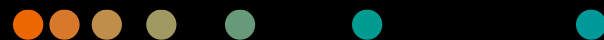
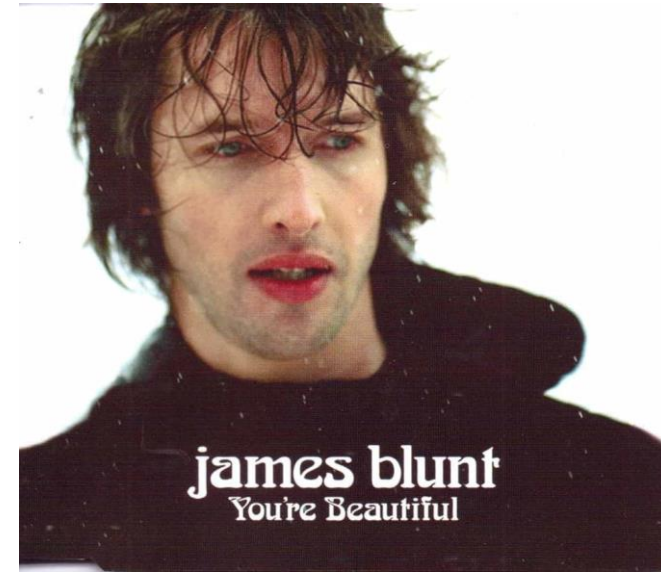
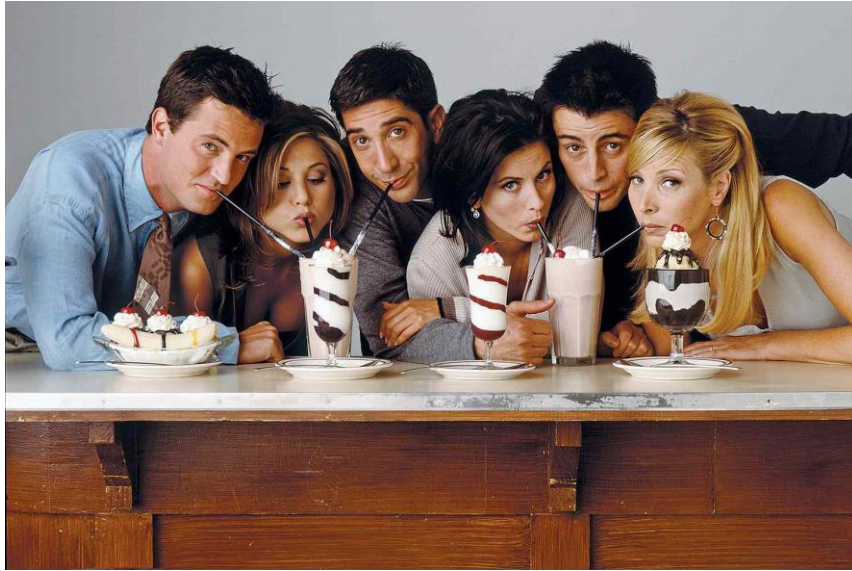


