

# Enabling Effective Teams







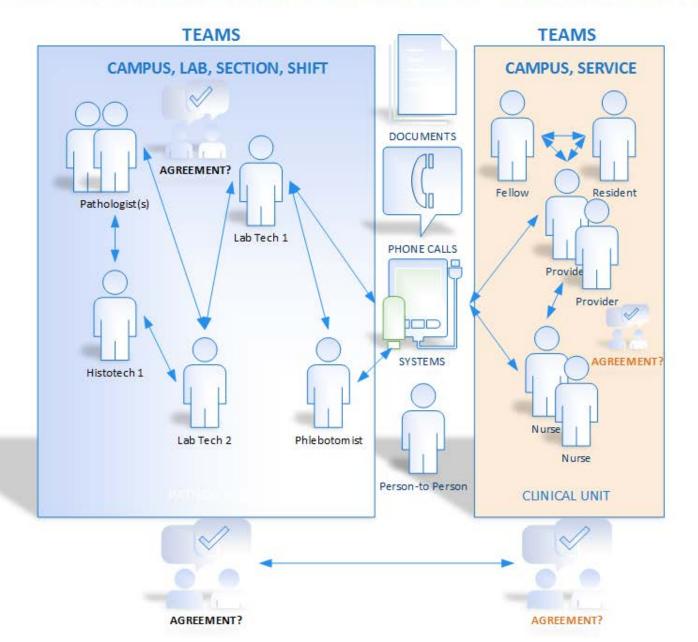


<u>PATHOLOGY</u>





#### **COMMUNICATION & COORDINATION OF CARE – FOCUS ON PATHOLOGY**



# Managing Complexity

- Interactions Between Diverse Teams
  - COMMON FAILURE: Inadequate Communication
- Outcome
  - ERRORS OF OMISSION
    - OCCUR AT HIGHER FREQUENCY THAN ERRORS DUE TO INDADEQUTE COMPETENCY
- Common Solution Technology
  - OFTEN A MISMATCH TO WORKFLOW(S)
  - NOT A PANACEA

# Defining the Scope

#### The Problem

- Failed Handoffs/Inadequate Communication
- Inadequate workflow coordination among teams

