



Non-regulatory Approaches to Laboratory Improvement

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Non-regulatory Approaches to Laboratory Improvement

- CAP Background
- CAP Quality Improvement Programs
- Focus on Q-PROBES™, Q-TRACKS® and EXCEL® programs
- Summary of Current and Future Activities

College of American Pathologists

- Medical society formed to develop consistent standards of quality in laboratory medicine and the practice of pathology
- 16,000 board certified pathologist members
- Accredits over 6,000 clinical laboratories worldwide
- Offers a number of unique programs aimed at helping laboratories evaluate and improve the quality of their clinical and anatomic pathology services designed to improve patient care.

CAP Quality Improvement Programs

- Focus on developing and implementing quality improvement activities, establishing realistic benchmarks, accreditation, research and professional education
- Contribute in a meaningful way to the goals of improving patient outcomes, reducing medical errors
- Unique because these efforts apply a systems approach to quality assurance
- Monitor the total laboratory testing cycle
- Make assessments provided through peer feedback and comparisons

CAP Quality Improvement Programs

- Q-PROBES and Q-TRACKS
- Surveys Interlaboratory Comparison Programs
- EXCEL
- Scientific Literature and Consensus Statements
- Continuing Education

Q-PROBES and Q-TRACKS

- Study format developed used to collect data from a diverse cross-section of laboratories.
- Current practices in all phases of the testing cycle and to propose general recommendations on how to improve laboratory practices.
- Used to identify measurable improvements against peer activity and to determine the sustainability of various approaches over time.
- Identify improvement opportunities that reach beyond the testing phase to evaluate the quality of the process outside the lab that impacts lab results and patient care.

Surveys Interlaboratory Comparison Programs

- Offers a wide array of proficiency testing and educational solutions to assist laboratories in the improvement of patient testing and outcome

EXCEL

- Established to provide high quality proficiency testing to physician office and other small laboratories
- Goal to improve the quality of medical practice via proficiency testing and educational enhancement offerings

Scientific Literature and Consensus Statements

- Members and staff have published more than 100 articles and consensus statements in peer-reviewed medical journals related to the development of clinical practice evaluations, standards and quality assurance recommendations
- Publications include consensus statements in which CAP has played an instrumental role in catalyzing collaboration among the various stakeholders in the laboratory and pathology communities

Continuing Education

- The College is active in developing and sponsoring continuing education (CME/CE) activities for both the pathologist and the non-pathologist laboratorian
- These activities enhance the College's on-going efforts to disseminate information, and update participating entities regarding the evolving standards in clinical practice and quality assurance

Q-PROBES and Q-TRACKS

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Q-PROBES & Q-TRACKS

How are areas identified for
development?

- Subscribers
- Literature
- CAP Committees

What is a Q-PROBES Study?

- Snapshot in time
- Data collection over a few months
- Single primary performance indicator measured
- Possibly multiple secondary performance indicators
- Data collected about many possible influencing variables

What is a Q-PROBES Study?

- Detailed statistical analysis with correlations, and critique production with many graphs and data tables
- Individual data report provides labs performance compared to all institutions
- Full Data Analysis provided to include discussions of results, detailed data analysis, practice variables associated with performance, and recommendations to implement improvement.

What is a Q-TRACKS Monitor?

- Moving Picture
- Monitors performance over time
- Quarterly data submission
- Single primary performance indicator monitored
- Possible secondary indicators
- Quarterly data analysis provide the most effective peer groups to assess performance
- Data trended over time
- Annual Summary Report addresses relevant issues, performance indicator summary over time, and demographic and practice variables of participating institutions for each monitor

