The purpose of clinical documentation is to accurately capture a patient's medical condition. Documentation not only guides patient care but it also forms the basis for hospital statistics and, most importantly for the purposes of this guide, for proper code assignment. If clinical documentation were easy, however, we wouldn't need CDI programs.

One of the fundamental challenges for physicians is keeping abreast not only with updates to clinical criteria for numerous conditions but also with specific terminology to ensure proper code assignment. Of course, sometimes solutions bring their own problems: some clinicians have become overzealous in documenting conditions that are commonly queried. This is in part because they're trying to be good team players, but in some cases it's also to avoid queries which some find annoying and take up precious time. As a result, some hospitals are plagued with clinically invalid "over-diagnoses" that lead to improper DRG reimbursement and payer denials.

Here's the difficulty in a nutshell:

*If your clinical documentation doesn't support the diagnoses, the hospital will lose revenue. If the clinical documentation results in claims that are not valid, the hospital could face serious penalties for claims that result in over-payment.*



**Roots of confusion: OCG vs. CMS**

The Official Guidelines for Coding and Reporting (OCG) Section I.A.19 in 2016 stated: *"The assignment of a diagnosis code is based on the provider's diagnostic statement that the condition exists. The provider's statement that the patient has a particular condition is sufficient. Code assignment is not based on clinical criteria used by the provider to establish the diagnosis."*

You'd be forgiven for wondering if this OCG guideline means that clinical validation of documented conditions is no longer required for code assignment on claims. In response, Coding Clinic 2016 Fourth Quarter p. 147, tried to clarify:

*"Coders should not be disregarding physician documentation and deciding on their own, based on clinical criteria, abnormal test results, etc., whether or not a condition should be coded."*

Which may leave many wondering that CDI and clinical validation are no longer required.

The answer is unequivocal: **clinical validation is an absolute statutory and regulatory imperative** for claims submission.

The latest guidance for clinical validation is AHIMA's "Clinical Validation: The Next Level" (January 2019) practice brief, which states that clinical validation is

*"the process of validating each diagnosis or procedure documented within the health record, ensuring it is supported by clinical evidence."*

Moreover, AHIMA's Code of Ethics Principal 4.8 prohibits participating in, condoning, or being associated with dishonesty, fraud, abuse, or deception including "allowing patterns of optimizing or minimizing documentation and/or coding to impact payment…" and "coding when documentation does not justify the diagnoses or procedures that have been billed….."



The implications for clinical validation are clear from the statutes and regulations for billing and reimbursement:

- CMS RAC Statement of Work: "Clinical validation involves a clinical review of the case to see whether or not the patient truly possesses the conditions that were documented in the medical record."
- CMS Medicare Program Integrity Manual: "The purpose of DRG validation is to ensure that diagnostic and procedural information…coded and reported by the hospital on its claims matches the attending physician's description and the information contained in the medical record."
- The False Claims Act of 1863 imposes civil liability on any person (or organizations) who knowingly submits, or causes

the submission of, a false or fraudulent claim to the Federal government.

The consequences of submitting clinically invalid diagnoses are numerous and can be severe: improper DRG reimbursement, excessive denials, unnecessary appeals, risk of regulatory audits and penalties. Over-coding leads to MCC/CC classification downgrades, as have occurred with AKI and encephalopathy. To add insult to injury, denials and appeals mostly serve to enrich audit contractors at the expense of the Medicare trust fund.

#### How to avoid inadequate documentation and false claims

**Rely on authoritative sources.** In this Guide we rely on authoritative, evidenced-based consensus criteria and guidelines for clinical validation. When you need more information, consult these excellent authoritative resources for some of the most commonly queried conditions, such as KDIGO for acute kidney injury, Sepsis-2 and Sepsis-3 consensus definitions for sepsis, and ASPEN or GLIM for malnutrition.



**Make helpful clinical validation queries.** To address those situations in which a physician documents a diagnosis which does not appear to be supported by the chart, the 2019 practice brief recommends a "clinical validation" query to the clinician requesting that the practitioner "confirm the presence of the condition and provide additional rationale." It is helpful if the person making the query can point to official consensus criteria to ensure that the basis of the query is clear.

When a clinician does not respond or responds to a query by confirming the diagnosis without providing further supporting information, the need for clinical evidence remains unmet and the diagnosis should not be reported on the claim.

