LOST IN TRANSPORT: REDUCTION OF LOST TISSUE SAMPLES FROM THE OPERATING ROOM BY IMPROVING THE TRANSPORT PROCESS

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Category: Health Outcomes / Services Research

Background
Every lost tissue sample carries a potential for a poor patient outcome. It is estimated that specimen lost in transport to the laboratory corresponds to 0.1% of the preanalytical errors in pathology. In the case of an irreplaceable tissue, the consequences could be devastating to the patient due to the impossibility of having a diagnosis.

Objectives
The goal of this project was to identify and determine the cause of the loss of tissue and determine the effect of the preventive measures that were introduced IN 2017 at the MEDVAMC.

Methods
At the MEDVAMC, all lab errors are recorded in the electronic Patient Event Report (ePER). Database from ePER and records from the tissue committee meetings at the Michael E. DeBakey VAMC were reviewed two years before (2014) and one year after (2018) the intervention to identify lost in transport events. Flowcharting, PDSA cycles and statistical process control where utilized to identify key drivers of the process and organize data. A correction plan was implemented on January 2017. Outcome was measured as number of lost tissue samples after intervention.

Results
Narratives provided on ePER and tissue committee records clarified the process of specimen transportation, chain of custody and process ownership. A total of 81 insufficient or unsatisfactory tissues were recorded between 2014 and 2016 of which 3 corresponded to lost in transport samples. Root cause analysis revealed that in one case the specimen was inadvertently discarded. Another case was speculated that all parts were combined and processed as a single specimen. The cause of the third case was unresolved. Areas for intervention were identified in all cases, per the principles of quality improvement and the PDSA cycles. Appropriate communication between pathology and providers was emphasized. Signage was placed in the operating room drop off area. The signs provide the on call pathology pager number and a detailed protocol explaining how to submit tissues to pathology, microbiology and general laboratories. Similar signage was placed at the drop off area in the general laboratory and microbiology area. Clerks were also instructed to pay close attention particularly to multipart specimens received from the operating rooms. No lost tissue events where reported since the implementation of these measures in 2017.

Discussion
Lost specimens are very infrequent events that carries potential for a poor patient outcome. It is a preventable error through the application of basic quality improvement principles.