Stewardship and Quality in Point of Care Respiratory Testing

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
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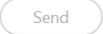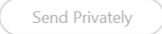
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Stewardship and Quality in Point of Care Respiratory Testing
Live Event: Thursday, August 17, 2023 | 1:00 - 2:00 PM ET
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Slides

Evaluation Link

Join experts as they examine goals and benchmarks for assessing quality within the laboratory and at the point of care. Gain new insights on quality measures and methods for laboratory and clinical teams to improve antibiotic and diagnostic stewardship related to respiratory infections. Learn how healthcare teams can collaboratively evaluate and implement new processes with quality in mind.

This webinar will:

- Evaluate factors that impact quality improvement programs including patient satisfaction, healthcare-associated infections, and antibiotic usage
- Analyze quality improvement strategies that include the use of rapid respiratory testing at the point of care
- Assess case examples and evidence that led to improved patient care across a variety of healthcare settings
- Identify areas of collaboration between the laboratory and clinical team to help improve antibiotic and diagnostic stewardship utilizing point of care respiratory testing

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Associate Professor of Clinical Emergency Medicine (Recently

Objectives

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Questions To Address Today

What are the Quality Programs?

Why Does the Centers for Medicare & Medicaid Services (CMS) Create These Programs?

Where Do They Get Their Data?

Why Is Quality Important/What is the Impact?

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Pay for Performance (P4P)…

- Also known as value-based payment
- Payment models that attach financial incentives/ disincentives to provider performance
- Allows outcome—what treatment does 'for' a patient—to influence payment
- Providers who 'do more' (achieve better outcome) for their patients would be paid more
- Part of national strategy to transition healthcare to value-based medicine[1]

"P4P promotes the right care for every patient every time" (CDC)

1.https://catalyst.nejm.org/doi/full/10.1056/CAT.18.0245

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CMS

> " *As the nation's largest payer and a trusted partner of the health care system, the CMS has been committed to ensuring the highest quality care and best <u>health outcomes</u> for all individuals.* "

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Optimal Quality Care Outcomes Require Coordinated Care

Fragmented/Siloed Patient Care

Monitoring by Payors (including CMS)

Payors develop their own quality measures or model their quality measures after CMS with positive or negative reinforcement

Coordinated / Quality Patient Care

PATIENT

High Quality = Positive Pt Outcomes

What are CMS National Quality Strategy Goals?

Equity
Advance health equity and whole-person care

Engagement
Engage individuals and communities to become partners in their care

Safety
Achieve zero preventable harm

Resiliency
Enable a responsive and resilient health care system to improve quality

Outcomes
Improve quality and health outcomes across the care journey

Alignment
Align and coordinate across programs and care settings

Interoperability
Accelerate and support the transition to a digital and data-driven health care system

Scientific Advancement
Transform health care using science, analytics, and technology

Equity and Engagement

Outcomes and Alignment

Safety and Resiliency

Interoperability and Scientific Advancement

CMS NATIONAL QUALITY STRATEGY

1. CMS. National Quality Strategy (NQS). https://www.cms.gov/files/document/cms-national-quality-strategy-handout.pdf, April 2023.
2. CMS. CMS National Quality Strategy. https://www.cms.gov/medicare/quality-initiatives-patient-assessment-instruments/value-based-programs/cms-quality-strategy, updated May 1, 2023.

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What are CMS National Quality Strategy Goals?
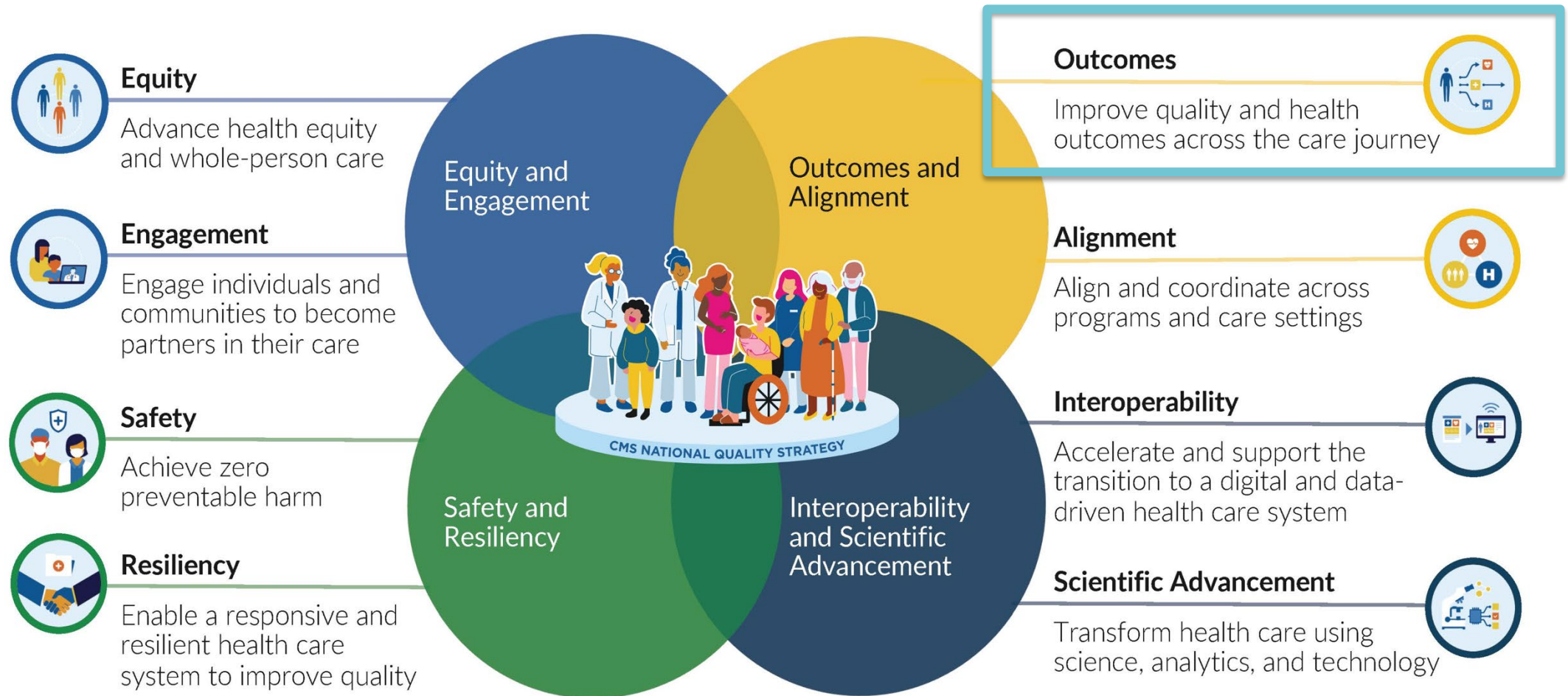
1. CMS. National Quality Strategy (NQS). https://www.cms.gov/files/document/cms-national-quality-strategy-handout.pdf, April 2023.
2. CMS. CMS National Quality Strategy. https://www.cms.gov/medicare/quality-initiatives-patient-assessment-instruments/value-based-programs/cms-quality-strategy, updated May 1, 2023.

Which **Quality Approaches** are Being Leveraged to Achieve CMS Quality Goals?

- **Quality measurement**

- **Public reporting**

- **Value-based payment programs and models**

- **Establishing and enforcing health and safety standards**

- **Providing quality improvement technical assistance**

1. CMS. National Quality Strategy (NQS). https://www.cms.gov/files/document/cms-national-quality-strategy-handout.pdf, April 2023.
2. CMS. CMS National Quality Strategy. https://www.cms.gov/medicare/quality-initiatives-patient-assessment-instruments/value-based-programs/cms-quality-strategy, updated May 1, 2023.
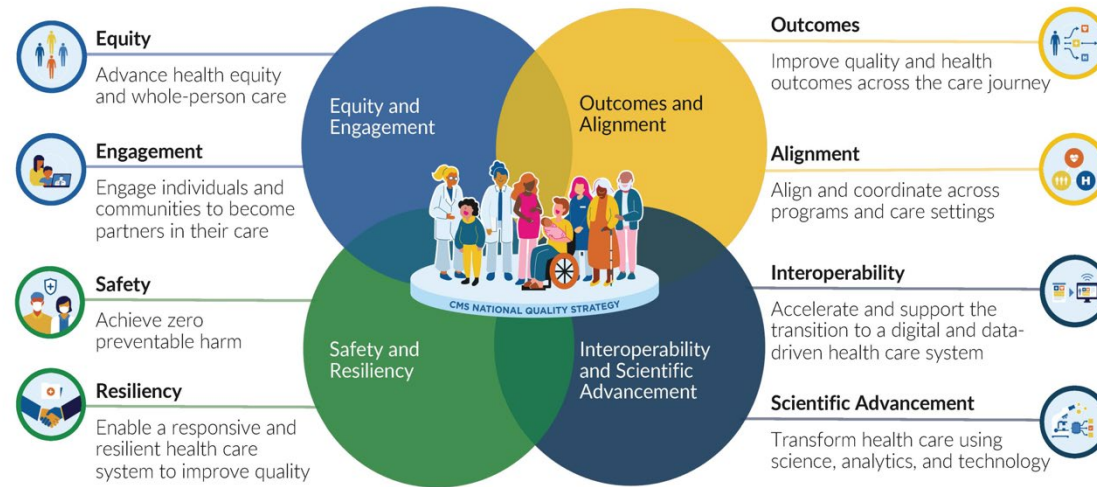
Acute Care Hospital Quality Improvement Programs

- CMS:
  - Hospital IQR Program
  - Hospital Value-Based Purchasing (VBP) Program
  - Promoting Interoperability Program
  - Hospital-Acquired Condition Reduction Program (HACRP)
  - Hospital Readmissions Reduction Program (HRRP)
- Additional Programs supported by CMS
  - CMS, Antibiotic Stewardship
- National Committee for Quality Assurance (NCQA)
  - HEDIS®

1. https://qualitynet.cms.gov/inpatient/iqr/measures
2. https://www.ncqa.org/hedis/measures/appropriate-testing-for-pharyngitis/

Quality, Quality Measures and CMS

Quality

Degree to which health services increase the likelihood of desired health outcomes and are consistent with current professional knowledge. (National Academy of Medicine)

CMS implemented quality initiatives

To assure quality health care for Medicare Beneficiaries through accountability and public disclosure.