# What do we need to capture in a POCT performance dashboard and how can middleware help us?

Andy Sheppard  
December 2023



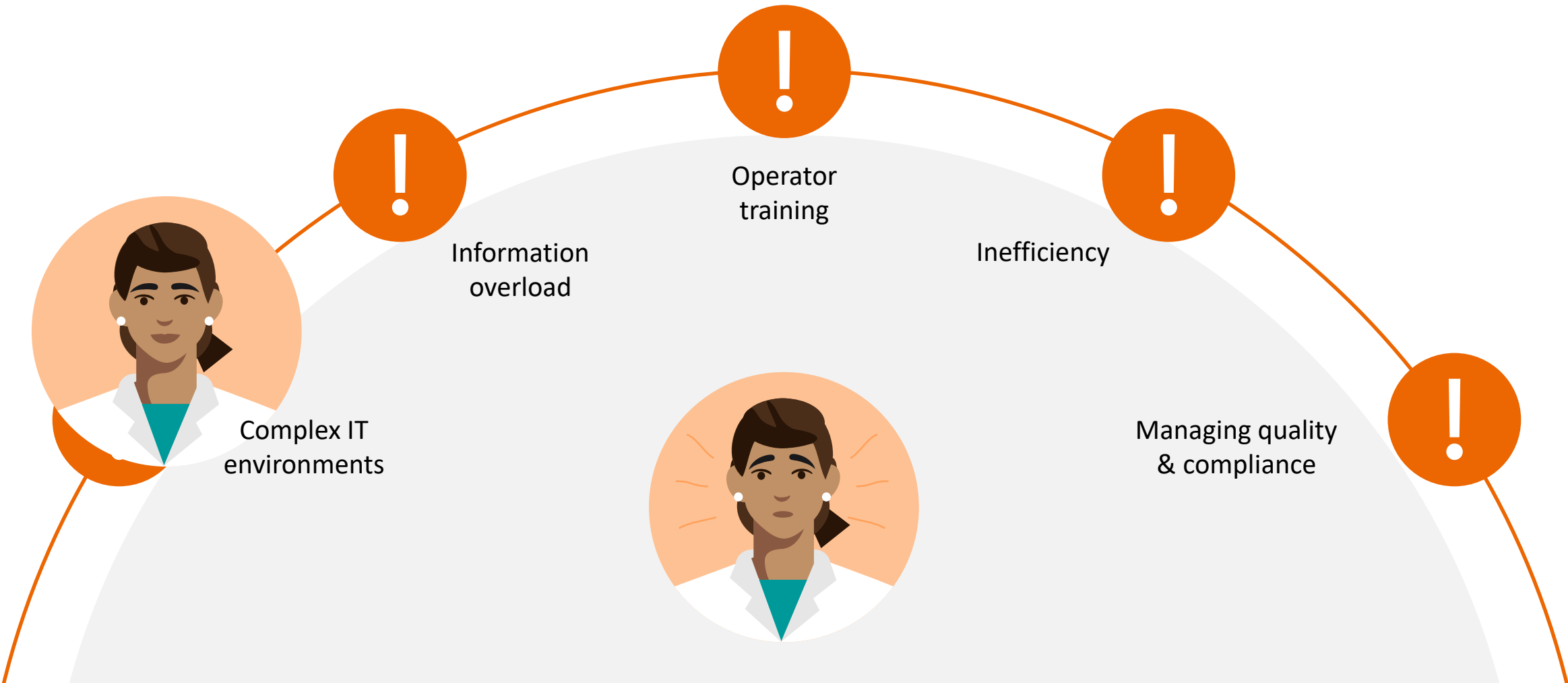
Lets quickly go back to 2004



NO IMAGE  
AVAILABLE



# Pain points



## Operator Learning & Management



## Scalable & Customisable



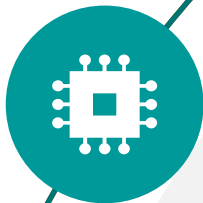
## Increase Process Efficiency



## Intelligent Compliance & Analytics



## Consolidate with Open Connectivity



- Automatic Operator Recertification
- eLearning
- LMS Integration

- Consolidate IT infrastructure
- Lower connectivity costs
- Lower staff burden to manage middleware

- Proactive dashboard
- Customisable alerts and validation rules
- Device remote control and configuration

## Managing quality & compliance

- Dedicated modules to manage accreditation and compliance
- Continuous quality assurance and improvement
- Audit

## Complex IT environments

- Open connectivity
- Expanded list of connected devices
- Single standardised solution



## Defining performance

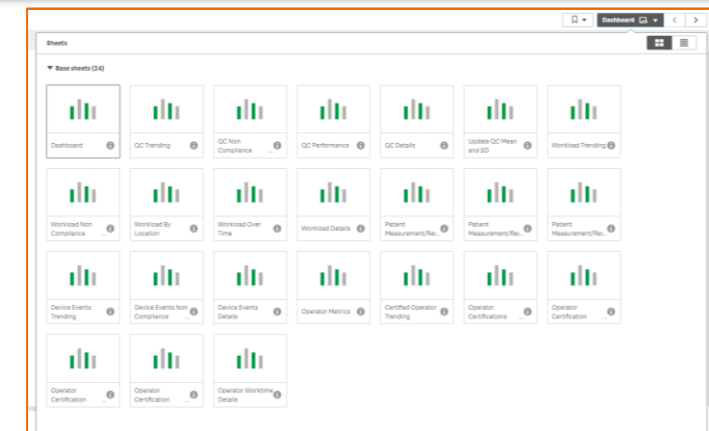
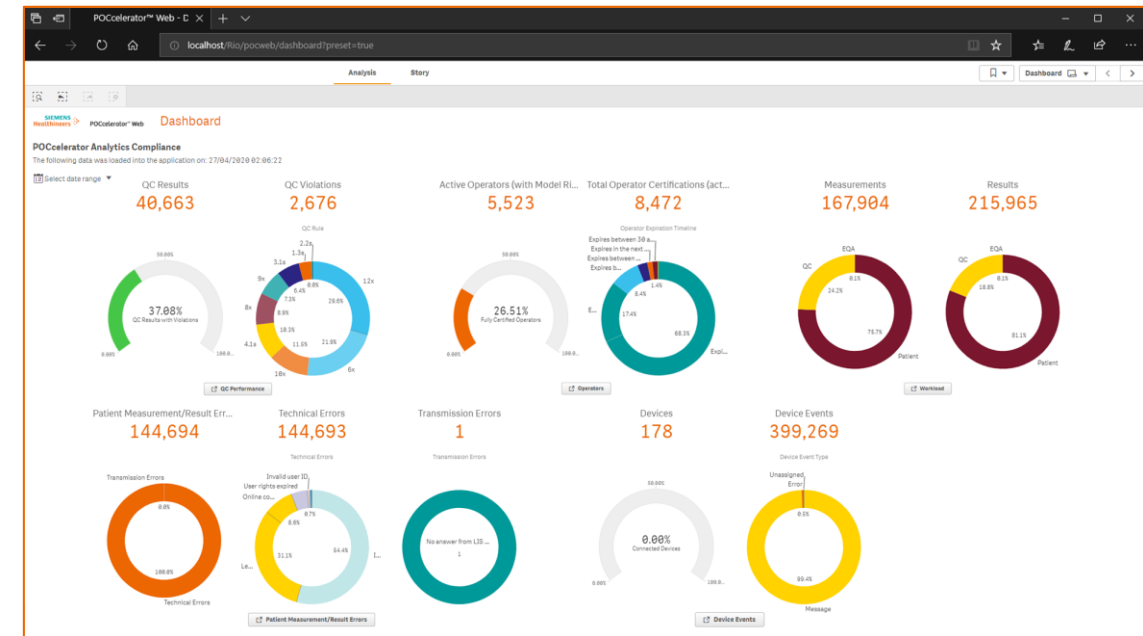
**Reviewing the quality of a task or action that is being undertaken or has already been undertaken within previously defined limits**

