi
5. Abbreviations, Conventions etc.	vii

1. POLICY OF THE JOURNAL

1.1. *Scope*

Clinical Science publishes papers in the field of clinical investigation, provided they are of a suitable standard and contribute to the advancement of knowledge in this field. The term 'clinical investigation' is used in its broad sense to include studies in animals and the whole range of biochemical, physiological, immunological and other approaches that may have relevance to disease in man. Studies which are confined to normal subjects, or animals, or are purely methodological in nature may be acceptable. The material presented should permit conclusions to be drawn and should not be only of a preliminary nature. The journal publishes four types of manuscript, namely invited Editorial Reviews, Full Papers, Short Communications and Correspondence. In addition, *Clinical Science* publishes abstracts of the proceedings of the Medical Research Society and also that Society's Annual Guest Lecture.

1.2. *The Editorial Board*

The Board comprises Editors for the Medical Research Society and the Biochemical Society and a Chairman and Deputy Chairman who are drawn alternately from the two Societies. Members of the Board retire after a maximum of 5 years; the Chairman serves in his capacity for 2 years. The membership of the Board is designed to cover as wide a range of interests as possible.

The main function of the Board is to decide on the acceptability of submitted papers, but it also deals with general matters of editorial policy. Financial policy is dealt with separately by the Committee of Management.

1.3. *The editorial process*

A submitted paper is first read by the Chairman of the Editorial Board who then sends it to an Editor. The latter considers the paper in detail and sends it to one or more referees (who remain anonymous) from outside the membership of the Board. The Editor returns it with his recommendation to the Chairman who then writes formally to

the authors. The ultimate responsibility of acceptance for publication lies with the Chairman. If the Chairman is for any reason unavailable, the Deputy Chairman assumes this function.

1.4. *Ethics of investigations on human subjects*

Authors must state in the text of their paper the manner in which they have complied, where necessary, with the recommendations on human investigations published in the Medical Research Council report of 1962/63 [*British Medical Journal* (1964) ii, 178–180]. Consent **must** be obtained from each patient or subject after full explanation of the purpose, nature and risks of all procedures used and the fact that such consent has been given should be recorded in the paper. Papers should also state that the Ethical Committee of the Institution in which the work was performed has given approval to the protocol. The Editorial Board will not accept papers the ethical aspects of which are, in the Board's opinion, open to doubt.

1.5. *Originality of papers*

Submission of a paper to the Editorial Board is taken to imply that it reports unpublished work, that it is not under consideration for publication elsewhere and that, if accepted for publication by *Clinical Science*, it will not be published elsewhere in the same form, either in English or in any other language, without the consent of the Editorial Board. This does not usually apply to previous publication of oral communications in brief abstract form. In such cases authors should enclose copies of the abstracts. When a paper has been accepted for publication the author, or in the case of multiple authorship the author with whom correspondence has taken place, will be asked to sign a statement vesting the copyright in the Editorial Board. Requests for consent for reproduction of material published in *Clinical Science* should be addressed to the Editorial Manager.

2. SUBMISSION OF MANUSCRIPTS: GENERAL INFORMATION AND FORMAT

2.1. *General*

Papers submitted for publication should be sent to the Editorial Manager, *Clinical Science*, 7 Warwick Court, London WC1R 5DP.

The submission should contain four copies (of which three may be photocopies) of the typescript,

Tables, Figures etc. The authors should retain one copy of the paper. The Editorial Board does not accept responsibility for damage or loss of papers submitted, although great care is taken to ensure safety and confidentiality of the typescript during the editorial process. In the case of multiple authorship, the covering letter should indicate that the approval of all co-authors has been obtained.

Papers should be presented so that they are intelligible to the non-specialist reader of the journal. This is particularly important in highly specialized fields and a very brief résumé of the current state of knowledge is usually helpful. Certain types of material, e.g. mathematical formulations requiring more than trivial derivations, should be given in a separate Appendix.

Where the reader is referred to previous works by the same author(s) for important details relevant to the present work, it often speeds up assessment if reprints are enclosed with the typescript. This is of particular importance in relation to methodology.

The dates of receipt and acceptance of the paper will be published. If the paper has to be returned to the authors for revision and is not resubmitted within 1 month, the date of receipt will be revised accordingly. For Short Communications the published date will always be that of receipt of the final version. It is emphasized that badly presented or unduly long papers will be returned for revision and delays in publication will be inevitable. Similar delays will be incurred if the typescript is not prepared strictly in accordance with the instructions detailed below.

2.2. *Full papers*

The authors should refer to a current issue of *Clinical Science* to make themselves familiar with the general layout. Concise presentation is very important for rising costs are a severe constraint on space. **The length of manuscript and the number of Figures and Tables must be kept to a minimum.** Extensive Tables of data can be deposited with the Royal Society of Medicine (see 2.5). *Guidance for Authors* is usually published in the January issue of the journal, and revised periodically.

Typescripts should be, in general, arranged as follows:

(a) *Title page*. Title: this should be as informative as possible, since titles of papers are being increasingly used in indexing and coding for information storage and retrieval. The title should indicate the species in which the observations reported have been made. The numbering of parts in a series of papers is not permitted.

List of authors' names (degrees and appointments are not required).

Laboratory or Institute of origin.

Key words: for indexing the subject of the paper; they should, if possible, be selected from the current issues of 'Medical Subject Headings' (MeSH), produced by the *Index Medicus*.

Short title: for use as a running heading in the printed text; it should not exceed forty-five characters and spaces.

Author for correspondence: the name and address of the author to whom queries and requests for reprints should be sent.

(b) *Summary*. This should be a brief statement arranged in **numbered paragraphs** of what was done, what was found and what was concluded and should rarely exceed 250 words. Contributors from non-English speaking countries are invited to include a translation of the summary in their own language. Abbreviations should be avoided as far as possible and must be defined. Statistical and methodological details including exact doses should also be avoided unless they are essential to the understanding of the summary.

(c) *Introduction*. This should contain a clear statement of the reason for doing the work, but should not include either the findings or the conclusions.

(d) *Methods*. The aim should be to give sufficient information in the text or by reference to permit the work to be repeated without the need to communicate with the author.

(e) *Results*. This section should not include material appropriate to the Discussion section.

(f) *Discussion*. This should not contain results and should be pertinent to the data presented.

(g) *Acknowledgments*. These should be as brief as possible.

(h) *References*. See p. v for the correct format.

(i) *Figures and Tables*. See p. iv.

2.3. Short Communications

The Short Communication should describe completed work, and should not be merely a preliminary communication. The format of Short Communications should be similar to that of Full Papers, but should not exceed 1200 words of text. **One Figure or Table** is allowed, but if neither is included the text may be expanded to 1400 words. The passage of Short Communications through the editorial process can frequently be expedited and contributors are encouraged to take advantage of these facilities when rapid publication is of importance and the material can be presented concisely.

The paper should appear in print within 3 months of acceptance. When submitting Short Communications, authors should make it quite clear that the work is intended to be treated as a Short Communication.

2.4. Correspondence

Letters containing critical assessments of material published in *Clinical Science*, including Editorial Reviews, will be considered for the Correspondence section of the journal. Such letters should be sent to the Editorial Manager, *Clinical Science*, within 6 months of the appearance of the article concerned. They will be sent to the authors for comment and both the letter and any reply by the author will be published together. Further correspondence arising therefrom will also be considered for publication. Consideration will also be given to publication of letters on ethical matters.

2.5. Arrangements for large amounts of information

It is impracticable to publish very large sets of individual values or very large numbers of diagrams, and under these circumstances a summary of the information only should be included in the paper. The information from which the summary was derived should be submitted with the typescript and, if the latter is accepted, the Editors may ask for a copy of the full information and diagrams to be deposited with the Librarian, the Royal Society of Medicine, 1 Wimpole Street, London W1M 8AE, who will issue copies on request. Experience has shown that such requests are frequently received.

2.6. Proof corrections

These are expensive and corrections of other than printers' errors may have to be charged to the author.

2.7. Offprints

Fifty offprints are supplied free and additional copies may be obtained at terms, based upon the cost of production, that will be given with the proofs. All offprints should be ordered when the proofs are returned.

2.8. Availability on MEDLINE

Summaries of papers in *Clinical Science* are available on-line on teleprinters participating in the MEDLINE system run by the National Library of Medicine, National Institutes of Health, Bethesda, Maryland, U.S.A.

3. MISCELLANEOUS NOTES

3.1. Abbreviations

Abbreviations should be avoided; if used they must be defined at the first mention; new abbreviations should be coined only for unwieldy names which occur frequently. Abbreviations should not appear in the title nor, if possible, in the Summary. A list of accepted abbreviations is on p. vi. Numbers, not initials, should be used for patients and subjects.

3.2. Anatomical nomenclature

This should follow the recommendations of the International Anatomical Nomenclature Committee (1966) *Nomina Anatomica*, 3rd edn, Excerpta Medica Foundation, Amsterdam.

3.3. Animals, plants and micro-organisms

The full binomial specific names should be given at first mention for all experimental animals other than common laboratory animals. The strain and, if possible, the source of laboratory animals should be stated. Thereafter in the text, single letter abbreviations may be given for the genus; if two genera with the same initial letter are studied, abbreviations such as *Staph.* and *Strep.* should be used.

