Nephrology Nursing Journal
Journal of the American Nephrology Nurses Association

Nephrology Nursing Journal

Style Guide

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NNJ Style Guide

Style Guides are designed to provide guidelines for authors. The content is not all-inclusive, but it represents the format style of *NNJ* and the most commonly accepted terms, abbreviations, and acronyms in the specialty of nephrology nursing, and addresses frequently asked style questions. It is a companion to the *NNJ Author Guidelines* which provide information on submitting a manuscript to *NNJ*. For information on questions not addressed in the *NNJ Style Guide*, the *NNJ Author Guidelines*, or the *APA Publication Manual*, please contact the *NNJ* staff (nephrologynursing@ajj.com).

NNJ follows the guidelines established by the *Publication Manual of the American Psychological Association* (APA), 7th edition (2020), and the recommendations on nomenclature for kidney function and disease from The Kidney Disease: Improving Global Outcomes (KDIGO) Consensus Conference (2020, available for download at https://kdigo.org/wp-content/uploads/2018/10/Nomenclature-Conference-Report.pdf).

This Style Guide includes

- Formatting the Manuscript
- General Style Issues
- Terms and Abbreviations – General
- Government and Health Care Organizations – Names and Abbreviations
- Professional Credentials, Certifications, Titles, and Licenses with Abbreviations
- KDIGO Nomenclature May 2020 - KDIGO Consensus Conference Report on Nomenclature for Kidney Function and Disease

The NNJ Style Guide is a dynamic document. It is updated as new and more frequently used terms and abbreviations are noted. If you have terms and abbreviations that you believe should be included or corrections, please email NNJ Editor-in-Chief Beth Ulrich (BethTUlrich@gmail.com).

Formatting the Manuscript

Order of the Manuscript

The following order should be followed for all manuscripts submitted to *NNJ* including department submissions.

- Title Page – Include
  - title of the manuscript
  - the names of the author(s) with their credentials
  - keywords – Three to five words/phrases typically used when people are searching for information (e.g., hemodialysis, transplantation, work environment).
- Author Information – For each author, provide the
  - Name
  - Credentials - In the order designated by the ANA 2009 Position Statement: education (list highest attained degree first), licensure (state designation or requirement), national certification (earned), awards and honors, other certifications
  - Current job title, name of employer, city and state of employer
  - If applicable, any current ANNA leadership position titles
  - If applicable, ANNA chapter of which the author is a member
  - Contact information, including email address, phone number, and land mail address (home address preferred).
  - Disclosure statement. Include a statement signed by all authors that the contents, in whole or in part, have not been previously reported, and are not under consideration for publication elsewhere, nor will be, until a decision is made by the *Nephrology Nursing Journal* Editor.
  - Indicate which author is the primary author or the corresponding author
- Acknowledgement of funding or other contributions (include only if applicable)
- Other acknowledgements (include only if applicable)
- Abstract (75-125 words) – The abstract should be written as one paragraph
- Key words – Provide several key words that describe the content and can be used in searches
- Learning outcome
- Manuscript text
- References
- Tables (start each on a separate page)
- Figures (start each on a separate page)

Technical Format

Manuscripts should be submitted using MS Word. The manuscript should be submitted in a 12-point font (preferably Times New Roman or Arial), be double spaced, and have at least one inch (1") margins. The text in the body of the manuscript should be indented at the

beginning of each paragraph. A running header (shortened title) and page number should be included at the top of each page of the manuscript except for the title page. Reference software programs (including the program that comes with MS Word) should NOT be used.

Headings

NNJ uses four levels of headings in the body of the manuscript:

First Level (bold, left justified, underlined, Arial font, 12 point)
Second Level (bold, left justified, Times New Roman font, 12 point)
Third level. (bold, at the start of the paragraph, Times New Roman font, 12 point)
Fourth level. (italicized, at the start of the paragraph, Times New Roman, 12 point)

Punctuation Guidelines

Spacing – Insert one space after commas, colons, semicolon, and periods.
Commas – Within a sentence, use commas to separate three or more elements that do not have internal commas (for example – apples, oranges, and bananas); use semicolons to separate three or more elements that have internal commas.

Quotation marks – Use double quotation marks when quoting material directly from the source, the first time a word or phrase is used for an invented or coined expression, and to set off the title of an article or chapter when the title is mentioned in the text. Do not use double quotation marks to identify the anchors of a scale or to introduce a technical term – italicize them instead. Do not use double quotation marks to enclose block quotations of 40 or more words.

Bullet points – If each bullet point is a complete sentence, start each with a capital letter and end each with a period. If the bullet points are a list, then end each bullet point with a comma or semicolon as noted above. End the last bullet point with a period.

Tables, Figures, and Photographs

Each table and figure (including photographs, which are considered to be figures) should appear on a separate page after the reference section. Each table and figure should have a title at the top and any sources or permissions for the use of the table listed under the table/figure. For figures, make sure to submit the figure in a format that can be recreated for publication. If the figure is a graph, for example, submit the graph in a format that includes access to the data used to create the graph. The data in the tables and figures should be carefully checked for accuracy – make sure all the numbers that should add up actually do add up.

Photographs must be of high resolution. If the table or figure is taken from another source, include a full reference citation. Obtaining permission to reprint another's work is the responsibility of the author. In addition, photographs that contain the image of an

individual or individuals must be accompanied by signed releases from those individuals stating that they give permission for the photograph to be used in *NNJ*.

Citations and References

The purpose of citations and references is for readers to be able to find the sources cited. Citations and references must follow the guidelines in the *APA Publication Manual*, 7th edition, 2020. Examples are provided below. For other types of citations or references, refer to the *APA Publication Manual*, Chapter 8: Works Credited in the Text.

Citations

Citations should be from primary (original) sources and should be as current as possible.

Citations from references with one or two authors should list all authors in each citation.
(Kear, 2019; Ulrich & Robbins, 2020).

Citations from references with three or more authors should list the first author followed by et al. on all citations.
(Colaneri et al., 2018)

When multiple citations are listed for the same information, they should be listed in alphabetical order, with each citation – except the last – followed by a semi-colon.
(Colaneri et al., 2018; Dutka et al., 2019; Kear, 2018; Ulrich & Robbins, 2020)

References

Reference information should be obtained from the original (primary) source. There should be a reference for each source cited in the manuscript. References should be listed in alphabetical order at the end of the manuscript and should begin on a new page.

Authors are encouraged to provide digital object identifier (DOI) numbers, when available, at the end of the reference. Use the DOI hyperlink for references that include DOI numbers (e.g., https://doi.org/10.37526/1526-744X.2020.47.1.7).

For references with up to 20 authors, all author names should be listed. When there are 21 or more authors, list the first 19 authors followed by an ellipsis and the final author's name.

When there is more than one reference by the same author, the references by that author should be listed in order of the publication years with the earliest article listed first. When there is more than one reference by the same author in the same year, those references should be ordered alphabetically by the first word of the title and a lowercase suffix should be added to the year beginning with the letter "a" (i.e., 2019a, 2019b).

References for an entire book must contain the name(s) of the author(s), year of publication, title of book, edition of book (if multiple additions have been printed), and the name of the publisher.

Examples:
Author, A.A. (2018). *Title of book*. Publisher.

Editor, A.A. (Ed.) (2019). *Title of book*. Publisher.

References for a book chapter must include information on the chapter as well as on the book as a whole.

Example:
Author, A.A., & Author, B.B. (2018). Title of chapter. In A. Editor & B. Editor (Eds.), *Title of book* (pp. xxx-xxx). Publisher.

