

Comparing the capillary INR laboratory results to studies involving a venous specimen, the capillary specimen performed with equivalence. Thus, a capillary citrate specimen can be collected from the same finger-stick used to perform the POC INR for confirmation in the laboratory. This avoids the trauma of a venous collection in such a situation” Williams (2018).

Abstract:

INTRODUCTION: Point-of-care (POC) international normalized ratio (INR) values above an institutional cutoff are confirmed in the laboratory using a gold standard venous specimen. This can be problematic in a pediatric setting.

METHOD: In this study, 449 consecutive POC INR results were compared to an INR performed in the laboratory on a capillary citrate specimen collected from the same finger-stick. The results were statistically analyzed.

RESULTS: The mean INR values from the CoaguChek XS and laboratory were 2.85 ± 1.19 and 2.63 ± 1.11 , respectively. There was a good correlation between the methods with $r = 0.97$. Bland-Altman analysis indicated a bias of 0.22 favoring the CoaguChek XS, with 95% limits of agreement -0.29 to 0.72. Passing and Bablok method comparison resulted in a slope of 0.91 ($y = 0.91x + 0.02$). An INR of ≤ 0.5 was found between the methods in 89% of cases and 84% agreement was noted ($\kappa = 0.69$).

CONCLUSION: Comparing the capillary INR laboratory results to studies involving a venous specimen, the capillary specimen performed with equivalence. Thus, a capillary citrate specimen can be collected from the same finger-stick used to perform the POC INR for confirmation in the laboratory. This avoids the trauma of a venous collection in such a situation.

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Reference:

Williams, V.K. (2018) Use of a capillary specimen in the laboratory to verify a point-of-care international normalized ratio: Avoidance of a venipuncture in a pediatric setting. International Journal of Laboratory Hematology. September 14th, .

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