#### The Context

Texas Children's Health Care System

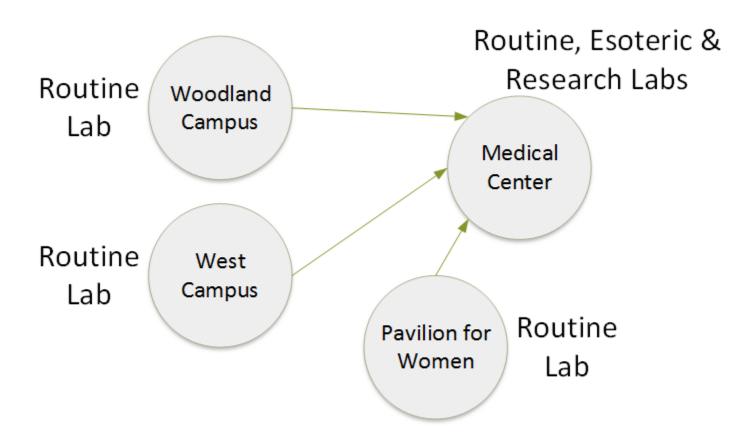
#### The Challenge

Enhance Information Access/Communication

#### The Experiment

EQL

#### Pediatric & Obstetrics Hospital System

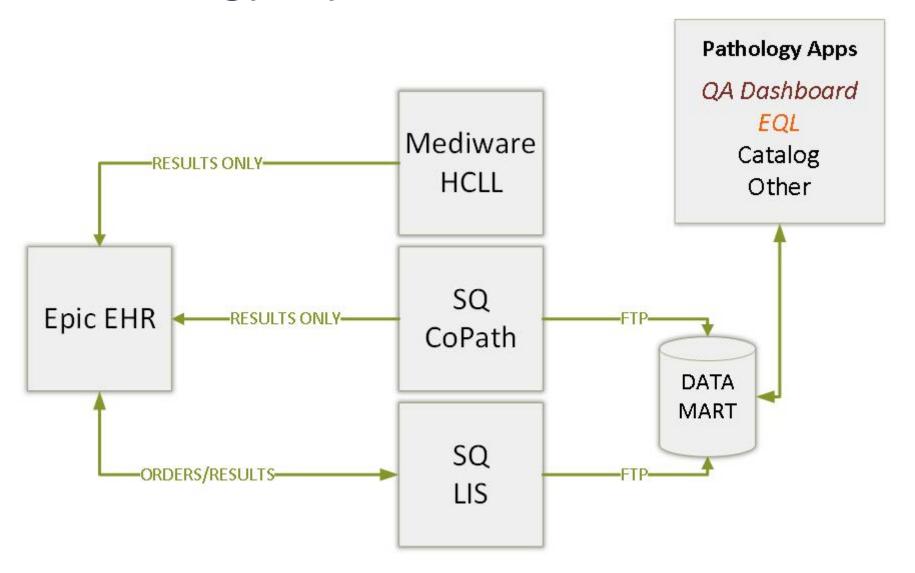


Internal Patient Transfers Between Hospitals
Core Lab Services at Medical Center

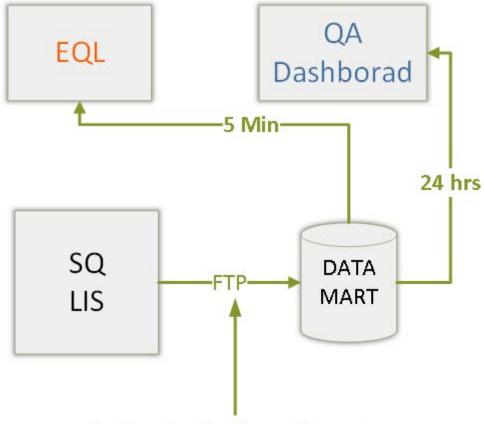
# EQL – The Experiment

- Improved Communication Across
  - Campuses, Labs, Sections, Shifts
- Improved Operational Performance
- Reduction in errors
- Real-time Responses to Evolving Issues
- Improved Documentation & Data Collection
  - Elimination of paper logs, paper checklists, etc.
  - Explicit protocol instantiation
  - Capture data for PI

### Pathology Systems Architecture

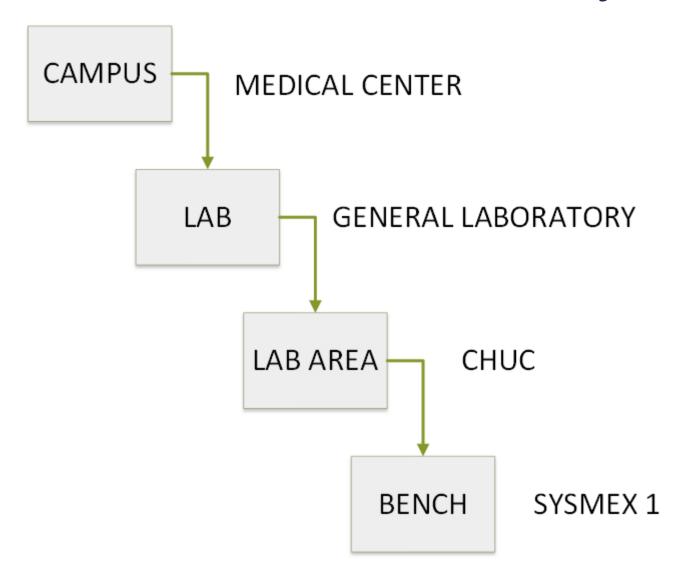


#### EQL/Dashboard Architecture



Patient, Orders, Specimen & Result Metadata

# **EQL** Functional Hierarchy



#### EQL – Roles

#### Bench

- Basic interface, efficient issue entry & assessment
- Bench tied to IP-address, no login required

#### In-Charge

- View defined at login Campus, Lab, Bench(es)
- Real-time Management

#### Admin

- Scope defined at login, Campus-level view
- EQL Configuration Options
- EQL Security Options
- Reports Access