3.4. Buffers and salts

The acidic and basic components should be given, together with the pH. Alternatively, a reference to the composition of the buffer should be given. Further details are provided in the *Biochemical Journal* (1978) **169**, 9.

When describing solutions containing organic anions and their parent acids, the salt designator (e.g. lactate, urate, oxalate) should be used in preference to the name of the acid (lactic, uric, oxalic) unless it is certain that virtually all of the acid is in the undissociated form.

The composition of incubation media should be described, or a reference to the composition should be given.

3.5. Computer modelling

Papers concerned primarily with computer modelling techniques are acceptable provided that use of such techniques leads to a clear choice between two or more alternative hypotheses, or to the formulation of a new hypothesis amenable to experimental challenge or verification, or provides some new insight into the behaviour of a particular physiological system. Extensive technical details of hardware and software should not be given.

3.6. Doses

Doses of drugs should be expressed in mass terms, e.g. milligrams (mg) or grams (g), and also (in parentheses) in molar terms, e.g. mmol, mol, where this appears to be relevant. Molecular weights of many drugs may be found in *The Merck Index*, 8th edn, Merck and Co. Inc., N.J., U.S.A.

3.7. Enzymes

Nomenclature should follow that given in *Enzyme Nomenclature* (1978), Academic Press, London and New York, and Enzyme Commission (EC) number should be quoted at the first mention. Where an enzyme has a commonly used informal name, this may be employed after the first formal identification. A unit of enzyme activity should preferably be expressed as that amount of material which will catalyse transformation of 1 μ mol of the substrate/min under defined conditions, including temperature and pH. Alternatively, or when the natural substrate has not been fully defined, activity should be expressed in terms of units of activity relative to that of a recognized reference preparation, assayed under identical conditions. Activities of enzymes should normally be expressed as units/ml or units/mg of protein.

3.8. Evaluation of measurement procedures

When a new measuring procedure has been used, or when an established procedure has been applied in a novel fashion, an estimate of the precision of the procedure should be given. This should, as far as possible, indicate what sources of variation have been included in this estimate, e.g. variation of immediate replication, variation within different times of day, or from day to day etc.

If the precision of measurement varies in proportion to the magnitude of the values obtained, it can best be expressed as the coefficient of variation; otherwise it should be expressed by an estimate of the (constant) standard error of a single observation, or by estimates at several points within the range of observed values.

When recovery experiments are described the approximate ratio of the amount added to the amount already present and the stage of the procedure at which the addition was made should be stated.

3.9. Figures and Tables

These are expensive to print and their number should be kept to a minimum. Their appropriate position in the paper should be indicated in the margin of the text. References to Figures and

Tables should be in Arabic numerals, e.g. Fig. 3, and they should be numbered in order of appearance. In general, the same data should not be presented in both a Figure and a Table.

Figures, with captions attached, should be supplied as original drawings or matt photographs together with photocopies. All Figures should have their number and the authors' names written in pencil on the back; the top of the Figure should be indicated with a pencilled arrow. Acceptable symbols for experimental points are ●, ▲, ■, ○, △, □. The symbols × or + must be avoided. The same symbols must not be used for two curves where the points might be confused. For scatter diagrams, solid symbols are preferred. When a particular variable appears in more than one Figure, the same symbol should be used for it throughout, if possible.

Curves should not be drawn beyond the experimental points, nor should axes extend appreciably beyond the data. Only essential information that cannot readily be included in the legend should be written within the Figure.

Figures for half-tone reproduction should be submitted as glossy prints. They are particularly expensive to print and their use should be avoided as far as possible.

Tables should be typed separately from the text. They should have an underlined title followed by any legend.

Captions for the Figures, and titles and legends for the Tables, should make them **readily understandable** without reference to the text. Adequate statistical information, including that on regression lines, should be included in Figure captions where appropriate.

3.10. Footnotes

These should be avoided as far as possible but where they are used in Tables they should be identified by the symbols * † ‡ § || ¶, in that order.

3.11. Isotope measurements

The information given should include (a) conditions of radioactivity counting, e.g. infinitely thick, infinitely thin; (b) the nature of the phosphor used in liquid-scintillation counting; (c) details of corrections made to the observed count rate, e.g. for 'quenching' or 'cross-over'; (d) standard deviation of the results or a statement of the minimum total counts above background collected and the background value.

In general the specific radioactivity of the starting materials should be given, preferably in

terms of radioactivity per unit weight or, for stable isotopes, as atoms % excess.

Pending the general introduction of SI units radioactivity should continue to be expressed in terms of the curie (Ci) followed by the corresponding figure in terms of the becquerel (Bq: disintegrations/s), in parentheses, and suitably rounded.

3.12. Radionuclide applications in man

If new or modified radionuclide applications in man are described, an estimate of the maximal possible radiation dose to the body and critical organs should be given.

For the time being this can continue to be expressed in rems, but with the corresponding figure in sieverts (Sv) given in parentheses after it.

3.13. Methods

In describing certain techniques, namely centrifugation (when the conditions are critical), chromatography and electrophoresis, authors should follow the recommendations published by the Biochemical Society (currently, *Biochemical Journal* (1981) 193, 1–21).

3.14. Nomenclature of disease

This should follow the *International Classification of Disease* (8th revision, World Health Organization, Geneva, 1969) as far as possible.

3.15. Powers in Tables and Figures

Care is needed where powers are used in Table headings and in Figures to avoid numbers with an inconvenient number of digits. For example: (i) an entry '2' under the heading 10^3k means that the value of k is 0.002; an entry '2' under the heading $10^{-3}k$ means that the value of k is 2000. (ii) A concentration 0.00015 mol/l may be expressed as 0.15 under the heading 'concn. (mmol/l)' or as 150 under the heading 'concn. (μ mol/l)' or as 15 under the heading ' $10^5 \times$ concn. (mol/l)', but not as 15 under the heading 'concn. (mol/l $\times 10^{-5}$)'.

3.16. References

The numerical citation system is now used: references in the text are numbered consecutively in the order in which they are first mentioned, the numerals being given in brackets, e.g. [22]. References cited in Figure legends or Tables only should be numbered in a sequence determined by the position of the first mention in the text of the Figure or Table. References should be listed in

numerical order and the names of all authors of a paper should be given, with the full title of the paper and the source details in full including the first and last page numbers, e.g.

- [2] CLARK, T.J.H., FREEDMAN, S., CAMPBELL, E.J.M. & WINN, B.R. (1969) The ventilatory capacity of patients with chronic airways obstruction. *Clinical Science*, **36**, 307–316.

When the quotation is from a book, the following format should be used, giving the relevant page or chapter number:

- [20] MOLLISON, P.L. (1967) *Blood Transfusion in Clinical Medicine*, 4th edn, p. 50. Blackwell Scientific Publications, Oxford.
- [22] REID, L. (1968) In: *The Lung*, p. 87. Ed. Liebow, A.A. & Smith, D.E. Williams and Wilkins, Baltimore.

References to 'personal communications' and 'unpublished work' should appear in the text only and not in the list of references. The name and initials of the source of information should be given. When the reference is to material that has been accepted for publication but has not yet been published, this should be indicated in the list of references by 'In press' together with the name of the relevant journal and, if possible, the expected date of publication. If such a citation is of major relevance to the manuscript submitted for publication authors are advised that the editorial process might be expedited by the inclusion of a copy of such work. In the case of quotations from personal communications the authors should state in the covering letter that permission for quotation has been obtained.

3.17. Solutions

Concentration of solutions should be described where possible in molar terms (mol/l and subunits thereof), stating the molecular particle weight if necessary. Values should not be expressed in terms of normality or equivalents. Mass concentration should be expressed as g/l or subunits thereof, for example mg/l or $\mu\text{g/l}$. For solutions of salts, molar concentration is always preferred to avoid ambiguity as to whether anhydrous or hydrated compounds are used. Concentrations of aqueous solutions should be given as mol/l or mol/kg (g/l or g/kg if not expressed in molar terms) rather than % (w/v) or % (w/w). It should always be made clear whether concentrations of components in a reaction mixture are final concentrations or the concentrations in solutions added.

3.18. Spectrophotometric data

The term 'absorbance' [$\log(I_0/I)$] should be used rather than 'optical density' or 'extinction'. The

solvent, if other than water, should be specified. Symbols used are: A , absorbance; a , specific absorption coefficient ($\text{litre g}^{-1} \text{cm}^{-1}$) (alternatively use $A_{1\text{cm}}^{1\%}$); ϵ , molar absorption coefficient (the absorbance of a molar solution in a 1 cm light-path) ($\text{litre mol}^{-1} \text{cm}^{-1}$, not $\text{cm}^2 \text{mol}^{-1}$).

3.19. Spelling

Clinical Science uses as standards for spelling the *Concise or Shorter Oxford Dictionary of Current English* (Clarendon Press, Oxford) and *Butterworth's Medical Dictionary* (Butterworths, London).

3.20. Statistics

Papers are frequently returned for revision (and their publication consequently delayed) because the authors use inappropriate statistical methods. Two common errors are the use of means, standard deviations and standard errors in the description and interpretation of grossly non-normally distributed data and the application of t -tests for the significance of difference between means in similar circumstances, or when the variances of the two groups are non-homogeneous. In some circumstances it may be more appropriate to provide a 'scattergram' than a statistical summary.

