POCT – možnosti kontroly kvality a aplikace six sigma

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Bio-Rad Emerging Markets

Agenda:

Možnosti POCT

Kontrola kvality POCT

Six sigma a POCT

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POCT metody

- Vyšetření v místě kontaktu s pacientem
- Provádění zejména osobami bez laboratorních zkušeností
- Striktní požadavky na dodržení všech pokynů
- Zaškolení a spolupráce s laboratoří je podmínkou
- Doba odezvy kratší než doba odezvy laboratoře

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POCT metody

- Stanovení glykémie glukometrem
- Mikroalbuminurie
- CRP
- Koagulace
- Krevní plyny
- HbA1c
- Troponin

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POCT metody

- Chemické vyšetření moče
- Infekce močových cest (dip-slide)
- Drogový screening v moči
- hCG (pregnancy test)
- Helicobacter pylori
- Adenoviry, rotaviry
- FOBT (okultní krvácení)
- Strep A, Dentální testy
- HIV-1

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  - Animal Clinical Chemistry
  - Clinical and Diagnostic Immunology
  - *Critical and Point-of-Care Testing*
    - Awards
    - Biographies
    - Events
    - Governance
    - Newsletter
    - POC Coordinators Forum
    - POC International Symposium

AACC > Members > Divisions > **Critical and Point-of-Care Testing**

Critical and Point-of-Care Testing Division

CPOCT

Critical & Point of Care Testing Division

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The CPOCT Division was formed to provide education and to promote communication and community among AACC members who are users and manufacturers of devices used for laboratory testing inside and outside of traditional clinical laboratories, and is the 2007 recipient of the Division Award for Excellence in Networking.

2008 Point of Care Coordinator of the Year

ADDITIONAL RESOURCES >>>

AACC and CPOCT present

Learn how one family is managing type 1 diabetes.

AGENCIES more> CAP The Joint Commission | ASSOCIATIONS more> AACC AADE CPOCT | PUBLICATIONS more> CAP TODAY ADVANCE LABORATORY

PointofCare.net

The Point-of-Care Coordinators Online Resource

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POC Calendar > POC Groups > POCC of the Year > POC Vendors > POC Tests > POC Procedures >

NEWS

Blood Glucose Benchmarking Results in U.S. Hospitals for 2008 Announced

Program Included over 300 hospitals and 29.8 Million Results Click here

Nominations for POCC of the Year Due March 15!

Now is the time to recognize the good work and dedication of your POCC. Nominations for the POC Coordinator of the Year award are due March 15th.

For instructions click here. Questions? Contact Patty Brady at pbrady@aacc.org.

POC GROUPS

Alabama
Arizona
Baltimore
Bay Area (CA)
Bay State (MA)
Capitol (DC)
Central Florida
Connecticut
Delmarva
First Coast Florida
Georgia
Heart of America
KEYPOCC
Midwest
New Jersey
New York City
North Country
North Carolina
North Texas
Northwest (OR)
Ohio
Ontario Canada
Southern Cal
South Carolina
Southwest
Texas Gulf Coast
Tri-State (IL/IN/MI)
Upstate New York

POCT Precision

Accuracy of point-of-care testing devices is proven; educating testing personnel is key.

By David Plaut and Carol Smola, Advance for the Administrators of the Lab

Advance for Administrators of the Lab February 2009 issue has a great article on POCT and reports that the demand for POCT is expected to increase by 80 percent over the next three years. The article states that the market is forecasted to grow from $10.3 billion (2005) to $18.7 billion by 2011.

Click here to visit Advance for Administrators of the Laboratory website and then under CURRENT ISSUE, click on the "Log in to View Digital" button. That will take you to a really cool digital version of the publication.

Point-of-Care Sagas: A Tale of Three Cities

CAP Today, January 2009, Feature Story, by Anne Paxton

Baystate Health in Springfield, MA; Mayo Clinic in Rochester, MN; and SUNY Downstate Medical Center in Brooklyn, NY talk about their POC programs...