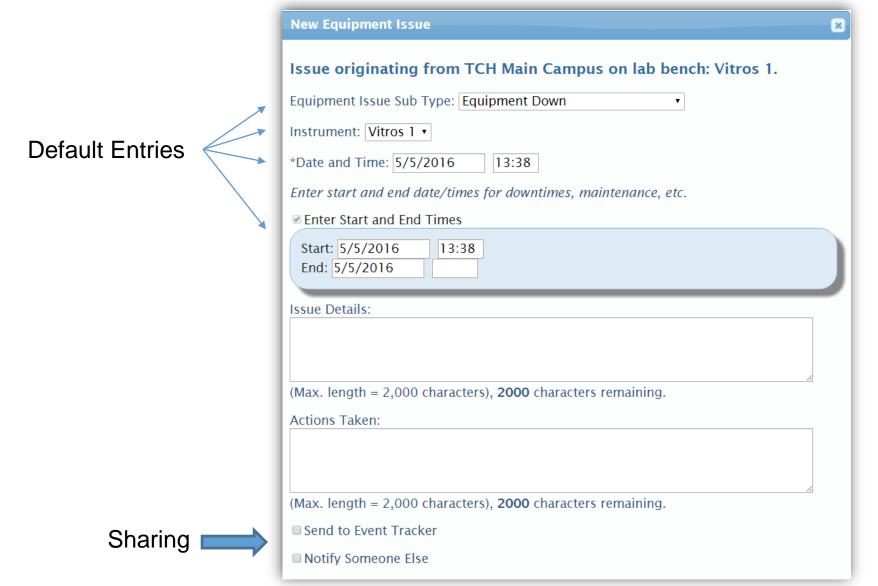
#### Pathologist

Organized by Specialty

#### Bench Interface

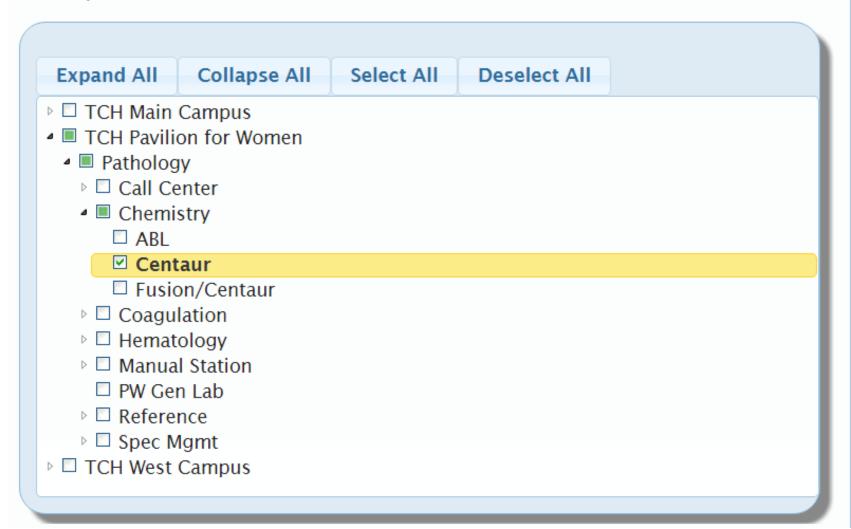


#### Bench: "New" issue

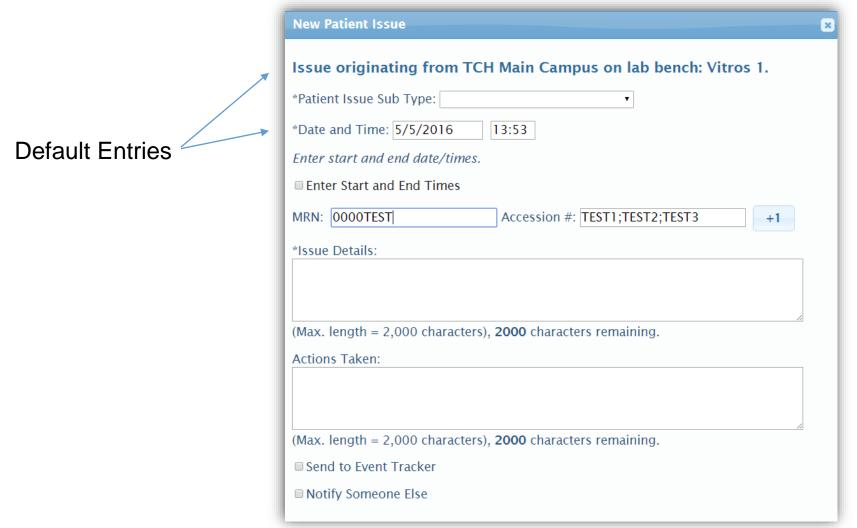


# Bench: Sharing

■ Notify Someone Else



#### Bench: Patient Issue



"Patient" issues containing PHI require user login

# Bench: Attaching Files

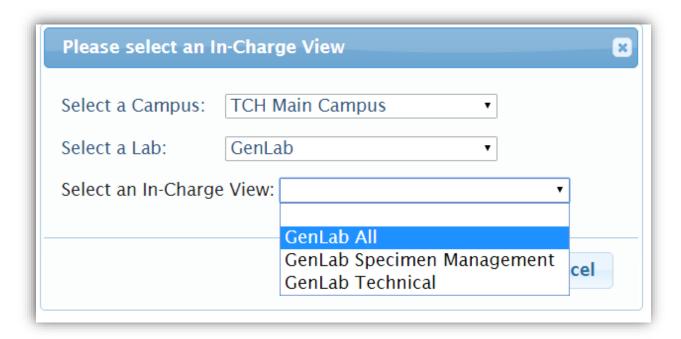


Helpful for equipment issues - record of maintenance or repair

# Bench: Shift Change

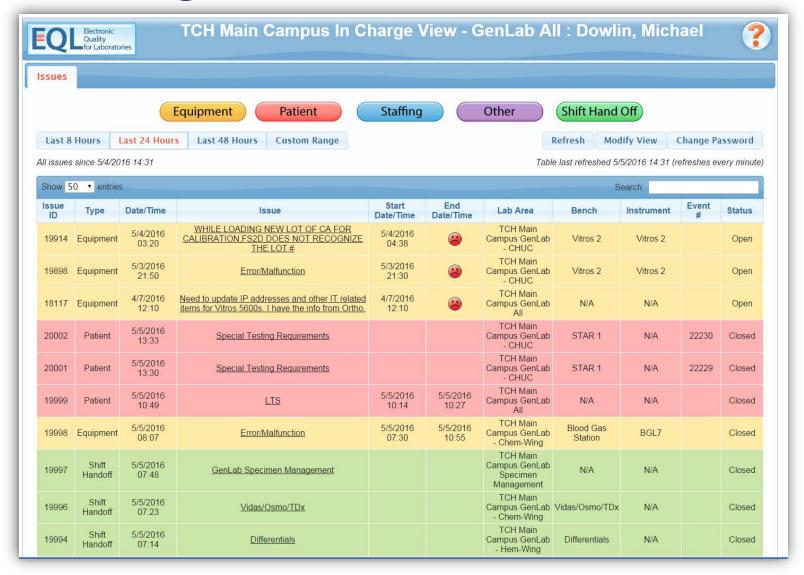
Outgoing InCharge Sign Out: GenLab All	
Instructions:	
Comments:	(Max Characters 2000)