# POCcelerator Ci Dashboard

A Dashboard showing a visual summary of the data collected during the previous calendar day.

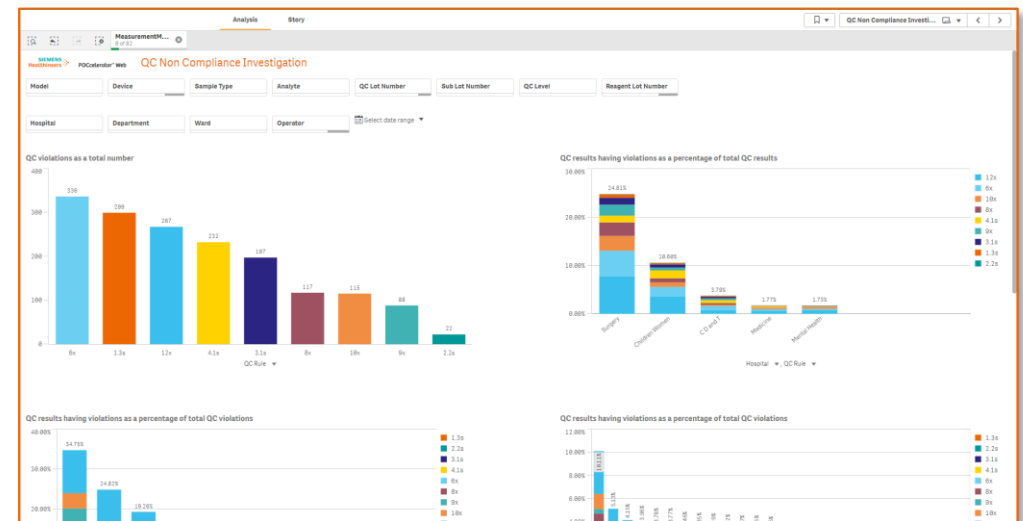
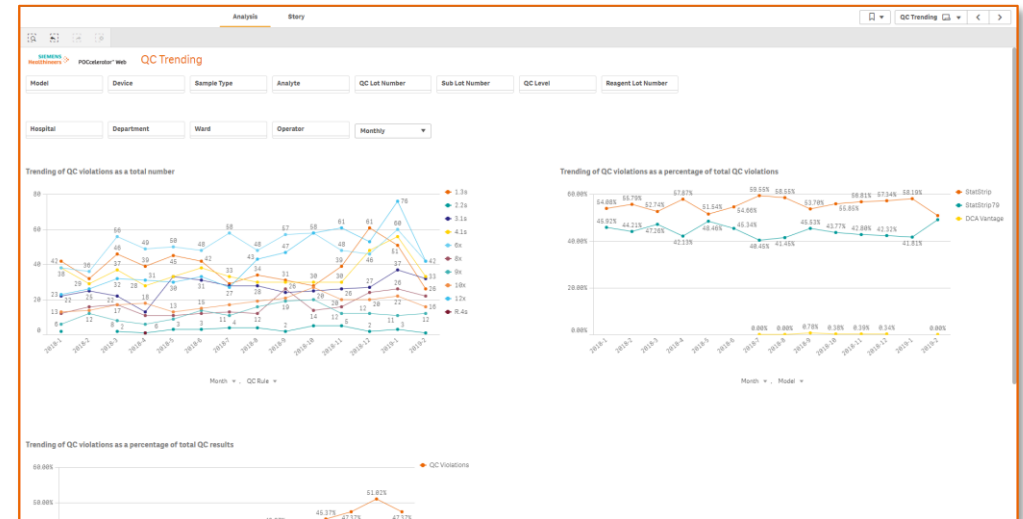
Providing easy to read details about Key Performance Indicators, such as:

- Quality Control / EQA
- Operators
- Device Workload
- Patient Measurement / Result Errors
- Device Events / Status

