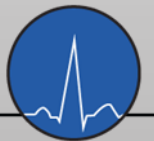


Almost there....

ASPIRE Updates and Wrap up



Blue Cross Blue Shield of Michigan – Potential Value Based Reimbursement Opportunity



Current Specialist VBR Opportunity

| Standard BCBSM Value-Based Reimbursement | | | |
|--|-------------------------------------|-------------------------------------|----------------------------------|
| Ranked in top third of practices | Ranked in second third of practices | Ranked in bottom third of practices | Percent of Standard Fee Schedule |
| | | x | 100% |
| | x | | 105% |
| x | | | 110% |

| Measurement Period for Specialist VBR | Reimbursement Period (applicable to claims for the dates of service below) |
|---------------------------------------|--|
| July 1, 2016 – June 30, 2017 | March 1, 2018 – February 28, 2019 |

- **Current BCBSM Specialist Value-based Reimbursement Model**
- **VBR applies to all professional relative value unit (RVU) based procedure codes and the anesthesia time and base codes***
- **VBR applies to commercial claims only**
- **Specialists must be enrolled in PGIP to be eligible (must be in PGIP 1 year prior to receiving the VBR)**
- **Based on population health metrics**

*Applies to virtually all codes except those for ambulance service, durable medical equipment, prosthetics and orthotics, anesthesia, immunizations, hearing, vision, lab, dental and most injections



Types of Metrics Used in Current Specialist VBR

Practice level

- Evaluates care provided directly by the practice
- Rarely used in specialist VBR methodology

Population level

- Evaluates care provided to shared populations treated by the practice
- Calculated at PO level and weighted at the practice level based on shared populations
- **Most commonly used in specialist VBR methodology**



Potential CQI VBR Opportunity Being Evaluated for 2018/2019

| Standard BCBSM Value-Based Reimbursement | | | New CQI VBR | |
|--|-------------------------------------|-------------------------------------|----------------------------------|----------------------------------|
| Ranked in top third of practices | Ranked in second third of practices | Ranked in bottom third of practices | CQI Participants that met target | Percent of Standard Fee Schedule |
| | | X | | 100% |
| | | X | X | 103% |
| | X | | | 105% |
| | X | | X | 108% |
| X | | | | 110% |
| X | | | X | 113% |

- Would complement, not replace, the Specialist VBR
- Performance measures, targets and methodology designed by the Coordinating Center
- Utilize CQI registry data
- Eligible physicians would receive an additional 3% increase over the standard fee schedule (no PO nomination, similar to specialist VBR)
- Currently being proposed by BCBSM CQI administration for a 2018 VBR
- RVU – based PPO commercial claims only – similar to Specialist VBR



Eligibility for Specialist VBR (or any potential BCBSM VBR)

- To be eligible for a Specialist VBR, a physician:
 - **Must be enrolled in Blue Cross Blue Shield of Michigan's PGIP program through one of the affiliated PGIP physician organization (PO)**
 - Must be enrolled in a PGIP PO at least one year prior -
 - 2018 VBR - If not on the January '17 and July '17 PGIP physician lists, then the physician is NOT eligible for any 2018 VBR
 - 2019 VBR – the physician must be enrolled in a PGIP PO by first week of January 2018
 - Must be nominated by their affiliated PGIP PO annually (for Specialist VBR) –
 - Nomination does not necessarily mean you will receive VBR (bottom third of physicians will not receive Specialist VBR)



Specialist VBR results for ASPIRE CQI Participating physicians

- Number of physicians contributing data to the CQI - 437
- Number of CQI physicians that are in a PGIP PO (as of July 2017) - 335
- Number of physicians that are NOT currently in a PGIP PO (as of July 2017) - 102
- Number of physicians that are currently receiving Specialist VBR - 286

A list of PGIP Physician Organizations will be made available by the Coordinating Center



PGIP Enrollment of Specialists Participating in CQIs – Who's Involved

BCBSM Value Partnerships

- Notifies the PGIP POs quarterly (July, Oct, Jan, Apr) of physicians not enrolled in PGIP
- Notifies POs on who's participating in CQIs to support PO nomination of the physician for specialist VBR

PGIP Physician Organization (PO)

- Responsible for enrolling the physician in PGIP
- May communicate to the physician(s) regarding interest in enrolling them in the PO
- Nominates physicians within the PO for Specialist VBR

