ACIST **CVi**™

Partnering for Optimal Patient Care

SCAI/ACC/AMA guidelines recommend that ***contrast dose for CKD patients should be limited as much as clinically possible*** *as it has been clearly shown to reduce the risk of CI-AKI.*[10]

Visit Our Website for Current Data

For a current list of the publications on COVID-19 and kidney health, please visit: www.acistmedical.com/COVID

ACIST Medical Systems provides a suite of diagnostic tools to help you provide optimal care to your patients.

Education is a key aspect of our partnership.

Clinical studies on the short and long-term impact of COVID-19 are being published daily. There is a large body of clinical evidence published on COVID-19 and kidney health. The following is a summary based on a review of the publications cited by the National Kidney Foundation, CDC, and other professional societies:

- A meta-analysis of over 30 studies demonstrates that COVID-19 is tough on organs, including kidneys.[1]
- Acute kidney injury (AKI) has been observed in COVID-19 patients, even among non-elderly, otherwise healthy adults.[2]
- Among COVID-19 patients, there is a strong correlation between cardiac injury and kidney injury.[3]
- AKI is strongly correlated to severity and mortality in COVID-19 patients.[1,4,5]
- AKI is present in up to 30% of hospitalized patients and it is uncertain how many will regain their kidney function.[6] According to the National Kidney Foundation, after COVID-19 recovery, these patients are at increased risk of developing Chronic Kidney Disease.[2]
- Before COVID-19, ~30% of patients presenting for coronary angiography procedures were at risk for post-procedure CI-AKI.[7] With the impact of COVID-19, this population may increase, as COVID-19 survivors who experienced AKI or blood and/or protein in their urine are at an elevated risk of developing chronic kidney disease.[2]

ACIST CVi™ Can Help Protect Renal Function During Angiography

For over 20 years, ACIST CVi has given physicians the ability to obtain quality angiographic images with precise[8] contrast delivery and tracking, reducing the potential risk for CI-AKI compared to hand manifold.[9]

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A November 2019 JAMA article demonstrates that the majority of PCI patients are still receiving greater than 150 cc of contrast per procedure.[11]

CVi is a proven technology that results in a **22%[9] reduction in delivered contrast over hand manifold.**

ACIST CVi can help **reduce and track contrast delivery** during angiography procedures **without adding time** to your busy cath lab workflow and with technology you may already have at your hospital.[9]

References

1. Wang, Xinhui, et al. “Comorbid Chronic Diseases and Acute Organ Injuries Are Strongly Correlated with Disease Severity and Mortality among COVID-19 Patients: A Systemic Review and Meta-Analysis.” Research 2020 (2020): 2402961. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7187729/
2. National Kidney Foundation, https://www.kidney.org/coronavirus/kidney-disease-covid-19
3. Shi, Shaobo, et al. “Association of cardiac injury with mortality in hospitalized patients with COVID-19 in Wuhan, China.” JAMA cardiology (2020). https://jamanetwork.com/journals/jamacardiology/article-abstract/2763524
4. Zhou, Fei, et al. “Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: a retrospective cohort study.” The lancet (2020). https://www.sciencedirect.com/science/article/pii/S0140673620305663
5. Yang, Xiaobo, et al. “Clinical course and outcomes of critically ill patients with SARS-CoV-2 pneumonia in Wuhan, China: a single-centered, retrospective, observational study.” The Lancet Respiratory Medicine (2020). https://www.sciencedirect.com/science/article/pii/S2213260020300795
6. Johns Hopkins, https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/coronavirus-kidney-damage-caused-by-covid19
7. Tsai T, et al., Contemporary Incidence, Predictors, and Outcomes of Acute Kidney Injury in Patients Undergoing Percutaneous Coronary Interventions. JACC, Vol. 7, Jan. 2014.
8. Data on File.
9. Minsinger KD, Kassis HM, Block CA, Sidhu M, Brown JR (2014) Meta-analysis of the effect of automated contrast injection devices versus manual injection and contrast volume on risk of contrast-induced nephropathy. Am J Cardiol 113 (1): 49-53.
10. Writing Committee Members, et al. “2011 ACCF/AHA/SCAI guideline for percutaneous coronary intervention: a report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines and the Society for Cardiovascular Angiography and Interventions.” Circulation 124.23 (2011): e574-e651. ahajournals.org/doi/full/10.1161/CIR.0b013e31823ba622
11. Huang, Chenxi, et al.Development and Validation of a Model for Predicting the Risk of Acute Kidney Injury Associated With Contrast Volume Levels During Percutaneous Coronary Intervention. JAMA network open 2.11 (2019): e1916021-e1916021. PubMed ID: 31755952

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