References for articles must include the name(s) of the author(s), year of publication, title of the article, name of the journal, volume number, issue number, page numbers, and DOI number, if available. In addition, if the article can be retrieved online by readers, the article's web address should also be included.

Examples:
Author, A.A., Author, B.B., & Author, C.C. (2020). Title of article. *Journal Name, Volume number* (issue number), pages. (For page numbers, list the first page of the article and the last page of the article. If there are additional pages, they are listed following the consecutive pages. Example 101-110, 124). http://doi.org/10.1016/j.midw.2019.09.010

Author, A.A., Author, B.B., & Author, C.C. (2017). Title of article. *Journal Name, 10*(2), 101-110.

Author, A.A., Author, B.B., Author, C.C., Author, D.D., Author, E.E., Author, F.F., Author, G.G., Author, H.H., Author, I.I., Author, J.J., Author, K.K., Author, L.L., Author, M.M., Author, N.N., Author, O.O., Author, P.P., Author, Q.Q., Author, R.R., Author, S.S., ... Author, Z.Z. (2018). Title of article. *Journal Name, 10*(2), 101-110. http://doi.org/10.1020/ajkd.2019.09.010

General Style Issues

Using Bias-Free Language

NNJ adheres to APA (2020) guidelines regarding the use of bias-free language. The overall principle of bias-free language is that the integrity of all human beings should be maintained and that they should not be described by language that objectifies them, implies prejudicial beliefs, or "perpetuates biased assumptions against persons on the

basis of age, disability, gender, participation in research, racial or ethnic identity, sexual orientation, socioeconomic status, or some combination of these or other personal factors (e.g., marital status, immigration status, religion)" (p. 131). Bias-free language focuses on the individual, emphasizing the person, not the person's disabilities or chronic conditions (for example, use "patients on hemodialysis" rather than "hemodialysis patients" and use "people with diabetes" instead of "diabetics").

Use of Primary Sources

Primary sources are the original sources of information, such as the original report of a research study. You should not rely on other people's interpretation(s) of what was reported in another publication. If Author A cites Author B's publication as the source for information in Author A's article, then you should read Author B's publication and confirm Author A's interpretation or, better yet, create your own interpretation. You also should not copy reference information from Author A's article, but should confirm the correct reference information before including it in your article.

Units of Measure

In general, *NNJ* uses the metric system and adheres to the International System of Units (SI) and its abbreviations. Metric units are preferred for measurements of volume, weight, height, and length. Refer to the *Publication Manual of the APA, 7th* Edition (2020) for more details. Conversion information may be included in parentheses as appropriate.

NNJ uses the metric system, adheres to the International System of Units (SI) and its abbreviations, and follows the guidelines of the *Publication Manual of the APA, 7th Edition* (2020, chapter 6) on units of measure and abbreviations for units of measure. Conversion information may be included in parentheses as appropriate.

Names of Pharmaceuticals, Devices, etc.

Nonproprietary names of pharmaceutical products, devices, etc. should be used at all times unless the brand/trade name is relevant to the content.

Numbers

The *Nephrology Nursing Journal* follows the guidelines of the *Publication Manual of the APA, 7th Edition* (2020).

- In general, use numerals for numbers 10 and above and words to express numbers below 10.
- Use numbers for:
  - numbers 10 and above (cardinal and ordinal numbers)
  - numbers that immediately precede a unit of measurement;
  - numbers that represent statistical or mathematic functions, fractions, decimal quantities, percentages, ratios, and the like;
  - numbers that represent time, dates, ages, scores, points on a scale, exact sums of money, and numerals as numerals;

  - numbers that denote a specific place in a numbered series, and parts of books and tables.
- Use words for numbers and for common fractions that begin a sentence, title, or heading.
- Use a zero before the decimal point with numbers that are less than one when the statistic can exceed one.
- Be consistent with the number of decimal places used in comparative data.

Statistical Abbreviations and Symbols

The *Nephrology Nursing Journal* follows the guidelines of the *Publication Manual of the APA, 7th Edition* (2020, chapter 6) on statistical abbreviations and symbols.

Units of Time/Symbols

In general, the *Nephrology Nursing Journal* uses the metric system and adheres to the International System of Units (SI) and its abbreviations.

Chemical Components

In general, names of chemicals should be written out, however, in some cases, such as in figures, it is necessary to abbreviate the names.

- Ammonia – NH_3
- Ammonium – NH_4^+
- Bicarbonate – HCO_3^-
- Calcium – Ca^{2+}
- Carbon dioxide – CO_2
- Carbonic acid - H_2CO_3
- Chloride - Cl^-
- Hydrogen – H^+
- Hydrochloric acid – HCl
- Magnesium – Mg^{2+}
- Phosphate - PO_4^-
- Potassium - K^+
- Sodium - Na^+
- Sodium dihydrogen phosphate – $NaH_2PO_4^-$
- Sodium chloride – NaCl
- Sodium monohydrogen phosphate – $NaHPO_4^{2-}$
- Water - H_2O

Miscellaneous Style Issues

- The term 'dialysis' is a general term that is used to mean all types of dialysis. Terms like "hemodialysis" and "peritoneal dialysis" should be used for specific types of dialysis.
- Incident cases vs. prevalent cases – The term "incident cases" refers to new cases; the term "prevalent cases" refers to all existing cases
- "Healthcare" vs. "health care" – which to use? Some people use "healthcare" as an adjective (e.g., healthcare personnel) and "health care" when the word "health" is describing the care (e.g., health care vs. illness care); however, this can be confusing. According to the APA, the term "health care" is the correct term in both cases. Therefore, NNJ uses "health care" as two words.
- "Medical care" vs. "health care" – when to use? The term "medical care" is often incorrectly used when describing health care, nursing care, etc. Use the term "medical care" only when referring specifically to medical care.
- Racial and Ethnic Terms – Racial and ethnic groups are designated by proper nouns and are capitalized (e.g., White, Black, Hispanic, Native American).
- Use of a comma in a series of items – Use a comma between elements in a series of three or more items, including before the final item. The last comma is called a serial comma or Oxford comma. Incorrect example – He lived with his brother, son and wife. Correct example – He lived with his brother, son, and wife.
- Advance care planning, NOT advanced care planning; advance directive, NOT advanced directive
- Generic drug names use lower case at the beginning of the drug's name.
- Diabetes – type 1 diabetes, type 2 diabetes (not Type 1, Type 2)
- Vitamin D3 (not D_3)
- The correct way to express decades of time is 1990s, not 1990's. The correct way to express the plural form of credentials is RNs (not RN's), MDs (not MD's), APRNs (not APRN's), etc. The 's denotes the possessive form of the term rather than the plural form.
- i.e. and e.g. – i.e. is the abbreviation for the Latin phrase "id est" meaning "that is" and e.g. is for "exempli gratia" meaning "for example." Use "i.e." when you wish to explain something further and use "e.g." when you are giving examples. Both should be used in parentheses. When in doubt, use neither and just say "for example" or "that is" or other explanatory phrases in the text.
- email – no hyphen; website; internet
- Magnet® (not magnet, in reference to ANCC's Magnet Recognition Program). Also, use ® on first mention of both Magnet and the Magnet Recognition Program.

Note: Updates to the APA guidelines as well as frequently asked questions can be found at www.apastyle.org

Terms & Abbreviations

NNJ allows the use of common abbreviations. When deciding whether or not to use an abbreviation, consider the readers' familiarity with the abbreviation and whether or not the use of the abbreviation(s) makes the information easier to read or not. In any case in which an abbreviation is not in common use or may be confused with a similar abbreviation, an abbreviation should NOT be used. *NNJ* also does not permit the use of any abbreviations that are on The Joint Commission 'do not use' list.