Critical Value Notification Pending? (If Yes, Face-to-Face communication required):	Yes No N/A
Pending Equipment Issues? (If Yes, Face-to-Face communication required):	Yes No N/A
Staffing Issues? (If Yes, Face-to-Face communication required):	Yes No N/A
Tests Pending? (If Yes, face-to-face communication required):	Yes No N/A
Comment card box checked? (If there are cards in box, give to shift Manager.)Leaderboards restocked with business cards?:	Yes No N/A
Username	
Password	
Outgoing Tech Click Here	

# In-Charge: Login Configuration



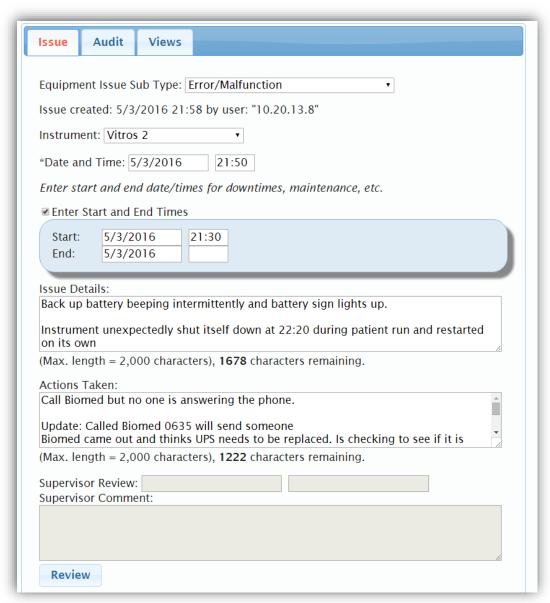
In-Charge view a collection of lab areas & benches providing a comprehensive listing of issues

