



POINT OF CARE TESTING AND POPULATION HEALTH MANAGEMENT

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Employed by TriCore Reference Laboratories

OBJECTIVES

- Describe population health management, diagnostic optimization, and targeted interventions
- Examine the way that point of care tests are reported, and how they could be used in data analytics
- Discuss the importance of including point of care testing results in data analytics

TriCore Reference Laboratories

Facts

- Regional medical laboratory providing diagnostic testing for patients and providers
- Located throughout New Mexico
- >11 Million Test Per Year (does not include POC tests)
- 99% Volume Performed On-site
- 75% of Clinical Data for the state of New Mexico



TriCore Point of Care Program

STRUCTURE

10 hospitals

~140 clinics

>700,000 interfaced tests/year

13 instrument types; over 600 separate instruments

15 manual kits/tests

8000 operators

STAFF

1 POC manager

3 technical supervisors

15 POC techs (13.5 FTE)

- ACA-Affordable Care Act
- Fee for service transition to value-based payments
- Triple Aim Quality, Cost/Value, Patient Satisfaction MACRA
- Quality Payment Program-MIPS and APM Meaningful Use
- Lack of interoperability of healthcare IT technology

Possible response:

Reshape the Way Medicine is Delivered

WHY

Clinical labs are the first step to reshaping the way medicine is delivered to improve healthcare

HOW

Proactive focus on Population Health Management

WHAT

Targeted Intervention...

- Improves Outcome
- Improves Quality of Life
- Reduces Overall Cost

POPULATION HEALTH MANAGEMENT

Population Health Management

- is the aggregation of patient data across multiple health information technology resources,
- the analysis of that data into a single, actionable patient record,
- and the actions through which care providers can improve both clinical and financial outcomes.

TriCore's Diagnostic Optimization **transforms data into actionable knowledge** aiding physicians in ordering the right test, at the right time, for the right patient resulting in the right treatment, improved outcomes and ultimately a reduced healthcare spend.

Connects patients, providers, and health plans by providing data to identify gaps in care, improve utilization, reduce costs and provide education for patients and providers. What should we do to drive this new paradigm?

- Promote quality
- Improve utilization
- Move from individual patient to population health management
- Voice of customer
 - National disease burden
 - HEDIS/quality measures

Diagnostic Optimization

TriCore's Laboratory Driven Population Health Management Model

- Relies on current and historical lab data to provide real-time targeted interventions
- Focuses on diseases with high incidences, increasing costs, clinically defined risks
- Connects patients, providers, and health plans by providing data to identify gaps in care, improve utilization, reduce costs and provide education for patients and providers



Services provided (not all listed):

Disease Screening	Disease Diagnosis	Disease Management/ Monitoring	Intervention
Provider screening algorithms	Provider diagnostic algorithms	Gaps in care and utilization data	Gaps in care and utilization data
Patient and provider education	Patient and provider education	Provider and patient automated outreach/reminders	Provider and patient automated outreach/reminders
Risk assessments	Risk assessments	Point of Care Testing	Disease surveillance support
Disease surveillance support	Point of Care Testing	Disease surveillance support	Consultation services
Lab results	Lab results	Lab results	Analytic-driven decision making

Volume vs. Value Model (Diabetes)



Volume Model

Disease Burden

Disease Monitoring & Management Health Plan & Health System

What if lab data could be used to triage a patient?

• Data could be used to drive care from specialists to primary care

 Date could identify patients in need of specialty care services

Distribution of A1c in Population



Infectious Disease Report



Highcharts.com

Albuquerque Metro Area (FLURSV)



Zip	Positive	Tests	Rate
87102	26	210	12%
87104	5	64	8%
87105	79	558	14%
87106	17	172	10%
87107	33	250	13%
87108	53	390	14%
87109	34	254	13%
87110	34	230	13%
87111	34	280	12%
87112	43	293	15%
87113	9	82	11%
87114	37	269	12%
87120	41	334	12%
87121	87	713	12%
87122	9	68	13%
87123	49	338	14%
87068	9	30	30%

Suspected

Confirmed

Identify Populations

What if you knew the prevalence of a disease across your state?

- Disease management
- Used to develop population-specific care management programs
 - By city/zip code
 - By patient
 - By payer
 - By health system

Average A1c by Patient Age and City



Disease Monitoring & Management Health Plan & Health System

What ifyou could <u>drive quality</u> in real time for a large health payer?

- A1c >7%
- Adjust the HEDIS scores
- Reduce complications
- Reduce long term costs
- Optimize Economics



Disease Monitoring and Management

What if a physician could easily see longitudinal data to manage their group of patients?

• A1c ≥ 8







Point-of-care testing (POCT) is defined as medical testing at or near the site of patient care.

- Includes: hospital, clinic, physician office, pharmacy, home health, skilled nursing facility, etc.
- Traditionally performed by non-laboratorians









HOW USEFUL ARE THE RESULTS?



NOT VERY USEFUL IF...

RESULTS DON'T CHART ON PATIENT RECORD RESULTS NOT AVAILABLE FOR DATA ANALYTICS RESULTS NOT AVAILABLE FOR CLINICIAN IN A TIMELY MANNER







Most POCT instruments are interfaced through middleware and available in LIS

Manual POCT kit/test results, as well as some instrument results, are entered in patient EMR but are not in LIS

- Longitudinal view for providers does not include these manual test results
- Cannot get a complete picture of patient

Interface all POC instruments

Automate process for manual test result entry

Work with LIS/HIS to ensure all clinic results are also available for analytics

EMPI-longitudinal patient demographic

information

Any new instrument purchases need to have interface capability

IT is essential to the success of a POCT Program

Develop good working relationships with IT

Include IT in planning for new instruments and systems.

Diagnostic optimization is the future of laboratory medicine

- Shared risk with clinicians, payers, and patients
 - Includes laboratory
- Targeted intervention for improved outcomes
- Fee for service no longer relevant

Point of Care results are integral to Diagnostic Optimization

- Results that currently only appear in patient EMR need to be part of data analytics
- Connectivity is the key to obtaining these results

Food for thought: How much more powerful would the data be if it includes home meters/kits? How about wearable technology?

Thank you



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