All abbreviations should be spelled out on first use.

General Terms and Abbreviations

AB – antibody
ABG – arterial blood gases
ACA – Affordable Care Act (The full name is the Patient Protection and Affordable Care Act.)
ACE – angiotensin converting enzyme
ACLS – advanced cardiac life support
ACO – accountable care organization
ACPB – aluminum-containing phosphate binders
ACR – urinary albumin-creatinine ratio
ACT – activated clotting time
ADH – antidiuretic hormone
ADL – activities of daily living
ADP – adenosine diphosphate
ADPKD – autosomal dominant polycystic kidney disease
AER – urinary albumin excretion rate
AIDS – acquired immunodeficiency syndrome
AKD – acute kidney disease – AKI, or GFR less than 60/mL/1.73m^2, or markers of kidney damage for 3 months or less, or decrease in GFR by 35% or greater or increase in SCr by 50% or greater for 3 months or less (KDIGO)
AKI – acute kidney injury – subcategory of AKD; oliguria for more than 6 hours, rise in SCr level by more than 0.3 mg/dL or by more than 50% in 1 week (KDIGO)
AKI stage 1
AKI stage 2
AKI stage 3
AKI stage 3D – acute kidney injury treated by dialysis
AMA – against medical advice
AMI – acute myocardial infarction
APD – automated peritoneal dialysis
APGN – acute postinfectious glomerulonephritis
APTT – activated partial thromboplastin time
ARB – angiotensin receptor blocker

ARDS – acute respiratory distress syndrome
ARF – acute renal failure
ASA – acetylsalicylic acid
ASAP – as soon as possible
AST – aspartate aminotransferase
ATN - acute tubular necrosis
ATP – adenosine triphosphate
AV – arteriovenous
AVF – arteriovenous fistula
AVG – arteriovenous graft
AVR – aortic valve replacement
Albuminuria and proteinuria categories
- Normal – AER less than 10 mg/d; ACR less than 10 mg/g (less than 1mg/mmol)
- Mild – AER 10-29 mg/d; ACR 10-29 mg/g (1.0-2.9/ mmol)
- A1 – Normal to mildly increased (normal to mild) albuminuria or proteinuria; AER less than 30 mg/d; ACR less than 30 mg/g (less than 3 mg/mmol); PER less than 150 mg/d; PCR less than 150 mg/g (less than 15 mg/mmol)
- A2 – Moderately increased (moderate) albuminuria or proteinuria; AER 30-300 mg/d; ACR 30-300 mg/g (less than 1 mg/mmol); PER less than 150 mg/d; PCR less than 150 mg/g (less than 15 mg/mmol)
- A3 – Severely increased (severe) albuminuria or proteinuria; AER greater than 300 mg/d; ACR greater than 300 mg/g (more than 30 mg/mmol); PER greater than 500 mg/d; PCR greater than 500 mg/g (greater than 50 mg/mmol)

BCG – bacillus Calmette-Guerin vaccine
BFR – blood flow rate
BMD – bone mineral disorder
BMI – body mass index
BP – blood pressure
BPS – biopsychosocial
BUN – blood urea nitrogen
BV – blood volume

CA – carbonic anhydrase
CABG – coronary artery bypass graft
CAD – coronary artery disease
cAMP – cyclic adenosine monophosphate
CAPD – continuous ambulatory peritoneal dialysis
CAT – computerized axial tomography
CAUTI – catheter-associated urinary tract infections
CAVH – continuous arterio-venovenous hemofiltration
CBC – complete blood count
CBT – cognitive behavior therapy
CCPD – continuous cyclic peritoneal dialysis
CE – continuing education
CfC – CMS Conditions for Coverage

CFU – colony forming units
CHF – congestive heart failure
CHr – reticulocyte hemoglobin content
CKD – chronic kidney disease – GFR less than 60 mL/1.73^2 or markers of kidney damage for more than 3 months (KDIGO)
- CKD G5 without KRT - CKD G1-G5, A1-A3 of any cause, not receiving dialysis or transplantation
- CKD G1T-G5T – CKD G1-G5 after transplantation
- CKD G5D – CKD G5 treated by dialysis
- CKD Risk Categories
  - CKD low risk – CKD risk category low; Refers to G1A1, G2A1
  - CKD moderate risk – CKD risk category moderately high; Refers to G1A2, G2A2, G3aA1
  - CKD high risk – CKD risk category high; Refers to G1A3, G2A3, G3aA2, G3bA1
  - CKD risk category very high risk - CKD risk category high risk; Refers to G3aA3, G3bA2, G3bA3, G4A1, G4A2, G4A3, G5A1, G5A2, G5A3

Cl^- – chloride. Caution: Can be confused with the abbreviation for clearance (Cl) when used for chloride.
Cl – clearance. Caution: Make sure it is clear that Cl does not mean chloride (Cl^-) when used for clearance.
CLABSI – central line-associated blood stream infection
C_{max} – maximum concentration
CME – continuing medical education
CMV – cytomegalovirus
CON – certificate of need
CoP – CMS Conditions of Participation
COPD – chronic obstructive pulmonary disease
COVID-19 – coronavirus disease
CPK – creatinine phosphokinase
CPM – clinical performance measure
CPR – cardiopulmonary resuscitation
CPT – current procedural terminology
CQI – continuous quality improvement
Cr – creatinine
CrCl – creatinine clearance
CRM – crew resource management
CRP – C-reactive protein
CKRT – continuous kidney replacement therapy
CSF – cerebrospinal fluid
CT – computerized tomography
CV – coefficient of variation
CVC – central venous catheter
CVD – cardiovascular disease
CVP – central venous pressure

CVVH – continuous venovenous hemofiltration

DDKT – deceased donor kidney transplant/transplantation
DFO – deferoxamine
DI – deionization
DM – diabetes mellitus
DME – durable medical equipment
DNA – deoxyribonucleic acid
DNR – do not resuscitate
DPOA – durable power of attorney
DRGs – diagnosis related groups
DSA – donor specific antibody
DSM – Diagnostic and Statistical Manual of Mental Disorders (note edition - III, III-R, IV)

EBL – estimated blood loss
EBP – evidence-based practice
EBV – Epstein Barre Virus
ECF – extracellular fluid
ECFV – extracellular fluid volume
ECG – electrocardiogram
eCL – estimated clearance
eCL_{cr} – estimated clearance using creatinine
ECMO – extracorporeal membrane oxygenation
ECV – extracellular volume
ED – emergency department
EDW – estimated dry weight
eGFR – estimated glomerular filtration rate
$eGFR_{cr}$ – estimated glomerular filtration rate using creatinine
$eGFR_{cys}$ – estimated glomerular filtration rate using cystatin C
$eGFR_{cr\text{-}cys}$ – estimated glomerular filtration rate using creatinine and cystatin C
EKG – electrocardiogram
ELISA – enzyme-linked immunosorbent assay
EOL – end-of-life (used as an adjective, e.g. EOL care)
EPO - erythropoietin
ePTFE – expanded polytetrafluoroethylene
ER – emergency room
ESA – erythropoietin stimulating agent

FBG – fasting blood glucose
Fe – iron
FE_{Na} – fractional excretion of sodium
FMEA – Failure Modes and Effects Analysis
FR_{Na} – fractional reabsorption of sodium
FSGS – focal segmental glomerular sclerosis
FSH – follicle-stimulating hormone

