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CLINICAL SCIENCE

1983

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 two Deputy Chairmen 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 or one of the Deputy Chairmen 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, a 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 work that has not been published in either the same or a substantially similar form, 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 or previous publications. The author, or in the case of multiple authorship the authors, will be asked to sign a statement vesting the copyright in the publishers. 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, copies or reprints of the publication should be sent 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. Papers returned by authors later than 12 months after the original submission date will be treated as new papers. 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. 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 Communi-

cations, authors should make it quite clear that the work is intended to be treated as a Short Communication.

2.4. Correspondence

Letters containing original observations or critical assessments of material published in *Clinical Science*, including Editorial Reviews, will be considered for the Correspondence section of the journal. Letters should be no longer than 750 words, with one Figure or Table and up to six references, or 1000 words maximum without a Figure or Table. Letters relating to material previously published in *Clinical Science* should be submitted 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 the 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 μmol 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 ' $10^2 \times$ concn. (mol/l)', but not as 15 under the heading 'concn. (mol/l $\times 10^{-3}$)'.

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 monophosphate	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)	not used; 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)	not used; 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	not ethyl alcohol or alcoholic
coenzyme A and its acyl derivatives	CoA and acyl-CoA	ethylenediaminetetra-acetate	EDTA
compare	cf.	exchangeable	Na_+ , K_+ etc., for total exchangeable sodium, potassium etc.
complement fractions	C1-C9	Experiment (with reference numeral)	Expt.; plural, Expts.
compliance (respiratory physiology)	C; express in 1 kPa^{-1}	expired minute ventilation	\dot{V}_E
concentrated	conc.	extinction	use absorbance
concentration	concn.; may be denoted []; e.g. plasma $[HCO_3^-]$	extracellular fluid	ECF
conductance (respiratory physiology)	G; express in $1 \text{ s}^{-1} \text{ kPa}^{-1}$	extracellular fluid volume	ECFV
correlation coefficient	r; may be used without definition	extraction ratio of x (renal)	E_x
counts/min, counts/s	c.p.m., c.p.s.	Figure (with reference numeral)	Fig.; plural, Figs.
cubic centimetres	use ml	filtered load of x (renal)	F_x
curie	Ci (1 Ci = 3.7×10^{10} d.p.s.)	follicle-stimulating hormone	FSH
cycle/s	Hz	forced expiratory volume in 1.0 s	FEV _{1.0}
cysteine	Cys	fractional concentration in dry gas	F
dates	e.g. 11 August 1970	fractional disappearance rate	k (as in $A = A_0 e^{-kt}$)
dead-space minute ventilation	\dot{V}_D	frequency of respiration	f_R ; in breaths/min
dead-space volume	V_D	functional residual capacity	FRC
degrees, Celsius or centigrade	$^\circ\text{C}$	gas-liquid chromatography	g.l.c.
deoxy (prefix)	not desoxy	gas transfer factor	T; in $\text{mmol min}^{-1} \text{ kPa}^{-1}$
deoxycorticosterone	DOC	glomerular filtration rate	GFR
deoxycorticosterone acetate	DOCA	glutamic acid	Glu
deoxyribonucleic acid	DNA	glutamine	Gln
dialysate	diffusate preferred; 'dialysate' should be clearly defined	glutathione	GSH (reduced); GSSG (oxidized)
diethylaminoethylcellulose	DEAE-cellulose	glycine	Gly
differential of x with respect to time	\dot{x} (= dx/dt)	gram(me)	g
1,25-dihydroxycholecalciferol	1,25-(OH) ₂ D ₃	gravitational field, unit of (9.81 m s^{-2})	g
dilute	dil.	growth hormone	GH; if human, HGH
2,3-diphosphoglycerate	2,3-DPG	guery	Gy (100 rads)
direct current	d.c.	haematocrit	not allowed; use packed cell volume (PCV)
disintegrations/min	d.p.m.	haemoglobin	Hb; express in g/dl
disintegrations/s	d.p.s.	half-life	$t_{1/2}$
dissociation constant		hertz (s^{-1})	Hz
acidic	K_a	histidine	His
basic	K_b	hour	h
apparent	e.g. K'_a	human chorionic gonadotropin	HCG
minus log of	pK	human placental lactogen	HPL