Quality measures

Standards for measuring the performance of healthcare providers to care for patients and populations.

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What Has Been the Impact of Quality Penalties?

- **60%** of U.S. hospitals were eligible to receive a financial penalty for excessive 30-day readmissions (2023)

- **75%** of eligible hospitals received a Medicare penalty

- Average hospital penalty: **0.43%** (2023 Medicare revenue)

1. https://hospitalmedicaldirector.com/understanding-the-2023-medicare-hospital-readmission-penalty/#:~:text=Summary%20Points%3A,0.43%25%20of%202023%20Medicare%20revenue.

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CMS Performance Measurement Periods

Quality changes now affect future payments

Be Proactive!

Measurement Periods

Domain	Measure	Baseline Period	Performance Period
Clinical Outcomes	Mortality Measures (AMI, CABG, COPD, HF)	July 1, 2015– June 30, 2018	July 1, 2020– June 30, 2023
	Complication Measure	April 1, 2015– March 31, 2018	April 1, 2020– March 31, 2023**
Person and Community Engagement	HCAHPS Survey	January 1, 2019– December 31, 2019*	January 1, 2023– December 31, 2023
Safety	Healthcare-associated infection (HAI) Measures	January 1, 2019– December 31, 2019*	January 1, 2023– December 31, 2023
Efficiency and Cost Reduction	MSPB	January 1, 2021– December 31, 2021	January 1, 2023– December 31, 2023

*In the FY 2023 IPPS/LTCH PPS final rule, we finalized and updated the baseline period for the measures in the Person and Community Engagement and Safety domains for FY 2025.
**In accordance with the ECE granted in response to the COVID-19 PHE and the policies finalized in the September 2, 2020, interim final rule with comment titled "Medicare and Medicaid Programs, Clinical Laboratory Improvement Amendments (CLIA), and Patient Protection and Affordable Care Act; Additional Policy and Regulatory Revisions in Response to the COVID–19 Public Health Emergency," (85 FR 54820), we will not use Quarter 1 and Quarter 2 2020 data that was voluntarily submitted for scoring purposes under the Hospital VBP Program.

Reference 2

- Goal of P4P is to allow outcome—what treatment does 'for' a patient—to influence payment.
- P4P, providers who 'do more' for their patients in the sense of providing better outcomes would be paid more.
- CMS has defined the goal of its P4P strategy as promoting the right care for every patient every time

1. https://qualityreportingcenter.com/en/inpatient-quality-reporting-programs/hospital-inpatient-quality-reporting-iqr-program/2023-events/vbp4523/vbp4523rec/
2. https://qualitynet.cms.gov/inpatient/hvbp/webinars
3. https://www.cms.gov/regulations-and-guidance/guidance/faca/downloads/tab_h.pdf

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Key Quality Programs Impact Reimbursement Penalties and Bonus Payments

Hospital Readmissions Reduction Program (HRRP)

Hospital Inpatient Quality Reporting (IQR) Program

3%[2]

¼
of annual payment rate[1]

Pay for Reporting

Pay-for-Performance

= **>5%**
of Base DRG Payments at Risk 2023

Redistribution:
2%[3]

No penalty*[,4]

Hospital Value-Based Purchasing (VBP) Program

Antimicrobial Stewardship Program

Antimicrobial stewardship is a coordinated program that promotes the appropriate use of antimicrobials (including antibiotics), improves patient outcomes, reduces microbial resistance, and decreases the spread of infections caused by multidrug-resistant organisms.

* No penalty, but affects accreditation/contributes to future measures (evaluated by JCAHO)
1. https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/HospitalRHQDAPU, https://qualitynet.cms.gov/inpatient/iqr/apu
2. https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/Readmissions-Reduction-Program
3. https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/downloads/Hospital_VBPurchasing_Fact_Sheet_ICN907664.pdf
4. https://www.cdc.gov/antibiotic-use/core-elements/hospital.html,

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Hospital Readmissions Reduction Program[1]

3%

of total payments

PERFORMANCE ASSESSMENT

Assess excess readmissions for defined conditions[1]:*
- Acute Myocardial Infarction†
- Heart Failure†
- **Pneumonia†**
- THA/TKA ‡
- COPD ‡
- CABG

PENALTY ALLOCATED

Up to **3%**[1]

- Comparison to expected national average performance
- If worse than expected in any one of the defined conditions, will result in financial penalty

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PNEUMONIA is most commonly a secondary infection to many respiratory conditions, i.e., influenza, COVID-19, asthma

HRRP 30-DAY RISK STANDARDIZED READMISSION MEASURE

- Unplanned readmissions < 30 days post-discharge from initial admission
- Readmitted to the same hospital, or another applicable acute care hospital, for any reason

30-DAY READMISSIONS INCREASE HEALTHCARE COSTS[2]

Hospital administrators, policymakers, payers, and community organizations must **collaborate** on innovative ways to reduce hospital readmissions

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UP TO 3% MAX PENALTY - LARGEST PENALTY OF ANY P4P PROGRAM[1]

TKA/THA, total hip arthroplasty and/or total knee arthroplasty; COPD, Chronic obstructive pulmonary disease; CABG, Coronary artery bypass graft
*Risk-Standardized Readmissions Rate
† Starter set, from FY 2013 onward
‡ Previously finalized for use beginning in FY 2015

1. https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/Readmissions-Reduction-Program
2. https://www.hcup-us.ahrq.gov/reports/statbriefs/sb172-Conditions-Readmissions-Payer.jsp

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Hospital Value-Based Purchasing (HVBP)[1]

→ **2%**
of total payments

PERFORMANCE ASSESSMENT

Total Performance Score (TPS) based on 4 equally weighted domains[1]:

- Patient and Caregiver Centered Experience of Care/Care Coordination
- Efficiency and Cost Reduction
- Clinical Care: Outcomes/Process
- **Clinical Outcomes**

PENALTY ALLOCATED

Bottom **50%** incur **2%** penalty[2]

- Penalty is redistributed among the top 50% of performers as bonus payments[2]

- VBP is only P4P program with potential for a bonus payment

CLINICAL OUTCOMES MEASURE[1]

- Clinical Outcomes (25%)
- Person and Community Engagement (25%)
- Safety (25%)
- Efficiency and Cost Reduction (25%)

DATA MADE PUBLIC

https://qualitynet.cms.gov/inpatient/hvbp/measures

ONLY PAY 4 PERFORMANCE (P4P) PROGRAM WITH POTENTIAL TO EARN BONUS PAYMENT

1. https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/Hospital-Value-Based-Purchasing-
2. https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/downloads/Hospital_VBPurchasing_Fact_Sheet_ICN907664.pdf

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Value-based Purchasing: Patient Satisfaction

The Hospital VBP Program is designed to promote better clinical outcomes for hospital patients, as well as improve their experience of care during hospital stays, while reducing costs to make care affordable.

CMS, with the Agency for Healthcare Research and Quality (**AHRQ**), developed the **HCAHPS** (Hospital Consumer Assessment of Healthcare Providers and Systems) Survey, also known as Hospital CAHPS®, to provide:

a standardized survey instrument and data collection methodology for measuring patients' perspectives on hospital care.

Since patient satisfaction is not directly observable, patient satisfaction surveys are commonly used as a measuring device. Patient satisfaction surveys attempt to translate subjective results into meaningful, quantifiable, and actionable data.

Compare your Hospital

https://www.medicare.gov/care-compare

1. https://qualitynet.cms.gov/inpatient/hvbp

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Antimicrobial Stewardship Programs Impact
Value-based Purchasing Penalties and Cost of Care

Antimicrobial Stewardship Programs

Impacts Value-based Purchasing (VBP)
- Improve quality
- Improve cost
- Improve patient satisfaction
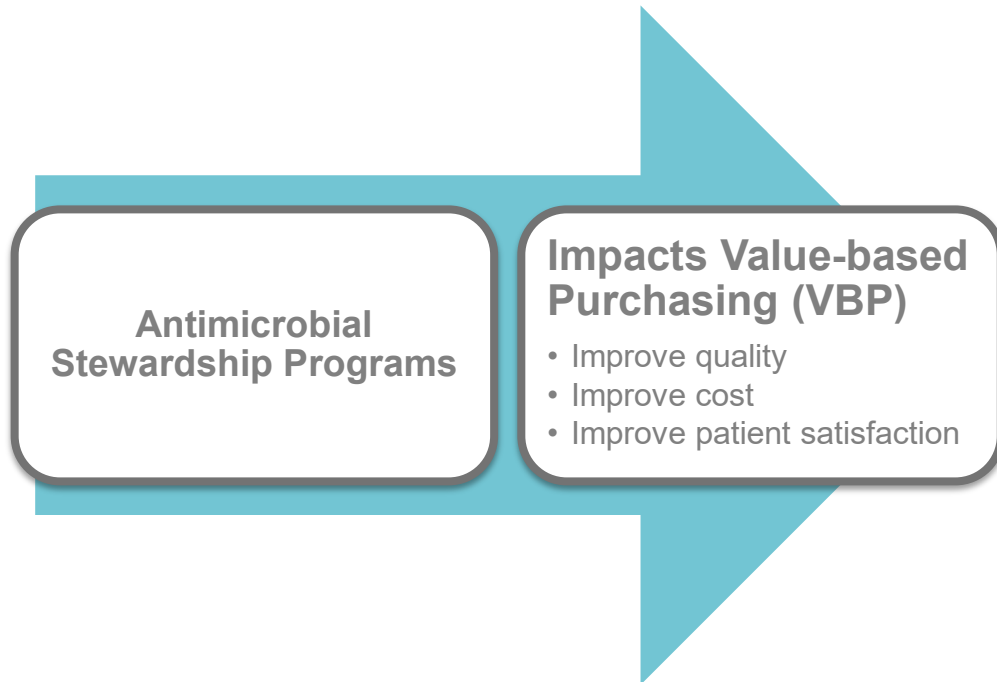
- Antimicrobial stewardship programs are highly cost effective
  - Annual cost savings, **$200,000–$900,000** [1, 2, 3]