FTE – full-time equivalent

GBS – Guillian Barre Syndrome
GBM – glomerular basement membrane
GERD – gastroesophogeal reflux disease
GFR – glomerular filtration rate. Specify units in mL/min/1.73^2
GFR categories
- G1 – Normal to increased GFR; GFR at or above 90 mL/min/1.73m^2
- G2 – Mildly reduced GFR; GFR 60-89 mL/min/1.73m^2
- G3a – Moderately reduced GFR; GFR 45-59 mL/min/1.73m^2
- G3b – Moderately reduced GFR; GFR 30-44 mL/min/1.73m^2
- G4 – Severely reduced GFR; GFR 15-29 mL/min/1.73m^2
- G5 – Kidney failure; GFR less than15 mL/min/1.73m^2 or treated by dialysis

GFR reserve (do not use "renal function reserve")
GI – gastrointestinal
GN – glomerulonephritis

H&P – history and physical
HAI – health care-associated infection
HAV – hepatitis A virus
HBIG – hepatitis B immunoglobulin
HBsAg – hepatitis B surface antigen
HBV – hepatitis B virus
HCAHPS – Hospital Consumer Assessment of Healthcare Providers and Systems
HCP – health care provider
HCQIP – Health Care Quality Improvement Program
HCV – hepatitis C virus
Hct – hematocrit
HD – hemodialysis
HDF – hemodiafiltration
HDL – high density lipoprotein
HF – hemofiltration
Hg – mercury
Hgb – hemoglobin
HHD – home hemodialysis
HIPAA – Health Insurance Portability and Accountability Act
HIT – heparin-induced thrombocytopenia
HIV – human immunodeficiency virus
HLA – human leukocyte antigen
HMO – health maintenance organization
HR – heart rate
HRO – high reliability organization
HRT – hormone replacement therapy
HRQoL – health related quality of life
HSP – Henoch Schonlein Purpura

HSV – herpes simplex virus
Ht – height
HTML – hypertext markup language
HTN – hypertension
HWE – healthy work environment
HZV – herpes zoster virus

ICD-9 – International Classification of Diseases, Ninth Revision
ICD-10 – International Classification of Diseases, Tenth Revision
ICF – intracellular fluid
ICU – intensive care unit
IDDM – insulin-dependent diabetes mellitus
IDWG – interdialytic weight gain
IgA – immunoglobulin A
IM – intramuscular
INR – international normalized ratio
IP – intraperitoneal
IPN – intraperitoneal nutrition
iPTH – intact parathyroid hormone
IRB – Institutional Review Board
ISG – immune serum globulin
ISN – international sensitivity index
IV – intravenous
IVC – inferior vena cava
IVIG – intravenous immune globulin
IVP – intravenous pyelogram

JGA – juxtaglomerular apparatus

KDIGO – Kidney Disease: Improving Global Outcomes
KDOQI – Kidney Disease Outcomes Quality Initiative
KF – kidney failure (as defined in the KDIGO guideline – GFR < 15mL/min/1.73m^2 or treatment by dialysis)
KFRT – kidney failure with replacement therapy - CKD G5 treated by dialysis or CKD G1-G5 after transplantation
KRT – kidney replacement therapy
Kuf – ultrafiltration coefficient
Kt/V – measurement of dialysis adequacy; K = urea clearance, t = treatment time, V = volume of urea distribution
KUB – Kidneys, ureter, bladder

LBV – low biologic value
LD – living donor
LDKT – living donor kidney transplant/transplantation
LDL – low density lipoprotein

LH – luteinizing hormone
Long-term or maintenance dialysis (dialysis for CKD)
LOS – length of stay
LRD – living related donor
LRSP – long-range strategic plan
LTC – long term care
LVH - left ventricular hypertrophy
LVMI – left ventricular mass index
LVN – licensed vocational nurse
LWCT – lee white clotting time

MANOVA – multivariate analysis of variance
MAP – mean arterial pressure
mCL – measured clearance
mCL_{UN} – measured clearance using urea nitrogen
mCL_{cr} – measured clearance using creatinine
$mCL_{UN\text{-}cr}$ – measured clearance using urea nitrogen and creatinine
MCO – managed care organization
MCP – monthly capitated payment
mGFR – measured glomerular filtration rate
MICU – medical intensive care unit
MMPI – Minnesota Multiphasic Personality Inventory
moAb - monoclonal antibody
MPGN – membranous proliferative glomerulonephritis
MRI – magnetic resonance imaging
mRNA – messenger ribonucleic acid
MRSA – methicillin-resistant staphylococcus aureus
MSK – medullary sponge kidney
MVP – mitral valve prolapse
MVR – mitral valve replacement
MW – molecular weight

NIDDM – non-insulin dependent diabetes mellitus
NFP – net filtration pressure
NG – nasogastric
NICU – neonatal intensive care unit
NKA – no known allergies
NKF-KDOQI – National Kidney Foundation - Kidney Disease Outcomes Quality Initiative
NMR – nuclear magnetic resonance
NPCR – normalized protein catabolic rate
NPO – nothing by mouth
NPRM – notice of proposed rule making
NSAID – nonsteroidal anti-inflammatory drug

OBRA – Omnibus Budget Reconciliation Act

OPO – organ procurement organization
OR – operating room
OT – occupational therapy
OTC – over the counter

$PaCO_2$ – partial pressure of carbon dioxide, arterial
PACU –post-anesthesia recovery unit
PAK – pancreas after kidney (transplant)
PaO_2 – partial pressure of oxygen, arterial
PCO_2 – partial pressure of carbon dioxide
PCP – primary care provider
P_{Cr} – plasma creatinine
PCR – polymerase chain reaction. Caution: Make sure it is clear that PCR does not mean protein-creatinine ratio which is also sometimes abbreviated as PCR.
PCR – protein-creatinine ratio. Caution: Make sure it is clear that PCR does not mean polymerase chain reaction which is also sometimes abbreviated as PCR.
PCTA – percutaneous transluminal angioplasty
PD – peritoneal dialysis
PDCA – plan, do, check, act
PDSA – plan, do, study, act
PER – urinary protein excretion rate
PET – peritoneal equilibration test
PICC – peripherally inserted central catheter
PICU – pediatric intensive care unit
PKD – polycystic kidney disease
PKU – phenylketonuria
PPD – purified protein derivative
PPM – parts per million
PRA – panel reactive antibody
Pr/Cr – protein to creatinine
PSA – prostate specific antigen
PSDA – Patient Self-Determination Act
PSGN – post streptococcal glomerular nephritis
PSVT - paroxysmal supraventricular tachycardia
PT – physical therapy
PTFE – polytetrafluorethylene
PTH – parathyroid hormone
PTT – prothrombin times
PUD – peptic ulcer disease
PVC – polyvinyl chloride
PVD – peripheral vascular disease

QA – quality assurance
Qb – blood flow
Qd – dialysate flow. Caution – Make sure it is clear that Qd does not mean each day (QD).

