Blood specimens collected from central venous catheters compared with venipuncture | 1

"...determine if there is a difference in aPTT results between specimens collected from a central venous access device (CVAD) compared with venipuncture in patients receiving heparin infusions." Dailey et al (2014).

Reference:


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Abstract:

BACKGROUND: In patients receiving heparin infusions, variations in specimen collection technique may contribute to inaccurate measurements of activated partial thromboplastin time (aPTT).

OBJECTIVES: To determine if there is a difference in aPTT results between specimens collected from a central venous access device (CVAD) compared with venipuncture in patients receiving heparin infusions.
METHODS: Simultaneous blood samples (CVAD vs venipuncture) from 66 patients receiving continuous heparin infusions were compared.

RESULTS: The mean aPTT difference (peripheral aPTT minus CVAD aPTT) was -7.3 seconds (P=.07). Neither length of time heparin was turned off (P=.18) nor waste volume (P=.32) was significantly associated with the difference in aPTT. The median aPTT difference when the CVAD specimen was obtained from the heparin infusion port was -20.5 seconds, compared with -0.1, -3.0, and -0.2 seconds for specimens from a port proximal to, distal to, or coterminus with the heparin infusion, respectively (P=.008).

CONCLUSIONS: Use of this protocol resulted in similar aPTTs when the CVAD specimen was not obtained from the heparin infusion port. However, obtaining the specimen from the heparin infusion port resulted in significantly higher aPTT values.

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