Q-PROBES / Q-TRACKS

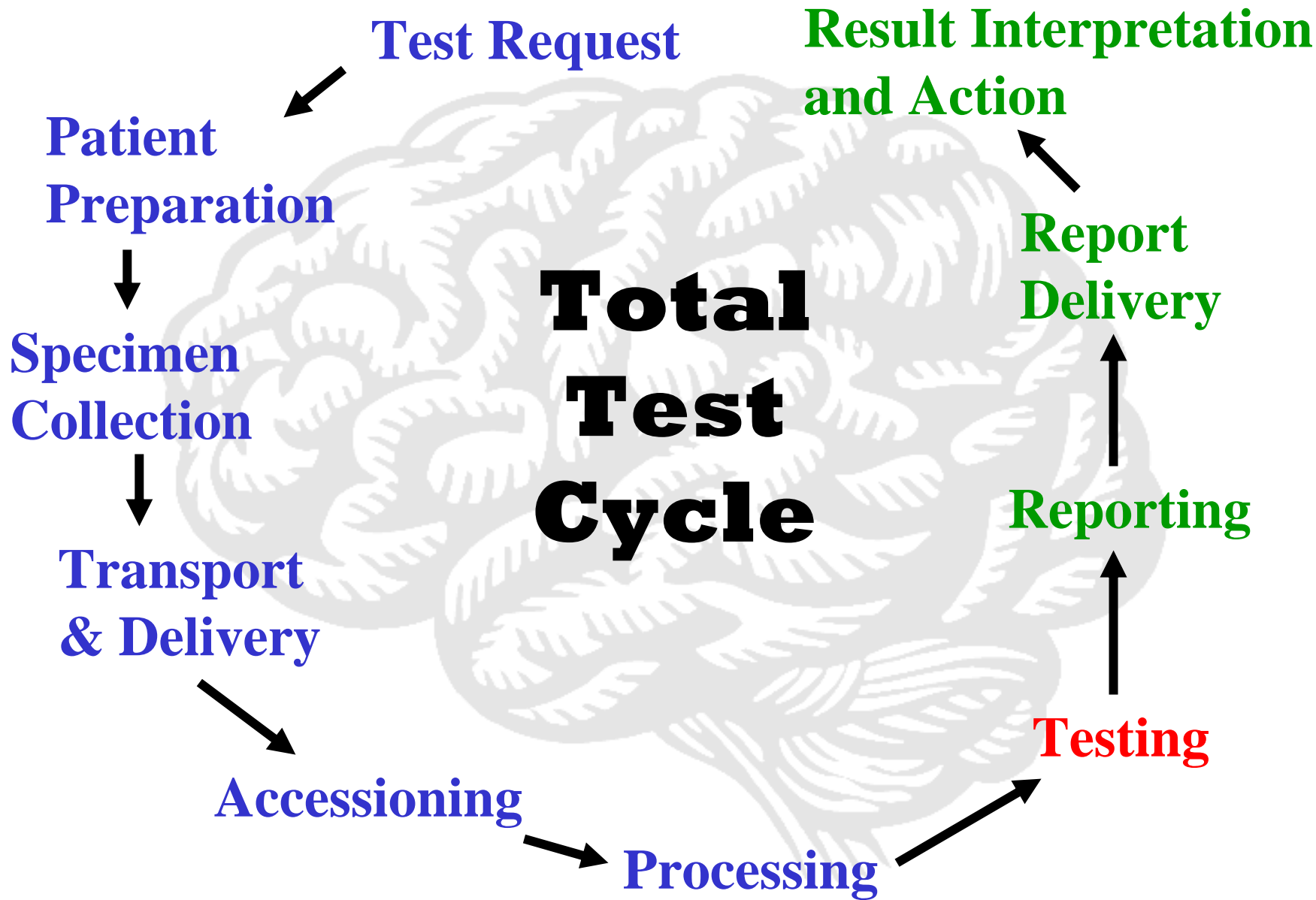
The development process

- Standardization
 - Definitions
 - Data Collection Methodology
 - Statistical Analysis and Graphical Display
- Participant Performance Feedback
- Benchmark Data for Performance Evaluation
- Variables Associated with Performance
- Recommendations for Improvement

Q-PROBES / Q-TRACKS

Clinical & Anatomic Pathology Services

- Clinical Pathology
 - Chemistry
 - Hematology
 - Blood Bank
 - Urinalysis
 - Microbiology
 - Point of Care Testing
 - Phlebotomy
- Anatomic Pathology
 - Surgical Pathology
 - Frozen Sections
 - Gyn Cytopathology
 - NonGyn Cytopathology
 - Autopsy