QI – quality improvement
QoL – quality of life

RBC – red blood cell
RBF – renal blood flow
RCT – randomized control trial
RDA – recommended daily allowance
RDS – respiratory distress syndrome
RKF – residual kidney function
rHuEPO (or rEPO) - recombinant human erythropoietin
RIA – radioimmunoassay
RNA – ribonucleic acid
RO – reverse osmosis
RPGN – rapidly progressive glomerulonephritis
RRA – radioreceptor assay

SaO_2 - oxygen saturation
SCT – sickle cell trait
SES – socioeconomic status
SG (or sp gr) – specific gravity
SGOT – serum glutamic-oxaloacetic transaminase
SGPT – serum glutamic-pyruvic transaminase
Short-term dialysis (dialysis for AKD)
SICU – surgical intensive care unit
SIR – systemic inflammatory response
SKPT – simultaneous kidney pancreas transplantation
SLE – systemic lupus erythematosus
SLED – slow low efficient dialysis
SNF – skilled nursing facility
SOB – shortness of breath
SPK – simultaneous pancreas and kidney (transplant)
SPN – Specialty Practice Network
SQ – subcutaneous

TAC – time-averaged urea concentration
TB – tuberculosis
TENS – transcutaneous electrical nerve stimulation
TF – tubule fluid
TIA – transischemic attack
TIBC – total iron binding capacity
TMP – transmembrane pressure
tPA – tissue-type plasminogen activator
TPE – therapeutic plasma exchange
TPN – total parenteral nutrition
TPR – temperature, pulse, respiration

TQM – total quality management
TR – tubular reabsorption
TS – tubular secretion
TSAT – transferrin saturation
TTP – transition to practice

UF – ultrafiltration
UFR – ultrafiltration rate
URI – upper respiratory infection
Urinary ACR – albumin-creatinine ratio
Urinary PCR – urinary protein-creatinine ratio. Caution: Make sure it is clear that PCR does not mean polymerase chain reaction which is also sometimes abbreviated as PCR.
Urinary PER – urinary protein excretion rate
URR – urea reduction ratio
UTI – urinary tract infection
UV – ultraviolet

VHDL – very high density lipoprotein
VLDL – very low density lipoprotein
VR – virtual reality
VRE – vancomycin-resistant enterococci
VS – vital signs
VZIG – varicella-zoster immune globulin
VZV – varicella-zoster virus

WAK – wearable artificial kidney
WBC – white blood cells
WBPTT – whole blood partial thromboplastin time
WNL – within normal limits
Wt – weight

1,25-DHCC – 1,25 dihydroxycholecalciferol

The Joint Commission (2019) recommends *not* using the following abbreviations and terms.

Do Not Use

U, u to abbreviate "unit"
IU to abbreviate "international unit." Can be mistaken for IV.
Q.D., QD, q.d., qd as abbreviations for daily. Can be misread.
Q.O.D., QOD, q.o.d., qod as abbreviations for every other day
MS – can mean morphine sulfate or magnesium sulfate
MSO_4, $MgSO_4$ – Can be confused for one another.
Also, take care when writing numbers as decimal points can be missed or misread

Government/Health Care Organizations – Names and Abbreviations

AABB – American Association of Blood Banks
AACN – American Association of Critical Care Nurses
AAKP – American Association of Kidney Patients
AAMI – Association for the Advancement of Medical Instrumentation
ABNS – American Board of Nursing Specialties
ABTC – American Board for Transplant Certification
ADA – American Diabetes Association
AHCPR – Agency for Health Care Policy and Research
AKF – American Kidney Fund
AMA – American Medical Association
ANA – American Nurses Association
ANCC-COA - American Nurses Credentialing Center - Commission on Accreditation
ANF – American Nurses Foundation
ANNA – American Nephrology Nurses Association
AONE – American Organization of Nurse Executives (became AONL in 2019)
AONL – American Organization of Nursing Leadership (was AONE until 2019)
AOPO – Association of Organ Procurement Organizations
APA – American Psychological Association
ASN – American Society of Nephrology
AST – American Society of Transplantation

CANNT – Canadian Association of Nephrology Nurses and Technicians
CCNA – Council on Certification of Nurse Anesthetists
CDC – Centers for Disease Control and Prevention
CES – Centers for Epidemiologic Studies
CHAP – Community Health Accreditation Program
CMS – Centers for Medicare and Medicaid Services (formerly HCFA)
CNA – Canadian Nurses' Association
C-NET – Center for Nursing Education Testing
CNNT – Council of Nephrology Nurses and Technicians
COMGAN – Commission for the Global Advancement of Nephrology
CORR – Canadian Organ Replacement Registry
CSN – Canadian Society of Nephrology

DEA – Drug Enforcement Administration
DHHS – Department of Health and Human Services

EDTNA – European Dialysis and Transplant Nurses Association
EPA – Environmental Protection Agency

FDA – Food and Drug Administration

GAO – General Accounting Office
GPO – Government Printing Office

HCFA – Health Care Financing Administration (replaced by CMS)
HHS – Health and Human Services
HRSA – Health Resources and Services Administration

ICN – International Council of Nursing
ICN – International Council of Nephrology
IFKF – International Federation of Kidney Foundations
IHI – Institute for Healthcare Improvement
IOM – Institute of Medicine (now the National Academy of Medicine)
ISMP – Institute for Safe Medication Practices
ISN – International Society of Nephrology
ITNS – International Transplant Nurses' Society

TJC – The Joint Commission

KCP – Kidney Care Partners

NAM – National Academy of Medicine
NANDA – North American Nursing Diagnosis Association
NANT – National Association of Nephrology Technicians/Technologists
NAON – National Association of Orthopaedic Nurses
NATCO – North American Transplant Coordinators Organization
NCMRR – National Center for Medical Rehabilitation Research
NCNR – National Center for Nursing Research
NCSBN – National Council of State Boards of Nursing
NHO – National Hospice Organization
NIDDKD – National Institutes of Diabetes and Digestive and Kidney Disease
NIH – National Institutes of Health
NINR – National Institute of Nursing Research
NKF – National Kidney Foundation
NKUDAB – National Kidney and Urologic Diseases Advisory Board
NKUDIC – National Kidney and Urologic Diseases Information Clearinghouse
NLN – National League for Nursing
NNCC – Nephrology Nursing Certification Commission
NOA – Nursing Organizations Alliance
NORD – National Organization for Rare Disorders
NPSF – National Patient Safety Foundation
NRAA – National Renal Administrators Association

OCR – Office of Civil Rights

OIG - Office of Inspector General
OSHA – Occupational Safety and Health Administration

ProPAC – Prospective Payment Assessment Commission

QSEN – Quality and Safety Education for Nurses

RPA – Renal Physicians' Association

SNA – State nurse association
STT – Sigma Theta Tau
SUNA – Society of Urologic Nurses and Associates

TRIO – Transplant Recipient International Organization

UNOS – United Network for Organ Sharing
USDHHS – United States Department of Health and Human Services
USRDS – United States Renal Data System

VA – Veterans Administration (Caution: VA can also be the abbreviation for Virginia.)

WCRC – World Council of Renal Care
WFRC – World Foundation of Renal Care
WHO – World Health Organization

Professional Credentials, Certifications, Titles, and Licenses with Abbreviations

Note: NNJ uses the order of credentials designated by the ANA 2009 Position Statement: education (list highest attained degree first), licensure (state designation or requirement), national certification (earned), awards and honors, other certifications. Multiple degrees should only be listed if they are in different majors such as a person holding an MSN and an MBA. NNJ does not publish credentials for degrees in progress.