doses	avoid Latin designations such as b.d. and t.i.d.	hydrocortisone	use cortisol
dyne	dyn; used for vascular resistance	hydrogen ion activity minus log of	aH; express in nmol/l
elastance	E; express in Pa m^{-3}	25-hydroxycholecalciferol	pH
electrocardiogram	ECG	hydroxyproline	25-(OH)D ₃
electroencephalogram	EEG	immunoglobulins	Hyp
			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		mol
intracellular fluid volume	ICFV	mole	mol. wt.
ionic strength	<i>I</i>	molecular weight	NAD if oxidation state not indicated
isoleucine	Ile	nicotinamide-adenine dinucleotide	NAD ⁺ if oxidized
isotonic	<i>not used</i> ; specify composition of fluid, e.g. NaCl, 150 mmol/l		NADH if reduced
	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	nicotinamide-adenine dinucleotide phosphate	NADP if oxidation state not indicated
isotopically labelled compounds	for simple molecules: ¹⁴ CO ₂ , ³ H ₂ O		NADPH if reduced
		normal	should not be used to denote the concentration or osmolarity of a solution
joule	J	normal temperature and pressure	<i>use</i> standard temperature and pressure (STP)
kilogram (me)	kg		
kilopond	<i>not used</i> ; 1 kilopond = 9.8067 N	nuclear magnetic resonance number (in enumerations)	n.m.r.
		observed	no. (in Tables only)
lactate dehydrogenase	LDH	ohm	obs. (in Tables only)
leucine	Leu	ornithine	Ω
leucocyte count	express as 10 ⁹ cells/l	ortho-	Orn
lipoproteins (serum)		orthophosphate (inorganic)	<i>o-</i>
high density	HDL	osmolarity	<i>P</i> ₁
low density	LDL	oxygen uptake per minute (in respiratory physiology)	express in osmol (or mosmol)/l
very low density	VLDL	packed cell volume	$\dot{V}O_2$; express in ml STP/min
litre	l (write in full if confusion with the numeral 1 is possible)	page, pages	PCV
		para-	p., pp.
logarithm (base 10)	log	para-aminohippurate	<i>p-</i>
logarithm (base e)	ln	partial pressure	PAH
luteinizing hormone	LH		<i>P</i> ; express in either kPa or mmHg (see p. vi)
lysine	Lys	e.g. alveolar, of O ₂	<i>P</i> AO ₂
maximum	max.	arterial, of CO ₂	<i>P</i> aCO ₂
mean corpuscular haemoglobin	MCH; express in pg	capillary, of O ₂	<i>P</i> capO ₂
mean corpuscular haemoglobin concentration	MCHC; express in g/dl	mixed venous, of CO ₂	<i>P</i> vCO ₂
mean corpuscular volume	MCV; express in fl (1 μ m ³ = 1 fl)	pascal	<i>P</i> a
		per	/
median lethal dose	LD ₅₀	per cent	%
meta-	<i>m-</i>	petroleum ether	<i>not used</i> ; <i>use</i> light petroleum and give boiling range
melting point	m.p.		
methanol, methanolic	<i>not</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 $s^{-1} \text{ kPa}^{-1}$
power output	W (1 W = 0.1635 kpm/min)	standard deviation	SD } may be used SEM } without definition
precipitate	ppt.	standard error of the mean	
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)	T
rad (radiation dose; 10^{-3} J absorbed/g of material)	not abbreviated (100 rads = 1 Gy)	(empirical)	t
red blood cell	use erythrocyte; express counts as 10^{12} cells/l	temperature, thermodynamic	$^{\circ}\text{K}$
relative band speed (partition chromatography)	R_F	thin-layer chromatography	t.l.c.
rem	100 ergs/g \times quality factor	threonine	Thr
renin	see plasma renin activity	thyrotrophic hormone	TSH
residual volume	RV	thyrotrophin-releasing hormone	TRH
resistance (rheological)	R; express in $\text{kPa l}^{-1} \text{ s}$	tidal volume	V_T
respiratory exchange ratio (pulmonary)	R	time (symbol)	t
respiratory quotient (metabolic)	RQ	time of day	e.g. 18.15 hours
revolutions	rev.	time of day	not used; use kPa (1 torr = 0.133 kPa)
rev./min	not r.p.m.; use g if possible (see p. viii)	total lung capacity	TLC
ribonucleic acid	RNA	tryptophan	Trp
röntgen	R	tubular maximal reabsorptive capacity for x	$T_{m,x}$
saline	define at first mention [e.g. NaCl solution (154 mmol/l)]	tyrosine	Tyr
saturation	S, e.g. S_{aO_2} for arterial oxygen saturation (see partial pressure for other analogous abbreviations)	ultraviolet	u.v.
second (time)	s	urinary concentration of x	U_x
serine	Ser	valency	e.g. Fe^{2+} , not Fe^{++}
sievert	Sv (1 J/kg \times quality factor)	valine	Val
solvent systems	e.g. butanol/acetic acid/water (4:1:1, by vol.), butanol/acetic acid (4:1, v/v)	variance ratio	F
species	sp., plural spp.	vascular resistance	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
specific activity	sp. act. Confusion must be avoided between e.g. specific radioactivity and the specific activity of an enzyme	velocity	v; express as m s^{-1}
		venous admixture	\dot{Q}_{va}
		veronal	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

