

agent for hyperkalemia. Additionally, palatability of the potassium binders may be an issue for some patients. However, patients may find following a low-potassium diet challenging. Finally, patients would want to continue RAASi, which has been shown to slow CKD progression.

The Work Group systematically reviewed evidence related to the recommendation.(222-224) Therefore, the recommendation is categorized as *Reviewed, New-added*. The Work Group's overall confidence in the quality of evidence was Low to Very low due to the methodological quality of the included RCTs. The potential benefits of decreased mortality and prevention of hyperkalemia complications, such as arrhythmia, outweigh the potential harms of GI side effects, including bowel necrosis that has been described with SPS. Control of hyperkalemia may permit continued use of medications (e.g., ACEI/ARB, non-steroidal MRA) to slow progression of CKD. Patient values and preferences vary somewhat as patients may be reluctant to take additional medication, may have side effects or find the medication unpalatable. Alternative interventions may be helpful in controlling potassium levels (see [Appendix H](#) and [Appendix M](#)). Thus, the Work Group decided upon a *Weak for* recommendation.

Recommendation

22. For patients with chronic kidney disease undergoing imaging utilizing iodinated contrast media who are at increased risk for iodinated contrast-associated acute kidney injury, we recommend intravenous volume expansion with isotonic crystalloid (see [Algorithm Module E](#) and [Appendix Q](#) for additional information).
(Strong for | Reviewed, New-replaced)

Discussion

The following studies show best evidence to suggest that providers should assess contrast-associated AKI (CA-AKI) risk before performing contrast-enhanced diagnostic studies and employ interventions to reduce the CA-AKI risk. In a cohort of more than 20,000 propensity-matched patients undergoing computed tomography (CT) with or without IV contrast, Davenport et al. (226) found an increased risk of AKI among patients with a baseline sCr >1.5 mg/dL following IV contrast exposure (OR: 1.45; 95% CI: 1.11 to 1.89; p=0.007). In a separate analysis, the same investigators found that CA-AKI risk increased with decreasing renal function, such that IV iodinated contrast administration was associated with a 40% increase in CA-AKI (OR: 1.40; 95% CI: 1.00 to 1.97) in patients with an eGFR of 30-44 mL/min/1.73 m² and almost 3-fold higher risk (OR: 2.96; 95% CI: 1.22 to 7.17) for patients with an eGFR of <30 mL/minute/1.73 m².(227)

Other studies have questioned the risks associated with iodinated contrast administration and CKD. While not included in the body of evidence, one meta-analysis found that IV infusion of contrast associated media did not show an increased risk of renal deterioration in individuals with CKD compared to those without CKD (OR: 1.07; 95% CI: 0.98 to 1.17; I²=35.3%).(228) McDonald et al. (229) found no difference in rates of AKI among more than 20,000 propensity-matched patients undergoing CT with or without contrast enhancement (OR: 0.94; 95% CI: 0.83 to 1.07; p=0.38). In another analysis, the same investigators found no difference in the risk of AKI associated with contrast exposure after stratifying by level of eGFR.(230)