A reference should be given for all methods used to assess the probability of a result being due to chance. The format for expressing mean values and standard deviations or standard errors of the mean is, for example: mean cardiac output 10.4 l/min (SD 1.2; $n = 11$). Degrees of freedom should be indicated where appropriate. Levels of significance are expressed in the form $P < 0.01$.

3.21. Trade names

The name and address of the supplier of special apparatus and of biochemicals should be given. In the case of drugs, approved names should always be given with trade names and manufacturers in parentheses.

4. UNITS: THE SI SYSTEM

The recommended *Système International* (SI) units [see *Quantities, Units and Symbols*, 2nd edn (1975) The Royal Society, London] are used by *Clinical Science*. **All papers submitted should use these units** except for blood pressure values, which should be expressed in mmHg, or gas tensions, where values at the author's discretion may be given as mmHg (with kPa in parentheses) or as kPa (with mmHg in parentheses) in the text and either as mmHg or as kPa in Figures, which (if practicable) should have scales in both units. Airways pressure should be expressed in kPa. Where molecular weight is known, the amount of a chemical or drug should be expressed in mol or in

an appropriate subunit, e.g. mmol. Energy should be expressed in joules (J).

The basic SI units and their symbols are as follows:

Physical quantity	Name	Symbol
length	metre	m
mass	kilogram	kg
time	second	s
electric current	ampere	A
thermodynamic temperature	kelvin	K
luminous intensity	candela	cd
amounts of substance	mole	mol

The following are examples of derived SI units:

Physical quantity	Name	Symbol	Definition
energy	joule	J	$\text{kg m}^2 \text{s}^{-2}$
force	newton	N	$\text{kg m s}^{-2} = \text{J m}^{-1}$
power	watt	W	$\text{kg m}^2 \text{s}^{-3} = \text{J s}^{-1}$
pressure	pascal	Pa	$\text{kg m}^{-1} \text{s}^{-2} = \text{N m}^{-2}$
electric charge	coulomb	C	A s
electric potential difference	volt	V	$\text{kg m}^2 \text{s}^{-2} \text{A}^{-1} = \text{J A}^{-1} \text{s}^{-1}$
electric resistance	ohm	Ω	$\text{kg m}^2 \text{s}^{-3} \text{A}^{-2} = \text{V A}^{-1}$
electric conductance	siemens	S	$\text{kg}^{-1} \text{m}^{-2} \text{s}^3 \text{A}^2 = \Omega^{-1}$
electric capacitance	farad	F	$\text{A}^2 \text{s}^3 \text{kg}^{-1} \text{m}^{-2} = \text{A s V}^{-1}$
frequency	hertz	Hz	s^{-1}
volume	litre	l	10^{-3}m^3

The word 'litre' has been accepted as a special name for cubic decimetre (1 litre = 1 dm³).

Both the basic and derived SI units, including the symbols of derived units that have special names, may be preceded by prefixes to indicate multiples and submultiples. The prefixes should be as follows:

	Prefix	Symbol	Multiple	Prefix	Symbol
10 ⁶	mega	M	10 ⁻³	milli	m
10 ³	kilo	k	10 ⁻⁶	micro	μ
10 ²	hecto	h*	10 ⁻⁹	nano	n
10	deka	da	10 ⁻¹²	pico	p
10 ⁻¹	deci	d*	10 ⁻¹⁵	femto	f
10 ⁻²	centi	c*			

* To be avoided where possible (except for cm).

Compound prefixes should not be used, e.g. 10⁻⁹ m should be represented by 1 nm, not 1 μm .

Notes:

(i) Full stops are not used after symbols.

(ii) Minutes (min), hours (h), days and years will continue to be used in addition to the SI unit of time [the second (s)].

(iii) The solidus may be used in a unit as long as it does not have to be employed more than once,

e.g. mmol/l is acceptable, but ml/min/kg is not, and should be replaced by $\text{ml min}^{-1} \text{kg}^{-1}$.

5. ABBREVIATIONS, CONVENTIONS, DEFINITIONS, SYMBOLS AND SPECIAL COMMENTS

As well as standard symbols and abbreviations that have been accepted by international bodies, and which can be used without definition, this list shows selected abbreviations in the form of groups of capital letters (e.g. ALA, ECF, MCHC) which when used must be defined in the text as indicated on p. iv. The standard abbreviations for amino acids are only for use in Figures and Tables or for peptide sequences.

absorbance	A
acceleration due to gravity	g
adenosine 3':5'-cyclic mono-phosphate	cyclic AMP
adenosine 5'-phosphate	AMP
adenosine 5'-pyrophosphate	ADP
adenosine 5'-triphosphate	ATP
adenosine triphosphatase	ATPase
adrenocorticotrophic hormone	ACTH
adrenoceptor (see also blocking agents)	
alanine	Ala
alternating current	a.c.
alveolar minute ventilation	\dot{V}_A
alveolar to arterial oxygen tension difference	$(P_{A,O_2} - P_{a,O_2})$
ampere	A
aminolaevulinic acid	ALA
angiotensin	ANG; reference amino acid abbreviations are used as prefix within brackets: e.g. [Sar ¹ ,Val ⁵ ,Ala ⁸]ANG
Ångstrom (Å)	not used; express in nm (1 Ångstrom = 10 ⁻¹ nm)
antidiuretic hormone	ADH (when referring to the physiological secretion)
arginine	Arg
arteriovenous	a-v: permitted in Figures and Tables
asparagine	Asn
aspartic acid	Asp
atmosphere (unit of pressure)	not used; express in kPa (1 atmosphere = 101.325 kPa)
atomic weight	at. wt.
becquerel	Bq (1 d.p.s.)
blocking agents	e.g. β -adrenoceptor antagonists preferred
blood pressure	express in mmHg
blood urea nitrogen	not used; recalculate as urea, express in mmol/l
blood volume	BV
body temperature and pressure, saturated	BTPS

British Pharmacopoeia	write in full and give edition	electromotive force	e.m.f.
calculated	calc. (in Tables only)	electron spin resonance	e.s.r.
'Calorie' (= 1000 cal)	<i>not used</i> ; recalculate as kilojoules (1 'Calorie' = 4.184 kJ)	electronvolt	eV (for radiation energies)
carbon dioxide output (in respiratory physiology)	\dot{V}_{CO_2} ; express in ml STP/min	equation	eqn.
cardiac frequency	f_c ; in beats/min	equivalents (amount of a chemical)	<i>not used</i> ; recalculate in molar terms
cardiac output	express in l/min	erythrocyte count	express as 10^{12} cells/l
centimetre	cm	erythrocyte sedimentation rate	ESR
clearance of x	C_x	ethanol, ethanolic	<i>not</i> ethyl alcohol or alcoholic
coenzyme A and its acyl derivatives	CoA and acyl-CoA	ethylenediaminetetra-acetate exchangeable	EDTA Na _e , K _e etc., for total exchangeable sodium, potassium etc.
compare	cf.	Experiment (with reference numeral)	Expt.; plural, Expts.
complement fractions	C1–C9	expired minute ventilation	\dot{V}_E
compliance (respiratory physiology)	C; express in 1 kPa^{-1}	extinction	<i>use</i> absorbance
concentrated	conc.	extracellular fluid	ECF
concentration	concn.; may be denoted []; e.g. plasma [HCO_3^-]	extracellular fluid volume	ECFV
conductance (respiratory physiology)	G; express in $1 \text{ s}^{-1} \text{ kPa}^{-1}$	extraction ratio of x (renal)	E_x
correlation coefficient	r; may be used without definition	Figure (with reference numeral)	Fig.; plural, Figs.
counts/min, counts/s	c.p.m., c.p.s.	filtered load of x (renal)	F_x
cubic centimetres	<i>use</i> ml	follicle-stimulating hormone	FSH
curie	Ci (1 Ci = 3.7×10^{10} d.p.s.)	forced expiratory volume in 1.0 s	FEV _{1.0}
cycle/s	Hz	fractional concentration in dry gas	F
cysteine	Cys	fractional disappearance rate	k (as in $A = A_0 e^{-kt}$)
dates	e.g. 11 August 1970	frequency of respiration	f_R ; in breaths/min
dead-space minute ventilation	\dot{V}_D	functional residual capacity	FRC
dead-space volume	V_D	gas-liquid chromatography	g.l.c.
degrees, Celsius or centigrade	$^\circ\text{C}$	gas transfer factor	T; in $\text{mmol min}^{-1} \text{ kPa}^{-1}$
deoxy (prefix)	<i>not</i> desoxy	glomerular filtration rate	GFR
deoxycorticosterone	DOC	glutamic acid	Glu
deoxycorticosterone acetate	DOCA	glutamine	Gln
deoxyribonucleic acid	DNA	glutathione	GSH (reduced); GSSG (oxidized)
dialysate	diffusate preferred; 'dialysate' should be clearly defined	glycine	Gly
diethylaminoethylcellulose	DEAE-cellulose	gram(me)	g
differential of x with respect to time	\dot{x} (= dx/dt)	gravitational field, unit of (9.81 m s^{-2})	g
1,25-dihydroxycholecalciferol	1,25-(OH) ₂ D ₃	growth hormone	GH; if human, HGH
dilute	dil.	guery	Gy (100 rads)
2,3-diphosphoglycerate	2,3-DPG	haematocrit	<i>not</i> allowed; <i>use</i> packed cell volume (PCV)
direct current	d.c.	haemoglobin	Hb; express in g/dl
disintegrations/min	d.p.m.	half-life	$t_{1/2}$
disintegrations/s	d.p.s.	hertz (s^{-1})	Hz
dissociation constant		histidine	His
acidic	K_a	hour	h
basic	K_b	human chorionic gonadotropin	HCG
apparent	e.g. K'_a	human placental lactogen	HPL
minus log of	pK	hydrocortisone	<i>use</i> cortisol
doses	avoid Latin designations such as b.d. and t.i.d.	hydrogen ion activity minus log of	aH; express in nmol/l
dyne	dyn; used for vascular resistance	25-hydroxycholecalciferol	pH
elastance	E; express in Pa m^{-3}	hydroxyproline	25-(OH)D ₃
electrocardiogram	ECG	immunoglobulins	Hyp
electroencephalogram	EEG		IgA, IgD, IgE, IgG, IgM