**Notice patterns.** If there is a pattern of recurrent, clinically invalid diagnoses, a peer-to-peer intervention with a physician advisor can be helpful if your facility has one.

A hospital policy and procedure should be developed by a multi-disciplinary group of stakeholders, including CDI, coding, compliance, and the medical staff to address these high-risk diagnoses and ensure that invalid diagnoses are not reported on claims. When obviously invalid, the CDI team is certainly qualified to make a decision to omit a code, perhaps engaging a physician advisor for advice. After all, there are no consequences for removing a clinically invalid diagnosis code but more serious problems if you don't.

*References*


- CMS MLN Matters SE1121
- Clinical Validation: The Next Level of CDI. Journal of AHIMA (January 2019)
- CMS RAC Statement of Work 2014. Task 2.G.1.a.iii
- Cornell University Law School. Legal Information Institute: 31 U.S. Code § 3729—False claims
- Coding Clinic 2016 Fourth Quarter p. 147: Clinical Criteria and Code Assignment
- Coding Clinic 2017 Fourth Quarter p. 110: Omitting ICD-10-CM Codes.

## DEFINITION

Sudden reduction of kidney function, usually within a period of hours or days. Causes are classified as:

- Pre-renal: dehydration is the most common cause
- Renal (intrarenal): such as acute tubular necrosis (ATN), glomerulonephritis, acute interstitial nephritis, acute papillary necrosis
- Post-renal: obstruction of ureters or bladder

## DIAGNOSTIC CRITERIA

The current consensus-based authoritative criteria for acute kidney injury (AKI) come from the National Kidney Foundation KDIGO conference definition.

KDIGO defines AKI (applicable to both **adult** and **pediatric** patients) as any of the following:

1. Increase in creatinine level to ≥ 1.5x baseline (historical or measured), which is known or presumed to have occurred within the prior 7 days; or
2. Increase in creatinine ≥ 0.3 mg/dl *within 48 hours*; or
3. Urine output < 0.5 ml/kg/hr for 6 hours

These criteria apply to patients with and without **CKD**.

When **baseline creatinine is unknown**, KDIGO advises "The lowest SCr [Creatinine level] obtained during a hospitalization is usually equal to or greater than the baseline. This SCr should be used to diagnose (and stage) AKI."

## TREATMENT

IV fluid resuscitation/hydration, serial creatinine levels, evaluation of underlying cause, nephrology consult.

## CODING AND DOCUMENTATION CHALLENGES

The terms acute renal/kidney failure and acute kidney injury are synonymous and assigned to code N17.9 which is a CC and often the principal diagnosis. AKI is the authoritative professional acronym for acute kidney injury pursuant to the KDIGO consensus definition.

***Guidelines for applying the criteria:***

**AKI Criterion #1**: The **1.5 times baseline** criterion is the most commonly used. A creatinine level from 6 months to as much as a year before may be used as a baseline to identify AKI at the time of admission *if* the patient did not have preexisting CKD or another dramatic change in health since then.

If the patient is admitted for an acute illness and the creatinine is >1.5x the past baseline level, it is "presumed" to have occurred within the prior 7 days, and AKI can be diagnosed. In such circumstances the elevated admission creatinine would also be expected to return to or near the historical baseline further confirming it as acute.

**EXAMPLE** A previously healthy patient is admitted for nausea, vomiting, diarrhea and dehydration with a creatinine level of 2.0. His creatinine level four months ago was 1.0. It is presumed that the creatinine increased to twice the previous level during this acute illness (within 7 days) confirming AKI. His creatinine returned to 1.2 at discharge making the diagnosis of AKI indisputable.

When the creatinine on admission remains elevated at about the same level during hospitalization, it suggests CKD rather than AKI.

**AKI Criterion #2:** The **≥ 0.3 within 48 hours** criterion can only be applied prospectively when the creatinine has been measured *within the preceding 48 hours*. It requires two separate measurements within 48 hours showing an increase from the first to the second of ≥ 0.3 mg/dl.

**EXAMPLE** Patient admitted with creatinine of 1.2 has an increase to 1.6 within 36 hours following cardiac catheterization.

**AKI Criterion #3**: The **urine output criterion of < 0.5 ml/kg/hr** for 6 hours is based on a patient's weight.

**EXAMPLE** A 150 lb patient with normal creatinine levels has a total urine output of 180 ccs over 6 hours = 0.44 ml/kg/hr, which meets the urine output criterion for AKI. Calculation: 180cc ÷ 68kg ÷ 6 hrs = 0.44.