CQI Coordinating Center

- Aware of who's in and not in PGIP and may be able to notify the physician or physician champion of Non-PGIP enrolled physicians

CQI Physician Champions or Engaged Physicians

- Notify any affiliated physicians participating in the CQI that are non-enrolled in PGIP
- Those physicians not enrolled in PGIP may inform their colleagues to enroll in their affiliated PO



Next Steps Towards PGIP Enrollment

- If a physician is not in PGIP currently –
 - Need to be enrolled by the first week in January 2018 to be eligible for 2019 VBR
 - POs have been notified by BCBSM Value Partnerships of physicians not in PGIP as of July 2017
- A list of POs' contact information will be made available to the Coordinating Center to assist PGIP enrollment

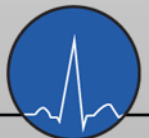
No PGIP Enrollment = No Specialist VBR Eligibility



What we talked about last year....

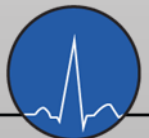
2017 Planning

- Integration with other CQIs (MVC, MARCQI, MSQC...)
- Less total effort adding sites
- More effort working with existing sites on programs, measures, data quality
- More effort improving Application Suite
- Patient-centered iOS application



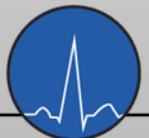
What we have done and what we're working on....

- Integration with other CQIs (MVC, MARCQI, MSQC...) – **yes**
 - MVC, MSQC
- Less total effort adding sites – **yes**
 - New Epic extract (“flatfile”)
- More effort working with existing sites on programs, measures, data quality – **maybe**
 - ARC toolkit released, no education modules, pace of new measure release slower
- More effort improving Application Suite – **yes**
 - Updated Case Viewer, Data Diagnostics, Variable Mapping, Location Mapping, NSQIP/STS Import, Transfer, Case by Case Validation
- Patient-centered iOS application - **yes**



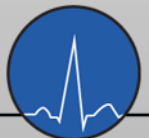
Why should we PROSPER?

- We have a good understanding of medical “outcomes” – complications that we as providers believe are not the ideal result
 - Working to integrate data from registries, labs, administrative data to improve reporting to you
- We still don’t understand daily patient postop experience or baseline
- Surgeons doing decent job of collecting procedure-specific patient reporting outcomes
- Anesthesia providers must understand overall patient experience across procedure – patient report outcomes (PROs)
- Long term, PROs may serve as
 - quality measures (pain, etc) or
 - ways to assess impact of existing process of care metrics



PROSPER

- An application that collects active survey data and passive data (from smart devices) from patients
- Initial use will be to understand how this type of data correlates with perioperative care processes
- Will use combination of NIH PROMIS measures and passive data collection
- Collect preoperative baseline data and postoperative data
 - Episodic active survey data
 - “Continuous” passive activity, heart rate, and location data
- ResearchKit application building upon experience from hundreds of patients using the Framingham Heart Study iOS application developed by CareEvolution (our Galileo analytics vendor)

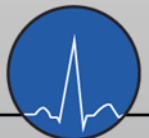


PROMIS[®] (Patient-Reported Outcomes Measurement Information System) is a set of person-centered measures that evaluates and monitors physical, mental, and social health in adults and children.

- Developed and validated with state-of-the-science methods to be psychometrically sound and to transform how life domains are measured
- Designed to enhance communication between clinicians and patients in diverse research and clinical settings
- Created to be relevant across all conditions for the assessment of symptoms and functions
- Available in multiple formats and easily integrated into diverse data collection tools.
- Translations available in Spanish and many other languages

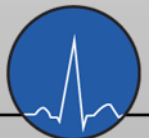


<http://www.healthmeasures.net/explore-measurement-systems/promis>

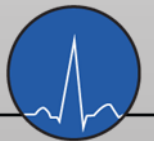


Our plan

- Pilot enrollment and data integration with UM patients
 - Expand to interested ASPIRE sites, work with you to implement process to allow patients to download application
 - Centralized UM IRB (just like all online ResearchKit apps), explicit patient consent
 - Track active and passive data collected from smart device
 - Link to surgical procedure/episode using central MPOG EHR data
 - Develop analytics and feedback for the patient AND each participating site and research teams
- Do not interfere with existing care management/clinical applications
 - Will not recommend clinical decisions or actions (NPO status, etc)
 - Continue with your mobile Health strategy