injection routes:	use abbreviations only in Figures	millimetre of mercury	mmHg; for blood pressure and, at authors' discretion, for gas tensions: see p. vi (1 mmHg = 0.133 kPa)
intra-arterial	i.a.		
intramuscular	i.m.		
intraperitoneal	i.p.		
intravenous	i.v.	millimolar (concentration)	mmol/l; <i>not</i> mM
subcutaneous	s.c.	millimole	mmol
international unit	i.u. (definition and reference should be given for uncommon or ambiguous applications, e.g. enzymes)	minimum	min.
		minute (60 s)	min
		molal	mol/kg
		molar (concentration)	mol/l; <i>not</i> M
		molar absorption coefficient	ϵ (the absorbance of a molar solution in a 1 cm light-path)
intracellular fluid	ICF	mole	mol
intracellular fluid volume	ICFV	molecular weight	mol. wt.
ionic strength	<i>I</i>	nicotinamide-adenine dinucleotide	NAD if oxidation state not indicated NAD ⁺ if oxidized NADH if reduced
isoleucine	Ile	nicotinamide-adenine dinucleotide phosphate	NADP if oxidation state not indicated NADP ⁺ if oxidized NADPH if reduced
isotonic	<i>not used</i> ; specify composition of fluid, e.g. NaCl, 150 mmol/l	normal	should not be used to denote the concentration or osmolarity of a solution
isotopically labelled compounds	e.g. [U- ¹⁴ C]glucose, [1- ¹⁴ C]glucose, sodium [1- ¹⁴ C]-acetate; use ¹³¹ I-labelled albumin, <i>not</i> [¹³¹ I]albumin for simple molecules: ¹⁴ CO ₂ , ³ H ₂ O	normal temperature and pressure	<i>use</i> standard temperature and pressure (STP)
joule	J	nuclear magnetic resonance number (in enumerations)	n.m.r. no. (in Tables only)
kilogram(me)	kg	observed	obs. (in Tables only)
kilopond	<i>not used</i> ; 1 kilopond = 9.8067 N	ohm	Ω
lactate dehydrogenase	LDH	ornithine	Orn
leucine	Leu	ortho-	<i>o-</i>
leucocyte count	express as 10 ⁹ cells/l	orthophosphate (inorganic)	<i>P</i> ₁
lipoproteins (serum)		osmolality	express in mol (or mmol)/kg
high density	HDL	oxygen uptake per minute (in respiratory physiology)	$\dot{V}O_2$; express in ml STP/min
low density	LDL	packed cell volume	PCV
very low density	VLDL	page, pages	p., pp.
litre	1 (write in full if confusion with the numeral 1 is possible)	para-	<i>p-</i>
logarithm (base 10)	log	para-aminohippurate	PAH
logarithm (base e)	ln	partial pressure	<i>P</i> ; express in either kPa or mmHg (see p. vi)
luteinizing hormone	LH		<i>P</i> _A , <i>O</i> ₂
lysine	Lys	e.g. alveolar, of O ₂	<i>P</i> _A , <i>CO</i> ₂
maximum	max.	arterial, of CO ₂	<i>P</i> _C , <i>O</i> ₂
mean corpuscular haemoglobin	MCH; express in pg	capillary, of O ₂	<i>P</i> \bar{V} , <i>CO</i> ₂
mean corpuscular haemoglobin concentration	MCHC; express in g/dl	mixed venous, of CO ₂	<i>P</i> _A
mean corpuscular volume	MCV; express in fl (1 μ m ³ = 1 fl)	pascal	Pa
median lethal dose	LD ₅₀	per	/
meta-	<i>m-</i>	per cent	%
melting point	m.p.	petroleum ether	<i>not used</i> ; <i>use</i> light petroleum and give boiling range
methanol, methanolic	<i>not used</i> ; methyl alcohol	phenylalanine	Phe
methionine	Met	plasma renin activity	express as pmol of angiotensin I h ⁻¹ ml ⁻¹
metre	m		
Michaelis constant	<i>K</i> _m	plasma volume	PV
micromole	μ mol	poise	1 poise = 10 ⁻¹ N s m ⁻²
micron (10 ⁻⁶ m)	μ m; <i>not</i> μ		
milliequivalent	<i>not used</i> ; give amount in mmol		
millilitre	ml		

potential difference	p.d.	specific conductance of airways	sGaw; express in $\text{s}^{-1} \text{kPa}^{-1}$
power output	W (1 W = 0.1635 kpm/min)	standard deviation	SD } may be used
precipitate	ppt.	standard error of the mean	SEM } without definition
pressure	P; express in kPa (except for blood pressures and gas tensions: see p. 6); 1 kPa = 7.5 mm Hg	standard temperature and pressure	STP
probability of an event being due to chance alone	P	steroid nomenclature	see <i>Biochemical Journal</i> (1969) 113, 5–28; (1972) 127, 613–617
proline	Pro	sulphydryl	use thiol or SH
protein-bound iodine (plasma)	PBI	sum	Σ
pulmonary capillary blood flow	\dot{Q}_c	Svedberg unit	S
pyrophosphate (inorganic)	PPi	temperature (absolute) (empirical)	T
rad (radiation dose; 10^{-5} J absorbed/g of material)	not abbreviated (100 rads = 1 Gy)	temperature, thermodynamic	t
red blood cell	use erythrocyte; express counts as 10^{12} cells/l	thin-layer chromatography	$^{\circ}\text{K}$
red cell mass	RCM	threonine	t.l.c.
relative band speed (partition chromatography)	R_F	thyrotrophic hormone	Thr
rem	100 ergs/g \times quality factor	thyrotrophin-releasing hormone	TSH
renin	see plasma renin activity	tidal volume	TRH
residual volume	RV	time (symbol)	V_T
resistance (rheological)	R; express in $\text{kPa l}^{-1} \text{s}$	time of day	t
respiratory exchange ratio (pulmonary)	R	torr	e.g. 18.15 hours
respiratory quotient (metabolic)	RQ	total lung capacity	not used; use kPa (1 torr = 0.133 kPa)
revolutions	rev.	tryptophan	TLC
rev./min	not r.p.m.; use g if possible (see p. viii)	tubular maximal reabsorptive capacity for x	Trp
ribonucleic acid	RNA	tyrosine	$T_{m,x}$
röntgen	R	ultraviolet	Tyr
saline	define at first mention [e.g. NaCl solution (154 mmol/l)]	urinary concentration of x	u.v.
saturation	S, e.g. Sa_2O_2 for arterial oxygen saturation (see partial pressure for other analogous abbreviations)	valency	U_x
second (time)	s	valine	e.g. Fe^{2+} , not Fe^{++}
serine	Ser	variance ratio	Val
sievert	Sv (1 J/kg \times quality factor)	vascular resistance	F
solvent systems	e.g. butanol/acetic acid/water (4:1:1, by vol.), butanol/acetic acid (4:1, v/v)	velocity	express in $\text{kPa l}^{-1} \text{s}$ (with value in dyn s cm^{-5} in parentheses); primary values of differential vascular pressure (mmHg) and flow (l/min) should always also be given in Tables or text as appropriate
species	sp., plural spp.	venous admixture	v ; express as m s^{-1}
specific activity	sp. act. Confusion must be avoided between e.g. specific radioactivity and the specific activity of an enzyme	veronal	\dot{Q}_{va} used only for buffer mixtures; otherwise use 5,5'-diethylbarbituric acid
		viscosity, dynamic	η
		viscosity, kinematic	ν
		vital capacity	VC
		volt	V
		volume of blood (in cardio-respiratory physiology)	\dot{Q} ; use \dot{Q} for blood flow rate
		watt	W
		wavelength	λ
		weight	wt.
		white blood cell	use leucocyte: express counts as 10^9 cells/l