**AKI on CKD.** Patients with CKD are vulnerable to AKI with any physiological stress. AKI criteria are applied the same for patients with CKD.

**EXAMPLES** Patient with CKD and a stated baseline of 1.8 is admitted with a creatinine of 2.5 which decreases to 1.6 with IV fluids. 1.6 is the true baseline and 2.5 is > 1.5x this level. On the other hand, an admission creatinine of 2.0 (with a prior baseline of 1.0) that remains elevated between 1.7–2.0 does not confirm AKI.

*See further case examples that follow on the next two pages.*

The diagnosis of AKI depends on what the normal baseline for an individual patient is, not the **reference range** for the lab test (often misunderstood as "normal" range). Reference range is a population-based statistic. It does not indicate what is normal for an individual. AKI creatinine criteria are applied to the baseline without regard to the reference range.



**EXAMPLES** Baseline = 0.4 mg/dl with increase to 0.8 mg/dl in 36 hrs meets both ≥ 0.3 and 1.5x criteria (0.8 is 2x baseline of 0.4 = a substantial 50% loss of kidney function for this individual).

Creatinine on admission = 1.0 with decrease to 0.5 (baseline) over two days meets 1.5x criterion (1.0 is 2x baseline of 0.5).

**BUN** should not be used as an indicator of AKI since it can be elevated for many other reasons.

AKI is usually coded first when it is due to dehydration but sequencing is based on the reason for admission.

A **kidney transplant** patient admitted with AKI due to dehydration should be coded to T86.19 (other complication of kidney transplant) with AKI and dehydration as additional diagnoses. The function of the transplanted kidney is affected by the AKI, but the transplant itself has not failed.

## CASE EXAMPLE 1: AKI CRITERION #1

75-year-old female admitted with severe nausea, vomiting and diarrhea and treated with IV fluids. Unknown baseline.

Creatinine levels admission to discharge: 2.2, 1.6, 1.4, 1.3

This is the most common scenario: a patient is admitted to the hospital with an elevated creatinine, no known baseline, and the creatinine decreases after IV fluids.

Creatinine of 2.2 is 1.7 times higher than the lowest creatinine level of 1.3, and AKI is confirmed based on increase in creatinine to ≥ 1.5 times baseline.

Calculation: 2.2 ÷ 1.3 = 1.7 (Highest ÷ Lowest)

According to KDIGO, when the baseline creatinine is unknown, use the lowest creatinine level measured during admission, which is 1.3 in this case.



## CASE EXAMPLE 2: AKI CRITERION #1

62-year-old male admitted with severe nausea, vomiting and diarrhea and treated with IV fluids. Previous creatinine level of 1.1 three months ago.

Creatinine levels admission to discharge: 2.2, 1.6, 1.4, 1.3

This patient's previous creatinine level would be considered his baseline.

Creatinine of 2.2 is 2 times the baseline of 1.1 and AKI is confirmed.

Calculation: 2.2 ÷ 1.1 = 2 (Highest ÷ Baseline)

In this case, the patient's creatinine level returned close to his baseline level of 1.1 at discharge which further confirms AKI.

### CASE EXAMPLE 3: AKI CRITERION #2

86-year-old male admitted with heart failure and treated with IV Lasix 80 mg.

Creatinine levels admission to discharge: 0.9, 1.4, 1.1, 0.8

Creatinine increased by 0.5 in 24 hrs (0.9 to 1.4)

Also meets 1.5 times criteria: Calculation: 1.4 ÷ 0.9 = 1.55.

### CASE EXAMPLE 4: AKI CRITERION #1 - AKI ON CKD

60-year-old with CKD-4 admitted for COVID-19 and pneumonia.

Creatinine admission to discharge: 4.4, 3.0, 2.6, 2.5
GFR admission to discharge: 14, 18, 28, 27

Admission creatinine = 4.4 (1.8 times higher than baseline), which meets the AKI criteria > 1.5 times baseline.

Calculation: 4.4 ÷ 2.5 = 1.76

Baseline GFR assumed to be 27 = CKD-4

The five stages of CKD are identified based on the stable baseline GFR.



For ***DRG Tips***, see DRGs 682-684, Renal Failure.

*References*

- KDIGO Clinical Practice Guideline for Acute Kidney Injury. 2012
- Coding Clinic 2019 Second Quarter p. 7.