- Electrolytes
 balance 377–382
 leukaemic plasma 79–83
 Endopeptidases, lung diseases 119–126*
 Endoplasmic reticulum, liver 303–306
 Endothelial cells, prostacyclin 387–394, 395–398
 Energy balance, thermogenesis 7–18, 19–23
 Energy metabolism, preterm infants 611–616
 Erythrocyte
 hyperthyroidism 441–447
 potassium 167–176, 177–182
 purine 333–340
 rubidium 183–186
 sodium 79–83, 161–176, 177–182, 441–447
 Ethanol, asthma 555–557
 Exercise
 catecholamines 475–479
 plasma adrenaline 475–479
 purine transport and metabolism 333–340
 vertebral bone loss 541–546
 Extracellular fluid volume 153–160

 False neurotransmitters 247–252*
 Fatigue, muscle
 aminophylline 547–550
 low-frequency 55–62
 Fatty acids
 essential 91–99
 myocardial exchange 33–40
 Ferroxidase, synovial fluid 551–553
 Fick method, indirect 289–293
 Fluid balance, short-term isolation 377–382
 α -Foetoprotein, tumour secretion 643–648
 Fractures, bone mineral 541–546
 Frusemide
 chloride 565–572
 erythrocyte sodium transport 79–83
 sodium 565–572

 Gastric glands, acid secretion 423–431
 Gastroscopic biopsy, isolated oxyntic glands 423–431
 Globulin, sex hormone binding 307–314
 Glucose
 adrenaline 475–479
 myocardial exchange 33–40
 tolerance test 601–609
 triglyceride metabolism 511–516
 turnover, thyroid failure 41–47
 Glutamate, myocardial exchange 33–40
 Glutamine, protein metabolism 517–526
 Glycine, colorectal tumours 101–108
 Glycogen, abdominal surgery 109–111
 Goldblatt hypertension, renin–angiotensin system 359–370
 Gonadotrophin-releasing hormone 1–6*

 Graft vs host disease 113–116
 Growth hormone, myofibrillar protein 315–320
 Growth retardation 161–165
 Gluten, dietary content 655–659
 Glycoproteins, hepatic clearance 127–135*