ACNP – Acute Care Nurse Practitioner
ADN – Associate Degree in Nursing
AGPCNP–BC – Adult Gerontology Primary Care Nurse Practitioner – Board Certified
AGACNP–BC – Adult Gerontology Acute Care Nurse Practitioner – Board Certified
AGCNS-BC – Adult Gerontology Clinical Nurse Specialist
APN – Advanced Practice Nurse
ASN – Associate of Science Degree in Nursing
APRN – Advanced Practice Registered Nurse (not Advance Practice Registered Nurse)

BA – Bachelor of Arts
BS – Bachelors in Science
BSN – Bachelor of Science in Nursing

CAN – Certified Nursing Administrator
CCHT – Certified Clinical Hemodialysis Technician
CCHT-A – Certified Clinical Hemodialysis Technician - Advanced
CCNP – Critical Care Nurse Practitioner
CCRN – Critical Care Registered Nurse
CCTC – Certified Clinical Transplant Coordinator
CD-LPN – Certified Dialysis LPN
CD-LVN – Certified Dialysis LVN
CDN - Certified Dialysis Nurse
CEN – Certified Emergency Nurse
CENP – Certified in Executive Nursing Practice
CEO – Chief Executive Officer
CFO – Chief Financial Officer
CHT – Certified Hemodialysis Technician
CIO – Chief Information Officer
CMO – Chief Medical Officer
CNA – Certified Nurse Anesthetist
CNE – Chief Nurse Executive
CNM – Certified Nurse Midwife
CNML – Certified Nurse Manager and Leader
CNN – Certified Nephrology Nurse

CNNe – Certified Nephrology Nurse Emeritus
CNN-NP – Certified Nephrology Nurse - Nurse Practitioner
CNO – Chief Nursing Officer
CNOR – Certified Perioperative Nurse
CNS – Clinical Nurse Specialist
CPN – Certified Pediatric Nurse
CPNP – Pediatric Nurse Practitioner
CPTC – Certified Procurement Transplant Coordinator
CRNA – Certified Registered Nurse Anesthetist
CRRN – Certified Rehabilitation Nurse
CS – Clinical Specialist

DNP – Doctor of Nursing Practice
DNS – Doctor of Nursing Science
DNSc – Doctor of Nursing Science
DO – Doctor of Osteopathy
DSN – Doctor of Science in Nursing

EdD – Doctor of Education
EMT – Emergency Medical Technician

FAAN – Fellow of the American Academy of Nursing
FACHE – Fellow in the American College of Healthcare Executives
FAONL – Fellow in the American Organization for Nursing Leadership
FNP – Family Nurse Practitioner
FNP-BC – Family Nurse Practitioner Certification
FRCP – Fellow Royal College of Physicians

GN – Graduate Nurse
GNP – Geriatric Nurse Practitioner

JD – Doctor of Jurisprudence

LCSW – Licensed Clinical Social Worker
LPN – Licensed Practical Nurse
LVN – Licensed Vocational Nurse

MA – Master of Arts
MBA – Master of Business Administration
MD – Medical Doctor
MEd – Master of Education
MHA – Master of Hospital Administration
MN – Master of Nursing
MPH – Master of Public Health
MRCP – Member Royal College of Physicians

MS – Master of Science
MSN – Master of Science in Nursing

NBT – Nephrology Biomedical Technologist – NANT preferred term for technologists who work with dialysis equipment.
NCT – Nephrology Clinical Technician – NANT preferred term for technicians who deal directly with patients
NE-BC - Nurse Executive - Board Certified
NEA-BC – Nurse Executive, Advanced - Board Certified
NHDP-BC – National Healthcare Disorder Certification
NNP – Neonatal Nurse Practitioner
NP – Nurse Practitioner
NPD-BC – Nursing Professional Development Certification

OCN – Certified Oncology Nurse
OT – Occupational Therapist

PA – Physician Assistant
PA-C – Physician Assistant, Certified
PCP - Primary Care Provider
PCT – Patient Care Technician. Note: The National Association of Nephrology Technicians/Technologists (NANT) believes that there are titles other than PCT that should be used that acknowledge the specific field (nephrology), discipline (clinical and/or biomedical) and function (technician or technologist) of these individuals. The NANT preferred terms are Nephrology Clinical Technician (NCTs) for technicians who deal directly with patients and Nephrology Biomedical Technologist (NBTs) for technologists who work with dialysis equipment. Transition to the terms is beginning.
PharmD – Doctor of Pharmacy
PhD – Doctor of Philosophy
PHN – Public Health Nurse
PMHNP-BC – Psychiatric-Mental Health Nurse Practitioner-Board Certified
PNP – Pediatric Nurse Practitioner
PT – Physical Therapist

RD - Registered Dietitian
RDN – Registered Dietitian Nutritionist
RGN – Registered Graduate Nurse
RN – Registered Nurse
RN-BC – Registered Nurse, Board Certified

SW – Social Worker

References

American Nurses Association (ANA). (2009). *Position statement. Credentials for the professional nurse: Determining a standard order of credentials for the professional nurse.* ANA.

American Psychological Association (APA). (2020). Pu*blication manual of the American Psychological Association* (7th ed.). APA.

Levey, A.S., Eckardt, K., Dorman, N.M., Christiansen, S.L., Hoom, E.J., Ingelfinger, J.R., Inker, L.A., Levin, A., Mehrotra, R., Palevsky, P.M., Perazella, M.A., Tong, A., Allison, S.J., Bockenhauer, D., Briggs, J.P., Bromberg, J.S., Davenport, A., Feldman, H.I., Fouque, D., … Winklemayer, W.C. (2020). Nomenclature for kidney function and disease: Report of a Kidney Disease: Improving Global Outcomes (KDIGO) consensus conference. *Kidney International, 97*, 1117-1129.

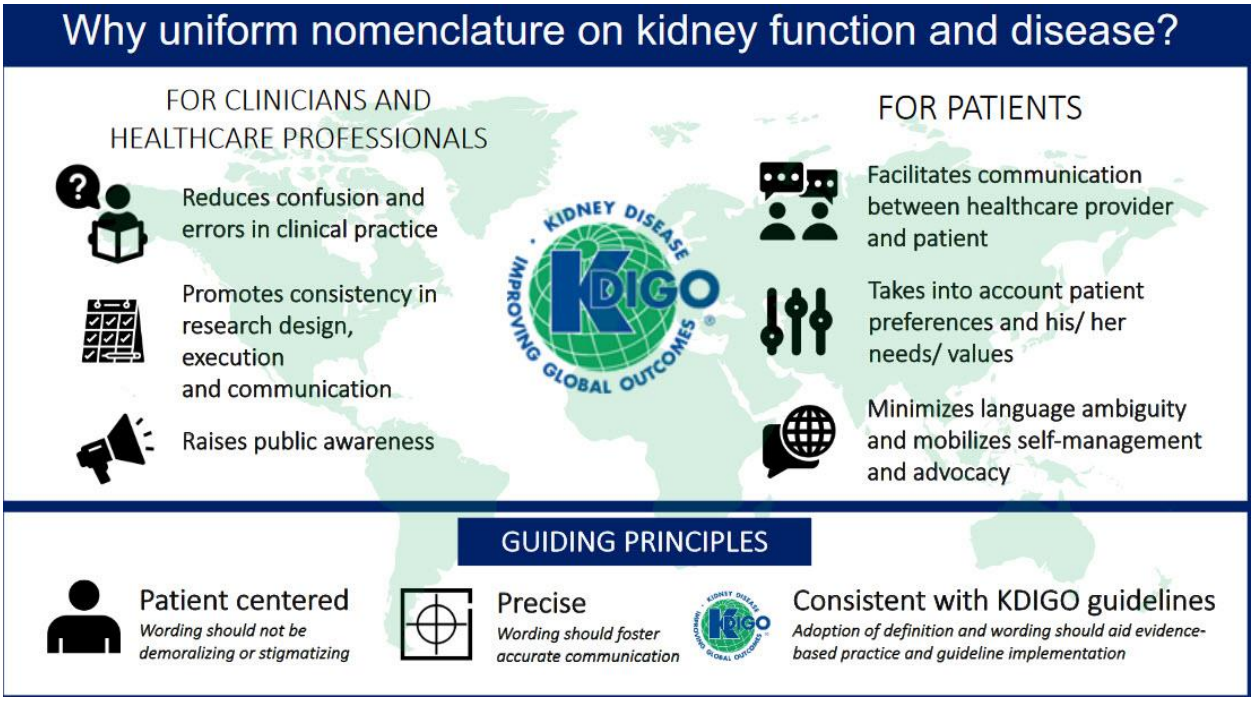
The Joint Commission (TJC). (2019). *Official "do not use" list.* TJC.