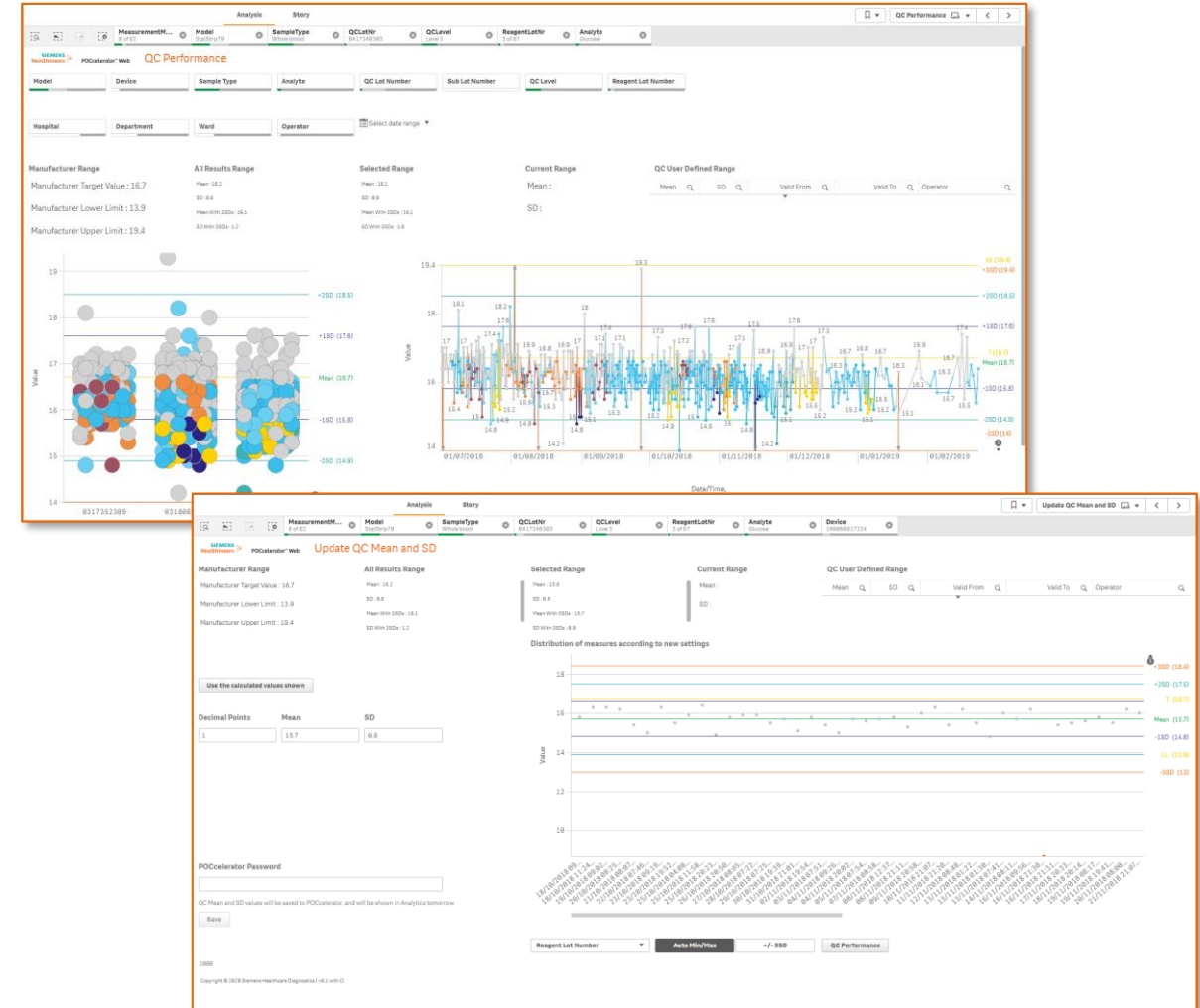




- **Trending:** Providing charts for identifying trends in QC rule violations over time.
- **Non-compliance:** Providing charts for analysing QC result violations as a total number and as a percentage of all QC results for selected dimension(s) and filters.