 Haemodynamics
 pulmonary 25–31
 renal disease 141–152
 Haemostasis
 acetylsalicylic acid 395–398
 polyunsaturated fatty acids 91–99
 Haem synthesis, sulphides 187–191
 Handgrip
 haemodynamic responses 593–599
 heart rate 581–585
 Heart
 cardiac output 289–293, 593–599
 digitalis intoxication 253–258*
 failure 573–580
 ischaemic disease 273–280
 Heart failure, lactic acidosis 573–580
 Heart rate
 adrenaline 475–479
 autonomic neuropathy 581–585
 muscle activity 581–585, 593–599
 Hepatectomy, cardiovascular function 573–580
 Hepatic encephalopathy 247–252*
 Hepatic endoplasmic reticulum 303–306
 Hepatocellular carcinoma, growth characteristics in athymic mice 643–645
 Hydrochlorothiazide, renal prostaglandins 407–415
 Hydrogen peroxide, hydroxyl radicals 649–653
 Hydroxyl radicals, rheumatoid disease 649–653
 18-Hydroxycorticosterone, circadian rhythm 295–301
 Hypercapnia, almitrine infusion 25–31
 Hypercholesterolaemia, plasma exchange 637–642
 Hyperlipidaemia, lipoprotein variants 559–563*
 Hypertension
 α_2 -adrenergic receptors 265–272
 baroreflexes 259–263
 experimental 359–370, 463–470
 Goldblatt 359–370
 plasma renin 273–280
 renal 141–152, 355–358, 463–470
 vasopressin 377–382
 Hyperthyroidism
 erythrocyte sodium pumps 441–447
 glucose turnover 41–47
 Hypoglycaemia, autonomic reaction 49–53
 Hypopituitarism, myofibrillar protein 315–320
 Hypotension
 orthostatic 587–591
 post-adrenalectomy 371–376

- Hypothyroidism
 glucose turnover 41–47
 nerve conduction 617–622
- Immersion, sympathectomy responses 281–287
 Immobilization, bone mineral content 537–540
 Indocyanine green, hepatic extraction 207–212
 Indomethacin, renal prostaglandins 407–415
 Infant, preterm, protein turnover 611–616
 Injury, protein kinetics 321–331
 Inspiratory muscle function 487–495
 Insulin
 blood pressure 383–386
 triglyceride metabolism 511–516
 Interstitial compliance 153–160
 Intestinal absorption, peptides 433–439
 Intrapleural pressure gradient 69–78
 Ionic strength, cilia beating frequency 449–451
 Iron, caeruloplasmin 551–553
 Iron salts, hydroxyl radicals 649–653
 Isolation, cardiovascular and renal effects 377–382
- Kaliuresis, frusemide 565–572
 6-Ketoprostaglandin $F_{1\alpha}$, acetylsalicylic acid 395–398
- Kidney
 body fluid distribution 153–160
 hypertension 141–152, 355–358, 463–470
 renal stone 399–405
 renin 463–470
- Lactate, myocardial exchange 33–40
 Lactic acidosis, cardiovascular system 573–580
 Leucine, protein metabolism 231–233, 517–526
 Leucocytes
 potassium 505–510
 purine concentrations 333–340
 Lipid transport 559–563*
 Lipogenesis, nicotinic acid 235–237
 Lipolysis, nicotinic acid 235–237
 Lipoprotein
 cholesterol 91–99
 hypercholesterolaemia 637–642
 molecular variants 559–563*
 plasma exchange 637–642
 Lithium therapy, parathyroid hormone 623–627
- Liver
 acidaemia 573–580
 circulation 207–212
 glycogen in abdominal surgery 109–111
 glycoprotein clearance 127–135*
 hepatectomy 573–580
 indocyanine green extraction 207–212
 progesterone binding 303–306
- Liver disease
 alcoholic cirrhosis 527–535
 biliary cirrhosis 113–116
 cirrhosis, 3-methylhistidine 243–246
 hepatic encephalopathy 247–252*
 hepatocellular carcinoma 643–648
- Loaded breathing 417–421
- Lung
 haemodynamics 25–31
 hypoxaemia 213–222
 regional deposition of particles 69–78
- Lung disease
 cardiac output determination 289–293
 chronic airflow obstruction 487–495
 obstructive, hypoxaemia 213–222
 proteinase inhibitors 119–126*
- Lysosomes, duodenal mucosal enzymes 341–347
- Luxuskonsumption 7–18, 19–23
- Macaca fascicularis*, blood volume homeostasis 281–287
- Mammary adenocarcinoma, experimental 303–306
- Meclofenamate, peripheral vasculature 471–474
- Mercaptans, hepatic encephalopathy 247–252*
 Metabolic acidosis 573–580
 Metabolic alkalosis, potassium depletion 497–504
 3-Methylhistidine, cirrhosis 243–246
 Methylhistidine, colorectal tumours 101–108
 3-Methylhistidine, excretion in preterm infants 611–616
 N^T -Methylhistidine, hypopituitary children 315–320
 Metoprolol, static and dynamic handgrip 593–599
- Milk, human 611–616
- Mitochondria, duodenal mucosal enzymes 341–347
- Muscle, skeletal
 aminophylline 547–550
 hypopituitarism 315–320
 low-frequency fatigue 55–62
 mass 315–320
 pain 55–62
 wasting, glucose tolerance 601–609
- Muscle, smooth, arterial 455–461
- Myeloid leukaemic blast cell, erythrocyte sodium efflux 79–83
- Myotonic dystrophy, glucose tolerance 601–609
- Naloxone, post-adrenalectomy hypotension 371–376
- Natriuresis, frusemide 565–572