Q-PROBES / Q-TRACKS

Quality Issues

- Turnaround Time
- Satisfaction
 - Patient
 - Physician
 - Nursing
- Diagnostic Performance
- Efficiency

Q-PROBES / Q-TRACKS

Quality Issues

- Safety
- Accuracy
 - Ordering
 - Testing
 - Reporting
- Information Systems
- Errors
- Competence

Q-PROBES / Q-TRACKS

History

- 1989-2004 130 Q-PROBE Studies
- 1998 First two Q-TRACK Monitors
- 1998-2004 14 Q-TRACK Monitors

2004 Q-PROBES Studies

- Hospital Nursing Satisfaction with Clinical Laboratory Services
- Laboratory Technical Staffing
- Rate of Manual Peripheral Blood Smear Review
- Patient Safety with Digoxin Measurements

2004 Q-TRACKS Monitors

- Patient Identification
- Blood Culture Contamination
- Laboratory Specimen Acceptability
- Blood Product Wastage
- Gynecologic Cytology Outcomes
- Patient Satisfaction with Phlebotomy Services

2004 Q-TRACKS Monitors

- STAT Test Turnaround Time Outliers
- AM Rounds Inpatient Test Results Availability
- Critical Value Reporting
- Small Surgical Specimen Diagnosis Turnaround Time
- Physician Satisfaction with Surgical Pathology Reports
- Type and Screen Completion for Scheduled Surgery

2004 Q-TRACKS Monitors Laboratory Participation

- Patient Identification Accuracy: 161
- Blood Culture Contamination: 140
- Lab Specimen Acceptability: 156

Q-TRACKS Monitor Patient Identification



Regulatory Imperative

- CAP requires two patient identifiers before collecting a specimen
- JCAHO lists patient identification as a 2004 National Patient Safety Goal