- Most stewardship program cost studies only look at **antibiotic direct pharmacy costs**
- Other potential savings to consider:
  - Lengths of stay
  - Readmission rates
  - Cost of care, *which can be even more dramatic*

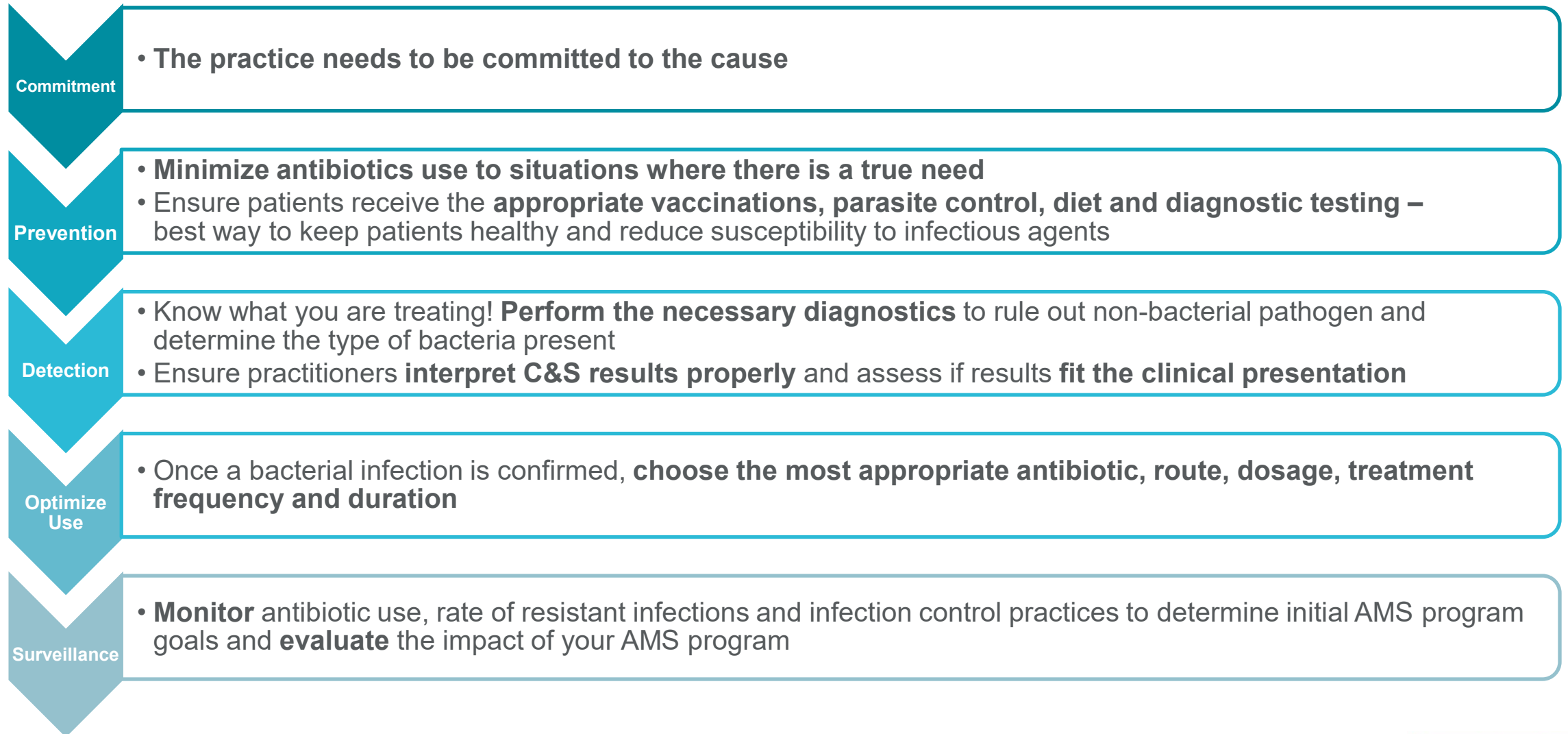1. Dellit TH, Owens RC, McGowan JE Jr, et al. Infectious Diseases Society of America and the Society for Healthcare Epidemiology of America guidelines for developing an institutional program to enhance antimicrobial stewardship. Clin Infect Dis 2007; 44:159–77. [PubMed]
2. Standiford HC, Chan S, Tripoli M, Weekes E, Forrest GN. Antimicrobial stewardship at a large tertiary care academic medical center: cost analysis before, during, and after a 7-year program. Infect Control Hosp Epidemiol 2012; 33:338–45. [PubMed]
3. Combes JR, Arespacochaga E. Appropriate use of medical resources. Chicago, IL: American Hospital Association's Physician Leadership Forum, 2013.

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5 Pillars of an Antimicrobial Stewardship Program (AMS)

Commitment
- **The practice needs to be committed to the cause**

Prevention
- **Minimize antibiotics use to situations where there is a true need**
- Ensure patients receive the **appropriate vaccinations, parasite control, diet and diagnostic testing –** best way to keep patients healthy and reduce susceptibility to infectious agents

Detection
- Know what you are treating! **Perform the necessary diagnostics** to rule out non-bacterial pathogen and determine the type of bacteria present
- Ensure practitioners **interpret C&S results properly** and assess if results **fit the clinical presentation**

Optimize Use
- Once a bacterial infection is confirmed, **choose the most appropriate antibiotic, route, dosage, treatment frequency and duration**

Surveillance
- **Monitor** antibiotic use, rate of resistant infections and infection control practices to determine initial AMS program goals and **evaluate** the impact of your AMS program

1. https://www.aaha.org/publications/newstat/articles/2020-09/5-pillars-of-an-antimicrobial-stewardship-program/#:~:text=Below%20is%20a%20brief%20overview,be%20committed%20to%20the%20cause.

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Healthcare Effectiveness Data and Information Set (HEDIS®)

HEDIS measures performance on care and services
Used by:
> 90% of U.S. health plans[1]
Represents data from **>190 million** people[1]

Data collected through:
Surveys
Medical record audits
Claims data

Data include:
Customer satisfaction
Specific health care measures
Structural components that ensure quality of care[2]

National Committee for Quality Assurance (NCQA) gathers Medicare HEDIS data on behalf of the CMS, and Medicaid HEDIS data, on behalf of state agencies[3]

NCQA Report Cards: Directory of health plans, practices and other health care organizations.

Health Plans
Search for top performing health plans. See Accreditation status, sort by Star rating and **get detailed insights into performance** on prevention, treatment and patient experience.
Health Plans

Health Care Clinicians & Practices
Find practices and clinicians focused on providing **high-quality, patient-centered care** in this directory of NCQA-Recognized practices and clinicians.
Clinicians
Practices

Other Health Care Organizations
Find good partners for contracting and **delegation** in this directory of NCQA-Accredited and Certified organizations
Other Organizations

Reference 4

Three HEDIS® performance measures related to antibiotic prescribing

- **Bronchitis/bronchiolitis**
- **Upper respiratory infection***
- **Pharyngitis**

3 conditions that drive significant levels of inappropriate prescribing in the U.S.