Volume 60

AUTHOR INDEX

- ALBERTI, K.G.M.M. 579–585
AMANN, F.W. 483–489, 571–577
AMERY, A. 377–385
AMTORP, O. 157–164
AXON, A.T.R. 115–118
AYNSLEY-GREEN, A. 349–353
- BALASUBRAMANIAM, S. 435–439
BALDWIN, C.J. 579–585
BARON, P.G. 537–542, 543–548
BARRAND, M.A. 519–525, 527–535
BAUMINGER, S. 405–410
BEELEY, J.A. 179–184
BELFIELD, P.W. 139–143
BELL, M. 303–310
BEREZNOWSKI, Z. 565–569
BERGLUND, G. 229–232
BERNHEIM, J. 405–410
BISDEE, A. 17–23
BLOOM, S.R. 349–353
BOBIK, A. 217–219
BONJOUR, J.-P. 101–107, 171–177
BOOMSMA, F. 491–498
BRAGANZA, J.M. 303–310
BREWER, D.B. 693–702
BUCKMAN, M. 17–23
BÜHLER, F.R. 483–489, 571–577
BULLEN, A.W. 109–113
BULLOCK, S. 419–426
BUNCH, C. 191–198
BURGESS, E.M. 499–506
BURKINSHAW, L. 457–461
BUTLER, J. 1–4
- CALLINGHAM, B.A. 519–525, 527–535
CAMERON, I.R. 441–449
CAMERON, J.S. 81–86
CAMPBELL, D. 355–361
CAMPBELL, E.J.M. 463–466, 513–518
CANGIANO, J.L. 479–482
- CARNEY, S.L. 549–554
CASTLEDEN, C.M. 587–589
CHAN, T.K. 681–688
CHAN, V. 681–688
CHETTLE, D.R. 457–461
CHOU, H.J. 633–637
CHOW, F.P.R. 327–329
CLAGUE, M.B. 233–235
CLARK, T.J.H. 11–15
CLOIX, J.F. 339–341
COBDEN, I. 115–118
COFFMAN, J.D. 5–9
COHEN, R.A. 5–9
COHEN, R.D. 245–246, 537–542, 543–548
COMPSTON, J.E. 241–243
CORAZZA, G.R. 109–113
CRAVEN, A.H. 261–265
CRAWFORD, G.A. 73–80
CREMER, J.E. 87–93
CUMBERBATCH, M. 555–564
CUMMING, G. 17–23
CUMMINS, P. 33–40, 251–259
CUNNINGHAM, V.J. 87–93
- DAMKJAER NIELSEN, M. 591–593
DANDONA, P. 327–329
DAVIES, I.B. 399–404
DAVIES, T.J. 595–597
DE BRUYN, J.H.B. 491–498
DERKX, F.H.M. 491–498
DICKINSON, C.J. 471–477
DIRKS, J.H. 549–554
DOBBS, R.J. 659–666
DORMANDY, T.L. 295–301
DUNCAN, G. 145–155
DÜSING, R. 467–469
- ECKERSALL, P.D. 179–184
EDMONDS, C.J. 311–318
EDSTRÖM, S. 319–326
EISER, N.M. 363–370
EKMAN, L. 319–326
ERIKSSON, S. 95–100
ESLER, M. 217–219
EVEMY, K.L. 33–40
- FAGARD, R. 377–385
FARRINGTON, K. 55–63
- FINCH, A.M. 411–418
FITCH, W. 355–361
FLAHERTY, D.K. 225–228
FLECKNELL, P.A. 335–338
FLEISCH, H. 101–107, 171–177
FLEMSTRÖM, G. 427–433
FOG-MØLLER, F. 157–164
FRANCIS, M.J.O. 617–623
FRANKEL, H.L. 399–404
FUNCK-BRENTANO, J.L. 339–341
FYHRQUIST, F. 267–272
- GANDEVIA, S.C. 463–466, 513–518
GARDNER, M.L.G. 707–710
GARNER, A. 427–433
GEJYO, F. 331–334
GEORGE, C.F. 247–250
GIESE, J. 591–593
GILMORE, I.T. 65–72
GOLDSTRAW, P.W. 139–143
GRAHAME-SMITH, D.G. 191–198
GREENING, A.P. 507–512
GREGERMAN, R.I. 633–637
GUZ, A. 363–370
- HAGENFELDT, L. 95–100
HALL, R. 109–113
HALL, R.J.C. 441–449
HAMILTON, G. 327–329
HAMMETT, F.G. 241–243
HANSON, P.G. 225–228
HARRIS, A.L. 191–198
HARTLING, O.J. 675–679
HARVEY, J.E. 579–585
HEATH, J.R. 667–674
HENDERSON, R.M. 543–548
HENQUET, J.W. 25–31
HENRIKSEN, O. 157–164
HERLITZ, H. 229–232
HERVEY, G.R. 457–461
HEYS, A.D. 295–301
HIGENBOTTAM, T. 11–15
HILL, G. 451–456
HILTON, P.J. 237–239
HOBBS, K.E.F. 327–329
HUGHES, J.M.B. 507–512

- HUGHES, R.L. 355–361
 HUGI, K. 101–107
 HUTTON, R. 327–329
- ILES, R.A. 245–246, 537–542, 543–548
 ISAACSON, L.C. 283–293
 ITO, G. 331–334
- JACKMAN, G. 217–219
 JAMES, V.H.T. 399–404
 JAMES, W.P.T. 519–525, 527–535
 JARRETT, R.J. 81–86
 JENKINS, W. 207–212
 JEWKES, R. 17–23
 JOHN, M. 335–338
 JOHNSON, R.H. 145–155
 JONES, P.R.M. 457–461
 JONES, R.B. 237–239
 JONES, S.M. 703–706
 JUNG, R.T. 519–525, 527–535
- KARLBERG, B.E. 229–232
 KARLBERG, I. 319–326
 KASIDAS, G.P. 411–418
 KEELING, P.W.N. 237–239
 KEIR, M.J. 233–235
 KELLY, D. 221–224
 KELSEY, C.R. 659–666
 KHO, T. 25–31
 KILLIAN, K.J. 463–466, 513–518
 KING, R.F.G.J. 451–456
 KING, R.V. 499–506
 KINOSHITA, Y. 331–334
 KIOWSKI, W. 483–489, 571–577
 KLASS, H.J. 303–310
 KLINGMÜLLER, D. 467–469
 KNIBBS, A.V. 457–461
 KÖRBER, A. 467–469
 KORNER, P. 217–219
 KRAFT, C.A. 587–589
 KRAMER, H.J. 467–469
 KROOS, M.J. 185–190
- LAI, C.L. 681–688
 LAM, H. 157–164
 LAMBIE, D.G. 145–155
 LANGLEY, F. 17–23
 LAWRENCE, G.M. 693–702
 LECKIE, B.J. 119–130
 LEONARD, P. 217–219
 LEVENSON, J.A. 653–658
 LIJNEN, P. 377–385
- LITTLER, W.A. 33–40, 251–259
 LOCKHART, A. 371–375, 599–605
 LOSOWSKY, M.S. 109–113
 LUCAS, A. 349–353
 LUNDHOLM, K. 319–326
 LUNDIN, S. 229–232
 LUSH, D.J. 393–398
 LYSBO SVENDSEN, T. 675–679
- MACFIE, J. 451–456
 MAGILL, P. 241–243
 MAHONY, J.F. 73–80
 MAKAREWICZ, W. 565–569
 MANCINI, M. 435–439
 MARTÍNEZ-MALDONADO, M. 479–482
 MARTINEZ, P. 387–392
 MATHIAS, C.J. 165–170, 399–404
 MATHIE, R.T. 355–361
 MATSEN III, F.A. 499–506
 MATTOCK, M. 81–86
 MCCORMICK, J. 625–631
 MCGURK, B. 251–259
 MEILTON, V. 81–86
 MERRETT, A.L. 241–243
 MIETTINEN, A. 267–272
 MILLS, J. 363–370
 MITROPOULOS, K.A. 435–439
 MOHAMMED, M.N. 55–63
 MONET, J.D. 339–341
 MOORHEAD, J.F. 55–63
 MORGAN, D.B. 457–461, 555–564
 MÜHLBAUER, R.C. 171–177
 MUNDAY, K.A. 393–398
 MYANT, N.B. 435–439
- NAIK, R.B. 165–170
 NAISH, P. 47–53
 NASCIMENTO, L. 479–482
 NEWMAN, S.P. 55–63
 NIELSEN, A.H. 41–46
 NOBLE, A.R. 393–398
 NOBLE, M.I.M. 17–23
- OGG, C.S. 81–86
 O'MALLEY, B.P. 595–597
- PEARSON, S.B. 667–674
 PEART, W.S. 399–404, 639–651
 PETERS, T.J. 207–212, 435–439
 PLUMB, J.A. 707–710
- PODJARNY, E. 405–410
 POSTIGLIONE, A. 435–439
 POTTER, C.G. 191–198
 POULSEN, K. 41–46
 POURMOTABBED, G. 633–637
- QAZZAZ, S. 47–53
 QUERIDO, D. 283–293
- RAFFESTIN, B. 371–375
 RAHN, K.H. 25–31
 RASMUSSEN, S. 591–593
 RATHAUS, M. 405–410
 RAVID, M. 405–410
 REED, B. 221–224
 REES, J. 689–692
 REID, J.L. 165–170
 RICHARDS, H.K. 393–398
 RIGDEN, B.G. 261–265
 RIZZOLI, R. 101–107
 ROBINSON, B.F. 659–666
 ROBINSON, P.J. 109–113
 RODRIGUEZ-SARGENT, C. 479–482
 ROSE, G.A. 411–418
 ROSENTHAL, F.D. 595–597
 ROSS, B. 419–426
 ROSZA, I. 327–329
 ROTHWELL, J. 115–118
- SAFAR, M.E. 653–658
 SAGNELLA, G.A. 639–651
 SAIAG, B. 599–605
 SANCHEZ-IBARROLA, A. 47–53
 SARNA, G.S. 87–93
 SAVERYMUDDU, S. 659–666
 SCHALEKAMP, M.A.D.H. 491–498
 SCHERSTÉN, T. 319–326
 SCHOLS, M. 25–31
 SCOTT, J. 207–212
 SCOTT, J.M. 221–224
 SEED, A. 17–23
 SHETTY, P.S. 519–525, 527–535
 SHUSTER, S. 689–692
 SIGSTRÖM, L. 229–232
 SILK, D.B.A. 607–615
 SILVA, P. 419–426
 SIMON, A.CH. 653–658
 SIMMONS, C.W. 499–506
 SKAGEN, K. 157–164, 213–216
 SKEWS, H. 217–219
 SMITH, G.P. 207–212