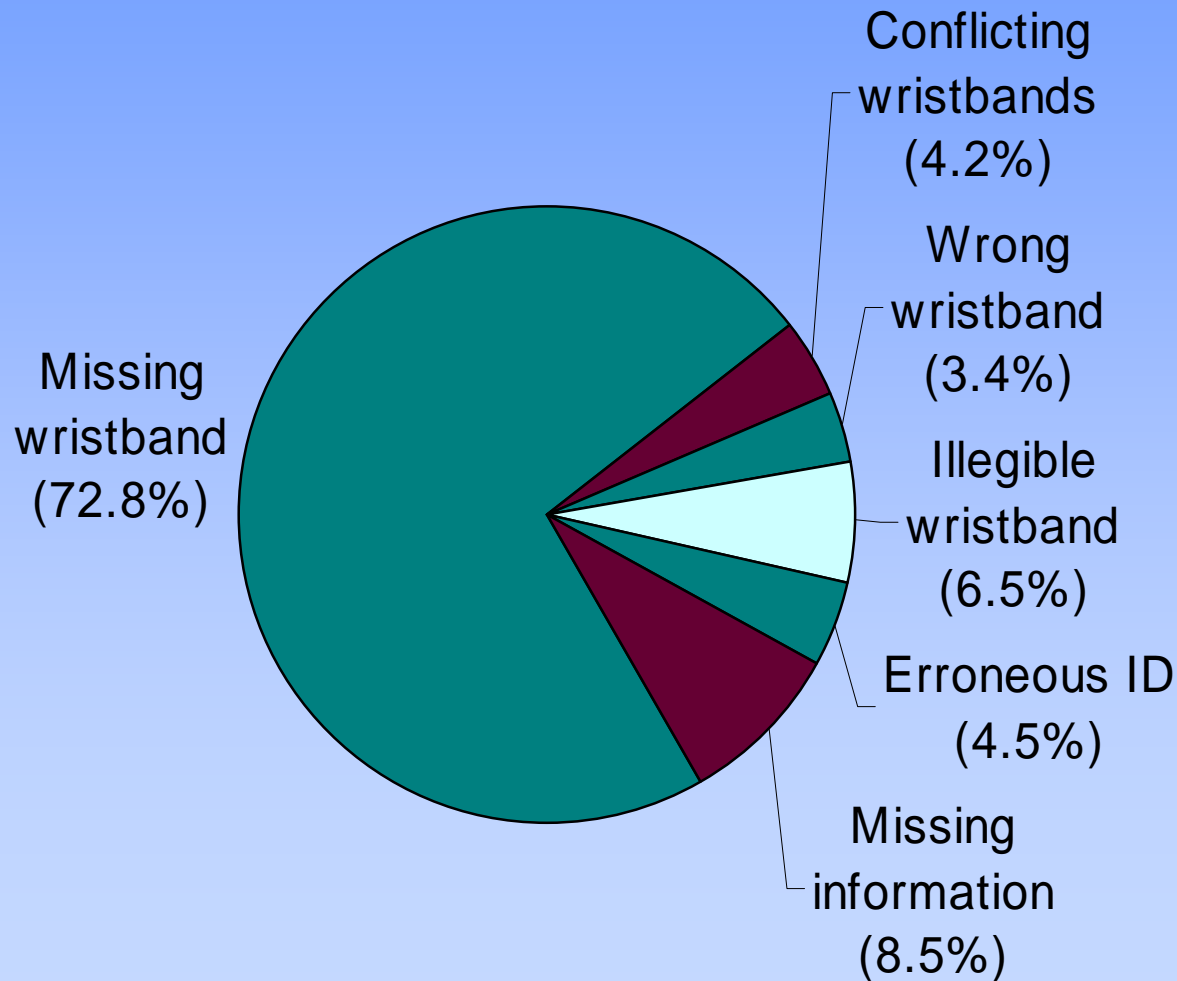
Quality Indicator

Wristband Error Rate (%) =

$$\frac{\text{Number of Wristband Errors}}{\text{Number of Wristbands Checked}} \times 100$$

Phlebotomists check wristband accuracy during normal phlebotomy sweeps and classify any errors that are detected.

