

Laboratory Testing Update

RE: Eosinophil Urine (LAB2029)

Effective Date: 3/28/2022

Effective 3/28/2022, urine eosinophils will be removed from the laboratory formulary at St. Elizabeth Healthcare.

Why?

In recent decades, studies have found that urine eosinophils are too insensitive and nonspecific to confirm or exclude the diagnosis of acute interstitial nephritis in patients with acute kidney injury. Furthermore, reliance on UEs can lead to misdiagnoses, delayed treatment, and unnecessary costs.

Instead

The Society of Hospital Medicine recommends consideration of the following steps in place of the urine eosinophil test:

- History of recent exposure to a classic offending drug (e.g., beta-lactam, proton pump inhibitor, nonsteroidal anti-inflammatory drug) in combination with the classic triad of fever, rash, and peripheral eosinophilia suggests an AIN diagnosis (less than 5% to 10% of patients present with this triad).
- If other causes of AKI have been excluded, stop a potential offending agent, and monitor for improvement.
- If a culprit drug cannot be safely discontinued or if kidney function continues to deteriorate, consider nephrology consultation.

Questions

If you have additional questions, please reach out to the Medical Director of Clinical Labs, Dr. Jeremy Hart.

References

Muriithi AK, Nasr SH, Leung N. Utility of urine eosinophils in the diagnosis of acute interstitial nephritis. *Clin J Am Soc Nephrol.* 2013 Nov;8(11):1857-62. doi: 10.2215/CJN.01330213. Epub 2013 Sep 19. Erratum in: *Clin J Am Soc Nephrol.* 2018 Jul 6;13(7):1079. PMID: 24052222; PMCID: PMC3817898.

Lusica M, Rondon-Berrios H, Feldman L. Urine Eosinophils for Acute Interstitial Nephritis. *J Hosp Med.* 2017 May;12(5):343-345. doi: 10.12788/jhm.2737. PMID: 28459905.

Strasma A, Kulkarni SA. Overuse of Urine Eosinophils in the Diagnosis of Acute Interstitial Nephritis: A Teachable Moment. *JAMA Intern Med.* 2019 Aug 1;179(8):1131-1132. doi: 10.1001/jamainternmed.2019.1755. PMID: 31180467.