

Do you know what happens in your PTS?

EQA Scheme highlights Needs for Continuous Monitoring and Recommendations for Sample Transportation Using Pneumatic Tube Systems

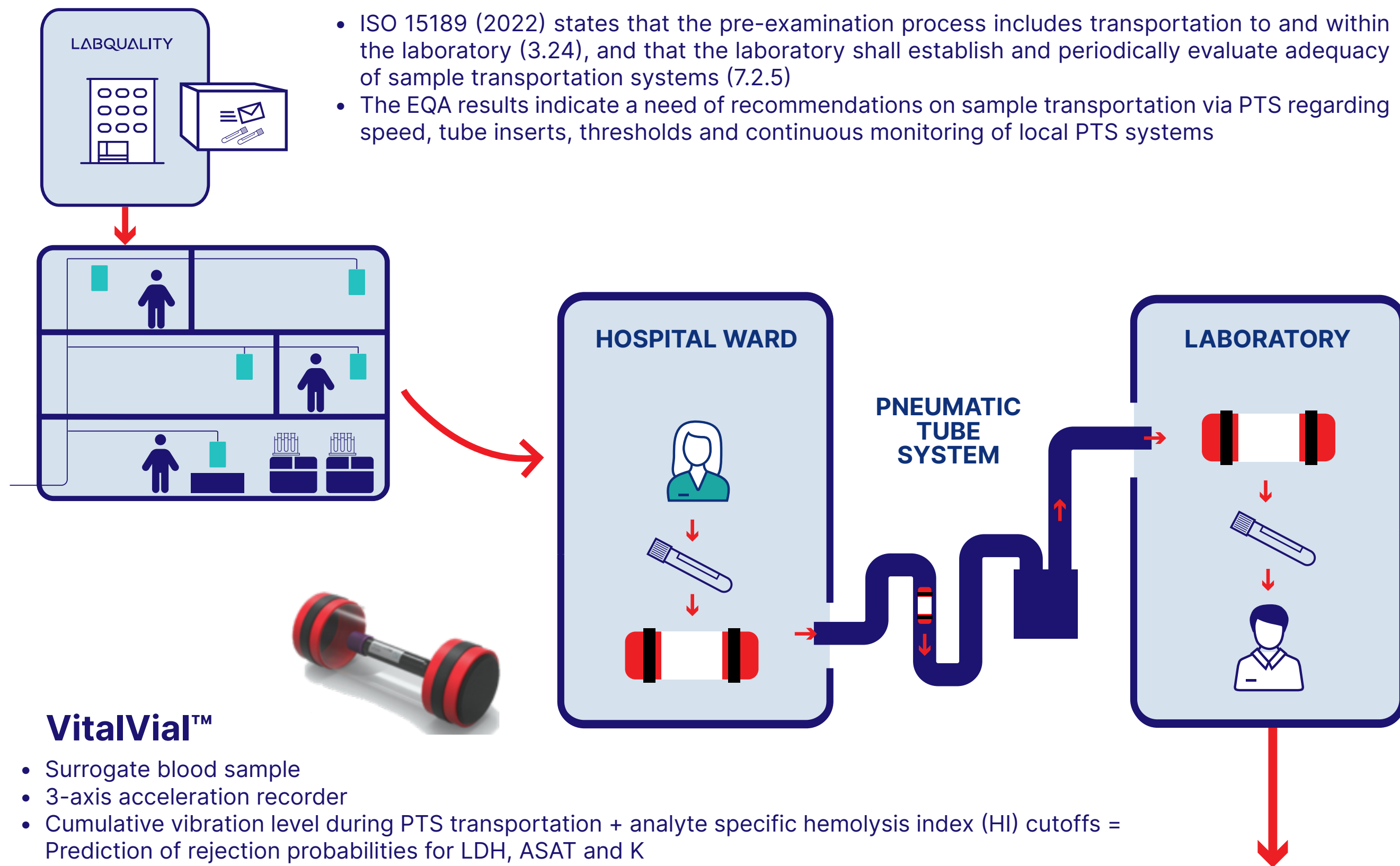
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Pneumatic tube systems (PTS) are frequently used for sample transit but often lack quality control processes. Labquality, a Finnish external quality assessment (EQA) provider, aimed to fill that void by introducing an EQA scheme for PTS transport, including varying preanalytical questions on local habits related to sample transportation.

CONCLUSIONS

- ISO 15189 (2022) states that the pre-examination process includes transportation to and within the laboratory (3.24), and that the laboratory shall establish and periodically evaluate adequacy of sample transportation systems (7.2.5)
- The EQA results indicate a need of recommendations on sample transportation via PTS regarding speed, tube inserts, thresholds and continuous monitoring of local PTS systems



VitalVial™

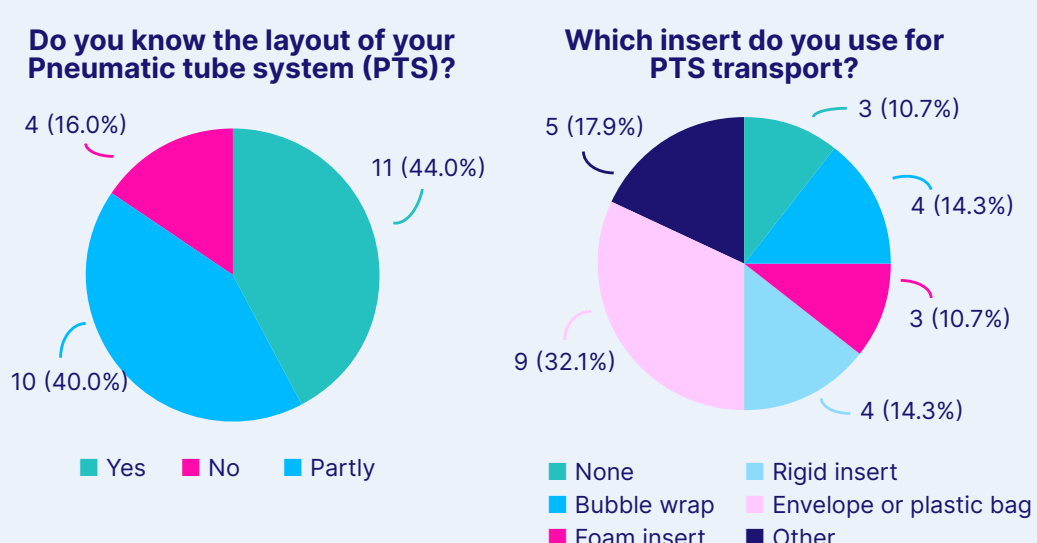
- Surrogate blood sample
- 3-axis acceleration recorder
- Cumulative vibration level during PTS transportation + analyte specific hemolysis index (HI) cutoffs = Prediction of rejection probabilities for LDH, ASAT and K

MAIN FINDINGS

Results from Round 1, 2022		Overall median (n=70)	Discussion
Recorded with VitalVial™	Speed (m/s)	1.7m/s (0.7-7.5m/s)	→ Large heterogeneity detected → Urgent harmonization is clearly needed for all parameters included in the EQA scheme
Reported by laboratory	HI cutoffs (mg/dL)	LDH: 35 (9-100) ASAT: 50 (12-100) K: 90 (19-125)	→ clearly needed for all parameters included in the EQA scheme
Calculated	Rejection probability (%)	LDH: 10 (1-51) ASAT: 6 (1-27) K: 2 (1-27)	→ included in the EQA scheme



PREANALYTICAL QUESTIONS 2022



PREANALYTICAL QUESTIONS 2021