As increasingly complex laboratory tests start being performed rapidly at the bedside and elsewhere, the steady migration of testing from central laboratory to the point of care seems inexorable. But laboratory managers and directors in many care settings can confirm that, when point-of-care testing is adopted too hastily, it can be a case of the technology tail wagging the diagnostic testing dog.

TriMark Point of Care Testing Conference 2009

Point of Care Testing 2: Exciting New Directions
Monday, May 11, 2009
The Doubletree Hotel
San Diego Downtown
1646 Front Street
San Diego, CA
REGISTER

MORE FRONT PAGE NEWS

A New Role for Hemoglobin A1c Should It Be Used to Screen for Diabetes?

Lab Analysis of Fertility at the POC

POC Specialist Certificate Program

Recently, a need to ensure adequate training and preparation for these providers has emerged, leading the AACC Critical and

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POCT metody – kontrola kvality

- Kontroly od výrobce
- Nezávislá kontrola - omezení
- Externí hodnocení kvality má klíčový význam!!

Sigma-Metric

Sigma = (TEa – Bias) / CV

TEa ….“tolerance limits” or quality requirement

Bias represents method inaccuracy

CV represents method imprecision

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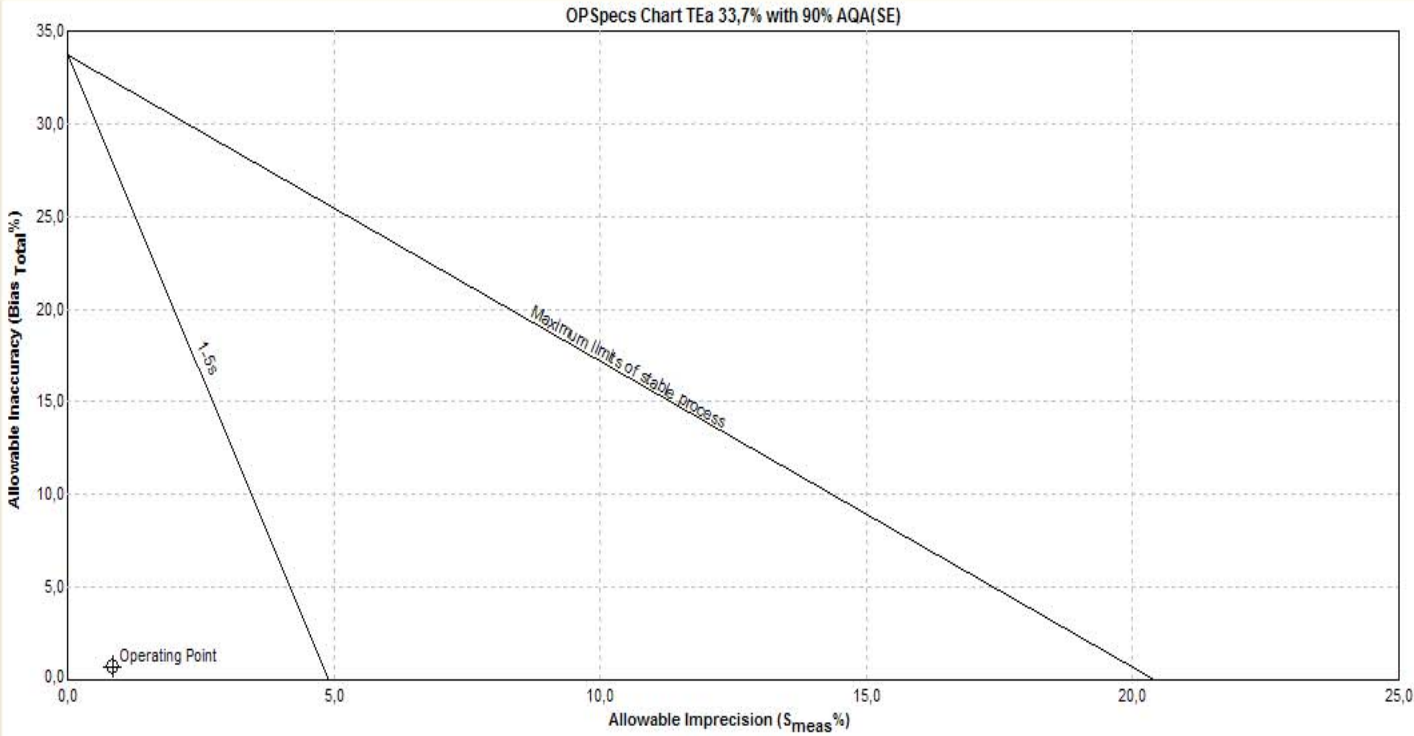
Existing QC Rules | Design QC Rules