Framework for health plans to use their **claims, pharmacy and clinical data** to identify, prioritize and monitor *antibiotic stewardship* efforts[5]
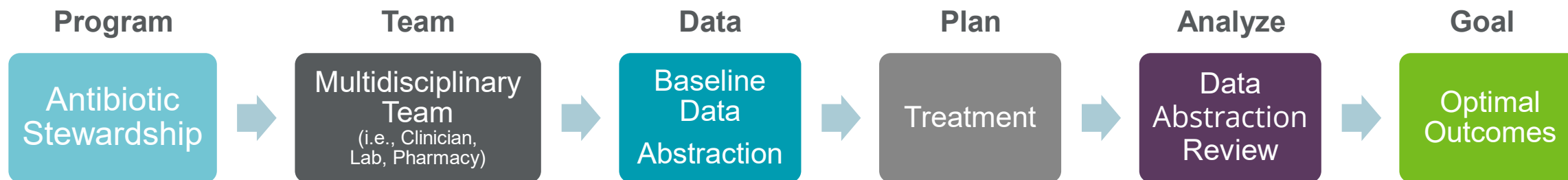
* A new measure, Antibiotic Utilization for Respiratory Conditions, assesses all prescribing for respiratory conditions; added to HEDIS® for 2021.
1. https://health.gov/healthypeople/objectives-and-data/data-sources-and-methods/data-sources/healthcare-effectiveness-data-and-information-set-hedis
2. https://www.healthplan.org/providers/hedis
3. https://www.reveleer.com/whatishedis
4. https://reportcards.ncqa.org/
5. https://www.ncqa.org/blog/antibiotic-stewardship-ncqa-launches-program-to-highlight-high-performers/

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A Narrative Review of Antimicrobial Stewardship Interventions Within In-patient Settings and Resultant Patient Outcomes[1]

- Antibiotics control deadly infections; in high amounts can lead to health-related problems [2]

- High inpatient antibiotic rates has led to various challenging antibiotic-related adverse drug reactions (ADR) [3]

- Antibiotic-resistant organisms cause hard-to-treat superinfections – despite broad-spectrum antibiotics [4]

- Recent high incidence of hospital-acquired antibiotic resistance, antibiotic-related inpatient *Clostridium difficile* infections (CDI) and escalation of healthcare cost are problems needing special control strategies [5]

Antimicrobial Stewardship, example process:

Program	Team	Data	Plan	Analyze	Goal
Antibiotic Stewardship	Multidisciplinary Team (i.e., Clinician, Lab, Pharmacy)	Baseline Data Abstraction	Treatment	Data Abstraction Review	Optimal Outcomes

1. J Pharm Bioallied Sci. 2020 Oct-Dec; 12(4): 369–380. Published online 2020 Oct 8. doi: 10.4103/jpbs.JPBS_311_19
2. Adlhart C, Verran J, Azevedo NF, Olmez H, Keinänen-Toivola MM, Gouveia I, et al. Surface modifications for antimicrobial effects in the healthcare setting: a critical overview. J Hosp Infect. 2018;99:239–49. [PubMed]
3. Daryapeyma A, Hammar U, Wahlgren CM. Incidence of healthcare associated infections after lower extremity revascularization using antibiotic treatment as a marker. Eur J Vasc Endovasc Surg. 2016;51:690–[PubMed]
4. Hamdan S, El-Dahiyat F. Implementation and evaluation of an antimicrobial stewardship program across nine hospitals in the United Arab Emirates: a qualitative study. J Pharm Pract Res. 2020;50:124–31.
5. Verdugo F, Laksmana T, Uribarri A. Systemic antibiotics and the risk of superinfection in peri-implantitis. Arch Oral Biol. 2016;64:39–50. [PubMed]

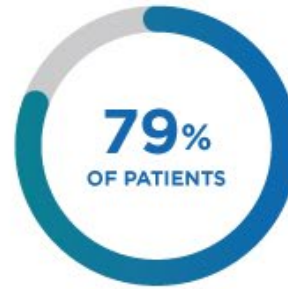SIECK healthcare consulting

What are CDC Stats on Antibiotic Prescribing?

NEW CDC DATA

MORE THAN HALF OF ANTIBIOTIC PRESCRIBING FOR SELECTED EVENTS IN HOSPITALS WAS NOT CONSISTENT WITH RECOMMENDED PRESCRIBING PRACTICES
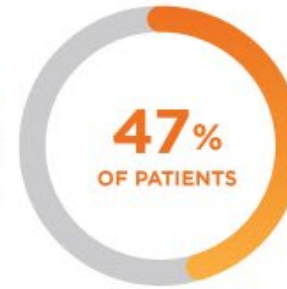
Rx

CDC

ANTIBIOTIC PRESCRIBING WAS NOT SUPPORTED IN:

79% OF PATIENTS — with community-acquired pneumonia

77% OF PATIENTS — with urinary tract infections

47% OF PATIENTS — prescribed fluoroquinolone treatment

27% OF PATIENTS — prescribed intravenous vancomycin antibiotic

HOSPITAL PRESCRIBERS & PHARMACISTS CAN IMPROVE PRESCRIBING:

- Optimize antibiotic selection
- Re-assess antibiotic treatment when the results of diagnostic testing are available
- Use the shortest effective duration of therapy

FIND RESOURCES ON HOW TO IMPROVE HOSPITAL ANTIBIOTIC USE AND HELP FIGHT ANTIBIOTIC RESISTANCE:
https://bit.ly/HospitalCoreElements

What is Antimicrobial Stewardship?

- A collaborative effort to promote the most appropriate choice, dose, duration, and route of antimicrobial therapy

- Our overall goal is to optimize clinical outcomes while decreasing the adverse effects of antibiotic therapy
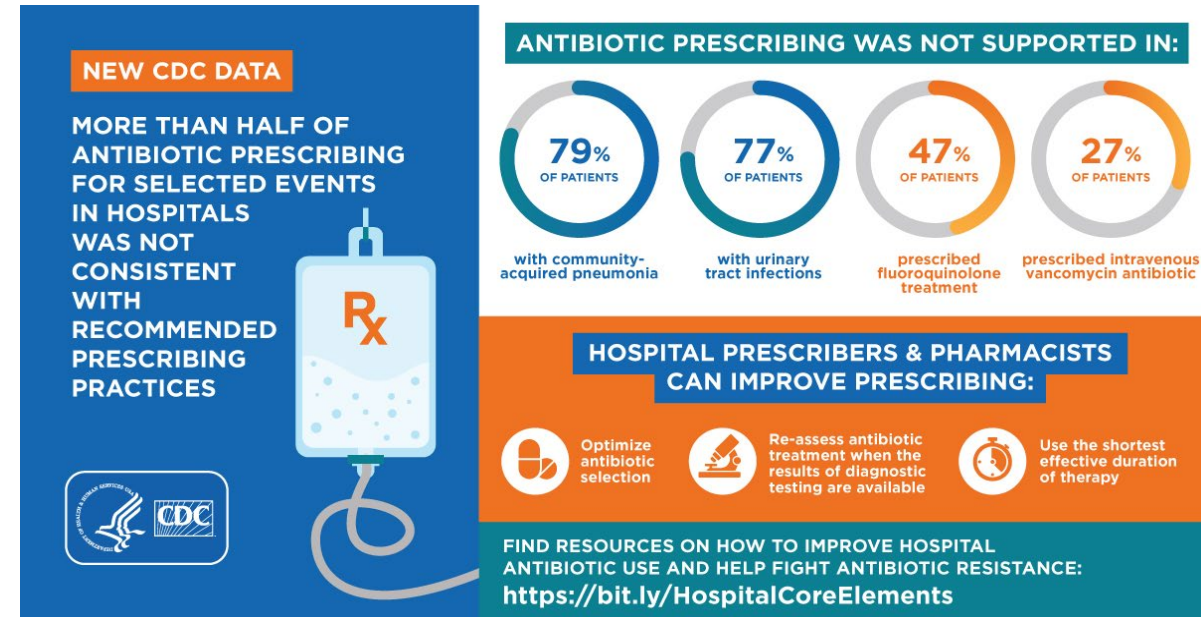
Antibiotic Stewardship Program

quality program

79% antibiotic Rx not supported in patients with CAP[1]

Misuse and overuse of antimicrobials is a **leading global health risk**[2]

> 2.8M antibiotic-resistant infections occur in the U.S. each year[3]

Antimicrobial-resistant organisms increase risk of:
- Longer and more expensive hospital stays[1]
- Infection related deaths **(>35,000/year)**[3]

Effective **January 1, 2023**, new and revised antibiotic stewardship requirements apply to all Joint Commission-accredited hospitals and critical access hospitals[4]

PROGRAM PROMOTES[1,3]

- Appropriate use of antimicrobials
- Improved patient outcomes
- Reduced microbial resistance
- Decreased spread of infections caused by multidrug-resistant organisms

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TARGETS APPROPRIATE USE OF ANTIBIOTICS

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1. CDC. Core Elements of Hospital Antibiotic Stewardship Programs. updated Apr 28, 2021. Accessed Jul 21, 2021.
2. WHO. Antimicrobial resistance. https://www.who.int/news-room/fact-sheets/detail/antimicrobial-resistance, updated Nov 17, 2021.
3. CDC/US Department of Health and Human Services. Core Elements of Hospital Antibiotic Stewardship Programs. Atlanta, GA, 2019.
4. Joint Commission. R3 Report. New and Revised Requirements for Antibiotic Stewardship. Issue 35, June 20, 2022.