PROSPER Demo



Measure Timeliness Analysis

- Questions from sites – should we delay reporting of some/all measures because measure performance is changing due to submissions of billing codes
- Goal: to decide if we should delay reporting of measure performance
- Methodology – We picked a month (March 2017) and compared results with and without billing code exclusions

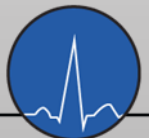
NMB 01
-.05% to .13%

GLU 01
No Change

BP 01
0% to 1.21%

Temp 01
-.37% to 15.72%

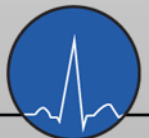
AKI 01
-.66% to 1.38%



CPT Prediction Tool: An Example of Machine Learning in Anesthesiology

- There are several opportunities to implement ML in ASPIRE
- One example: Assigning CPT codes to submitted data automatically
- Overcomes the time gap in the process of assigning CPT to cases
- Streamline the process of excluding/including cases in ASPIRE

Definition: Machine learning is a method of data analysis that automates analytical model building. Using algorithms that iteratively learn from data, machine learning allows computers to find hidden insights without being explicitly programmed where to look.



Machine learning examples in everyday life:

The Netflix logo, consisting of the word "NETFLIX" in a bold, white, sans-serif font with a black drop shadow, set against a solid red rectangular background.

NETFLIX

The Google logo, featuring the word "Google" in its characteristic multi-colored font (blue, red, yellow, blue, green, red) on a white background.

