

Transport by Pneumatic Tube

Factors and Possible Consequences:

Hemolysis due to transport by pneumatic tube system can be caused by the acceleration and/or deceleration speed, length of system, angles and tube cushioning.

Corrective Actions

- Ensure that the pneumatic tube system has been tested to verify that test results will not be compromised.
- Avoid excessive speed.
- Provide adequate inner cushioning for the blood collection tubes during transport to avoid vigorous agitation.

References:

1. Pneumatic tube system induced haemolysis: assessing sample type susceptibility to haemolysis. Sodi R, Darn SM, Stott A. Ann Clin Biochem 2004;41(Pt 3):237-40.
2. Hemolysis of blood specimens transported from ED to laboratory by pneumatic tube. Stair TO, Howell JM, Fitzgerald DJ, et al. Am J Emergency Med. 1995;13:484.
3. The effect of pneumatic tube system son the hemolysis of biochemistry blood samples. Cakirca G, Erdal H. J Emerg Nurs 2017;43:255-258.