ANESTHESIOLOGY
Standard Abbreviations
--Updated August 17, 2018—

ABG arterial blood gas
ACLS Advanced Cardiac Life Support
ADP adenosine diphosphate
Afterdrop OK to use, but define at first mention (rapid increase in core temperature after discontinuation of cardiopulmonary bypass)
AIDS acquired immunodeficiency syndrome (spell out first time only, abbreviation OK in titles, heads)
AM* ante meridian (morning; small caps, same for PM)
AMP adenosine monophosphate
ANOVA* analysis of variance
ARDS adult respiratory distress syndrome
ASA American Society of Anesthesiologists (spell out first time only in ASA physical status I, II, abbreviation OK in titles, heads)
ATP adenosine triphosphate
ATPase adenosine triphosphatase
bid two times per day or two times daily (spell out)
BIS Bispectral Index (important: see “Trademarks and Registered Marks” section)
bpm breaths/min or beats/min depending on context; do not use bpm
BP spell out to “blood pressure” (do not abbreviate)
Ca2+ calcium (do not need to spell out)
CaO2 arterial oxygen content (small cap O)
CABG coronary artery bypass graft
cAMP cyclic adenosine monophosphate
CcO2 capillary oxygen content (small cap O)
CCSO2 coronary sinus oxygen content (small cap CSO)
CCT central conduction time
Cdyn dynamic compliance
CHCT caffeine–halothane contracture test
CI* confidence interval
cm H2O* centimeters water (with space)
CNS central nervous system
CO carbon monoxide or cardiac output
CO$_2$ carbon dioxide (always spell out, unless used with amount, then always abbreviate; same for O$_2$, NO, N$_2$O, etc.)
COPD chronic obstructive pulmonary disease
CPB cardiopulmonary bypass
CPP coronary perfusion pressure
CSF cerebrospinal fluid
Cvo$_2$ mixed venous oxygen content (small cap O)
CVP central venous pressure
CVR coronary vascular resistance
CVS cardiovascular system
Da dalton (Da [cap D], but kd [lowercase d])
DNA* OK as is, do not spell out
DNR do not resuscitate [n]; do-not-resuscitate [adj]
ECG electrocardiogram, -graph, -graphy, -graphic (never abbreviate)
EC50* effective concentration, 50% of subjects (OK abbreviated) (no subscript)
EC95* effective concentration, 95% of subjects (OK abbreviated) (no subscript)
ED50* effective dose, 50% of subjects (OK abbreviated) (no subscript)
ED95* effective dose, 95% of subjects (OK abbreviated) (no subscript)
EC$_{50}$* effective concentration producing 50% of maximal effect (subscript)
ED$_{50}$* effective dose producing 50% of maximal effect (subscript)
EENT eyes, ears, nose, throat (can be reworded to “otolaryngologic” [query if changed during editing])
EDTA* Do not query, OK to leave abbreviated
EGTA* Do not query, OK to leave abbreviated
et al.* never spell out (italic with period); change “and coworkers” or “and colleagues” to et al.
ETCO$_2$ end-tidal carbon dioxide (small cap CO)
ETO$_2$ end-tidal oxygen (small cap O)
ETT endotracheal tube
FAER Foundation for Anesthesia Education and Research
FEO$_2$ mixed expired oxygen fraction; fraction of expired oxygen (small cap EO)
FIO$_2$ fractional inspired oxygen tension; inspired oxygen fraction; fraction of inspired oxygen; inspiratory oxygen fraction (small cap IO; no unit of measure)
FEV$_1$ forced expiratory volume in 1 s
Fr or F French (always spell out: an 18-French catheter); OK abbreviate in tables
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRC</td>
<td>functional residual capacity</td>
</tr>
<tr>
<td>G or g</td>
<td>gauge (always spell out; hyphenate when used as a needle size: 18-gauge Tuohy needle)</td>
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<tr>
<td>GABA</td>
<td>γ-aminobutyric acid</td>
</tr>
<tr>
<td>GABA_A</td>
<td>γ-aminobutyric acid type A</td>
</tr>
<tr>
<td>GABAergic</td>
<td>γ-aminobutyric acid–mediated (abbreviation OK in title; abbreviation OK in text, abstract, etc., <strong>always</strong> expand at first mention; print as GABAergic with capital first 4 letters, lowercase last 5 letters).</td>
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<tr>
<td>Gq</td>
<td>Galpha(q)</td>
</tr>
<tr>
<td>h†</td>
<td>Hour</td>
</tr>
<tr>
<td>Hb</td>
<td>hemoglobin (spell out unless in list of values or equation)</td>
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<tr>
<td>Hct</td>
<td>hematocrit (spell out unless in list of values or equation)</td>
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<tr>
<td>HEPES*</td>
<td>(Do not query, Do not spell out) N-2-Hydroxyethylpiperazine-N’-2-ethanesulfonic acid</td>
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<tr>
<td>HIV</td>
<td>human immunodeficiency virus (spell out first time only)</td>
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<tr>
<td>HR</td>
<td>heart rate</td>
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<tr>
<td>ICP</td>
<td>intracranial pressure</td>
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<tr>
<td>ID*</td>
<td>inner diameter (do not spell out)</td>
</tr>
<tr>
<td>im, IM</td>
<td>intramuscular (always spell out in text; must define if used for space considerations in tables/figures)</td>
</tr>
<tr>
<td>ip, IP</td>
<td>intraperitoneal (always spell out in text; must define if used for space considerations in tables/figures)</td>
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<tr>
<td>it, IT</td>
<td>intrathecal (always spell out in text; must define if used for space considerations in tables/figures)</td>
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<tr>
<td>IU</td>
<td>international units; change to U (don’t need to define U)</td>
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<tr>
<td>iv, IV*</td>
<td>intravenous (always define in tables/figures)</td>
</tr>
<tr>
<td>KH₂PO₄</td>
<td>potassium phosphate</td>
</tr>
<tr>
<td>kPa*</td>
<td>(pressure unit; query author to convert kPa to mmHg)</td>
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<tr>
<td>LAD</td>
<td>left anterior descending [adj]; left anterior descending artery; left anterior descending coronary artery</td>
</tr>
<tr>
<td>L-NAME</td>
<td>N-nitro-L-arginine methylester or N⁴-nitro-L-arginine methylester (L always small cap)</td>
</tr>
<tr>
<td>L-NMMA</td>
<td>(small cap L; OK not spelled out)</td>
</tr>
<tr>
<td>L-type*</td>
<td>long-lasting, high-threshold (channel)</td>
</tr>
<tr>
<td>LVEDP</td>
<td>left ventricular end-diastolic pressure</td>
</tr>
</tbody>
</table>
minimum alveolar concentration (spell out on 1st mention, regardless of times used).