- SMITH, J.A. 543-548
 SMITH, R. 617-623
 SMITH, T. 311-318
 SNASHALL, P.D. 363-370
 STANKIEWICZ, A. 565-569
 START, M.K. 81-86
 STEWART, J.H. 73-80
 STOLL, R.W. 273-282
 STURNIOLO, G. 303-310
 SUMI, H. 199-205
 SYKES, B.C. 617-623
- TAKASUGI, S. 199-205
 TATTERSFIELD, A.E. 579-585
 TAYLOR, S.H. 139-143
 TEMMAR, M.M. 653-658
 THIJSSEN, H. 25-31
 THOM, A. 625-631
 THOMAS, R.D. 139-143
 THOMPSON, R.P.H. 65-72,
 237-239
 TIKKANEN, I. 267-272
 TOKI, N. 199-205
 TOMKINS, A. 131-137
- TOPPING, R.M. 261-265
 TÖRNROTH, T. 267-272
 TORRETTI, J. 703-706
 TOTOMOUKOUO, J.M. 653-
 658
 TRAP-JENSEN, J. 675-679
 TUCKER, S. 87-93
 TUNNEY, A. 387-392
 TURNER-WARWICK, M. 261-
 265
 TURTON, C.W.G. 261-265
- ULMANN, A. 339-341
 UNGAR, A. 625-631
 VALETTE, H. 371-375
 VAN BRUMMELEN, P. 483-
 489, 571-577
 VAN DER HEUL, C. 185-190
 VANDONGEN, R. 387-392
 VAN EIJK, H.G. 185-190
 VAN NOORT, W.L. 185-190
 VARGHESE, Z. 55-63
 VARTSKY, D. 457-461
- VENKATESAN, S. 435-439
 VERNON, P. 17-23
 WAHREN, J. 95-100
 WALKER, P. 319-326
 WARREN, D.J. 165-170
 WASS, V.J. 81-86
 WATSON, M.L. 625-631
 WATT, S.J. 139-143
 WEIR, D. 221-224
 WEISS, E. 405-410
 WEN, S.-F. 273-282
 WHELPDALE, P. 625-631
 WHITING, S. 261-265
 WILKE, R. 467-469
 WILLIAMS, K.J. 617-623
 WILSON, C.A. 165-170
 WONG, N.L.M. 549-554
 WOOD, P.J. 579-585
 WOOTTON, R. 335-338
 WORKMAN, R.J. 633-637
 WRIGHT, P.D. 233-235
 WYSS, C.R. 499-506
 ZIMMERMAN, B.G. 343-348

Volume 60

SUBJECT INDEX

First and last page numbers of papers to which entries refer are given.
Page numbers marked with an asterisk refer to Editorial Reviews.

- Absorption, intestinal
 calcium 101–107
 competition 221–225
 diarrhoeal disease 131–137*
 dipeptides 221–225
 fluid and electrolytes 131–137*
 mucosal damage 115–118
 oxalate 411–418
 phosphate 55–63
 vitamin D₃ 241–243
- Absorption, renal
 calcium 101–107
 phosphate 171–177
- Acidosis
 ischaemia 537–542
 metabolic 355–361
- Acid protease 41–46
- Acyl-CoA:cholesterol *O*-acyltransferase, liver
 submicrosomal distribution 435–439
- Adenosine ammoniogenesis in parotid gland
 565–569
- Adenosine 3':5'-cyclic monophosphate, intra-
 venous salbutamol 579–585
- Adenosine 5'-phosphate, ammoniogenesis in
 parotid gland 565–569
- Adenosine phosphate deaminase 565–569
- Adenosine triphosphatase (Na⁺,K⁺-activated),
 erythrocyte 229–232
- Adrenaline, hepatic lactate and glucose 543–
 548
- Adrenergic facilitation, angiotensin 343–348*
- Adrenergic resistance 579–585
- α -Adrenoceptor, noradrenaline and vasocon-
 striction 483–489
- β -Adrenoceptor
 blockade 675–679
 blockade and growth 33–40
 lymphocyte cyclic AMP 587–589
 renal 571–577
- Adrenocorticotrophic hormone, spironolactone
 227–233
- β -Adrenoreceptor *see* β -Adrenoceptor
- Affinity chromatography, renin 633–637
- Age
 isoprenaline responses 571–577
 lymphocyte cyclic AMP 587–589
 noradrenaline kinetics 217–219
- Airways
 chronic disease 17–23
- Airways—*continued*
 obstruction 11–15
 resistance 249–253, 579–585
- Albuminuria 693–702
- Alcohol, folate catabolism 221–224
- Aldosterone
 regulation 227–233
 renal hypertension 625–631
 saralasin 377–385
 sympathetic stimulation 399–404
 urinary excretion 229–232
- Alkalosis, metabolic 355–361
- Altitude, pulmonary circulation 599–605*
- Alveolar volume, intrapulmonary haemorrhage
 507–512
- Amino acids, blood
 aromatic 95–100
 branched-chain 95–100
- Ammonia, parotid gland production 565–
 569
- Androgens, sweat gland activity 689–692
- Angiotensin I
 captopril 591–593
 converting enzyme 387–392, 491–498
- Angiotensin II
 adrenergic facilitation 343–348*
 antagonism 377–385
 captopril 591–593
 sodium 377–385
 spironolactone 227–233
- Antiserum, human saliva 179–184
- Antithrombin III, metabolism in liver
 disease 681–688
- Apolipoproteins, plasma 73–80
- Arteries, haemodynamics and responses to
 drugs 659–666
- Arteriovenous pressure difference, skin 499–
 506
- Asthma
 histamine receptors 363–370
 intravenous salbutamol 579–585
- Athletic training, methandienone 457–461
- Atrial pacing, chronic bronchitis 371–375
- Autonomic nervous system
 borderline hypertension 25–31
 haemodialysis hypotension 165–170
 noradrenaline 217–219, 483–489
 sympatholytic drugs 139–143
 tetraplegia 399–404

- Baroreflexes, blood volume 193–200
- Bethanidine, blood pressure and heart rate 139–143
- Bicarbonate, gastric secretion 427–433
- Bile acids, hepatic extraction 65–72
- Bladder, urinary, sympathetic stimulation 399–404
- Blood flow
borderline and essential hypertension 653–658
subcutaneous regulation 157–164, 213–216
transcutaneous oxygen tension 499–506
- Blood platelets, ¹¹¹In-labelled 243–248
- Blood pressure
isometric exercise 139–143, 145–155
noradrenaline 483–489
saralasin 377–385
sympatholytic drugs 139–143
- Blood vessels
arterial occlusion 659–666
diseases 499–506
neurogenic vasoconstriction 483–489
portacaval anastomosis 87–93
portal blood flow 355–361
pulmonary artery wedge pressure 371–375
resistance 5–9
skin 157–164, 213–216, 499–506
- Blood volume, cardiovascular responses 193–200
- Body composition, methandienone 457–461
- Bone
hydrochlorothiazide 101–107
marrow cells 185–190, 191–198
resorption 201–210
- Bone marrow cells
leukaemia 191–198
transferrin 185–190
- Bradykinin 387–392
- Breast cancer 201–210
- Breath holding
effort sense 463–466
expiratory flow measurements 11–15
- Breathing pattern
airway resistance 249–253
sustained lung inflation 667–674
- Bronchitis, cardiac function 371–375
- Bronchomotor tone 249–253
- Caffeine, catecholamines and metabolism 527–535
- Calcium
gastric secretion 427–433
plasma, hydrochlorothiazide 101–107
tubular absorption 101–107
- Calciuria, hydrochlorothiazide 101–107
- Captopril
angiotensins 591–593
angiotensin I-converting enzyme 491–498
- Captopril—*continued*
experimental hypertension 387–392
renin 491–498, 591–593
- Carbon dioxide (¹⁴CO₂), ¹⁴C-labelled substrates 233–235
- Carbon monoxide diffusing capacity, intrapulmonary haemorrhage 507–512
- Carcinoma, liver, antithrombin III metabolism 681–688
- Cardiac muscle, *see* Muscle, heart
- Cardiac output, chronic bronchitis 371–375
- Catecholamines
borderline hypertension 25–31
caffeine 527–535
haemodialysis hypertension 165–170
isoprenaline 571–577
metabolism 183–191*
subcutaneous blood flow 157–164
- Cholecystokinin, first meals 349–353*
- Cholesterol, lipoprotein, home haemodialysis 81–86
- Cholesterol, liver microsomal fractions 435–439
- Cholesterol 7 α -mono-oxygenase, liver sub-microsomes 435–439
- Cholic acid, hepatic extraction 65–72
- Chylomicrons, plasma vitamin D 241–243
- Cirrhosis
antithrombin III metabolism 681–688
primary biliary 207–212
- Clonidine, blood pressure and heart rate 139–143
- Coeliac disease, splenic function 109–113
- Collagen chains, skin 617–623
- Converting-enzyme inhibition 377–385, 387–392
- Copper, liver 207–212
- Corticosterone, spironolactone 227–233
- Cortisol, spironolactone 227–233
- Creatine kinase, primary hypothyroidism 595–597
- Crystalluria, oxalate-rich foods 411–418
- Cyclic AMP *see* Adenosine 3':5'-cyclic monophosphate
- Cytosine arabinoside resistance 191–198
- Dead-space measurement 17–23
- Deconvolution analysis 55–63
- Deoxycorticosterone acetate, salt-retention escape 467–469
- Diabetes mellitus, blood volume 193–200
- Dialysis, renal hypertension 625–631
- Diet
fat-modified 81–86
obesity 519–525
oxalate-rich foods 411–418
- Digoxin, erythrocyte sodium transport 555–564