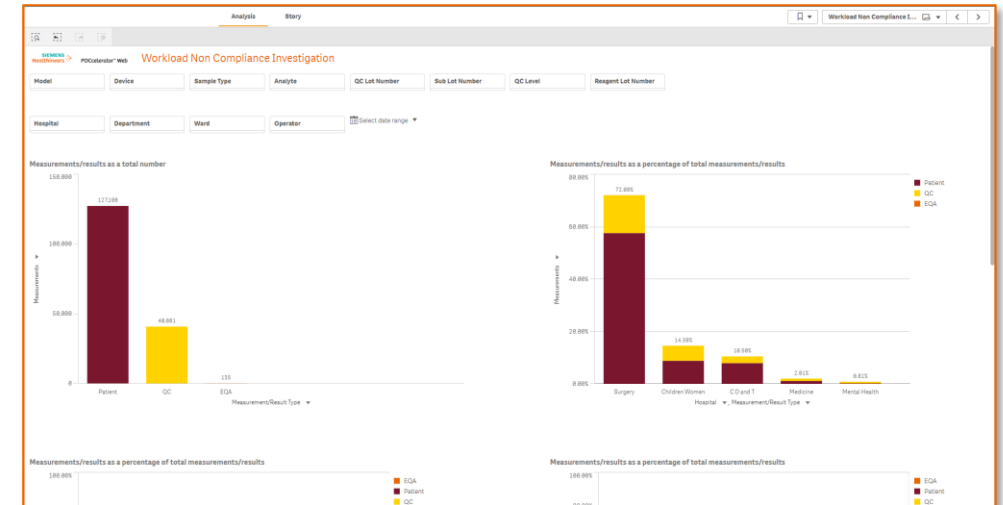
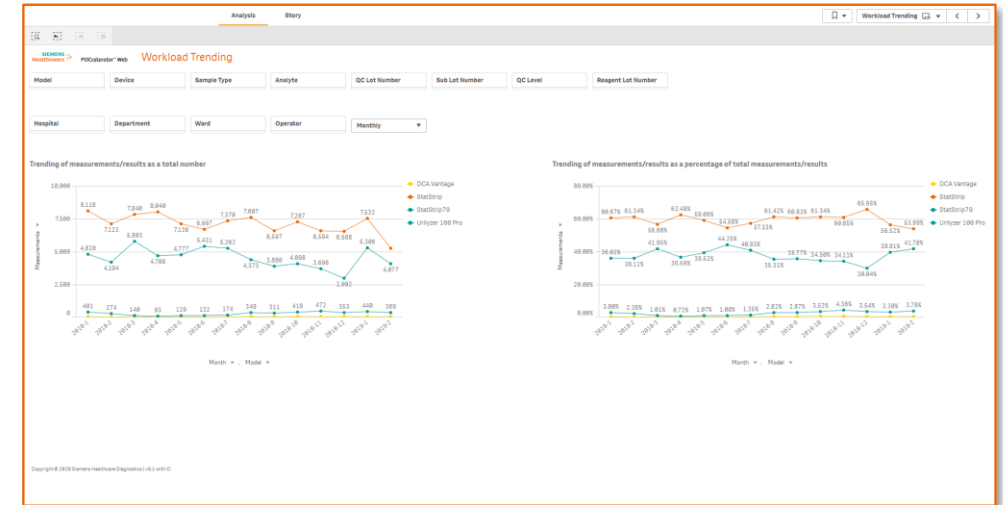


- **Specificity:** Providing charts for analysing quality control limits for a device model, location or individual device.
- **Detail:** Provides a table listing details for each QC result.
- **Update Mean and SD:** Allowing you to make adjustments to QC limits for a device model and save the new values automatically to the POCcelerator system.





- **Trending:** Provides charts for identifying trends in measurements and results over time.
- **Non-compliance:** Provides charts for analysing measurements or results as a total number and as a percentage of all measurements and results for the selected dimension(s) and filters.



# Workload (cont.)

- **By Location:** Shows a table with the breakdown of measurements or results by location for the selected dimensions and filters.
- **Over Time:** Provides tables analysing measurements or results over time by location and for the selected dimension and filters.
- **Details:** Provides a table listing measurements/results by measurement/result type details.

Workload By Location

Model	Device	Sample Type	Analysis	QC Lot Number	Sub Lot Number	QC Level	Reagent Lot Number
Hospital	Department	Ward	Operator	Select date range			
Measurements							
Totals	167,904	99,761	63,417	4,855	681		
Children Women	17,829	1,722	15,907	-	-		
Child Health	24,498	1,365	13,829	2,653	681		
Child Inpatient	24,498	1,365	13,829	2,653	681		
Child Outpatient	237	237	-	-	-		
General Inpatient	2,392	827	1,118	447	-		
General Outpatient	2,674	-	2,674	-	-		
Jungle Ward	3,458	-	3,458	-	-		
NICU/SCBU	4,853	4,853	-	-	-		
Pediatric Recovery	835	835	-	-	-		
Pediatric Cardio	1,116	-	1,116	100	-		
PCU	1,876	-	1,876	6	-		
Rainbow Ward	1,897	-	1,897	-	-		
Seahorse ICU	4,898	-	1,998	1,100	681		

