

Nephrology Nursing *Journal*

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Nephrology Nursing Journal Style Guide

KDIGO Nomenclature May 2020 Section

Revised: July 1, 2020








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











Why uniform nomenclature on kidney function and disease?

<p style="text-align: center;">FOR CLINICIANS AND HEALTHCARE PROFESSIONALS</p> <ul style="list-style-type: none">  Reduces confusion and errors in clinical practice  Promotes consistency in research design, execution and communication  Raises public awareness 		<p style="text-align: center;">FOR PATIENTS</p> <ul style="list-style-type: none">  Facilitates communication between healthcare provider and patient  Takes into account patient preferences and his/ her needs/ values  Minimizes language ambiguity and mobilizes self-management and advocacy
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GUIDING PRINCIPLES

 Patient centered <i>Wording should not be demoralizing or stigmatizing</i>	 Precise <i>Wording should foster accurate communication</i>	 Consistent with KDIGO guidelines <i>Adoption of definition and wording should aid evidence-based practice and guideline implementation</i>
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Key Take-Home Points

	Use 'kidney' rather than 'renal' or 'nephro' when referring to kidney disease and kidney function	
	Use 'kidney failure' with appropriate descriptions of presence or absence of symptoms, signs, and treatment <i>(rather than 'end-stage' disease since latter term is not patient-sensitive and connotes stigma)</i>	
	Use the KDIGO definition and classification of acute kidney diseases and disorders (AKD) and acute kidney injury (AKI) <i>(rather than alternative descriptions to define and classify severity of AKD and AKI; AKI stages (1, 2, 3) should be used to denote severity of AKI)</i>	
	Use the KDIGO definition and classification of CKD rather than alternative descriptions to define and classify CKD <i>(Ascertainment of CKD when GFR > 60 ml/min/1.73 m2 requires assessment for markers of kidney damage e.g., albuminuria. CKD should be classified according to cause and categories of GFR and albuminuria (CGA); severity of CKD should correspond to risk categories)</i>	
	Use specific kidney measures such as albuminuria or decreased GFR to describe Alterations in kidney structure and function, respectively <i>(rather than general descriptors such as 'abnormal' or 'reduced' kidney function)</i>	

Do not equate albuminuria or proteinuria as 'decreased kidney function' since they are markers of kidney damage

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

web 4C/FPO

Prognosis of CKD by GFR and albuminuria categories: KDIGO 2012

				Persistent albuminuria categories, description and range		
				A1	A2	A3
				Normal to mildly increased	Moderately increased	Severely increased
				<30 mg/g <3 mg/mmol	30–300 mg/g 3–30 mg/mmol	>300 mg/g >30 mg/mmol
GFR categories (ml/min/1.73 m ²), description and range	G1	Normal or high	≥90			
	G2	Mildly decreased	60–89			
	G3a	Mildly to moderately decreased	45–59			
	G3b	Moderately to severely decreased	30–44			
	G4	Severely decreased	15–29			
	G5	Kidney failure	<15			

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/1.73m², 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	

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USE THIS	AVOID THE USE OF THIS
CKD – chronic kidney disease KDIGO definition and classification of CKD - GFR less than 60 mL/min/1.73 ² or markers of kidney damage for more than 3 months	CRD – chronic renal disease ESKD, ESKF, ESRD, ESRF 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-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-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 than 15 mL/min/1.73m ² or treated by dialysis	
Hyperfiltration	Renal hyperfiltration
GFR reserve	Renal function reserve

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USE THIS	AVOID THE USE OF THIS
<p>Albuminuria</p> <p>ACR – urinary albumin excretion rate AER – urinary albumin- creatinine ratio Proteinuria</p> <p>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.</p>	<p>Microalbuminuria, macroalbuminuria</p>
<p>Albuminuria and proteinuria categories</p> <p>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)</p>	<p>Normoalbuminuria Microalbuminuria</p>
<p>Tubular function</p> <p>TR – tubular reabsorption TS – tubular secretion FE_{Na} – fractional excretion of sodium FR_{Na} – fractional reabsorption of sodium</p>	