# In-Charge View



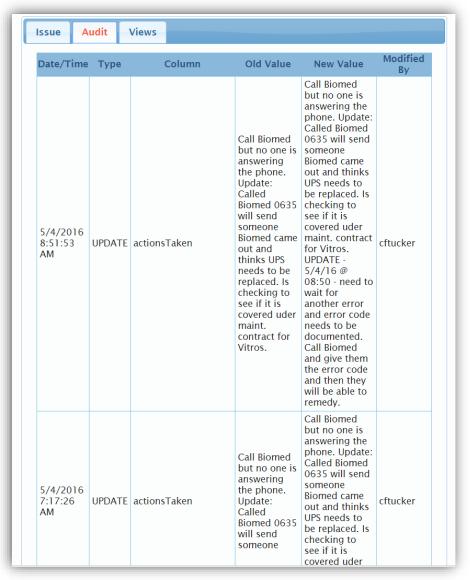
# In-Charge: Viewing Issues

Issue Review ->



# In-Charge: Issue Audit

- Additional tab "Audit"
- Displays entries sorted date/time modified date
- Displays original and new entry in parallel

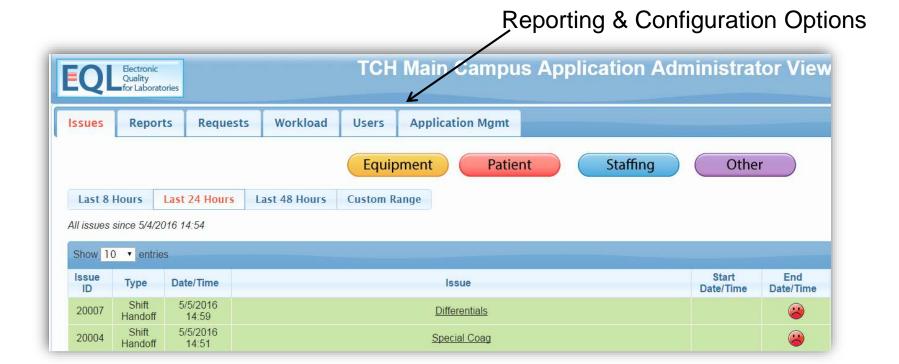


### In-Charge: Issue Views

Issue Audit Views			
Show 10 • entries		Search:	
Date/Time -	Type \$	User Name 💠	IP Address 💠
5/5/2016 2:43:38 PM	INCHARGE	mddowlin	10.10.12.178
5/5/2016 2:38:12 PM	INCHARGE	mddowlin	10.10.12.178
5/5/2016 7:06:19 AM	BENCH		10.20.13.8
5/5/2016 7:01:17 AM	INCHARGE	Ikmoos	10.20.13.32
5/4/2016 11:19:01 PM	BENCH		10.20.13.8
5/4/2016 11:11:43 PM	INCHARGE	amvillam	10.20.13.48
5/4/2016 9:13:56 PM	INCHARGE	amvillam	10.20.13.48
5/4/2016 8:40:02 PM	INCHARGE	pjbadeau	10.20.13.48
5/4/2016 4:29:53 PM	INCHARGE	pjbadeau	10.20.13.48
5/4/2016 3:19:39 PM	BENCH		10.20.13.8

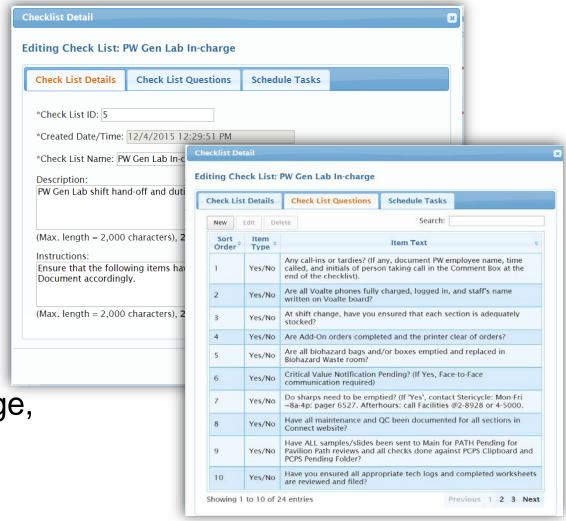
Date/time, role (bench, in-charge or Admin), user name, and IP address

