

Sample Peer Review Comments for *American Family Physician*

Manuscript - Acute Kidney Injury

Strong Peer Review #1:

Why Strong Review – Specific constructive comments with practical recommended solutions. Focused on the Family Physician reader.

This manuscript is a good start towards explaining AKI. However, please keep in mind that most readers are family physicians, not nephrologists. Avoid using technical terms without explanation. Keep it practical. Clearly explain concepts that are based on physiology. We all studied these things, but physicians in practice probably don't remember much of the details from medical school.

Page 2 line 16: The term "AKI care bundles" will probably not be familiar to readers.

Page 3 line 25: Most readers will not know the term renal replacement therapy. Might be clearer to say "dialysis and other forms of renal replacement therapy."

Page 3 lines 29-32: Are the RIFLE criteria out of date or no longer accepted? If so, why mention them? Better to just tell readers how they can determine who has AKI. Table 1 is not very helpful in this regard, since it is just a comparison of various criteria, and readers probably won't be familiar with the sources. This paragraph would be clearer if you lead with your final sentence, then explain the pluses and minuses of each set of criteria as listed in table 1.

Page 3 line 35-37. The text should explain Table 2, not just point to it. In this paragraph it would be helpful to also provide an overview of the differences between prerenal, intrinsic, and postrenal for those many readers who have not studied physiology for years. I recommend doing this before you go into more details about each category.

Page 4 line 47: Explain or define "autoregulate."

Page 4, line 49: Spell out initialisms (CKD) on first use. Might also want to define CKD.

Page 4, line 55: Which systemic illnesses? Such as....

Page 4, line 57-58: Define acute tubular necrosis.

Page 5, line 76: Define extremes of age.

Page 5, line 78: Rather than "resulting in early intervention," might be better to say "with the goal of early intervention." Regarding Table 3, are these risk factors in order from common to rare? If so, please say so. Otherwise it is better to alphabetize them.

Page 6, line 84: Please give more detail about skin rashes. Which conditions or exposures are you expecting the readers to be thinking about? Don't keep it a mystery.

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Page 6, line 101 and following: Please clarify how to do a 4-hour serial measurement of creatinine clearance. Readers who want to do it will need to know.

Page 8, line 145: Figure 1 is a useful overview that can help readers understand the process of assessing and managing AKI. It may be useful to display this figure earlier in the manuscript.

Page 9, line 155. I think this is the first time you have mentioned contrast-induced AKI. Readers who do not usually manage AKI (and don't do radiology or nephrology) will want to know that it is a common cause.

Page 9, line 156: Early in the paragraph, define and contrast crystalloids, saline, and colloids, and give examples. Then when you talk about the trials, you will not need to explain these terms. Using technical terms without prior explanation is confusing for readers.

Page 10, line 166: Explain mean arterial pressure, and tell what the normal range is. That gives context for your statement about a goal of 65 or greater.

Page 10, line 177: Regarding Table 5: "Novel anticoagulants" are no longer novel, and are now more commonly called direct-acting oral anticoagulants (DOACs).

Page 10, line 183: Jumping from diuretics to a glucose goal is a bit disconcerting. Make sure the ideas flow smoothly.

Page 11, line 189: Table 6 will be useful for readers who want to know where to draw the line.

Page 11, line 201-202: Are you suggesting that 50% is good? Or bad? If bad, might say "only 50% of the time."

Page 11, line 204: Explain "AKI care bundles."

Page 12, line 217-218: This is not clear. In what percent of patients who had AKI does CKD occur? In the following sentences you mention ESRD and hypertension, but not CKD.

Page 13, line 229-230: I see that you are trying to introduce your next two sections, but this phrasing seems to imply that we need to reduce exposure to the perioperative period. How about this: Exposure to intravenous contrast dye is one situation that increases risk for AKI, and the perioperative period is another.

Page 13, lines 237-240: Is this the only report implying that rosuvastatin is helpful? If so, I would be cautious in recommending it. And make sure that this research was not tainted by drug company involvement.

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Strong Peer Review #2:

Why Strong Review – Detailed constructive comments, often justified by citations.

In their review article, "Acute Kidney Injury: Diagnosis and Management," the author(s) provide a nice, succinct overview of the topic.

Lines 28-32 under Definition: As the author(s) noted, there are multiple definitions of acute kidney injury that are based on urine output and serum creatinine levels. These include The Kidney Disease: Improving Global Outcomes; Acute Kidney Injury Network; and Risk, Injury, Failure, Loss, End Stage Renal Disease. These definitions were designed primarily for epidemiologic studies and have limited usefulness in the clinical diagnosis and treatment of acute kidney injury. Many experts in the field argue that there is a continuum of acute kidney injury beginning with an acute stress event that results in kidney damage followed by the development of acute kidney injury with renal dysfunction. Potential recovery may follow various patterns and result in full recovery to organ failure. (See Luca Di Lullo et al in *Seminars in Nephrology*, 39: 31-40, 2019.)

Lines 100 – 108 under Creatinine Clearance: Measuring creatinine clearance in the setting of acute kidney injury is neither efficient nor is it accurate. By definition, the creatinine clearance assumes that the renal function is in steady state with the serum creatinine unchanging from day to day. To do a creatinine clearance, one measures the amount of creatinine in the urine for a specific period of time and obtains a serum creatinine during that time period. In the setting of acute kidney injury, the amount of creatinine produced in the urine is declining while the serum creatinine is rising. In this setting, it is impossible to obtain an accurate assessment of renal function. Regardless, one does not need a urine collection to conclude that the patient's risk for requiring dialysis or death is increased in the setting of acute kidney injury. This reviewer would suggest deleting that section.

Lines 134 – 136 under Imaging Studies: As obstruction does occur fairly commonly (5%), the author(s) should consider adding a line considering bedside bladder scan as indicated. This can be done by nursing at little or no cost and would potentially save further workup.

Lines 181 - 205 under Additional Management Considerations:

Line 182-183 – The authors should consider looking at the (FST) Furosemide Stress Test trial. See Lumlertgul et al *Critical Care* 22: 101-110, 2018. Here, the authors showed that administration of high dose furosemide in the setting of acute kidney injury and the patient's response could be used to sort out the eventual need for dialysis. Those subjects who responded poorly or not at all generally required dialysis while the other group generally did not require dialysis and recovery from acute kidney injury was more rapid in the group responding to the furosemide.

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Line 185-187 – The authors should consider adding a line to their statement on nutrition that prompt initiation of a renal diet for intrinsic renal failure may obviate or delay the need for renal replacement therapy.

Table 1 - For the generalist, the author(s) should consider simplifying Table 1 and stress the commonality among the various classifications (decline in urine output and increase in serum creatinine).

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Weak Peer Review:

Why Weak Review - Overly general. Few issues mentioned, and no recommended changes for those. No literature citation.

An excellent paper. Clearly written, hits all the main topics needed. Focused on clinical decision making.

My only possible revision would be regarding the section on contrast nephropathy, which has a long complex history involving variations in diagnostic criteria, poorly designed studies and numerous "treatments" that never work when examined closely. I would have lots of caveats about it.

Additionally, it is important to differentiate between medications that cause AKI and those that merely lead to some other adverse effect in the presence of AKI.

Other than that would make no revisions.