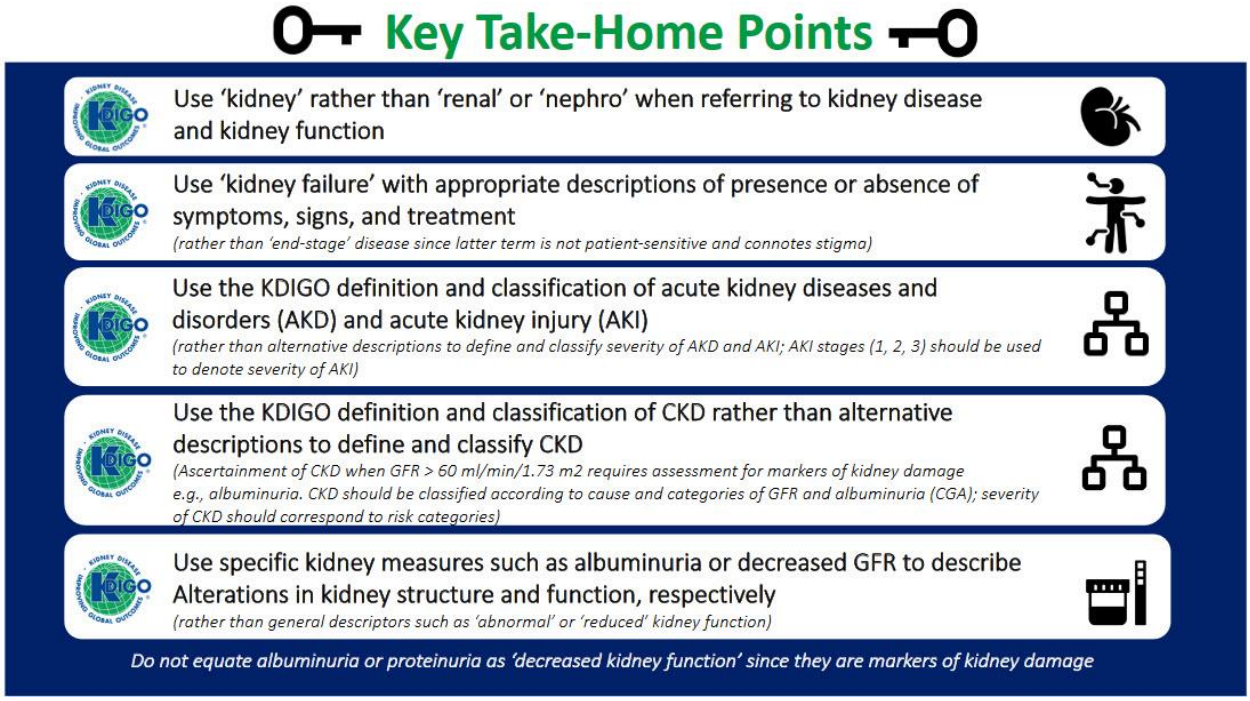
KDIGO Nomenclature May 2020

KDIGO Consensus Conference Report on Nomenclature for Kidney Function and Disease – May 2020

In May 2020, KDIGO published the results of a consensus conference to develop a standardized nomenclature for kidney function and disease. The following terms and abbreviations are those recommended by the conference. They are included in the general terms and abbreviations list, but are specifically noted here. The complete report is available online (https://kdigo.org/wp-content/uploads/2018/10/Nomenclature-Conference-Report.pdf) with an accompanying infographic (https://files.constantcontact.com/320aa531801/6f5e97ef-716b-4a41-8c04-f015eb2b886a.pdf). Additional information is available in the May/June *NNJ*. *NNJ* will be using these terms – with the transition to the terms beginning in the Jul/Aug 2020 issue.

Basic Concepts for the KDIGO Nomenclature





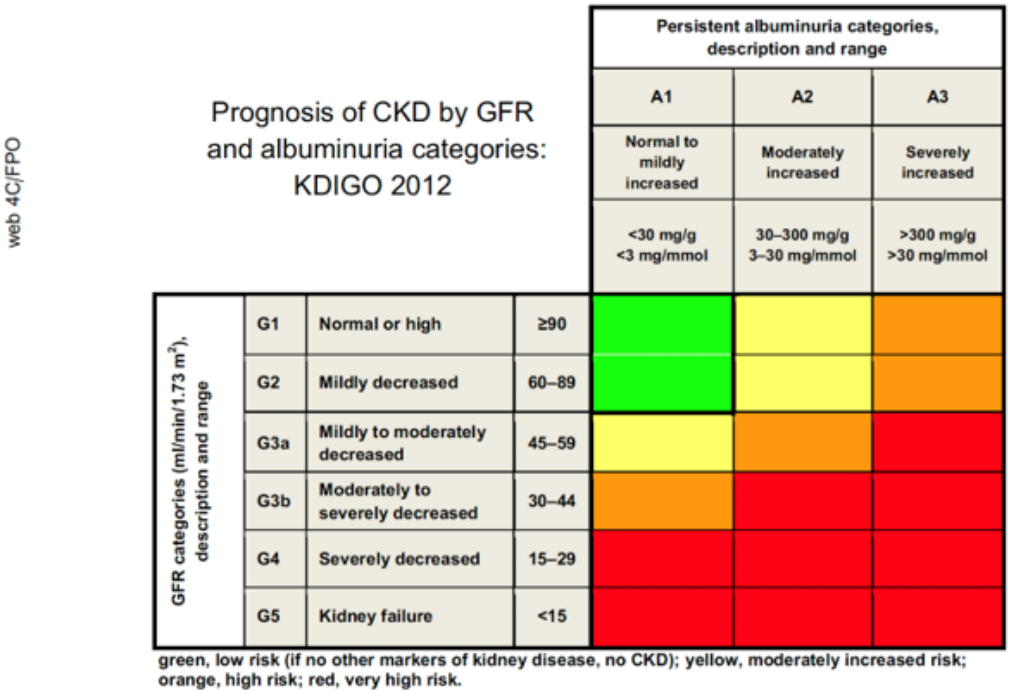
Source: KDIGO. Used with permission

KDIGO Definition and Classification of CKD

CURRENT CHRONIC KIDNEY DISEASE (CKD) NOMENCLATURE USED BY KDIGO

CKD is defined as abnormalities of kidney structure or function, present for > 3 months, with implications for health. CKD is classified based on cause, GFR category (G1–G5), and albuminuria category (A1–A3), abbreviated as CGA.

Prognosis of CKD by GFR and albuminuria category



green, low risk (if no other markers of kidney disease, no CKD); yellow, moderately increased risk; orange, high risk; red, very high risk.