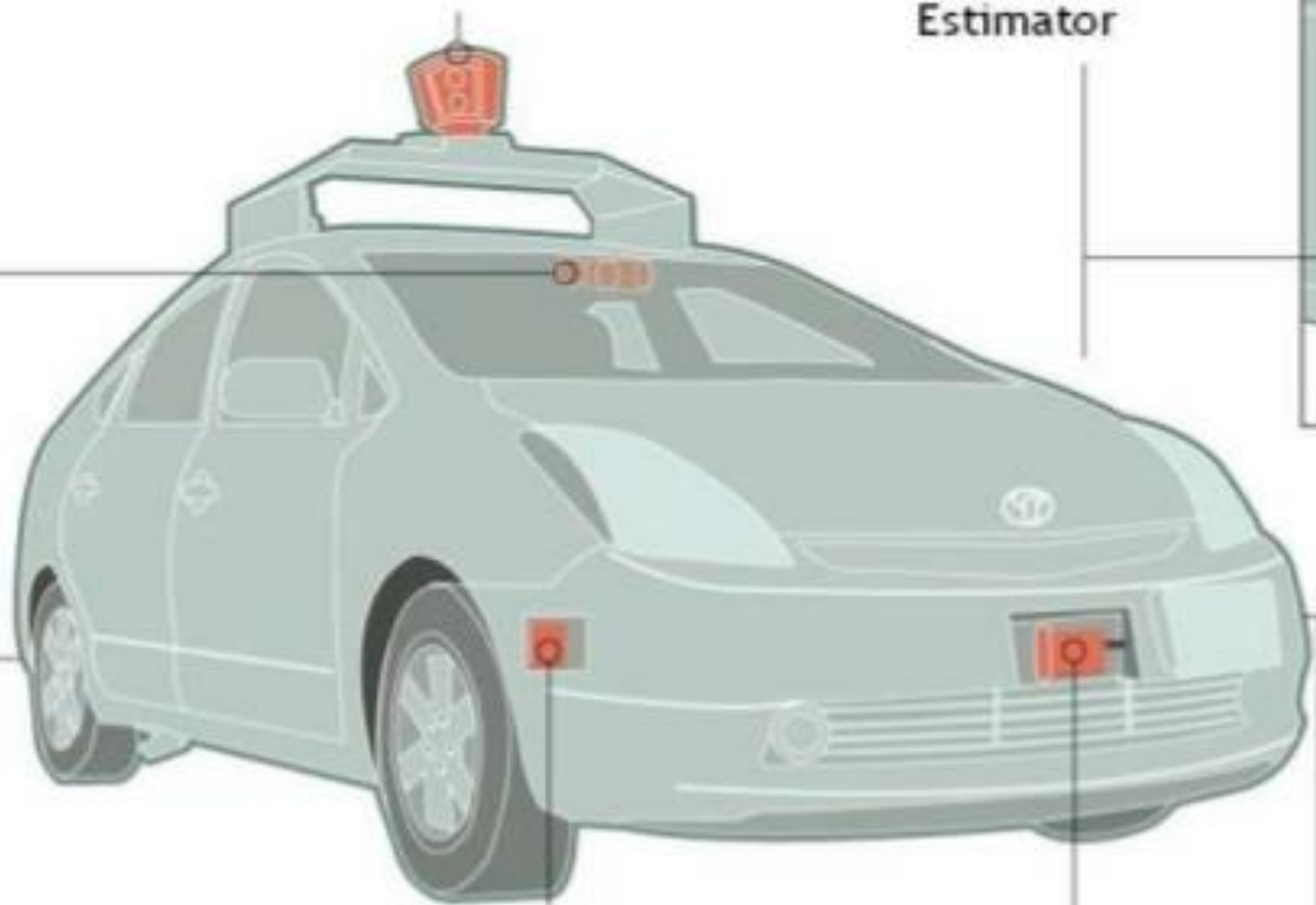
Google

Video Camera

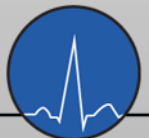
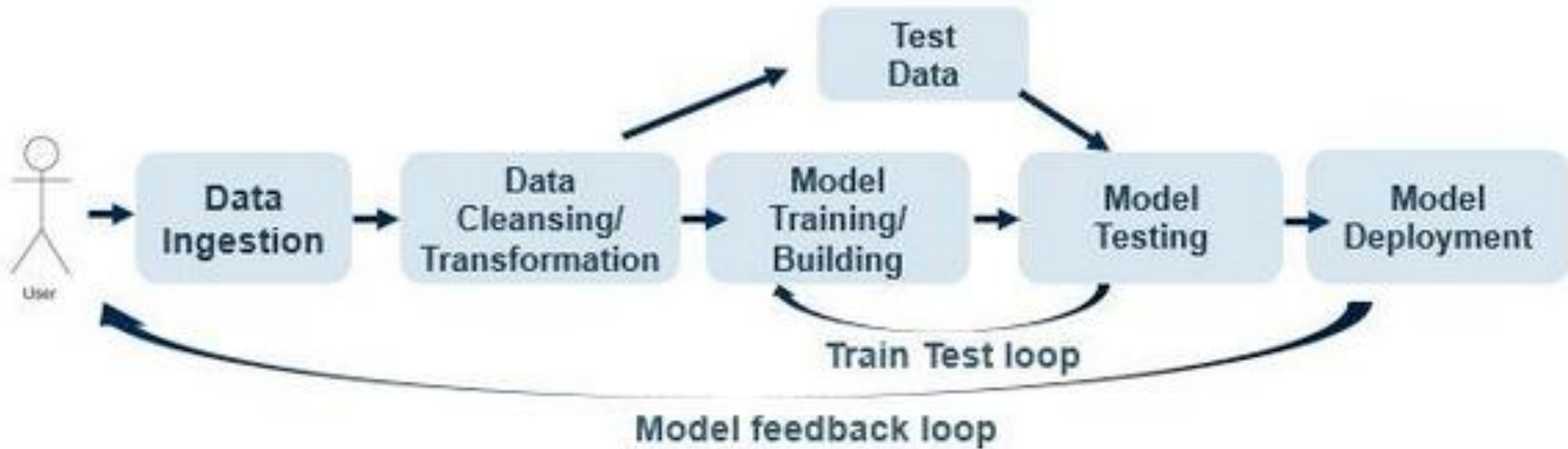
Lidar

Position Estimator

Distance Sensors.

