

PREDICTING THE PRESENCE OF AIR BUBBLES IN COMPUTED TOMOGRAPHY SYSTEMS (CT)

BUSINESS ISSUE

A regional health system was unaware of a well-known, but hard-to-detect, air bubble issue affecting their CT device.

PROBLEM

- Patient underwent CT head scan.
- From the radiologic technologist perspective, the CT functioned normally.
- Unknown to the radiologic technologist, there were view-corrections, tube arcs, and air bubbles developing within the CT.

SOLUTION



Event detector identified problem and automatically generated work order.



Imaging engineer contacted client to schedule repair during non-patient hours.



An engineer brought the system back to clinical readiness by removing the air bubbles from the HV tank.

VALUE

- ✓ Identified system condition that can cause artifacts, misdiagnosis, and administration of excess doses.
- ✓ Avoided 48+ hours of unplanned repair downtime.
- ✓ Prevented tube damage and high-voltage component replacement.
- ✓ Ensured clinical uptime when needed most.

OVERVIEW

The TRIMEDX Predictive Work System (PWS) is an advanced technology that combines remote device monitoring, service expertise, and data science to predict and proactively respond to device failures before they occur.

PWS identified a well-known, but hard-to-detect, problem before it interrupted patient care. This TRIMEDX solution ensured patient safety and device uptime while preventing parts failure and loss of revenue.