#### **Admin View**

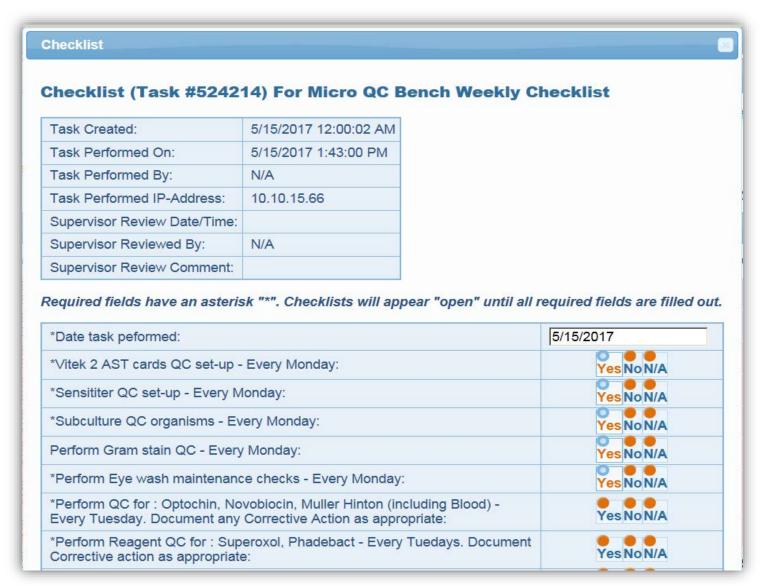


#### **Custom Checklists**

- User Defined
- Element Types:
  - Text
  - Date
  - Temperature
  - Yes/No
- Option to Schedule
- Assign to:
  - Instrument or
  - Lab bench
  - Specific In-charge, or Admin User



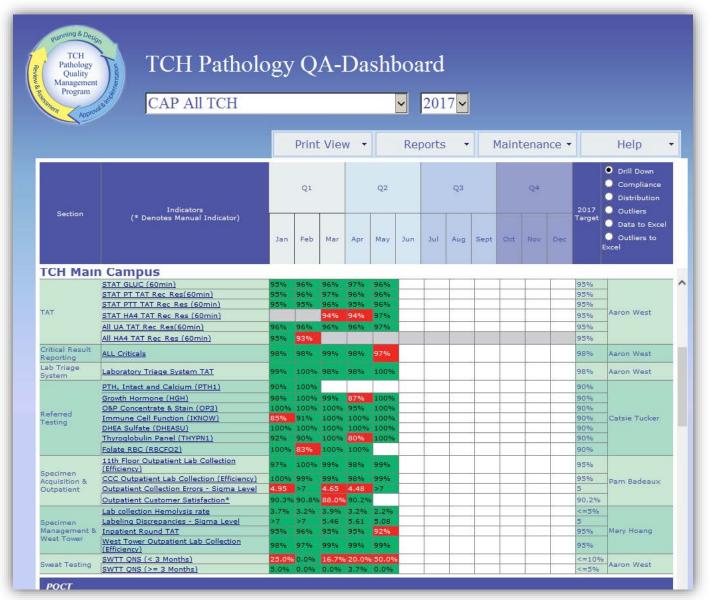
### Micro QC Bench Weekly Checklist



### Admin: Reports

- Instrument Review
- Maintenance Review
- Issue-Cause Analysis
  - Analytics for Quality Assurance & Pl
- Ad hoc (user defined criteria)

### **QA** Dashboard

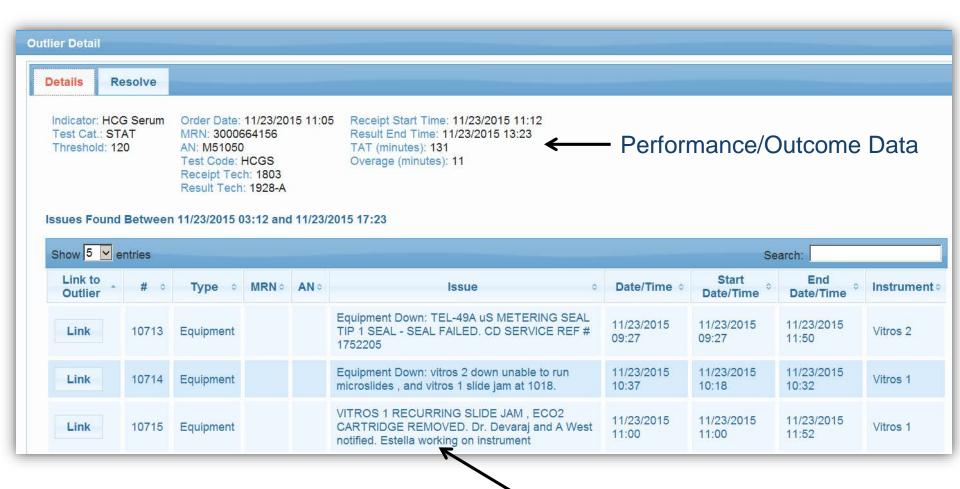


#### **Outlier Resolution**



- QA Outlier associated with 1 or more EQL issue(s) based on algorithm:
  - Bench-QA Indicator Union Table
  - Date/Time range (Indicator Type)
  - Accession #