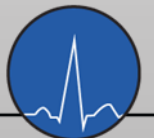


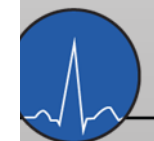
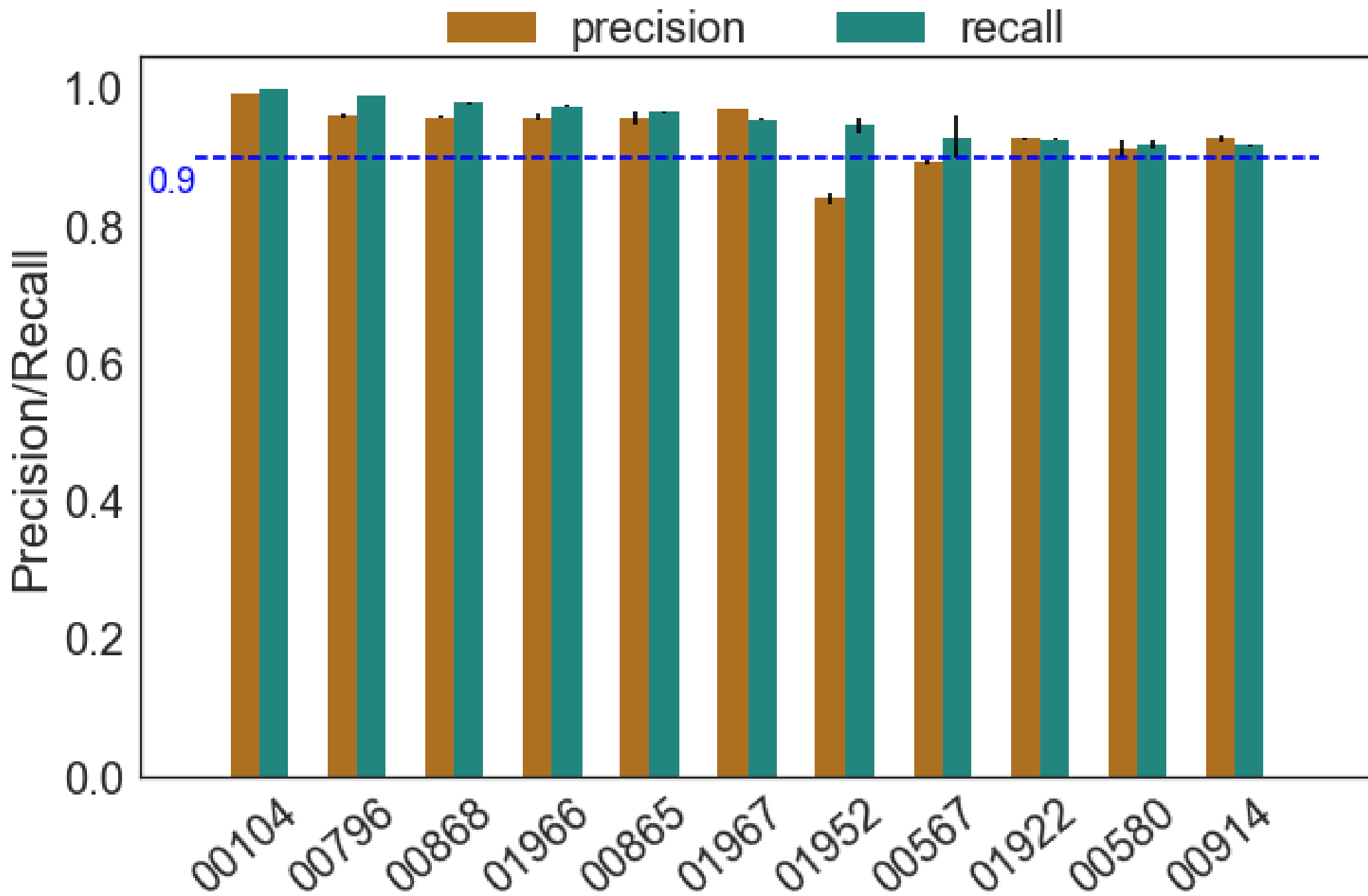
Typical Machine Learning Process