Workload Over Time

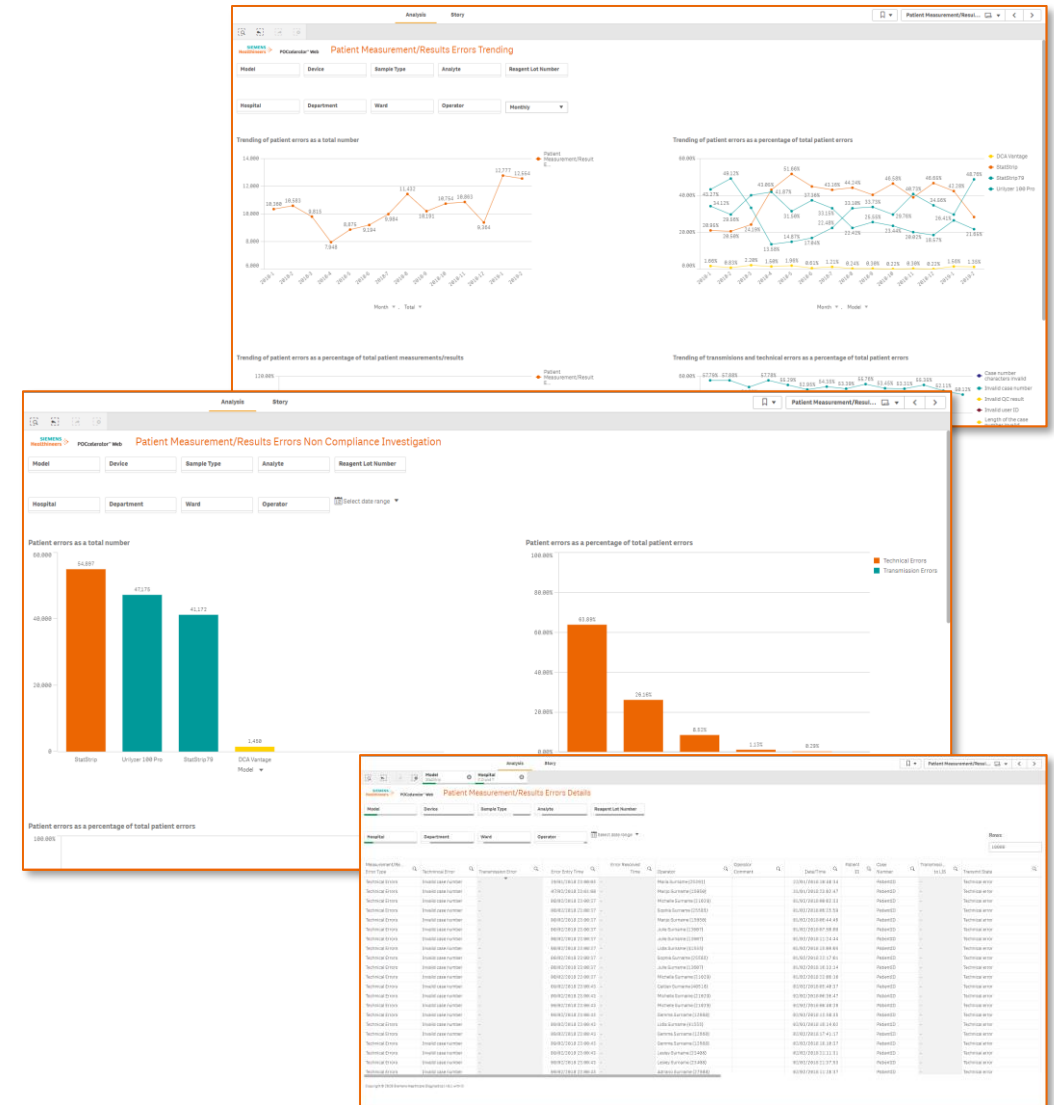
Model	Device	Sample Type	Analysis	QC Lot Number	Sub Lot Number	QC Level	Reagent Lot Number
Hospital	Department	Ward	Operator	Week	Month	Year	Month
Measurements							
Totals	167,904	13,381	11,613	13,832	12,868	12,874	12,855
Children Women	17,829	1,814	1,473	2,555	1,552	1,553	1,375
Child Health	24,498	1,911	1,435	1,814	1,582	1,367	1,652
Child Inpatient	24,498	1,911	1,435	1,814	1,582	1,367	1,652
Child Outpatient	237	236	195	286	158	155	231
General Inpatient	1,382	79	88	184	137	49	88
General Outpatient	121,837	9,311	8,422	9,153	8,439	8,664	8,828
Jungle Ward	61,564	6,818	5,784	6,838	5,791	5,244	6,141
NICU/SCBU	18,583	743	556	825	825	825	459
Pediatric Recovery	13,164	1,351	1,376	1,351	1,314	798	684