Wristband Error Types

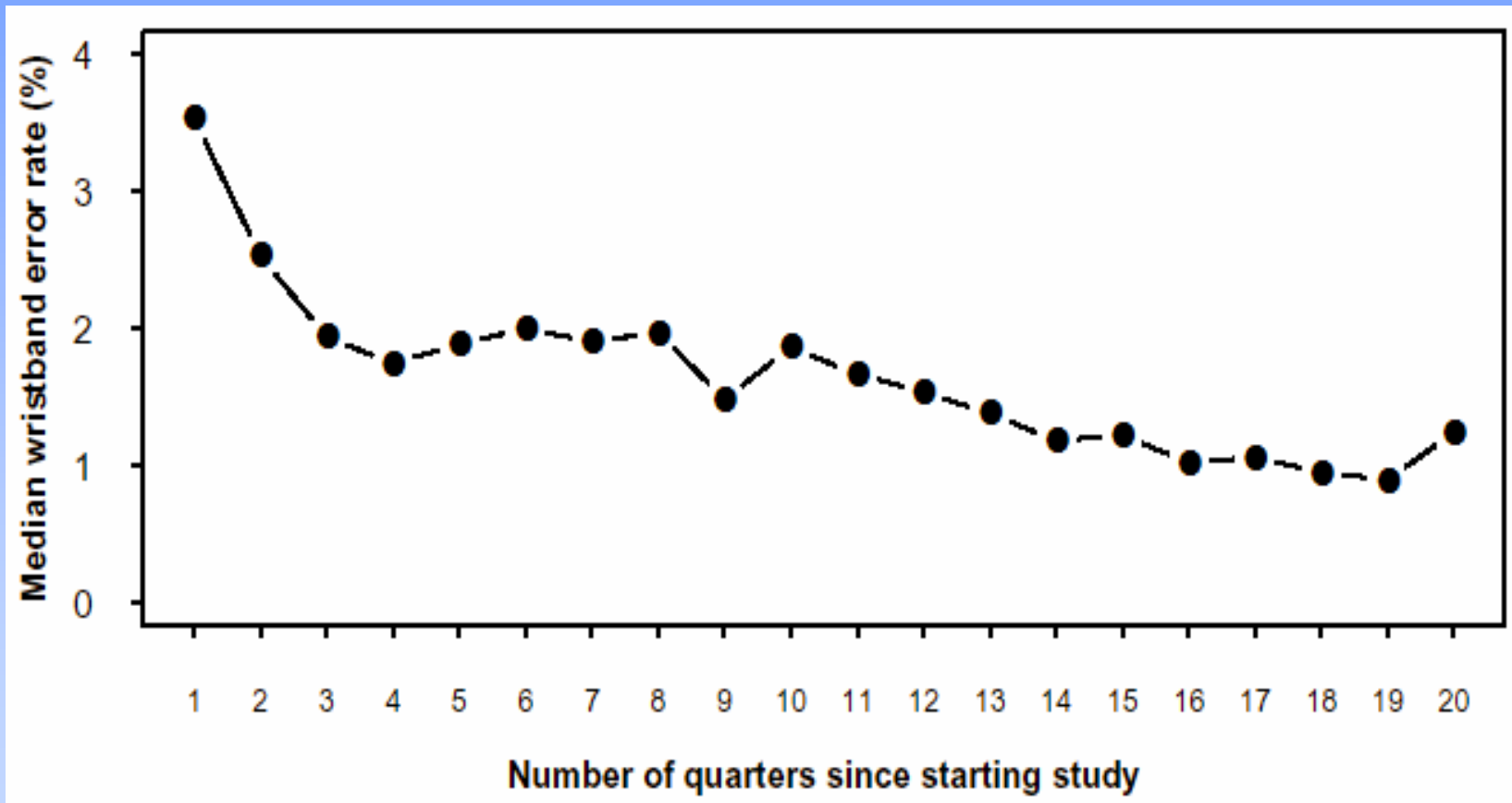


Wristband Errors (%)

Spread in Institutional Performance

N	All Institutions 2003 Percentiles				
	10th	25th	50th	75th	90th
138	0.15	0.46	1.45	3.13	5.81

Wristband Errors Over Time



Improving Performance

- **Monitor error rates**
monitoring associated with improved performance
- **Provide immediate feedback about errors**
policy associated with improved performance
- **Use staff other than nurses to place wristbands**
institutions that use nurses have higher error rates
- **Require written orders for wristband removal**
policy has been associated with lower error rates
- **Develop “zero tolerance” for incorrect wristbands**
discrepancies must be corrected prior to specimen collection
- **Place wristband confirmation on admission checklist**
- **Report wristband errors to hospital QA committee**

New 2005 Q-PROBES and Q-TRACKS Offerings

Q-PROBES:

- Identification Errors
- Urine Culture Contamination
- HPV Testing
- Reference Ranges and Critical Values Comparisons.

Q-TRACKS:

- Turnaround Time of Troponin

EXCEL Program

**IT'S NOT JUST A
SPECIMEN.
IT'S A
PATIENT.**

2004

EXCEL

**The Knowledge to Lead.
The Experience to Deliver.**

The advertisement is a vertical rectangular graphic divided into four quadrants by a black cross. The top-left quadrant shows laboratory equipment with the text 'IT'S NOT JUST A SPECIMEN. IT'S A PATIENT.' in black and green. The top-right quadrant has a dark green background with the word 'EXCEL' in large white letters. The bottom-left quadrant shows laboratory equipment with the year '2004' in green. The bottom-right quadrant shows two hands, one larger than the other, with the tagline 'The Knowledge to Lead. The Experience to Deliver.' in black. A small circular logo is in the bottom-left corner of the entire graphic.

EXCEL Program

- Established to provide high quality proficiency testing to physician office and other small laboratories
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EXCEL Program

- Thousand of laboratories enrolled
- Includes a series of smaller modules appropriate for the physician office laboratory sector
- Data collected reflect the methodologies most frequently found in this laboratory setting
- Provides PT products for many waived testing analytes and procedures so labs can assess their performance

EXCEL Program

- Provides laboratories with unknown samples for proficiency testing
- Formalized education activities included with all EXCEL mailings providing CE credits for all laboratory staff
- Play a significant role in quality assessment of CLIA-waived testing

CAP Awarded
CDC Cooperative Agreement
Assessment of Quality Assurance
Best Practices Using Clinical
Outcomes Evidence