- Neoplasm, protein turnover 101–108
 Nerve conduction 617–622
 Nicotinic acid, acylglycerol metabolism 235–237
 Nitrogen metabolism 101–108
 Nocturnal hypoxaemia 213–222
 Noradrenaline
 exercise 475–479
 static and dynamic handgrip 593–599
- Oedema, cor pulmonale 117–118
 Oestradiol, binding to plasma proteins 307–314
 Orthostatic hypotension 587–591
 Osteoporosis
 bed rest 537–540
 physical exercise 541–546
 Ouabain, erythrocyte 79–83, 183–186
 6-Oxoprostaglandin E₁, platelet release 63–68
 Oxygen saturation, obstructive pulmonary disease 213–222
 Oxyntic glands, acid secretion 423–431
- Pain, muscle contractions 55–62
 Pancreatic juice, human 193–205
 Parathyroid hormone, lithium therapy 623–627
 Particles, inhalation and lung deposition 69–78
 Peptides, small-intestinal absorption 433–439
 pH, cilia beating frequency 449–451
 Pharmacokinetic model 207–212
 Phenformin, lactic acidosis 573–580
 Phenols, hepatic encephalopathy 247–252*
 Phenylephrine, carotid sinus radius 455–461
 Pituitary gland 1–6*
 Placenta artery, ADP degradation 239–241
 Plasma exchange, hypercholesterolaemia 637–642
 Plasma membrane, duodenal mucosal enzymes 341–347
 Plasma proteins, sex hormone binding 307–314
 Platelets
 fatty acids 91–99
 6-oxoprostaglandin E₁-like substance 63–68
 plasma exchange in hypercholesterolaemia 637–642
 prostacyclin production 387–394
- Posture
 heart rate 581–585
 lung particles 69–78
 vascular responses 661–662
- Potassium
 depletion 497–504
 erythrocyte 167–176, 183–186
 frusemide 565–572
 hypokalaemia 167–176, 177–182
 insulin 383–386
 leucocyte 505–510
 total body 505–510
- Progesterone binding, liver 303–306
 Prostacyclin
 acetylsalicylic acid 395–398
 cultured endothelial cells 387–394
- Prostaglandins
 acetylsalicylic acid 395–398
 diuretics 407–415
 platelets 63–68, 91–99
 renal blood flow 471–474
- Prostaglandin E₂, diuretics 407–415
 Prostaglandin F_{2α}, diuretics 407–415
 Proteases, pancreatic juice 193–205
- Protein
 biosynthesis 101–108
 kinetics 321–331
 purine-rich diet 399–405
 turnover 231–233, 611–616
- Proteinase inhibitors, lung diseases 119–126*
 Proteolysis, lung diseases 119–126*
 Pulmonary emphysema 119–126*
 Pupil size, hypoglycaemia 49–53
- Purine
 protein-rich diet 399–405
 transport and metabolism 333–340
- R3230 AC rat mammary adenocarcinoma 303–306
 Radioimmunoassay, α - and β -gliadins 655–659
 Receptors, hormone 1–6*
 Rectum, tumours 101–108
- Renal hypertension
 arterial cyclic AMP 355–358
 renin–angiotensin system 463–470
- Renal stone disease, purine-rich protein diet 399–405
- Renin
 acid activation 481–486
 diuretics 407–415
 epidemiology 273–280
 experimental hypertension 359–370
 inactive 481–486
 renal hypertension 463–470
 trypsin-activatable 137–140
- Renin–angiotensin system, renal hypertension 463–470
- Respiratory compensation, metabolic alkalosis 497–504
 Respiratory fuel selection 517–526
 Rheumatoid arthritis 453–454, 551–553
 Rheumatoid disease, hydroxyl radicals 649–653
- Saline expansion 153–160
 Salivation, hypoglycaemia 49–53
- Sex differences
 bilirubin conjugation 85–90
 platelet prostaglandins 63–68