Workload Details

Model	Device	Sample Type	Analysis	QC Lot Number	Sub Lot Number	QC Level	Reagent Lot Number
Hospital	Department	Ward	Operator	Week	Month	Year	Month
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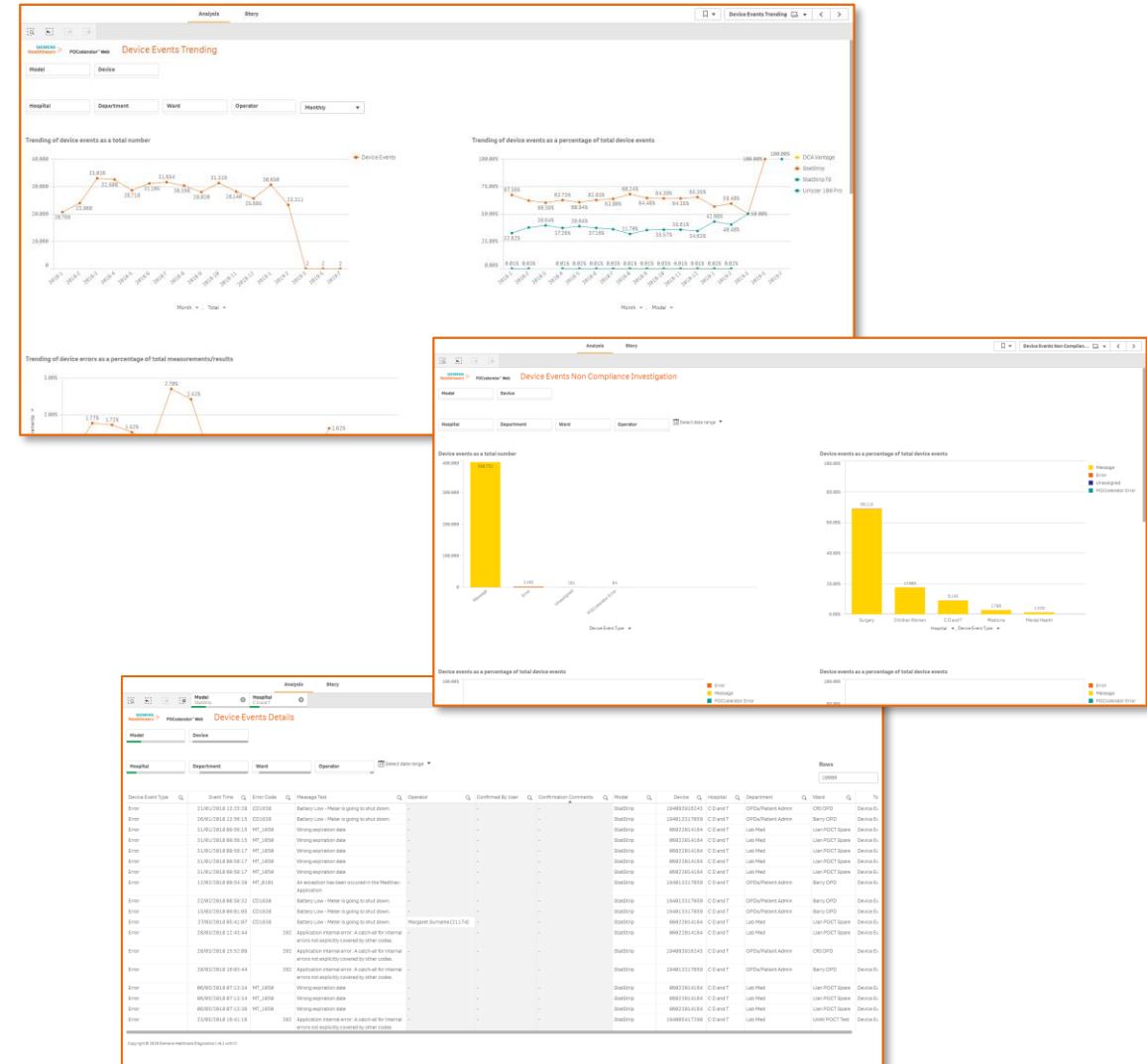
## Patient Measurement/Result Errors

- **Trending:** Provides charts for identifying data trends relating to patient measurement/result errors.
- **Noncompliance:** Provides charts for analysing patient errors as a total number and as a percentage of all patient errors for selected dimension(s) and filters.
- **Details:** Provides a table that lists the details for each measurement/result error type.



# Device Events

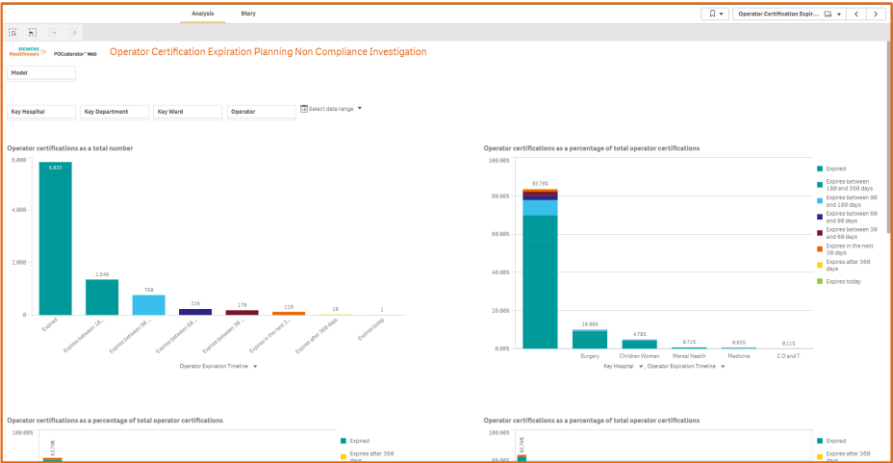
- **Trending:** Provides charts for identifying data trends relating to device events and errors.
- **Noncompliance:** Provides charts for analysing device events as a total number and as a percentage of all device events.
- **Details:** Provides a table that lists the details for each device event.



- **Operator Metrics:** Review active and inactive device operators along with their certification status.
- **Certified Operator Trending:** Provides charts for identifying trends in operator certification over time.
- **Certifications Details:** Provides a table that lists the certification details for an operator.
- **Certification Expiration Trending:** Provides charts for identifying trends in operator certifications over time.



- Operator Certification Expiration Planning Non-Compliance:** Provides charts to help you plan operator training needs based on certification expiration dates and model.
- Operator Certification Expiration Planning Details:** Provides a table that lists the certification expiration details for an operator.
- Operator Worktime Details:** Provides a table listing detailed operator information relating to work hours and can help you identify hospital worktime compliance violations.



