

CLIENT UPDATE

ACT or Activated Clotting Time Effective February 6, 2007

Effective Tuesday, February 6, 2007, Salem Hospital will replace its current ITC Hemochron ACT Celite method with the iSTAT ACT Kaolin method. This method change will decrease the set point at which a sheath should be pulled by 30 seconds.

ACT testing has been performed as a point of care test at Salem Hospital since 2003. The decision to change methods was carefully evaluated. The studies performed indicated that the iSTAT Kaolin ACT method showed the best analytical range and least interference from cross reactive medications. During the correlation to the current Hemochron Celite method, a linear negative thirty (30) second bias was noted. This bias requires a change in the sheath pull range from 180 seconds or less, to 150 second or less.

	New values	Previous Values
Sheath Pull	150 seconds or less	180 seconds or less
Reportable range:	50-750 seconds	100-400 seconds

HEPARINIZED

Varies with the level of circulating heparin and patient sensitivity. Clinical care decision points:

- Angioplasty - 200 to 300 seconds
- Critical Care Sheath Removal – 150 seconds or less
- CRRT and CRRT to CVVH - 160-240 seconds

NON-HEPARINIZED 74 – 137 seconds

Specimen handling: ACT testing will remain a point of care test performed on freely collected whole blood.

Testing frequency: As needed per physician orders or protocols.

Contact information: Point of Care: 503.561.2372
Ginger Baker, POC/QC Coordinator

References:

1. Hattersly, P. Activated coagulation time of whole blood. Journal of the American Medical Association, 136:436-440, 1966.
2. NCCLS. Method Comparison and Bias Estimation Using Patient Samples; Approved Guideline. NCCLS document EP9-A (ISBN 1-56238-283-7). NCCLS, 940 West Valley Road, Suite 1400, Wayne, Pennsylvania 19087, 1995.
3. P.J. Cornbleet and N. Gochman, "Incorrect Least-Squares Regression Coefficients in Method Comparison Analysis," Clinical Chemistry 25:3, 432 (1979).
4. Corriveau, Donna; Fritsma, George (ed.): Hemostasis and Thrombosis in the Clinical Laboratory. Ed, J.B. Lippincott Company, Philadelphia, 1988, pp 70-71.
5. Abbott iSTAT ACT Kaolin cartridge package insert, Art: 715878-00C, Rev. Date: 07/12/04