- 1,25-Dihydroxyvitamin D₃ 101–107
 Disaccharides, intestinal absorption 115–118
 Doping, sports 457–461
 Drug resistance 191–198
 Dyspnoea, respiratory muscle fatigue 463–466
- Effort sense, maintained inspiration 463–466
 Electrolytes, muscle, hypokalaemia 441–449
 Encephalopathy 95–100
 Endoplasmic reticulum, liver enzymes 435–439
 Enteroglucagon, first meals 349–353*
 Enterotoxins 131–137*
 Ergometry, bicycle, hypertension 25–31
 Ergotamine, small arteries 659–666
 Erythrocyte
 adenosine triphosphatase 229–232
 magnesium 225–257
 pitted 109–113
 sodium 229–232, 555–564
 Erythroid cells 185–190
 Essential hypertension 653–658
 Ethane-1-hydroxy-1,1-diphosphonate, renal
 tubular phosphate absorption 171–177
 Exercise
 adrenaline 543–548
 creatine kinase 595–597
 forearm haemodynamics 675–679
 hydrogen ion balance 245–246
 immunological responses 225–228
 isometric 139–143
 lactate and gluconeogenesis 537–542
 sensory nerves, cardiorespiratory responses
 145–155
 sympatholytic drugs 139–143
 Expiratory flow–volume curves 11–15
- Facilitation, adrenergic 343–348*
 Fatigue, respiratory muscle 463–466
 Fat-modified diet, long-term 81–86
 Fatty acids, free, caffeine 527–535
 Ferritin, microheterogeneity and sialic acid
 259–262
 Fibrin, glomerular deposition 47–53
 Fibrinolysis 47–53
 5-Fluorouracil, toxicity and pharmacokinetics
 707–710
 Folate
 catabolism 221–224
 deficiency 131–137*
 Forearm haemodynamics 675–679
 Free fatty acids, turnover 87–93
 Free radicals, scavenging enzymes 211–219
 Fructose biphosphatase, muscle 451–456
 Frusemide
 active and inactive renin 393–398
 renal papillary osmolality 467–469
 renin and indomethacin 479–482
- Gastric inhibitory peptide, first meals 349–353*
 Gastric mucosa, bicarbonate secretion 427–433
 Gastrin, first meals 349–353*
 Gastrointestinal hormones 349–353*
 Geriatric patients, sodium transport 555–564
 Glomerular filtration rate, haemorrhage 703–
 706
 Glomerulus
 fibrin deposition 47–53
 proteinuria 693–702
 Gluconeogenesis
 hepatic, ischaemia 537–542, 543–548
 renal, sodium transport 419–426
 Glucose
 intravenous salbutamol 579–585
 propranolol 675–679
 turnover 87–93
 Glutathione, liver 211–219
 Glutathione peroxidase, iron overload 211–219
 Glutathione reductase, iron overload 211–219
 Glyceryl trinitrate, small arteries 659–666
 Glycocholic acid, hepatic extraction 65–72
 Glycylsarcosine, intestinal absorption 221–225
 Growth, adrenoceptor blockade 33–40
 Gut hormones 349–353*
- H₁- and H₂-receptor antagonists 363–370
 Haemochromatosis 211–219
 Haemodialysis
 fat-modified diet 81–86
 hypotension 165–170
 Haemorrhage, renal renin 703–706
 Head-up tilt, subcutaneous blood flow 213–216
 Heart
 adrenoceptor blockade 33–40
 chronic bronchitis 371–375
 ferritin 259–262
 sensory nerves 145–155
 sympatholytic drugs 139–143
 Henle's loop, ascending, sodium rejection 467–
 469
 Hepatic artery, blood flow 355–361
 Hexokinase, muscle 451–456
 Histamine receptors, asthma 363–370
 Hydrallazine, small arteries 659–666
 Hydrochlorothiazide
 calcium metabolism 101–107
 renin substrate concentration 591–593
 Hydrogen ion balance, exercise 245–246
 β -Hydroxybutyrate, plasma 87–93
 4-Hydroxy-3-methoxymandelic acid, borderline
 hypertension 25–31
 3-Hydroxy-3-methylglutaryl-CoA reductase, liver
 microsomes 435–439
 25-Hydroxy-vitamin D
 plasma chylomicrons 241–243
 ultraviolet irradiation 235–242
 Hypercalcaemia 201–210

- Hypertension
 adrenergic facilitation 343–348*
 angiotensin I-converting enzyme 491–498
 borderline 25–31, 653–658
 essential 653–658
 indomethacin 479–482
 neurogenic 471–477*
 noradrenaline 483–489
 pulmonary 599–605*
 spontaneous 229–232, 491–498
- Hypertension, experimental
 captopril 387–392
 renal 387–392, 625–631
- Hyperthyroidism, sodium transport 555–564
- Hypnosis, isometric exercise pain 145–155
- Hypokalaemia
 cardiac and skeletal muscle 441–449
 sodium transport 555–564
- Hypotension, haemodialysis-induced 165–170
- Hypothyroidism, primary, creatine kinase 595–597
- Immunity, cellular 225–228
- Indium (¹¹¹In)-labelled platelets 243–248
- Indomethacin, renin response 479–482
- Inspiratory pressures 513–518
- Interrupted electrophoresis 617–623
- Intestine, small
 calcium absorption 101–107
 dipeptide absorption 221–225
 oxalate absorption 411–418
 passive permeability 115–118
 peptide transport 607–615*
 phosphate absorption 55–63
 vitamin D₃ absorption 241–243
- Ion transport, kidney 419–426
- Iron
 overload, tissue damage 211–219
 uptake 185–190
- Ischaemia, lactic acidosis 537–542, 543–548
- Isoleucine, blood 95–100
- Isometric exercise
 sensory nerves and cardiorespiratory responses 145–155
 sympatholytic drugs 139–143
- Isoprenaline
 blood pressure 399–404
 forearm blood flow 571–577
 lymphocyte cyclic AMP 587–589
 small arteries 659–666
- Jejunum, dipeptide absorption 221–225
- Kallikrein, pancreatic 199–205
- Kidney
 albumin excretion 693–702
 blood flow, hypertension 653–658
- Kidney—*continued*
 calcium absorption 101–107
 fibrin clearance 47–53
 high-molecular-weight renin 639–651
 hypertension 387–392
 phosphate absorption 171–177
 potassium transport 549–554
 renin molecular weight 41–46, 119–130*, 639–651
 sodium transport 419–426, 555–564
 venous renin 703–706
- Kidney disease
 cancer 201–210
 haemodialysis hypotension 165–170
 hypertension 653–658
 lipoprotein lipase 73–80
 renal failure, erythrocyte sodium 555–564
 phosphate absorption 55–63
- Lactate, blood, propranolol 675–679
- Lactate metabolism, ischaemia and acidosis 537–542, 543–548
- Lactic acidosis 543–548
- Lactulose, intestinal absorption 115–118
- Leucine, blood 95–100
- Leucocyte
 cyclic AMP 587–589
 zinc content 237–239
- Leucocytosis, stress 225–228
- Leukaemia, myeloblasts 191–198
- Limb capacitance, morphine 5–9
- Lipoprotein lipase 73–80
- Liver
 blood flow 355–361, 653–658
 bile acid extraction 65–72
 enzyme induction 221–224
 free-radical scavenging enzymes 211–219
 glutathione 211–219
 microsomal fractions 435–439
 oxygen consumption 355–361
- Liver disease
 bile acid extraction 65–72
 carcinoma 681–688
 cirrhosis 95–100, 207–212, 681–688
 hypertension 653–658
 organelle pathology 207–212
- Lung
 alveolar volume 507–512
 circulation 599–605*
 fluid balance 1–4*
 gas mixing 17–23
 haemorrhage 507–512
 imaging, ventilation/perfusion 17–23
 mechanics 17–23
 volume 249–253, 667–674
- Lymphocyte, cyclic AMP formation 587–589
- L-Lysyl-L-lysine, intestinal absorption 221–225