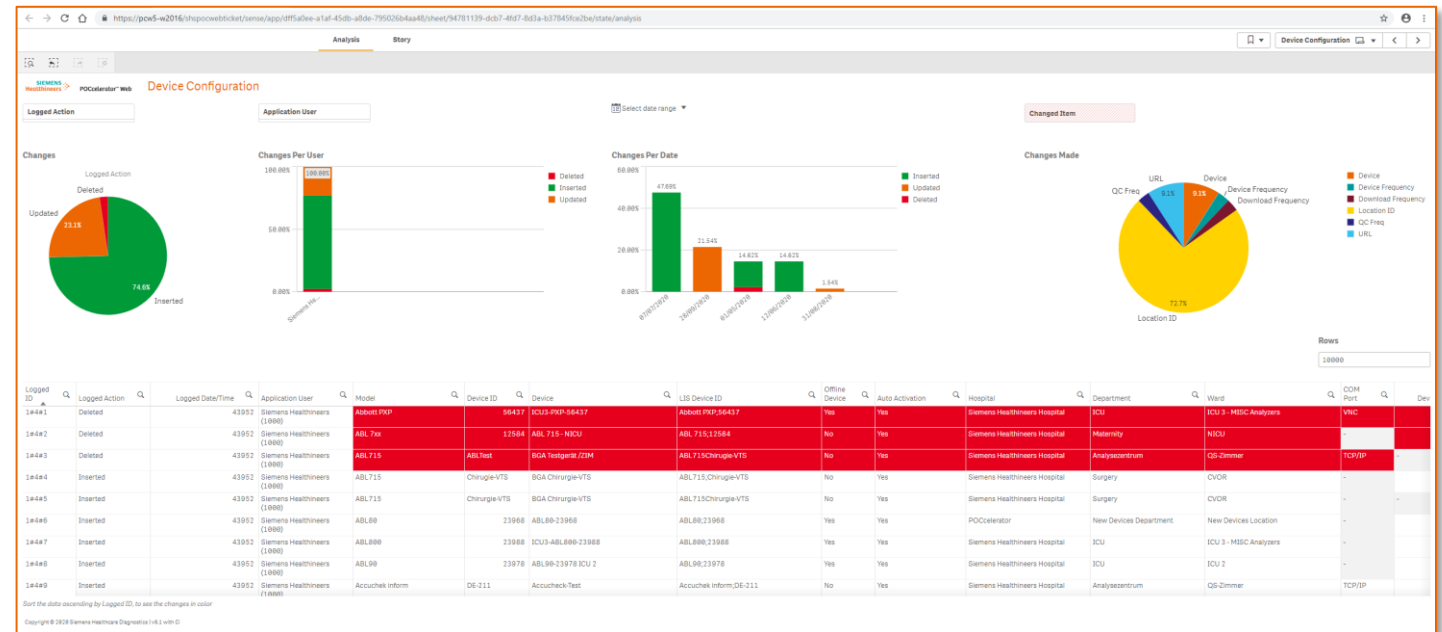
The dashboard displays a table of operator worktime data. The table includes columns for Operator, Date, Hospital, Department, Ward, Hours Worked per Day, and a list of violations.

Operator	Date	Hospital	Department	Ward	Hours Worked per Day	Violations
Carolee Surname (18796)	11/06/2018 18:33:49	Children Women	Child Health	StarRun PCPD	7.8	DCR violation
Carolee Surname (18796)	11/06/2018 18:42:55	Children Women	Child Health	StarRun PCPD	7.8	DCR violation
Hayley Surname (18855)	18/06/2018 12:57:19	Children Women	Child Health	StarRun PCPD	4.5	DCR violation
Marie Surname (17932)	18/06/2018 11:19:42	Children Women	Child Health	StarRun PCPD	37.1	DCR violation
Rachel Surname (13054)	18/06/2018 11:19:42	Children Women	Child Health	StarRun PCPD	9.0	DCR violation
Rachel Surname (14194)	18/06/2018 11:19:42	Children Women	Child Health	StarRun PCPD	31.8	DCR violation
Billy Surname (18997)	18/06/2018 11:19:42	Children Women	Child Health	StarRun PCPD	13.1	DCR violation
Alan Nelson Surname (18124)	18/06/2018 11:19:42	Children Women	Child Health	StarRun PCPD	65.7	DCR violation
Wendy Surname (18861)	18/06/2018 11:19:42	Children Women	Child Health	StarRun PCPD	9.1	DCR violation
Veronica Surname (18034)	18/06/2018 11:19:42	Children Women	Child Health	StarRun PCPD	76.4	DCR violation



Audit sheets provide charts that show you the percentage of changes made to records by:

- Logged action (update, insert, delete)
- User who performed the action
- Date the change was made
- Type of change made



The audit sheet Dashboard provides audit details about the following KPIs:

- Model Configuration
- Device Configuration
- Model, Device Configuration Settings
- Device Additional Information
- Model, Device, Lot Numbers, Activation/Deactivation
- EQA Distributions
- Operator Setup
- Operator Location Assignments
- Operator Model Certifications
- Operator E-learning Results
- Operator Auto Recertification
- Measurement Comments
- QC Measurements
- Incomplete QC
- EQA Measurements
- Linearity Measurements
- Patient Demographics
- Patient Results



# What do we need to capture in a POCT performance dashboard and how can middleware help us?

**A POCT performance dashboard should present captured information relating to;**

- Quality Control / EQA
- Operators
- Device Workload
- Patient Measurement / Result Errors
- Device Events / Status

**Middleware can help us by;**

Collecting and presenting captured data in an easy to use, centralised location making it more efficient for POCT staff to review, report and export the data as required.