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Role of Diagnostic and Antimicrobial Stewardship

Key Definitions and Facts[1]

Diagnostic Process: ordering, collection, transportation, preparation, performance, reporting, evaluation, interpretation, and intervention associated with diagnostic test

Diagnostic Stewardship: ordering the right tests for the right patient at the right time to inform and optimize patient care

Laboratory-related diagnostic error occurs when a patient has a nonindicated test, delayed diagnosis, or incorrect application or interpretation of a test result

Diagnostic Test: device or modality performed to aid in the detection or clinical diagnosis of disease

Antibiotic resistance is recognized as one of the greatest public health threats facing the world today.
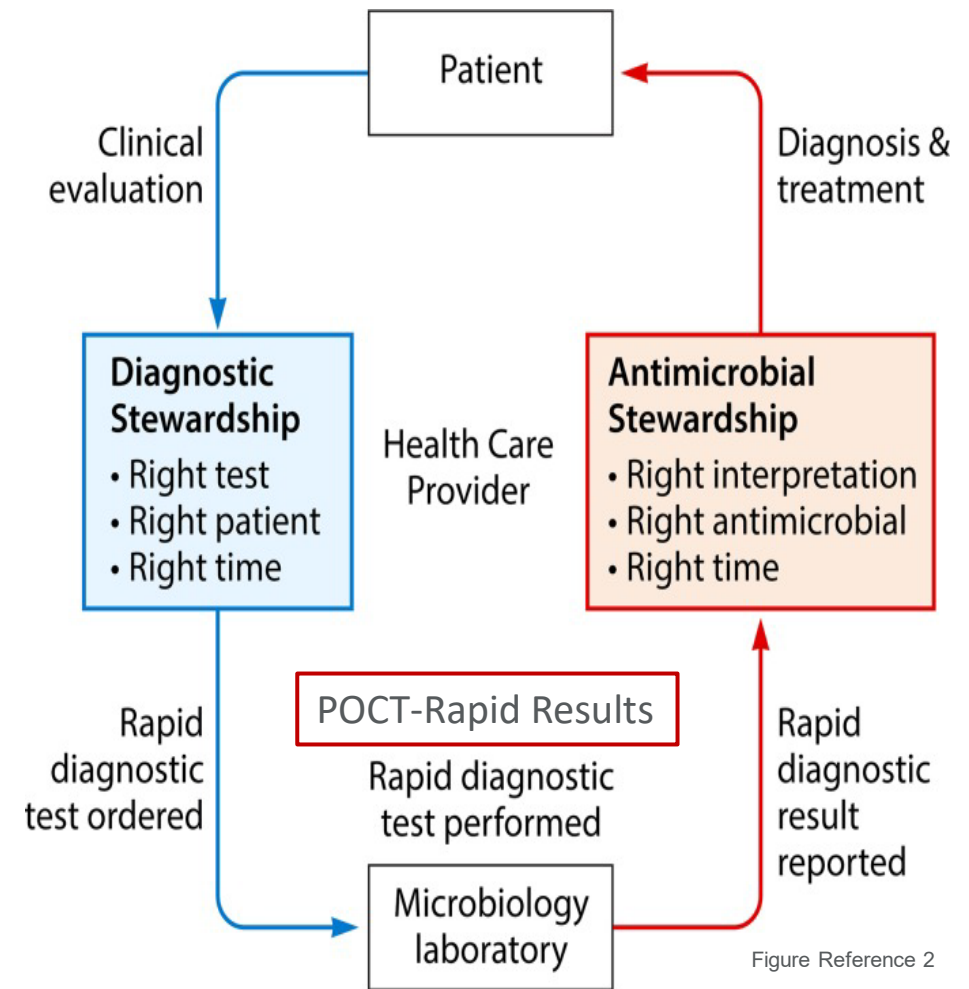

Figure Reference 2

1. Curren EJ, et al. Advancing Diagnostic Stewardship for Healthcare-Associated Infections, Antibiotic Resistance, and Sepsis. Clin Infect Dis. 2022 Mar 1;74(4):723-728.
2. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5328439/figure/F1/
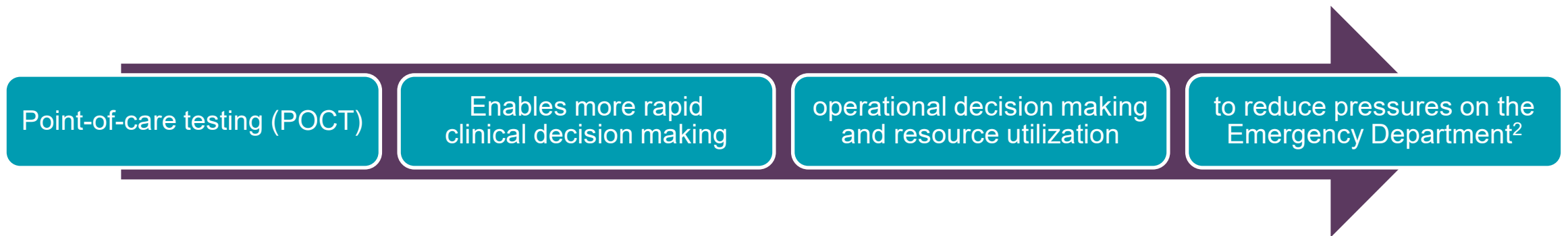
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Laboratory and Antimicrobial Stewardship Relationships

The laboratory plays a central role in providing the antimicrobial susceptibility test and results that guide treatment of individual patients

❖ Improve provider education around new diagnostics technologies ensure the right test are performed
❖ Timing is critical (from point of entry, working diagnosis, diagnostic test results to targeted treatment) to getting correct antibiotics
❖ Creating partnerships between clinicians and laboratory professionals – this is a gap that needs to be addressed

"Today, antibiotics are rarely prescribed based on a definitive diagnosis. Having rapid, low-cost, and readily available diagnostics is an essential part of the solution to this urgent problem." [1]
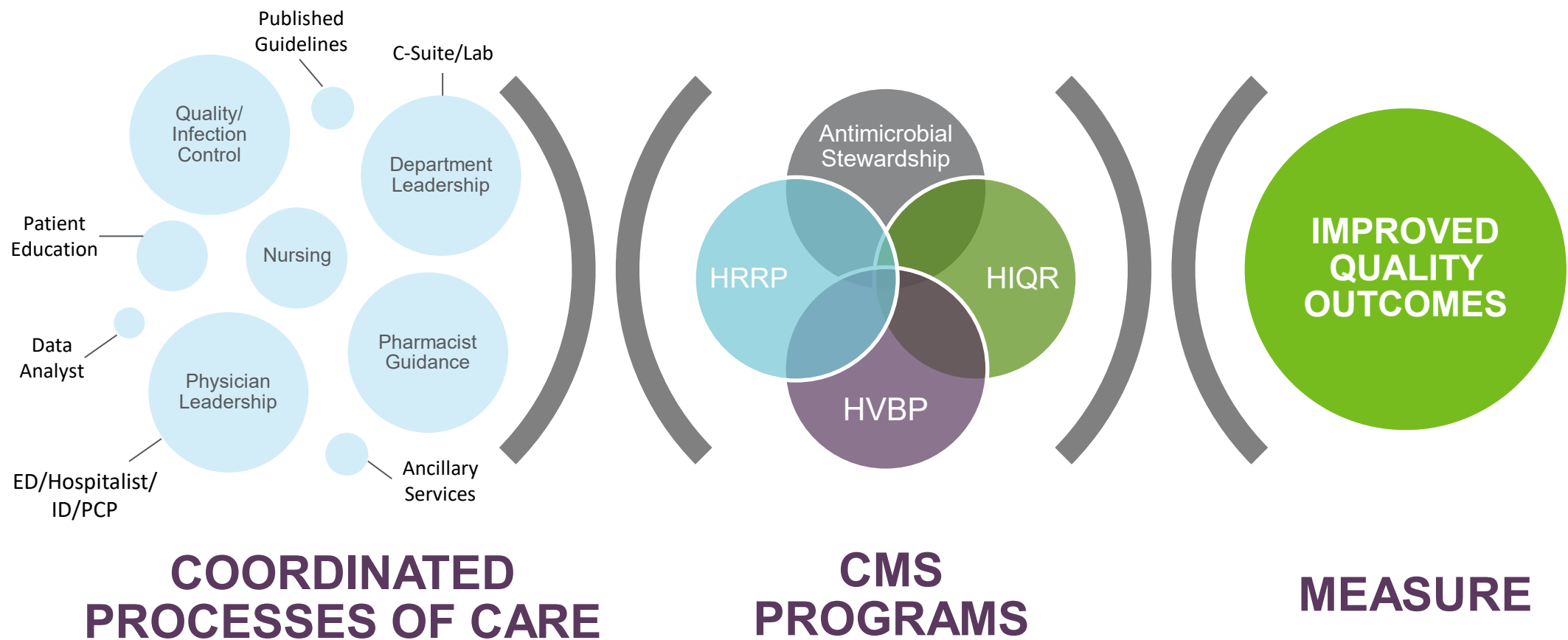
- Dr. Margaret Chan, Director General of the World Health Organization

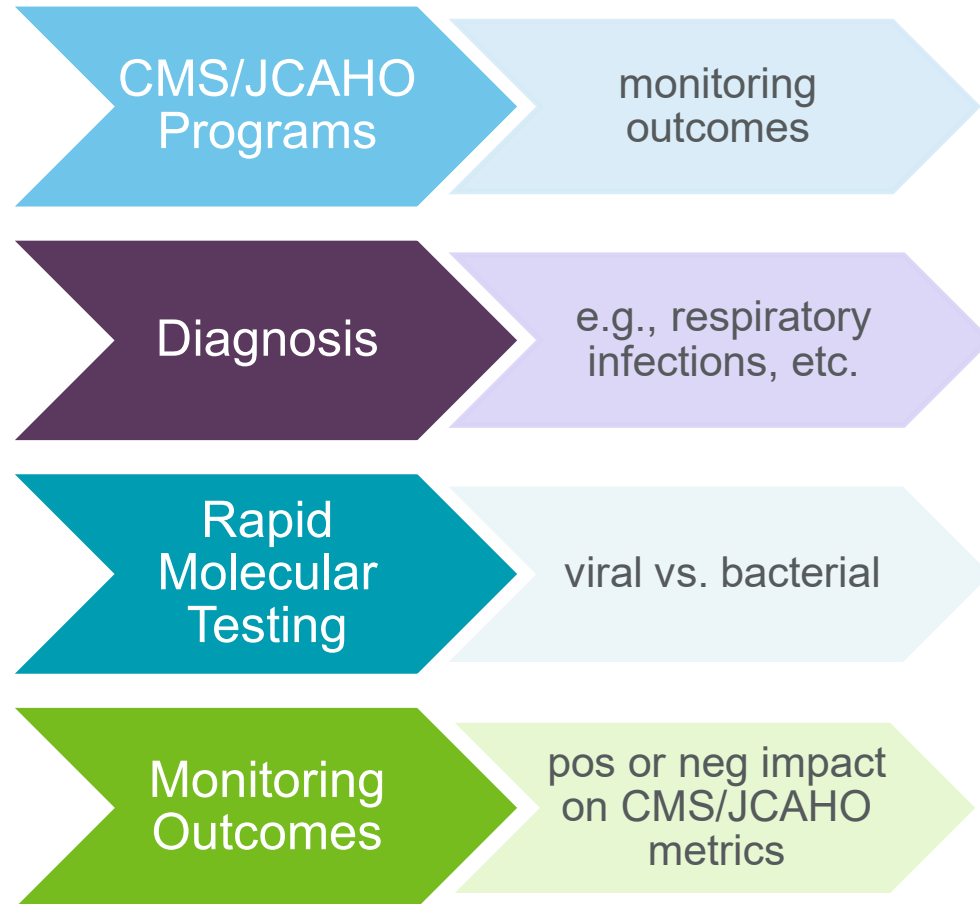| Point-of-care testing (POCT) | Enables more rapid clinical decision making | operational decision making and resource utilization | to reduce pressures on the Emergency Department[2] |

