

## VISN 21 Reduces CIS/ARK Reporting Work from Hundreds of Hours to Minutes with PraediCare

In its constant drive to improve patient care, the leadership at VISN 21 sought to leverage informatics and analytic systems to optimize individual and population health outcomes. They recognized that many analytic platform implementations focused on improving the management of chronic disease care, primary care patients and for settings such as outpatient clinics. However, these systems were not effective to improve patient outcomes in the operating room (OR), post-anesthesia care unit (PACU) and intensive care unit (ICU). The OR, PACU and ICU have distinct needs since their focus is oriented towards acute care management, surgery, post-anesthetic recovery, critical care interventions and inpatient settings.

*“PraediCare has helped VISN 21 leverage data to improve patient outcomes and gain operational insights by making the data we had accessible. By eliminating data silos and creating a ‘one-stop shop’ for data and reporting, we are now able to create actionable insights from medical data in a more timely basis.”*

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VISN 21 did have a perioperative information management system (PIMS) in place. Clinical staff use the PIMS to review and document clinical data and care plans for patients. Leveraging this data was not easy, and the workload associated with creating meaningful reports from the PIMS was becoming an unmanageable burden. Furthermore, the data from PIMS needed to be linked with key elements from the Veterans Information Systems and Technology Architecture (VistA) to provide a complete picture. To leverage this data required expertise and knowledge of the PIMS and VistA data architectures and the ability to generate SQL queries.

The result was a reporting process that was a tremendous burden on the clinical staff. To generate seven standard reports required up to 175 hours of work per month. This means that a person would spend more than one-month full time doing nothing but generating seven reports. The time required was due to the heavily manual process involved. The PIMS coordinator was required to run a query from each system and download a .csv file. Data that was not in PIMS or VistA was captured manually. These files would then have to be merged manually with each other to create the reports. The manual process also introduced errors, and the data required multiple checks by others to ensure accuracy.

After extensive research, VISN 21 selected PraediCare from Bitscopic as the analytic platform to replace PIMS. Some of the key requirements PraediCare fulfilled were:

- One stop shop for data so that users can pull all the data they needed from a single system. This improved reporting workflows and automated the data extraction process, increasing accuracy and timeliness of reports. Data sources required were Picis, VistA and CDW.
- Capability to perform trends analysis. Creating graphs and charts from the data was important to measure and to identify key indicators of care.
- Expansion of number and types of reports to collect data and measure efficiencies beyond clinical outcomes so that outcomes and indicators could be analyzed over time.

The initial project included seven IPEC reports that required up to 175 hours of work per month to generate. As the table shows, PraediCare reduced the time required to generate these seven reports to as little as 18 minutes. The reports are also more accessible to a broader group of people through a point and click interface.

### IPEC Reports in PraediCare

Report	Estimated Time Required: Manual Process	Time Required Using PraediCare
<b>Cauti</b>	20 hours	3-5 minutes
<b>Central Line Insertion</b>	20 hours	3-5 minutes
<b>VAP</b>	25 hours	3-5 minutes
<b>VAE</b>	Up to 80 hours	3-5 minutes
<b>Restraints</b>	10 hours	3-5 minutes
<b>Central Line Days</b>	part of central line insertion	3-5 minutes
<b>Total</b>	Up to 175 hours	Up to 30 minutes

*Source: VISN 21 CIS/ARK team estimates*

PraediCare has become an invaluable tool in VISN 21's goal to improve patient outcomes and population health. The new analytic platform has put data literally at the fingertips of anyone who needs to access and make use of it. IPEC reports are now generated with a simple click, and the data is up to date, which means clinicians are able to use the data to take action rather than just to document what happened historically.

The project has been very successful, and PraediCare reports now also include additional reports used to improve perioperative operations. These reports are shown in the following table.

### PraediCare Perioperative Reports

Operating Room Reports	Anesthesia Reports from Picis Anesthesia Record Keeping
<b>First Case Starts</b>	Staff Summary
<b>Operating Room Utilization</b>	Patient Procedures
<b>Cancellations</b>	Picis Surgery
<b>Turnover Times</b>	Picis Surgery Turnover Times
<b>Surgical Waits</b>	Picis Surgery Operating Room Times
<b>Case Length</b>	Medications in Operating Room

Using PraediCare, VISN 21 staff is able to generate critical reports on demand with just click of the mouse. The intuitive, simple to use user interface has made the data accessible to a broader number of staff who are able to leverage the insights gleaned to improve quality of care.

Other intelligent modules providing insights for sepsis, opioid usage and other areas are also available for customization.

## PraediCare's Point and Click Report Generation Interface

### REPORTS

#### OR BUSINESS REPORTS (VISTA SURGERY)



First Case Starts



OR Utilization



Cancellations



Turnover Times



Surgical Waits



Case Length

#### ANESTHESIA ENVIRONMENT (PICIS ARK)



Staff Summary



Patient Procedure



PICIS Surgery



PICIS Surgery Turnover Times



PICIS Surgery OR Times



Medications in OR



OR/PACU Glucose Measurements

#### IPEC REPORTS (PICIS CIS)



Cauti Insertion



Cauti Maintenance



CLABSI IPEC



VAP IPEC



Restraint



Central Line Days

#### SURVEILLANCE REPORTS



VAE

#### AD HOC ENVIRONMENT



VistA Surgery



PICIS Anesthesia



PICIS ICU



PICIS PACU



PICIS Combined

#### EXTERNAL ENVIRONMENT



STORM Summary Dashboard



STORM Provider Dashboard