#### Outlier - Cause Association Task

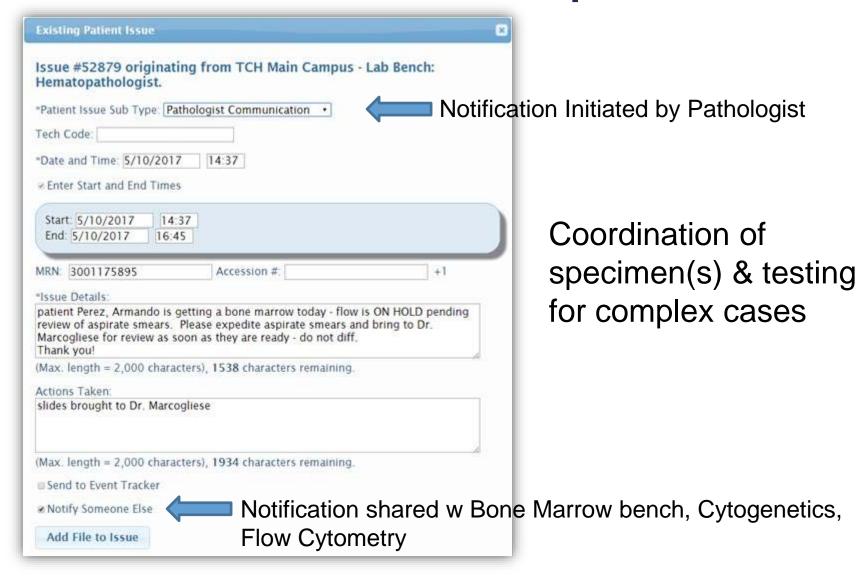


Previously Documented EQL Issues

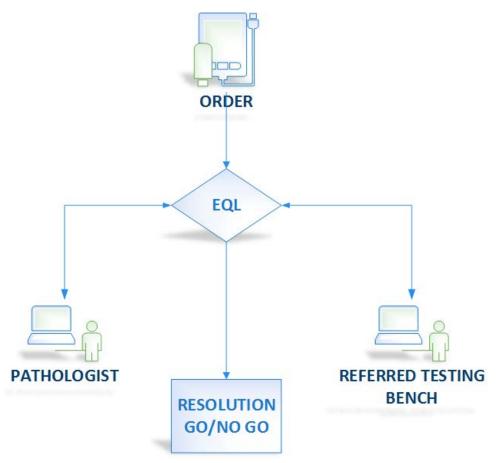
#### Alerts & Coordination

- Work-in-Progress
  - Testing Capacity Threshold Exceeded
- Pending Priority Samples
  - TAT Notification
- Massive Transfusion Protocol
- EC-Lab Triage System
- Coagulation Workup Add Test
- Specimen Workup Coordination
  - Histology, Pathologist, Microbiology, Referred Testing, Bone Marrow Bench, Flow, Cytogenetics
- Utilization Management