1. O´Neill. The review on antimicrobial resistance. Tackling drug-resistant infections globally: final report and recommendations. 2016. Available at: https://amr-review.org/sites/default/files/160518_Final%20paper_ with%20cover.pdf
2. Benefits of point-of-care testing in the Emergency Department, https://acutecaretesting.org/en/articles/benefits-of-point-of-care-testing-in-the-emergency-department, Mar 18, 2018.

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Recommended Best Practices for Hospitals to Improve Outcomes

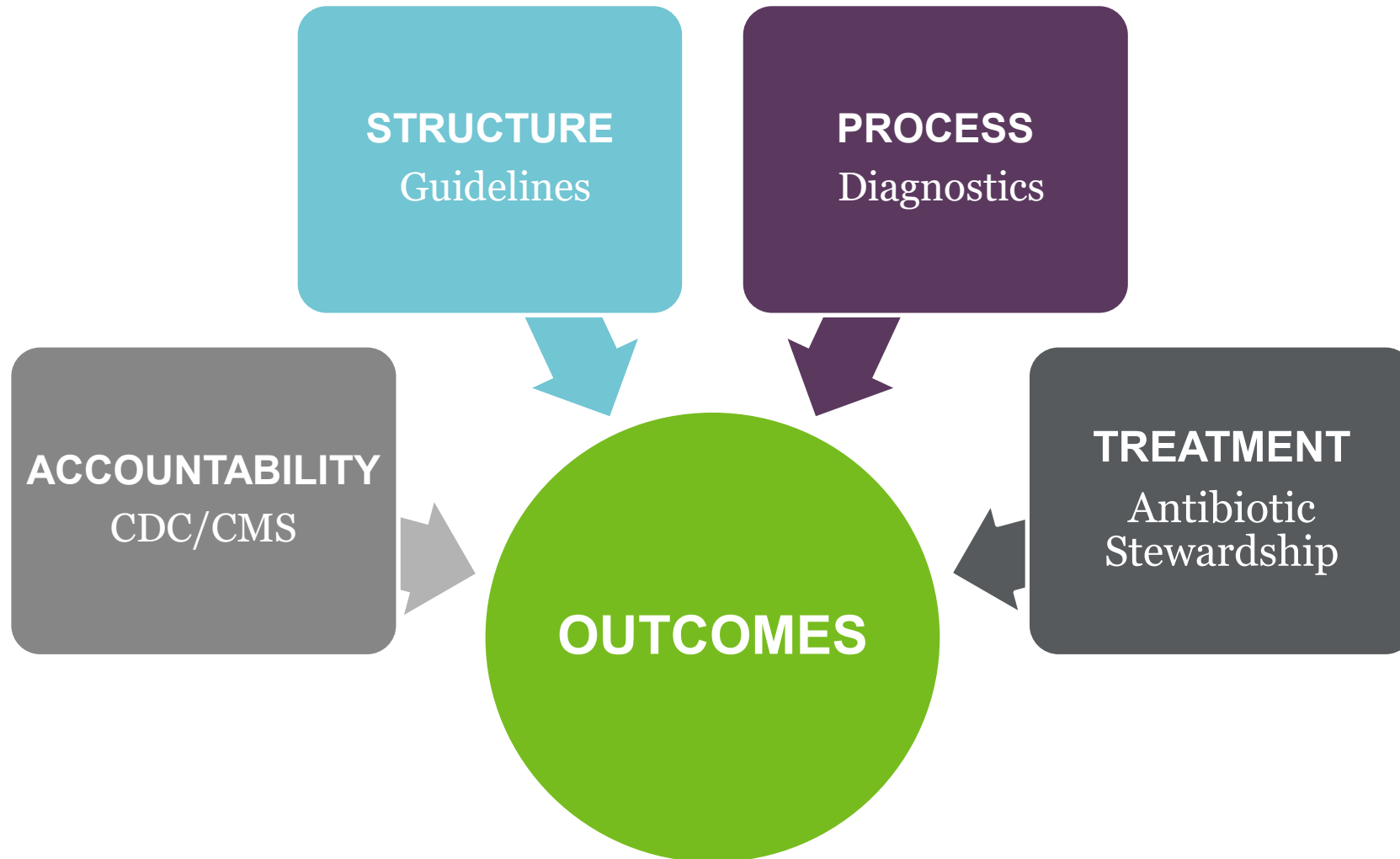**Efforts should be directed at improving adherence to guidelines and specific processes of care.**

COORDINATED PROCESSES OF CARE

CMS PROGRAMS

MEASURE

Focusing on Rapid Care

CMS/JCAHO Programs	monitoring outcomes
Diagnosis	e.g., respiratory infections, etc.
Rapid Molecular Testing	viral vs. bacterial
Monitoring Outcomes	pos or neg impact on CMS/JCAHO metrics

Value-based Care Outcomes

QUALITY

PATIENT SATISFACTION

COST

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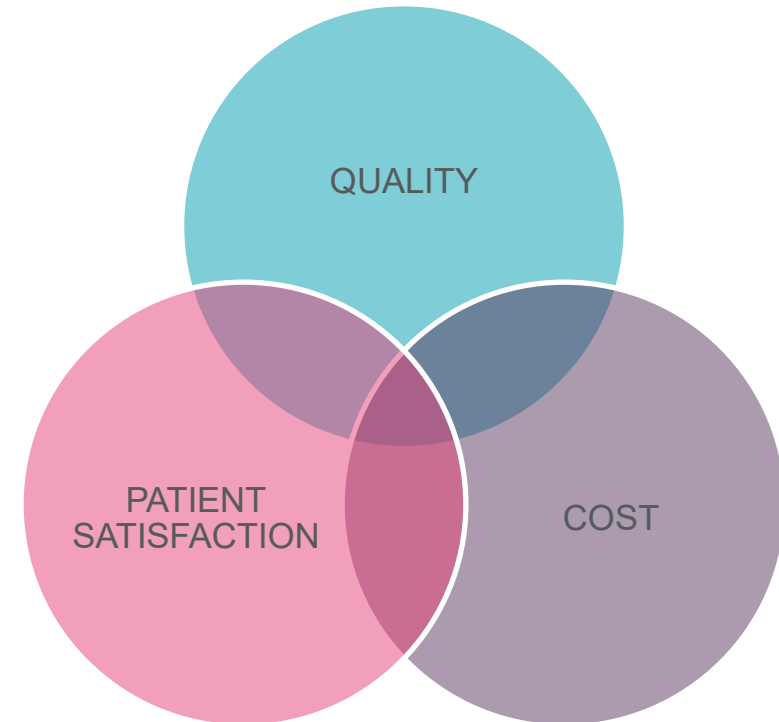
Framework of CMS Value-based Programs

Know Your Numbers!
YOU Are Part of the Solution

Look up your hospital's numbers to improve the quality of services and care
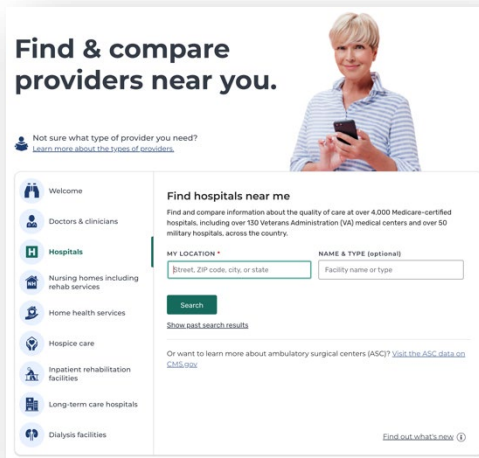
Create collaboration that fosters collaborative care

Deliver highest quality of patient care

Benefit from payments/incentives that pay for quality

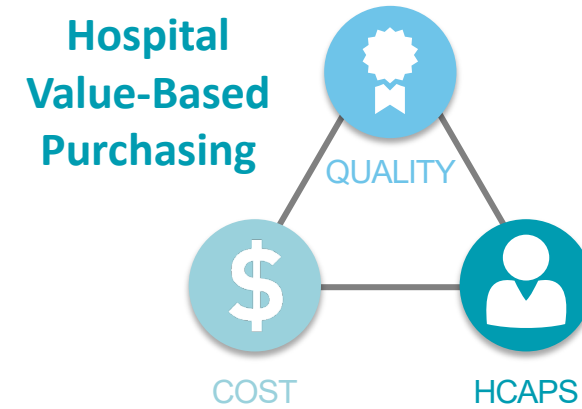Generate feedback for institution, staff and patients