KDIGO Definition and Classification of AKD

AKD – acute kidney disease – AKI, or GFR less than 60/mL/1.73m^2, or markers of kidney damage for 3 months or less, or decrease in GFR by 35% or greater or increase in SCr by 50% or greater for 3 months or less (KDIGO)

AKI – acute kidney injury – subcategory of AKD; oliguria for more than 6 hours, rise in SCr level by more than 0.3 mg/dL or by more than 50% in 1 week (KDIGO)

Stage	Serum creatinine	Urine output
AKI stage 1	1.5-1.9 times baseline OR 0.3 mg/dL or higher increase	< 0.5 mL/kg/h for 6-12 hours
AKI stage 2	2.0-2.9 times baseline	< 0.5 mL/kg/h for 12 hours or longer
AKI stage 3	3.0 times baseline OR 4.0 mg/dL or higher	Anuria for 12 hours or longer
AKI stage 3D	AKI treated by dialysis	

KDIGO Nomenclature Changes - The Basics – Tip Sheet

USE THIS	AVOID THE USE OF THIS
KIDNEY FUNCTION AND DISEASE	
Kidney	renal, nephro…
Kidney function	renal function
RKF - residual kidney function	RRF – residual renal function
KIDNEY FAILURE	
KF – kidney failure (as defined in the KDIGO CKD guideline – GFR < 15mL/min/1.73m^2)	RF – renal failure End stage ESKD – end stage kidney disease ESKF – end stage kidney failure ESRD – end stage renal disease ESRF – end stage renal failure
KRT – kidney replacement therapy	RRT – renal replacement therapy
KFRT – kidney failure with replacement therapy - CKD G5 treated by dialysis or CKD G1-G5 after transplantation	ESKD, ESKF, ESRD, ESRF
CKD without KRT – CKD G1-G5, A1-A3 of any cause, not receiving dialysis or transplantation	ESKD, ESKF, ESRD, ESRF
Dialysis – long-term or maintenance dialysis (dialysis for CKD) vs. short-term dialysis (dialysis for AKD).	chronic dialysis, acute dialysis The terms 'chronic' and 'acute' refer to the duration of kidney disease rather than the duration of the dialysis treatment
KT – Kidney transplant CKD G1T-G5T – CKD G1-G5 after transplantation	RT – renal transplant
LDKT - living donor kidney transplant/ transplantation	
DDKT - deceased donor kidney transplant/ transplantation	
ACUTE KIDNEY DISEASES AND DISORDERS AND ACUTE KIDNEY INJURY	
AKD – acute kidney disease AKI, or GFR less than 60/mL/1.73m^2, or markers of kidney damage for 3 months or less, or decrease in GFR by 35% or greater or increase in SCr by 50% or greater for 3 months or less (KDIGO)	ARD – acute renal disease
AKI – acute kidney insufficiency (a subcategory of AKD). Use the KDIGO definition and classification for AKI - oliguria for more than 6 hours, rise in SCr level by more than 0.3 mg/dL or by more than 50% in 1 week	ARF – acute renal failure ARI – acute renal insufficiency
AKI classification – KDIGO classification by cause and stage preferred rather than stage alone.	RIFLE classification AKIN classification
AKI stages – AKI stage 1, AKI stage 2, AKI stage 3	
AKI stage 3D – acute kidney injury stage 3D treated by dialysis	AKI-D, dialysis-dependent AKI
CHRONIC KIDNEY DISEASE	
CKD – chronic kidney disease KDIGO definition and classification of CKD - GFR	CRD – chronic renal disease ESKD, ESKF, ESRD, ESRF

USE THIS	AVOID THE USE OF THIS
less than 60 mL/min/1.73^2 or markers of kidney damage for more than 3 months	Renal impairment, renal insufficiency
CKD classification by cause, KDIGO CGA classification by cause, GFR category (G1-G5), and albuminuria category (A1-A3).	CKD stage 1-5 Mild, moderate, severe, early, advanced
CKD without KRT – CKD G1-G5, A1-A3 of any cause, not receiving dialysis or transplantation	ND-CKD (non-dialysis CKD), NDD-CKD (non-dialysis-dependent CKD), pre-dialysis CKD, pre-ESRD CKD
CKD risk categories (see color codes in CKD nomenclature figure) – low (green), moderate (yellow), high (orange), and very high (red)	
KIDNEY MEASURES	
GFR – glomerular filtration rate Units must be specified (mL/min/1.73^2)	
mGFR – measured glomerular filtration rate	
eGFR – estimated glomerular filtration rate	
$eGFR_{cr}$ – estimated glomerular filtration rate using creatinine	
$eGFR_{cys}$ – estimated glomerular filtration rate using cystatin C	
$eGFR_{cr\text{-}cys}$ – estimated glomerular filtration rate using creatinine and cystatin C	
Cl – clearance. *Caution: Make sure it is clear that Cl does not mean chloride (Cl^-) when used for clearance.	
mCL – measured clearance	
mCL_{UN} – measured clearance using urea nitrogen	
mCL_{cr} – measured clearance using creatinine	
$mCL_{UN\text{-}cr}$ – measured clearance using urea nitrogen and creatinine	
mGFR – measured glomerular filtration rate	
eCL – estimated clearance	
eCL_{cr} – estimated clearance using creatinine	
GFR categories G1 – Normal to increased GFR; GFR at or above 90 mL/min/1.73m^2 G2 – Mildly reduced GFR; GFR 60-89 mL/min/1.73m^2 G3a – Moderately reduced GFR; GFR 45-59 mL/min/1.73m^2 G3b – Moderately reduced GFR; GFR 30-44 mL/min/1.73m^2 G4 – Severely reduced GFR; GFR 15-29 mL/min/1.73m^2 G5 – Kidney failure; GFR less than15 mL/min/1.73m^2 or treated by dialysis	
Hyperfiltration	Renal hyperfiltration
GFR reserve	Renal function reserve
Albuminuria	Microalbuminuria, macroalbuminuria

USE THIS	AVOID THE USE OF THIS
ACR – urinary albumin excretion rate AER – urinary albumin- creatinine ratio Proteinuria Urinary PER - urinary protein excretion rate Urinary PCR – urinary protein-creatinine ratio. Caution: Make sure it is clear that PCR does not mean polymerase chain reaction which is also sometimes abbreviated as PCR.	
Albuminuria and proteinuria categories Normal – AER less than 10 mg/d; ACR less than 10 mg/g (less than 1mg/mmol) Mild – AER 10-29 mg/d; ACR 10-29 mg/g (1.0-2.9/ mmol) A1 – Normal to mildly increased (normal to mild) albuminuria or proteinuria; AER less than 30 mg/d; ACR less than 30 mg/g (less than 3 mg/mmol); PER less than 150 mg/d; PCR less than 150 mg/g (less than 15 mg/mmol) A2 – Moderately increased (moderate) albuminuria or proteinuria; AER 30-300 mg/d; ACR 30-300 mg/g (less than 1 mg/mmol); PER less than 150 mg/d; PCR less than 150 mg/g (less than 15 mg/mmol) A3 – Severely increased (severe) albuminuria or proteinuria; AER greater than 300 mg/d; ACR greater than 300 mg/g (more than 30 mg/mmol); PER greater than 500 mg/d; PCR greater than 500 mg/g (greater than 50 mg/mmol)	Normoalbuminuria Microalbuminuria
Tubular function TR – tubular reabsorption TS – tubular secretion FE_{Na} – fractional excretion of sodium FR_{Na} – fractional reabsorption of sodium	