Note: This is a unit of measure (e.g., 0.4 MAC)

(MAC<sub>awake</sub>) (subscript lowercase “awake”)

MAP mean arterial pressure

MH malignant hyperthermia

MI myocardial infarction; myocardial ischemia

mmHg* millimeters mercury (pressure unit; query author to convert kPa to mmHg)

MPAP mean pulmonary arterial pressure

mRNA messenger RNA (okay to use abbreviation in title but it must be spelled out at first use in the text)

MRT mean residence time

MVO<sub>2</sub> myocardial uptake of oxygen (small cap O)

N<sub>2</sub> nitrogen (abbreviate only when used with amount)

N<sub>3</sub> nitrate (abbreviate only when used with amount)

NMDA N-methyl-D-aspartate (small cap D in full expansion, not in abbreviation)

NO* nitric oxide

N<sub>2</sub>O* nitrous oxide (spell out unless used with an amount)

NO<sub>insp</sub> inspiratory concentration of nitric oxide

NPO non per os (nothing by mouth)

NSAID nonsteroidal antiinflammatory drug

O<sub>2</sub> oxygen (spell out unless used with amount)

OD* outer diameter

OTF Oral Transmucosal Fentanyl Citrate (OTFC is the trademarked abbreviation)

P<sub>50</sub> 50% saturation

PAO<sub>2</sub>* partial pressure of alveolar oxygen (small cap AO)

PACO<sub>2</sub>* partial pressure of alveolar carbon dioxide (small cap ACO)

PaCO<sub>2</sub>* arterial carbon dioxide tension (small cap CO)