Lookup:
https://www.medicare.gov/care-compare/
Star Ratings Defined:
https://data.cms.gov/provider-data/topics/hospitals/overall-hospital-quality-star-rating

Summary Points:

Hospital Value-Based Purchasing

QUALITY

COST   HCAPS

3 components:
quality + cost + patient
satisfaction = outcomes

Fragmented care must shift to collaborative care to make a difference in patient care outcomes

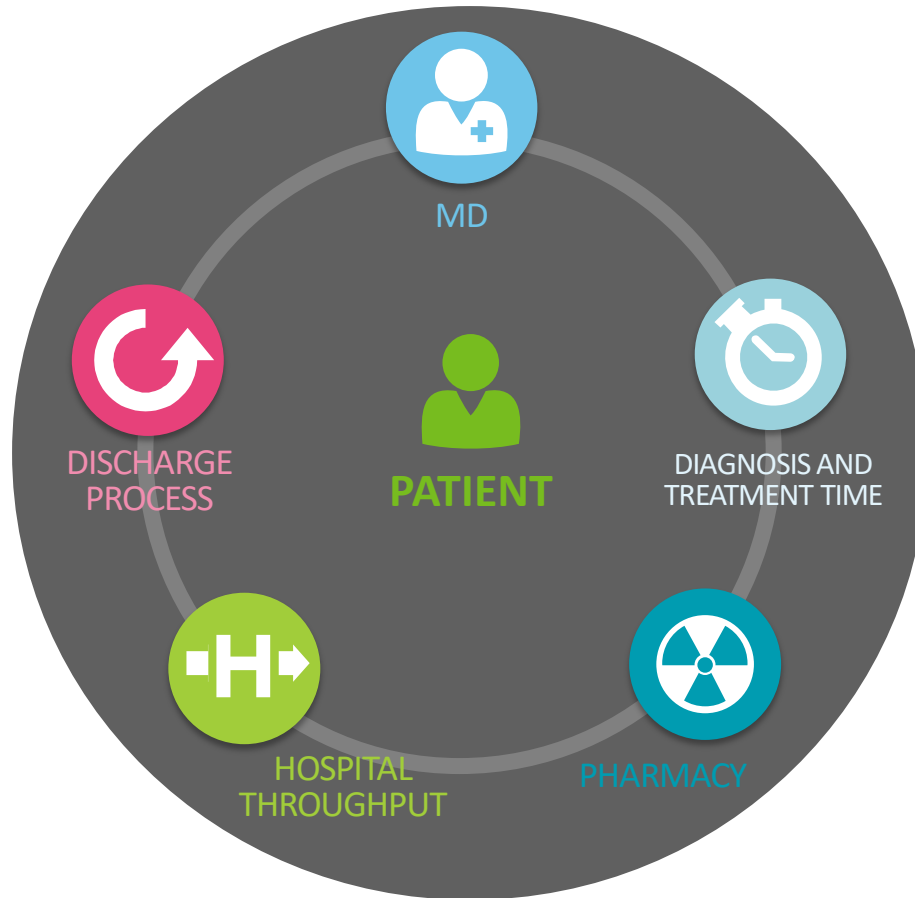- Identify target patients, team, guidelines, protocols, data, analysis, outcomes

Impact of quality patient care on the healthcare system system cannot be understated (payor, institution, staff and the patient)

Paying-for-Value

CMS.gov
Centers for Medicare & Medicaid Services

1. https://hospitalmedicaldirector.com/understanding-the-2023-medicare-hospital-readmission-penalty/#:~:text=Summary%20Points%3A,0.43%25%20of%202023%20Medicare%20revenue.

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Patient-Centric Care

IDENTIFY:
- Right patient
- Right treatment
- Right time at point-of-entry

Optimize combined outcomes clinically and financially

It's not about the product , it's about what product can provide the greatest solutions!

LOOK BEYOND COST TO ITS TOTAL VALUE

Disclosures

- Consultant
  - Doctor's Data, Inc
  - Laboratory Specialists, Inc.

- Research support
  - Becton Dickinson
  - GenMark Dx
  - Meridian Bioscience

- Honorarium
  - Abbott Diagnostics
  - bioMerieux
  - GenMark Dx

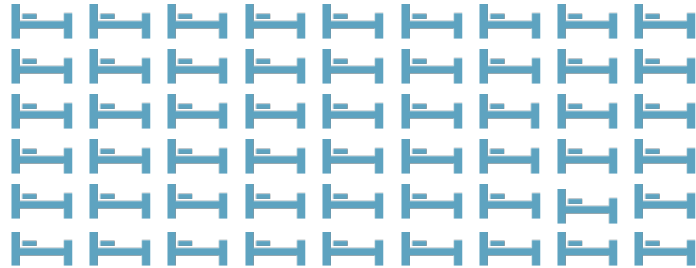- Abbott Diagnostics and Cardinal Health sponsored this talk

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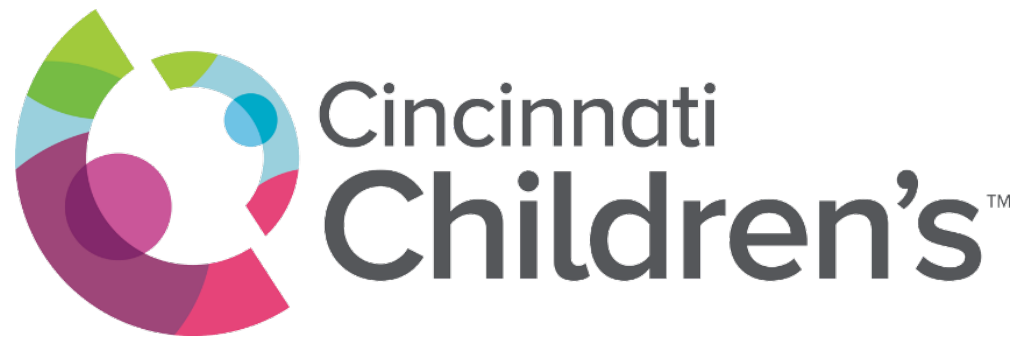
Cincinnati Children's Hospital at a Glance

2 Hospitals

Main Campus   Liberty Campus

700 Beds

- Level 1 pediatric trauma center
- Major pediatric transplant center
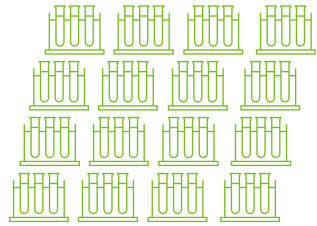- 300 to 500 ED visits a day

13 Patient Care Sites

>1M Patient Encounters/Year

- Department of Pediatrics for the University of Cincinnati College of Medicine

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Cincinnati Children's Laboratory at a Glance

6.1 million tests performed annually

227 FTE testing personnel

112 FTE support personnel
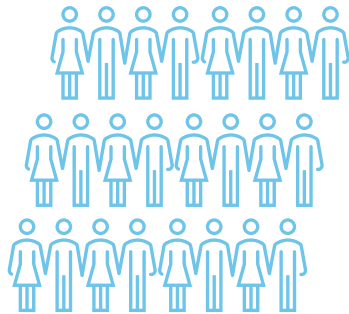
5000 POCT operators
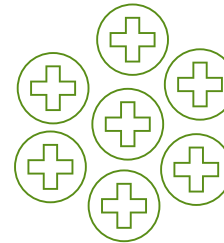
23 sites performing testing

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Cincinnati Children's Laboratory Service Mission

Improve Child Health, transform the delivery of care, <u>and</u> achieve the best clinical outcomes, experience, and value for our patients and their family

Patient care, quality and the laboratory

Quality Measures

- Antimicrobial Stewardship
- Diagnostic Stewardship
- Patient Satisfaction

Antibiotic Stewardship

The Mission of our Antimicrobial Stewardship Team

- A collaborative effort to promote the most appropriate choice, dose, duration, and route of antibiotic therapy

- Our overall goal is to optimize clinical outcomes while decreasing the adverse effects of antibiotic therapy

Stewardship Team

- MD - Antimicrobial Stewardship
- PharmD - Antimicrobial Stewardship
- Infection Control Program
- PhD, Medical Director - Diagnostic Infectious Disease Testing Laboratory
- MD - Hospital Medicine
- DO - Infectious Diseases
- RN - Senior Clinical Program Specialist
- Education Consultant
- James M. Anderson Center for Health Systems Excellence

Antimicrobial Stewardship

- In-patient work has historically been the focus
- Outpatient monitoring is an important focus with new challenges
- Institutions with offices and clinics have opportunities to influence this area

Antimicrobial Stewardship

- Implementation of rapid NAATs for respiratory infections
  - Timely testing
  - Highly accurate results

GROUP A STREP	Appropriate use of antibiotics	• Shortens duration of symptoms • Expedites return to work/school • Reduces parent demand for unnecessary treatment
COVID/FLU/RSV (+)	Avoiding antibiotics	• No need to treat viral infection
COVID/FLU (+)	Focused antiviral agents, when needed and within recommended treatment window	• Reduce severity • Reduce duration of symptoms

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Diagnostic Stewardship

"Ordering the right tests for the right patient at the right time to inform and optimize patient care." - CDC

- Which test is the right test?
  - Timely testing and resulting
  - Accurate results
  - Cost-effective
- Important role for inpatient and outpatient

Diagnostic Stewardship – The right test

If the results will impact clinical management and infection control decisions

– Targeted testing based on patient presentation and prevalence
– Streamlined workup driven by clinical assessment for cost-efficient care
– Timely testing and resulting to avoid unnecessary testing or treatment
– Highly accurate results