- α_2 -Macroglobulin, kallikrein interaction 199–205
 Magnesium
 deficiency and excess 549–554
 menopause 255–257
 Malate–aspartate shuttle, renal sodium transport 419–426
 Mannitol, intestinal absorption 115–118
 Menopause, serum, urinary, and erythrocyte magnesium 255–257
 Metabolic rate, caffeine 527–535
 Methandienone, athletic performance and body composition 457–461
 Micropuncture, renal 171–177, 549–554
 Morphine, forearm capacitance 5–9
 Motilin, first meals 349–353*
 Muscle, cardiac, hypokalaemia 441–449
 Muscle, skeletal
 blood flow in hypertension 653–658
 fructose bisphosphatase 451–456
 hexokinase 451–456
 hypokalaemia 441–449
 inspiratory 513–518
 2-oxoglutarate dehydrogenase 451–456
 phosphofructokinase 451–456
 respiratory 463–466, 513–518
 zinc content 237–239
 Myeloblasts, leukaemia 191–198
 Myocardial infarction, subcutaneous blood flow 157–164, 213–216

 Neurogenic hypertension 471–477*
 Neurotensin, first meals 349–353*
 Noradrenaline
 α -adrenoceptor-mediated vasoconstriction 483–489
 kinetics, age-dependence 217–219
 tetraplegia 399–404
 Nutrition, thyroid and catecholamines 183–191*

 Obesity
 caffeine 527–535
 postprandial thermogenesis 519–525
 Oedema, pulmonary 1–4*, 599–605*
 Oestrogen, serum, urinary and erythrocyte magnesium 255–257
 Oligopeptides, intestinal transport 607–615*
 Oophorectomy, serum, urinary and erythrocyte magnesium 255–257
 Optical isomerism, DL- and D-propranolol 675–679
 Osmolality, renal papillary 467–469
 Osteogenesis imperfecta, skin collagen 617–623
 Osteomalacia, ultraviolet irradiation 235–242
 Oxalate, diet and urinary output 411–418

 Oxidation rates, ^{14}C -labelled substrates 233–235
 2-Oxoglutarate dehydrogenase, muscle 451–456
 Oxprenolol, blood pressure and heart rate 139–143
 Oxygen
 consumption, liver 355–361
 skin partial pressure 499–506

 Pain, isometric exercise 145–155
 Pancreatic polypeptide hormone, first meals 349–353*
 Pancreatitis, plasma kallikrein 199–205
 Papillary sodium concentration 467–469
 Parathyroid hormone
 experimental undersecretion 101–107, 549–554
 gastric bicarbonate secretion 427–433
 Parotid gland, ammonia production 565–569
 D-Penicillamine, primary biliary cirrhosis 207–212
 Peptides, intestinal absorption 221–225, 607–615*
 pH, muscle, hypokalaemia 441–449
 Phenoxybenzamine, blood pressure and heart rate 139–143
 Pharmacokinetics, fluorouracil 707–710
 Phentolamine, blood pressure and heart rate 139–143
 Phosphate absorption
 intestinal 55–63
 renal 171–177
 Phosphodiesterase, caffeine 527–535
 Phosphofructokinase, muscle 451–456
 Plasma flow, renal renin 703–706
 Plasma volume, chronic bronchitis 371–375
 Plethysmography
 forearm blood flow 571–577
 venous occlusion 5–9
 Portacaval anastomosis 87–93
 Portal vein, blood flow 355–361
 Positive end-expiratory pressure, clinical use 1–4*
 Potassium depletion
 cardiac and skeletal muscle 441–449
 renal tubular transport 549–554
 Pressure load detection, respiratory 513–518
 Pressure–volume hysteresis, respiratory 249–253
 Propranolol
 growth 33–40
 haemodynamics 675–679
 heart 33–40
 metabolism 675–679
 renin substrate concentration 591–593

- Prostaglandins**
 bone resorption 201–210
 renal hypertension 625–631
 sodium balance 405–410
Prostaglandins E, F, sodium balance 405–410
Proteinase, human renin 633–637
Proteins, salivary and seminal 179–184
Proteinuria 693–702
Pseudorenin 633–637
Puberty, sweat gland activity 689–692
Pulmonary arterial wedge pressure 371–375
Pulmonary circulation, altitude 599–605*
Pulmonary oedema 1–4*
- Renin**
 active 393–398
 assays 591–593
 borderline hypertension 25–31
 captopril 491–498, 591–593
 frusemide 393–398
 high-molecular-weight 639–651
 inactive 119–130*, 393–398
 indomethacin 479–482
International Reference Preparation 633–637
 isoprenaline 571–577
 low-salt state 343–348*, 377–385
 molecular weight 41–46, 639–651
 proteinase 633–637
 renal hypertension 625–631
 spironolactone 227–233
 substrate 591–593
 tetraplegia 399–404
 volume contraction 479–482
Renin–angiotensin system
 adrenergic facilitation 343–348*
 borderline hypertension 25–31
Renin inhibitor, renal 639–651
Respiration, sensory nerves 145–155
Respiratory sensations
 mouth negative pressure 513–518
 muscle fatigue 463–466
Reverse tri-iodothyronine, metabolism 183–191*
R–R interval, blood volume 193–200
- Salbutamol, asthma** 579–585
Saliva
 ammonia 565–569
 proteins 179–184
Salivary gland *see* Parotid gland
Secretin, first meals 349–353*
Semen, proteins 179–184
Sensory neuropathy, isometric exercise 145–155
Sex difference, sweat gland activity 689–692
- Shock, hepatic lactate and gluconeogenesis** 537–542
Sialic acid, serum ferritin homogeneity 259–262
Skeletal muscle *see* Muscle, skeletal
Skin
 collagen chains 617–623
 subcutaneous blood flow 157–164, 213–216
 transcutaneous oxygen tension 499–506
 ultraviolet irradiation 235–242
Sodium
 depletion 625–631
 erythrocyte transport 555–564
 hypertension 471–477*, 625–631
 papillary concentration 467–469
 prostaglandins 405–410
 renal hypertension 625–631
 renal transport 419–426
 saralasin 377–385
Spironolactone, aldosterone regulation 227–233
Spleen, coeliac disease 109–113
Starvation, plasma glucose and free fatty acids 87–93
Stereoselectivity, DL- and D-propranolol 675–679
Stomach
 bicarbonate secretion 427–433
 first meals 349–353*
 gastrin 349–353*
 gastric inhibitory peptide 349–353*
Stress, immunological responses 225–228
Subcellular fractionation, analytical 211–219
Superoxide dismutase 211–219
Sweat glands, puberty 689–692
Sympathetic nervous system
 borderline hypertension 25–31
 noradrenaline 217–219, 483–489
 tetraplegia 399–404
Sympatholytic drugs, cardiovascular response to exercise 139–143
- Temperature, body, serum creatine kinase** 595–597
Tetrahydrouridine 191–198
Tetraplegia, sympathetic stimulation 399–404
Thermogenesis, obesity 519–525
Thrombocytes, ¹¹¹In-labelled 243–248
Thromboplastin, fibrin deposition 47–53
Thyroid gland, metabolism 183–191*
Thyroparathyroidectomy, experimental 101–107, 171–177
Thyroxine, metabolism 183–191*
Timolol, growth and heart 33–40
Toxicity, 5-fluorouracil 707–710
Transaminase, renal gluconeogenesis 419–426
Transferrin, monoferric 185–190
Transplantation, renal 55–63, 73–80

- Transport
 erythrocyte sodium 555–564
 intestinal peptides 607–615*
 renal potassium 549–554
 renal sodium 419–426, 555–564
- Triacylglycerols, plasma 73–80
- Triglyceride, lipoprotein, home haemodialysis 81–86
- Tri-iodothyronine, metabolism 183–191*
- Tropical malabsorption 131–137*
- Trypsin inhibitor 639–651
- Tubule, renal
 ascending loop 467–469
 calcium absorption 101–107
 phosphate absorption 171–177
- Ultraviolet irradiation, vitamin D 235–242
- Uraemia, lipoprotein lipase 73–80
- Urinary bladder, sympathetic stimulation 399–404
- Urine
 oxalate content 411–418
 protein content 693–702
- Valine, blood 95–100
- Vascular diseases 499–506
- Vascular resistance 5–9, 659–666
- Vasoconstriction, neurogenic 483–489
- Veins, intravenous morphine 5–9
- Venous pressure, skin 499–506
- Ventilation, lung, sustained inflation 667–674
- Ventilation/perfusion lung-imaging 17–23
- Vitamin D
 plasma chylomicrons 241–243
 ultraviolet irradiation 235–242
- Volume–pressure hysteresis, respiratory 249–253
- Water retention, hypertension 471–477*
- Wedge pressure, pulmonary artery 371–375
- Zinc, leucocytes and muscles 237–239

CORRECTIONS

Volume 59

page 191: *to the listed addresses below the authors' names should be added* Liver Unit, Kings College Hospital and Medical School, London

page 473, Fig. 4 legend: *for* C_{18:0}, Oleic acid; C_{18:2}, linoleic acid; C_{18:0}, stearic acid; C_{16:1}, myristic acid *read* C_{18:1}, Oleic acid; C_{18:2}, linoleic acid; C_{18:0}, stearic acid; C_{16:1}, palmitoleic acid.