ECL²
QUALITY SOLUTIONS

ORGANIZATION:

Midwest Transplant
Network (MTN)

INDUSTRY:

Organ Procurement
Organization

ECL2 and Q-Pulse IMS Expands MTN's Ability to Maximize Laboratory Cost Analysis

Background: Originally founded in 1973 as Midwest Organ Bank, Midwest Transplant Network (MTN) provides transplant and procurement services to transplant centers and hospitals throughout Kansas and the western two-thirds of Missouri. Midwest Organ Bank was one of the first independent organ procurement organizations (OPOs) in the country. In addition to providing organ procurement and histocompatibility testing, the organization responded to community requests to provide tissue procurement services in 1990. They added eye banking services in 1998 upon acquiring the Kansas City Eye Bank. To more accurately reflect the changing scope of services while retaining a link to the past, they changed their name to Midwest Transplant Network in 1999.

The Challenge: MTN purchased Q-Pulse in 2012. In 2013, they expanded their laboratory to include infectious disease testing to screen all organ donors prior to transplantation. They continued expanding their laboratory with state-of-the-art testing and exponential volume growth. As a result, MTN's management team determined the key performance indicators (KPIs) for the laboratory needed to include tracking and trending of invalid or failed testing runs with a focus on cost/wastage/rework.

In 2014, lab staff began entering nonconformance data into Q-Pulse. They used the CA/PA module for nonconformance reporting. They applied costs to nonconformances related to invalid testing runs, then generated total costs for the month. While the data collection was adequate for the KPI tracking and trending, the management team requested more specific data. During their monthly review of the data, management staff would ask questions as to who, what, and where. Unfortunately, the CA/PA Analysis module was limited to five cost field options. Determining specific costs associated with individual manufacturer's testing, laboratory staff, shift or day of the week had to be performed manually, which was time consuming and not necessarily accurate.

The Solution: In 2016, MTN upgraded to the IMS addition of Q-Pulse, which allowed for greater flexibility in entering and analyzing data. This flexibility included being able to perform cost analysis — using Incident Analysis — at a much greater depth. They could then build an electronic form within the Occurrences module capturing as many data points as they wanted to for analysis. Additionally, they could add an unlimited number of cost categories specific to each test rather than the five allowed within CA/PA Analysis — a big advantage over just utilizing the CA/PA module in the Business Edition of Q-Pulse. Utilizing the requests from management staff and the invalid data already entered in the CA/PA module, ECL2 and MTN quality department staff members created a customized report and used the Occurrence module to accomplish the desired goals. Applying ECL2's expertise in developing
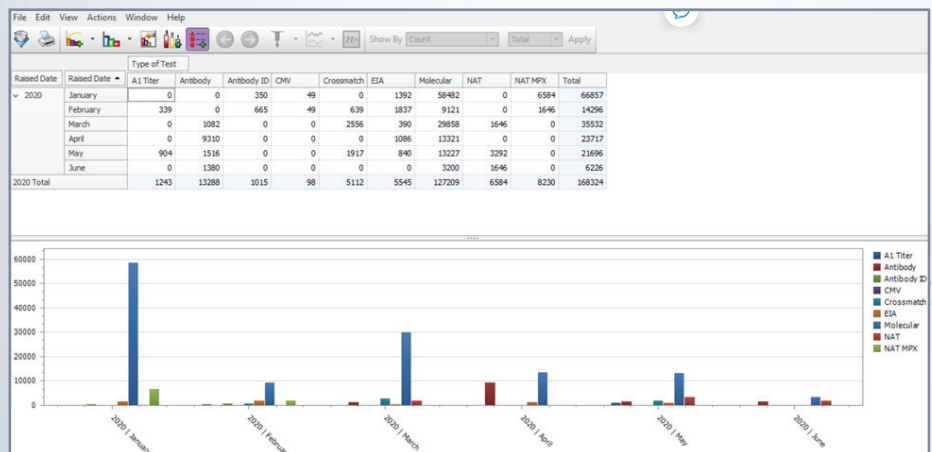
Q-Pulse®

customized reports in the Occurrence module, MTN staff members created specific fields to capture key data points (who, what, when) required by management to be used during the analysis phase of the review process.

Incident Analysis works the same as CA/PA Analysis for tracking and trending; however, in Incident Analysis, customized report fields are available for analysis. Users can add multiple categories within dropdown lists to the same event. As an example, users can categorize and apply individual costs for reagents and tech time to the event. Exploiting the drilling function can provide real-time key information to assist the management team in addressing issues in a timely manner to prevent additional costs and rework.

While the total cost associated with KPIs is valuable, this only shows a partial picture. Testing volume plays a key role in the invalid rate within the lab. Incident Analysis also employs Operational Data to complete the analysis process. Multiple data sets can be created and entered into Operational Data. While performing analysis, users can select Operational Data to view trends in multiple perspectives to complete the picture.

ECL2's expertise in assisting with creating the invalid run analysis was invaluable. By talking through the process and limitations, ECL2 was able to unlock possibilities and establish a very powerful analysis tool.