Date Generated	Lab Data Range	Lot Selection	Group
21.2.2007 14:56:32	1.11.2006 - 21.2.2007	Highest Total Error	Peer Cumulative
21.2.2007 14:50:05	1.11.2005 - 21.2.2007	Highest Total Error	Peer 6 Months
13.2.2007 15:06:08	1.1.2006 - 13.2.2007	Highest Total Error	Peer Cumulative
8.2.2007 20:48:17	1.1.2006 - 8.2.2007	Highest Total Error	Peer Cumulative
8.2.2007 20:42:18	1.1.2006 - 8.2.2007	Highest Total Error	Peer Cumulative
8.2.2007 20:04:48	3.2.2006 - 8.2.2007	Highest Total Error	Peer Monthly

Grid | Chart

Analyte
LD (Lactate Dehydrogenase
Lactic Acid
Lipase
Magnesium
Potassium
Phosphorus
Protein, Total, Serum
Sodium
Triglycerides
ALT (ALAT/GPT)
Alkaline Phosphatase
Amylase
AST (ASAT/GOT)
Bilirubin, Direct/BC (DBIL)
Bilirubin, Total/TBIL
Chloride
Acetaminophen
Urea Nitrogen
Calcium
CO2 (Carbon Dioxide)
Albumin
Creatinine
Glucose



LD (Lactate Dehydrogenase)

$Bias_{meas}$ = 0,696 % P_{fr} = 0,000

S_{meas} = 0,858 % N = 3

Print

Server - (local) | Database - QCDAO | User - admin | Copyright (c) 2006 Bio-Rad Laboratories. All Rights Reserved. US. Patent #5,937,364. | Version 1.0

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POCT metody a Six Sigma

- www.westgard.com
- Evaluace:
  - Glukometry
  - Krevní plyny

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POCT metody a Six Sigma

- Evaluace:
  - CV %
  - Bias – jak?
  - Korelační data
  - Slope, intercept……..regrese
  - Bias pro požadované hladiny
  - Dosazením do korelačního vztahu

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POCT metody a Six Sigma

- Evaluace:
  - TEa stejná jako pro laboratorní testy?
  - Bias?
  - Možnost sigma v záporných hodnotách!

    (Sigma = (TEa – Bias) / CV)

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POCT metody a Six Sigma

- Evaluace dle výsledků EHK
  - SEKK
    - TMU
    - TV
    - Med
    - CV %
  - Je-li použito RMP, bias je nutné vynechat
    - Příklad: GLC1 – stanovení glukózy vč. glukometrů

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POCT metody a Six Sigma

- Výběr systému
  - EHK
    - CV %
  - Laboratoř nebo ordinace
  - Interpretace six sigma
    - Výběr vhodného přístroje
    - Použití interní kontroly kvality
      - I když je rozpočet na iQC pro POCT zanedbatelný, mnohdy stčí 1QC denně…
  - Spolupráce s laboratoří je nutná!

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