PACU postanesthesia care unit

PaO<sub>2</sub>* arterial oxygen tension (small cap O)

PAOP pulmonary artery occlusion pressure

PAP; Ppa pulmonary artery (or arterial) pressure

P<sub>aw</sub> positive airway pressure

PCA patient-controlled analgesia

PCP pulmonary capillary pressure

PCS<sub>2</sub>O coronary sinus pressure of oxygen (small cap CSO)
PCWP  pulmonary capillary wedge pressure
PECO₂  mixed expired carbon dioxide pressure (small cap ECO)
PEEP  positive end-expiratory pressure (cm H₂O)
PETCO₂  end-tidal pressure of carbon dioxide (small cap ETCO)

pH*  Respiration

pH*  hydrogen ion concentration (acidity/base)

PIPES*  OK as is, do not query

PM*  post meridian (afternoon; small caps, same for AM)

P_max  peak airway pressure (subscript small cap “MAX”; lowercase “max” when modifier is small cap)

P_mean  mean airway pressure (subscript small cap “MEAN”; lowercase “mean” when modifier is small cap)

PO₂*  partial pressure of oxygen (small cap O)

ppm*  parts per million

psi*  pounds per square inch (OK nonmetric)

PvCO₂  mixed venous carbon dioxide tension (small cap CO)

PvO₂  mixed venous oxygen tension (small cap O)

PVR  pulmonary vascular resistance

Qid  four times per day or four times daily (do not use this abbreviation/always spell out)

QRS complex*  combination of three of the graphical deflections seen on a typical electrocardiogram

QVA/QT  venous admixture

Qs/QT  venous admixture

Q  cardiac output value (Q with overdot)

QT  cardiac output value (Q with overdot)

Raw  airway resistance

RNA*  ribonucleic acid (never spell out)

RR  respiratory rate (breaths/min)

RR interval*  inter-beat interval

SaO₂  arterial oxygen saturation (small cap O)

SBP  systolic blood pressure

ScO₂  alveolar carbon dioxide slope (small cap O)

SD*  standard deviation (never spell out)

SEM*  standard error of the mean
\text{SpO}_2 \quad \text{oxygen saturation measured by pulse oximetry (small cap O)}

\text{SSEP} \quad \text{somatosensory evoked potentials}

\text{ST segment\*} \quad \text{DO NOT ABBREVIATE}

\text{SV} \quad \text{stroke volume}

\text{SvO}_2 \quad \text{mixed venous oxygen saturation (small cap O)}

\text{SVR} \quad \text{systemic vascular resistance}

\text{TD50} \quad \text{toxic dose, 50\% of subjects (OK abbreviated) (no subscript)}

\text{TD95\*} \quad \text{toxic dose, 95\% of subjects (OK abbreviated) (no subscript)}

\text{TEE} \quad \text{transesophageal echocardiography}

\text{Tid} \quad \text{three times per day or three times daily (do not use this abbreviation/always spell out)}

\text{U} \quad \text{units: always change IU to U, and only spell out when used with blood (hemoglobin, \textit{etc.})}

\text{V} \quad \text{flow; air flow (V with \textit{overdot})}

\dot{\text{V}}_{A/Q} \quad \text{ventilation/perfusion ratio (V and Q with \textit{overdot})}

\dot{\text{V}}_{\text{CO}_2} \quad \text{carbon dioxide output (V with \textit{overdot}; small cap CO)}

\text{V}_D/\text{V}_T \quad \text{dead space ventilation}

\dot{\text{V}}_E \quad \text{minute ventilation (V with \textit{overdot})}

\dot{\text{V}}_E \quad \text{minute volume (V with \textit{overdot})}

\dot{\text{V}}_{\text{O}_2} \quad \text{oxygen uptake (V with \textit{overdot}; small cap O)}

\dot{\text{V}}/\dot{\text{Q}} \quad \text{ventilation/perfusion ratio (V and Q with \textit{overdot})}

\text{V}_{SS} \quad \text{volume of distribution at steady state}

\text{V}_T \quad \text{tidal volume (ml/kg)}

*Abbreviation marked by an asterisk may be used without expansion in text, titles, and headings.