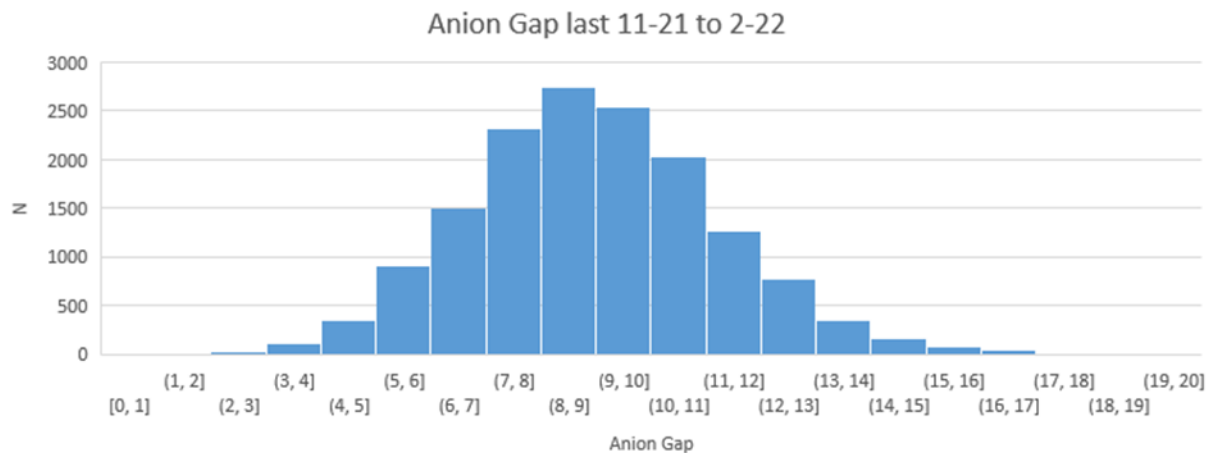


Anion Gap Reference Range Change

On 2/10/2022, the UVM Medical Center updated the reference range for the calculated Anion Gap for all tests that provide the calculation. This change is part of the ongoing UVMHN standardization of laboratory reference ranges. The prior reference range for the Anion Gap was 8-16. **The NEW Reference Range for Anion Gap is 5-14.** The new gap is based on review of 15,320 outpatient results from primary care sites across the UVMHN network over the last several months. The determination of what values encompass 95% of the data was done using both Gaussian (Mean +/- 2SD) and non-Gaussian (Rank Order by percentiles) methods. For both of these methods of calculation 95% of values were 5-14. I have included a histogram plot of the outpatient Anion Gap values data reviewed for reference.



If you have any questions or concerns regarding this change, please contact the Medical Director of Clinical Chemistry at UVMHC (clayton.wilburn@uvmhealth.org).

References:

1. John Toffaletti, Chapter 36 - Contemporary practice in clinical chemistry: blood gas and critical care testing, Editor(s): William Clarke, Mark A. Marzinke, Contemporary Practice in Clinical Chemistry (Fourth Edition), Academic Press, 2020, Pages 629-649, ISBN 9780128154991, <https://doi.org/10.1016/B978-0-12-815499-1.00036-3>.
2. Jeffrey A. Kraut, Nicolaos E. Madias. Serum Anion Gap: Its Uses and Limitations in Clinical Medicine. CJASN Jan 2007, 2 (1) 162-174; DOI: 10.2215/CJN.03020906

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