- Sex hormone binding globulin 307–314
 Signal Detection Theory, inspiratory loads 417–421
 Skeletal muscle *see* Muscle, skeletal
 Small intestine, peptide absorption 433–439
 Smoking, plasma renin activity 273–280
 Smooth muscle *see* Muscle, smooth
 Sodium
 erythrocyte 79–83, 167–176, 177–182, 183–186, 441–447
 excretion 463–470
 frusemide 565–572
 18-hydroxycorticosterone 295–301
 Sodium–potassium pump, erythrocyte 183–186
 Spine, bone loss 537–540, 541–546
 Sputum, α_1 -antitrypsin 223–230
 Standing, heart rate 581–585
 Stomach, isolated oxyntic glands 423–431
 Sulphapyridine, tissue and bacterial splitting 349–354
 Sulphasalazine, tissue and bacterial splitting 349–354
 Sulphides, haem synthesis 187–191
 Superoxide, rheumatoid disease 649–653
 Supersaturation, urolithiasis 399–405
 Surgery, liver glycogen 109–111
 Synovial fluid, caeruloplasmin 551–553
 Sweating, hypoglycaemia 49–53
 Sympathetic nervous system
 cardiopulmonary afferent nerves 281–287
 thermogenesis 7–18, 19–23
 Synovial fluid, rheumatoid disease 649–653

 Temperature, nerve conduction 617–622
 Testosterone, binding to plasma proteins 307–314
 Thermogenesis, diet-induced 7–18, 19–23
 Thyroid gland, failure 41–47
 Thyrotoxicosis
 glucose turnover 41–47
 nerve conduction 617–622
 L-Thyroxine, nerve conduction 617–622
 Tilt, heart rate 581–585
 Transport
 erythrocyte sodium 177–182
 intestinal 433–439

 Triamterine, renal prostaglandins 407–415
 Triglyceride, insulin 511–516
 Triglycerides, plasma 91–99
 Trypsin-activatable renin 137–140
 Tyrosine kinetics 321–331

 Umbilical artery, ADP degeneration 239–241
 Urate, renal stone disease 399–405
 Urea, excretion 101–108
 Ureteric ligation, experimental hypertension 463–470
 Urine
 24 h collection 629–635
 purines 333–340
 Urolithiasis, purine-rich protein diet 399–405
 Uroporphyrinogen decarboxylase 187–191
 Uroporphyrinogen synthase 187–191

 Vagus nerve, heart rate control 581–585
 Vascular endothelium, prostacyclin 387–394, 395–398
 Vascular reactivity, essential hypertension 259–263
 Vasopressin
 chronic lithium therapy 623–627
 isolation-induced hypertension 377–382
 renal prostaglandins 407–415
 Ventilation
 carbon dioxide 487–495
 regional 69–78
 Vertebrae, bone mineral 537–540, 541–546
 Viscosity, cilia beating frequency 449–451
 Visual evoked responses, thyroid dysfunction 617–622
 Volume regulation, sympathetic nervous system 281–287

 Wheat gliadin, radioimmunoassay 655–659
 Whole-body radioactivity, zinc metabolism 527–535

 Xenograft, hepatocellular carcinoma 643–648

 Zinc, alcoholic cirrhosis 527–535