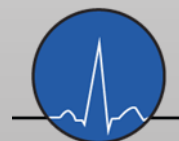
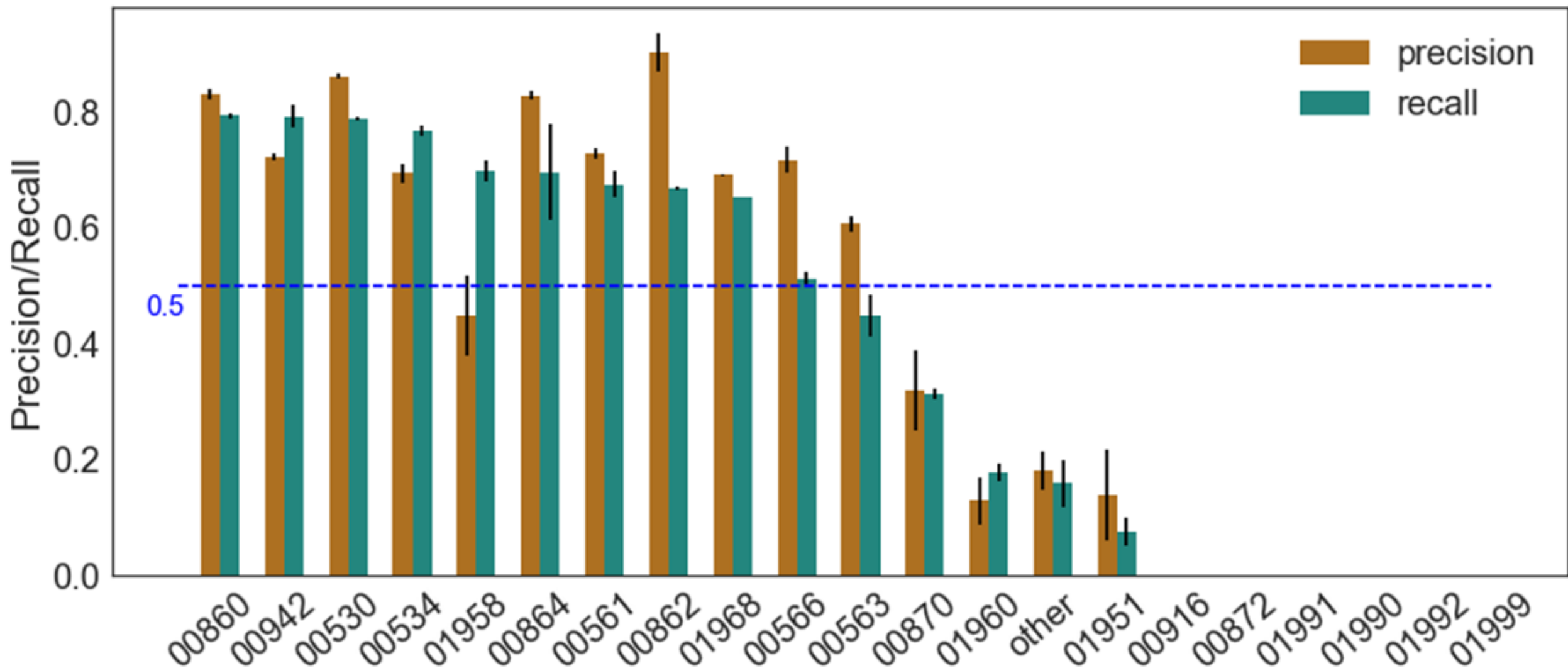


Assigning CPT codes to submitted data automatically

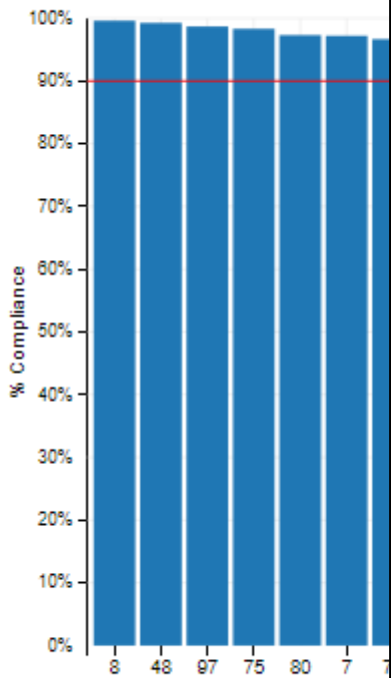
- Site inputs: Gender, age, procedure text, case duration, assigned anesthesia CPT values
- Find correlations in assignment - build model from these correlations
- Test and train model
- Improve model over time with new data
- End result: real-time initial CPT assignment







NMB-01: Compliance by Institution (past 12 months)



ASPIRE

Anesthesiology Performance Improvement and Reporting Exchange

Hello John Doe,

Below is your ASPIRE report for **2/1/2017** to **2/28/2017**. For a case-by-case breakdown of cases that fail a particular measure, click on the graph's label and you will be taken to our reporting website (ASPIR login required).