### Bone Marrow Workup

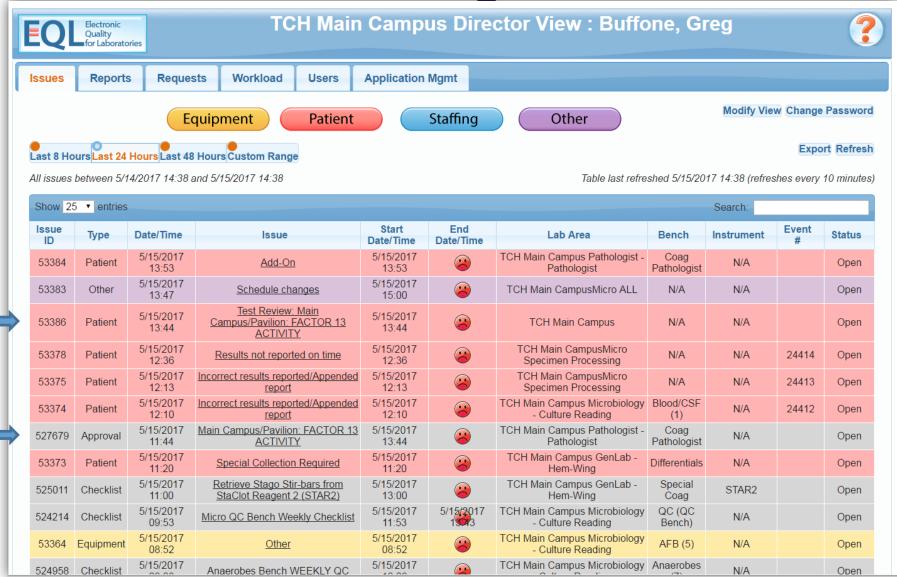


### Utilization Management

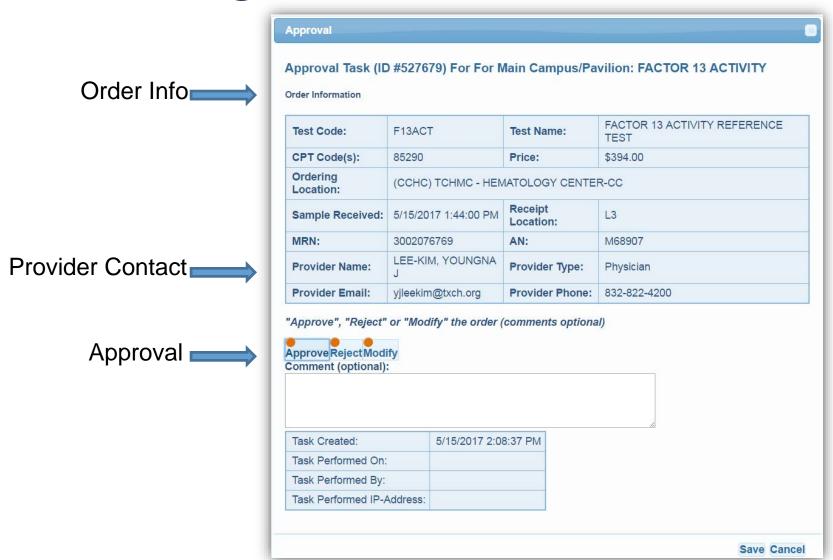


- Patient Issue Review Esoteric Referred Testing
  - Esoteric Test Alert List

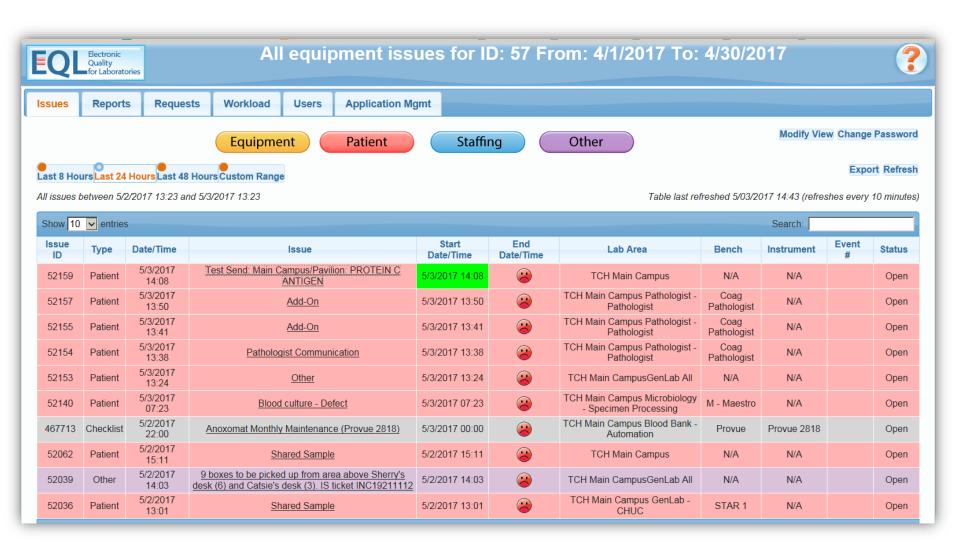
# **Utilization Management**



# Pathologist Review



### Utilization Management - Approved



# Wrap-Up

- Enable Effective Teams
  - Must improve ability to share information
  - Current EHR/LIS inadequate
- EQL value in Pathology
  - Efficient, timely communication
  - Reduction in errors of omission
    - Improved workflow coordination
  - Improved documentation of operations/issues
  - Operations data available for PI
- Integrate +EQL concepts in EHR/ LIS

# **EQL Design Team**



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