An important role for inpatient and outpatient

Diagnostic Stewardship

- CoVID / Flu / RSV testing – adjust tests available based on clinical condition, site of care, and epidemiological trends
  - During the 2022 RSV outbreak, individual tests and small panels were available
  - Small CoVID outbreaks, focused testing
  - Doctor's offices have individual test targets

- Syphilis testing
  - Inverse testing algorithm to match regional testing
  - Provide manual methods as needed in special populations

Patient Satisfaction

Metrics for Patient Satisfaction

- Press Ganey
- NRC Health
- Focused In-house surveys

Patient Experience – NRC Health

- Initial patient contact with the laboratory was often phlebotomy; **the experience was not always satisfactory**
  - Too long of a wait time (staffing)
  - Multiple sticks needed (training)
  - Too crowded (facilities)
- Waiting for results
- Pharmacy access

Patient Experience – Wait Times

- Activities
  - Collect real-time data
  - Create plans to address issues and communicate to sites and management monthly
  - Address training, hiring, and retention of staff

Quality Connected to Satisfaction: Solutions

- School of Clinical Laboratory Science CCHMC
    - Phlebotomy
    - MLS
    - Improve specialized pediatric training
    - Increase training and retention
    - Improve specimen quality
- Training and interviewing – CCHMC Culture of Experience
- Metrics and actions
- Examine the role of molecular methods in testing respiratory samples

Patient Experience – Wait Times and Cost

Other areas with similar issues explored :

- Sample collection issues
- Too long of a wait time (for test result)

Group A Strep Pharyngitis
- Too long of a wait time (for test result, send out culture)
- Multiple swabs needed (required for antigen testing)

Diagnostic Testing for Group A Strep Pharyngitis - Lateral Flow

- Advantages
  - Rapid results[1], ≤15 minutes
  - CLIA waived/simple to perform[1]
    - Do not require instrument[1], reader options available
  - Relatively inexpensive
  - Pooled specificities, **95.4%**[1]

- Disadvantages
  - Pooled sensitivity, **85.6%**[1]
  - Time to definitive results

1. Cohen JF, et al. Rapid antigen detection test for group A streptococcus in children with pharyngitis. Cochrane Database Syst Rev. 2016 Jul 4;7(7):CD010502.

GAS Workflow Comparison – Ag vs NAAT

STREP A RAPID **ANTIGEN** TEST (RADT) **WITH CULTURE CONFIRMATION OF NEGATIVE TESTS**

Two swabs collected (test & culture)

Current test performed

Strep A **POS** - treatment decision -

18 - 36 hours

Strep A **NEG**
Staff coordinates/sends 2nd swab to lab for follow-up culture

Staff receives culture results, clinical staff reviews

Physician notified, chart updated

Staff contacts patient, Provide results, Confirms/adjusts treatment
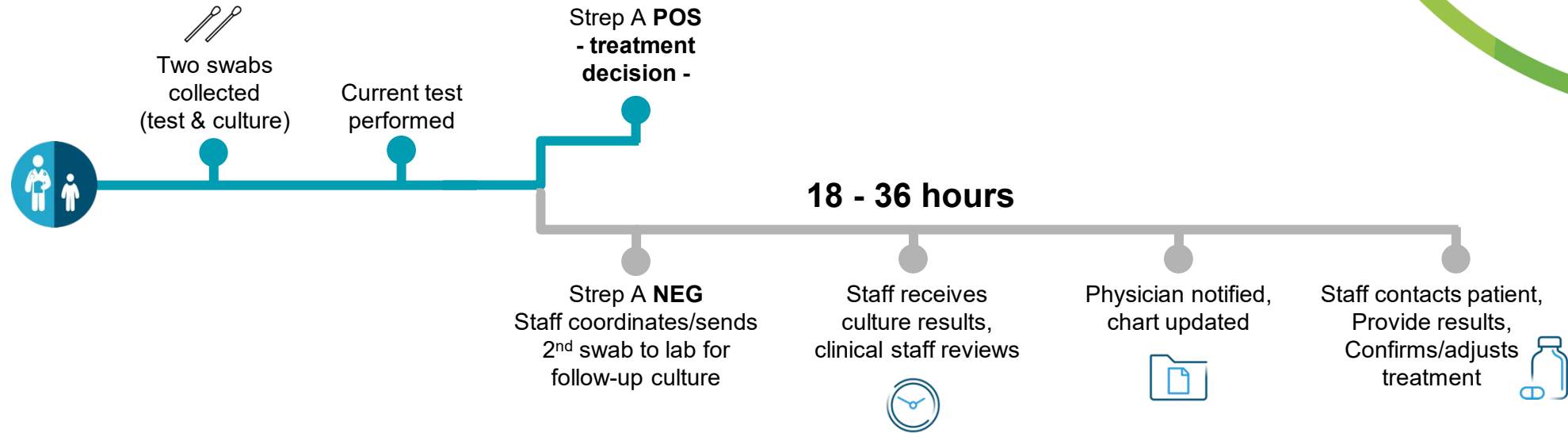
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GAS Workflow Comparison – Ag vs NAAT

STREP A RAPID **ANTIGEN** TEST (RADT) **WITH CULTURE CONFIRMATION OF NEGATIVE TESTS**

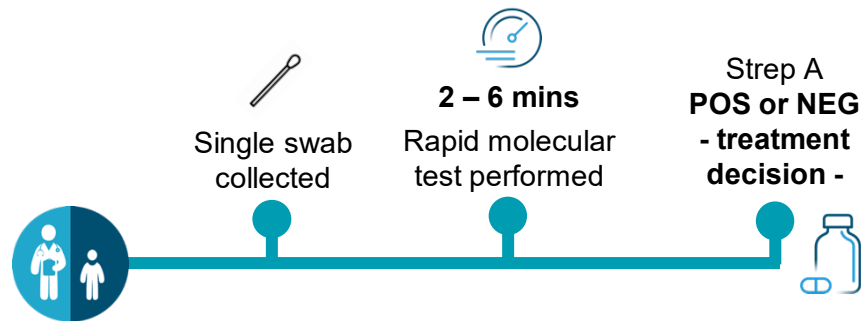Two swabs collected (test & culture)

Current test performed

Strep A **POS** - treatment decision -

18 - 36 hours

Strep A **NEG**
Staff coordinates/sends 2nd swab to lab for follow-up culture

Staff receives culture results, clinical staff reviews

Physician notified, chart updated

Staff contacts patient, Provide results, Confirms/adjusts treatment

RAPID STREP A **MOLECULAR** TEST **WITH NO CULTURE CONFIRMATION OF NEGATIVE TESTS**

Single swab collected

2 – 6 mins
Rapid molecular test performed

Strep A **POS or NEG** - treatment decision -

Time estimates per CLIA waived rapid molecular test (ID NOW Strep A data on file, Abbott).

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Why We Chose Molecular Testing

Antimicrobial Stewardship

- Timely and accurate test results

- Expedite appropriate treatment

Diagnostic Stewardship

- Efficient testing, reduce unnecessary diagnostic testing

Patient Satisfaction

- Timely and accurate test results

- Shorten duration and severity of symptoms

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Summary

- A focus on quality triggers downstream benefits; efficient testing, timely and appropriate treatment

- Our ability to deliver rapid respiratory test results and our change in sample collection processes have contributed to quality improvements

- All systems are interconnected and these relationships are the key to providing the best patient care possible

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P.A.C.E.®

Florida laboratory CE

Certificate of Attendance

After today's webinar:

A certificate of attendance is available for all attendees

- Evaluation form will appear automatically

- Must complete Eval to receive Certificate link via email

- **For groups:**
  Those logged in will receive Email from **messenger@webex.com** with link to evaluation. Forward email to colleagues who attended with you!!!

- Double-check email address

Joined Using a Mobile Device?

Evaluation won't appear automatically, but…

Watch for email with link to evaluation!

Recording: Within a few days following today's event, visit:

https://www.whitehatcom.com/cardinalhealth

https://www.whitehatcom.com/abbott

Stewardship and Quality in Point of Care Respiratory Testing
Live Event: Thursday, August 17, 2023 | 1:00 - 2:00 PM ET
P.A.C.E.® Credit available until February 17, 2024 | Florida Lab Credit available

Recording

Slides

Evaluation Link

Join experts as they examine goals and benchmarks for assessing quality within the laboratory and at the point of care. Gain new insights on quality measures and methods for laboratory and clinical teams to improve antibiotic and diagnostic stewardship related to respiratory infections. Learn how healthcare teams can collaboratively evaluate and implement new processes with quality in mind.

This webinar will:

- Evaluate factors that impact quality improvement programs including patient satisfaction, healthcare-associated infections, and antibiotic usage
- Analyze quality improvement strategies that include the use of rapid respiratory testing at the point of care
- Assess case examples and evidence that led to improved patient care across a variety of healthcare settings
- Identify areas of collaboration between the laboratory and clinical team to help improve antibiotic and diagnostic stewardship utilizing point of care respiratory testing

Presenters:
Sandra Sieck, RN
President and Owner
Sieck Healthcare Consulting
Mobile, AL

Joel Mortensen, PhD, FAAM, HCLD
Director, Diagnostic Infectious Diseases Testing Laboratory
Department of Pathology and Laboratory Medicine
Cincinnati Children's Hospital Medical Center
Cincinnati, OH

Moderator:
Sean-Xavier Neath, MD, PhD, FACEP
Associate Professor of Clinical Emergency Medicine (Recently

Stewardship and Quality in Point of Care Respiratory Testing

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https://www.whitehatcom.com/CardinalHealth_Evals/Stewardship_081723/Quality_081723_eval.html