If you have any questions or feedback please send them to anes-aspire@med.umich.edu. Thank you for your participation in ASPIRE.

Sincerely,
The ASPIRE Team

Your Performance vs All Other Attendings 2/1/2017 to 2/28/2017

[NMB-01: Train of Four Taken](#)

You, 83.3% (10 / 12), Previous month: 100.0%

All Other Attendings, 96.3% (1713 / 1778), Previous month: 95.6%

[NMB-02: Reversal Administered](#)

You, 100.0% (12 / 12), Previous month: 100.0%

All Other Attendings, 99.2% (1753 / 1768), Previous month: 99.5%

[PUL-01: Low Tidal Volume](#)

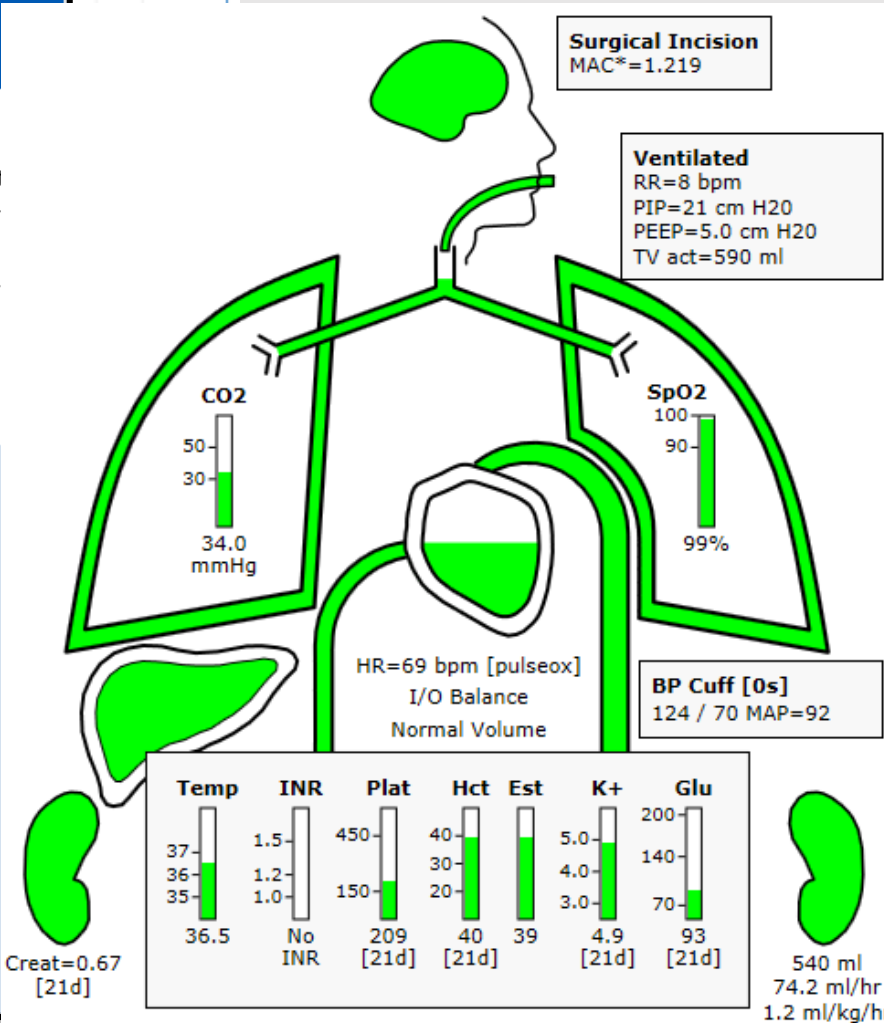
You, 100.0% (5 / 5), Previous month: 100.0%

All Other Attendings, 98.5% (1218 / 1236), Previous month: 98.3%

[BP-01: Low MAP Prevention](#)

You, 100.0% (32 / 32), Previous month: 100.0%

All Other Attendings, 98.8% (5391 / 5457), Previous month: 98.8%



Wrap-up

- Plan is to continue one ASPIRE only meeting/ year (plus 2 others)
- Meeting location and times – Lansing work?
- Combined meeting with other CQIs?
- Content?

Thank you!

