

National Academy of Clinical
Biochemistry (NACB)

Laboratory Medicine Practice
Guidelines (LMPG):

Evidence-Based Practice for
Point of Care Testing

2004



Why the Rise in EBM?

- Need for fact-based medical decisions
- Patients questioning treatment options and risks
- To justify increasing costs of patient care
- Shortage of resources (beds, nursing, lab)
- Risk of lawsuits (follow standards of practice)
- Support for alternative means of improved patient outcomes (home care, surgicenters)
- Pressure for shorter stays, faster turn-around
- Clinician time constraints, rapid rise in literature and limited ability to stay abreast of latest developments
- CMS National Voluntary Hospital Reporting Initiatives: inform providers, payors and public of how well hospitals adhere to accepted evidence-based guidelines for treatment of heart attack, heart failure and pneumonia – link accreditation and reimbursement to hospital quality measures (ORYX)



What Portion of Healthcare is Evidence Based?

Setting	RCT (Type I)	Non- experimental (Type II)	Not Supported	Interventions /patients
General Med (UK)	53%	29%	18%	108/108
Cancer Center (US)	24%	21%	55%	154/??
Anesthesia (Australia)	32%	65%	3.3%	???
Pediatric Surg (UK)	11%	66%	23%	281/281
General (Spain)	38%	4%	58%	2341/ 1990



What Portion of Healthcare is Evidence Based?

- General Med – Ellis J, et al. Inpatient general medicine is evidence based. Lancet 1995;346:407-10.
- Cancer Center – Djulbegovic B, et al. The quality of medical evidence in hematology-oncology. Am J Med 1999;106:198-205.
- Anesthesia – Myles PS, et al. Is anaesthesia evidence-based? A survey of anaesthetic practice Br J Anaesth 1999;82:591-5.
- Ped Surg – Kenny SE, et al. Evidence-based surgery: Interventions in a regional paediatric surgical unit. Arch Dis Child 1997;76:50-3.
- Gen Med – Suarez-Varela MM, et al. Evidence based general practice. Eur J Epidemiol 1999;15:815-9.



Point of Care Testing

- The field is young
- Proliferation of misinformation – Faster is often understood to mean better outcomes without research to back this conclusion
- Hospital pressure to move patients faster, want faster turnaround of lab results – POCT seen as a solution to remove patient bottlenecks
- Physicians want the latest technology – new technology equates with better patient care
- Each lab must research new test requests to determine clinical utility, cost effectiveness, management and reimbursement issues.



The Need for Evidence-Based POCT

- Clinicians, staff and laboratorians need guidance to apply POCT in the most effective manner for patient benefit.
- This guidance should be based on a concurrence of the scientific evidence to date.
- This need for evidence-based practice was the concept behind the NACB Laboratory Medicine Practice Guidelines for POCT



Evidence-Based Practice for POCT

Focus Group Chairs

- Cardiac – Robert H. Christenson, Ph.D.
- Diabetes – Christopher Price, Ph.D.
- Reproduction – Ann M. Gronowski, Ph.D.
- Infectious Disease – Robert Sautter, Ph.D.
- Coagulation – Marcia Zucker, Ph.D.
- Parathyroid – Lori J. Sokoll, Ph.D.
- Drugs – Ian Watson, Ph.D.
- Bilirubin Screening – Steven Kazmierczak , Ph.D.
- Critical Care – Greg Shipp, M.D.
- Renal – William A. Clarke, Ph.D.
- Occult Blood – Kent Lewandrowski, M.D.
- pH – James Nichols, Ph.D.
- Introductory Comments – Ellis Jacobs, Ph.D.





NACB Laboratory Medicine Practice Guidelines

The National Academy of Clinical Biochemistry Laboratory Medicine Practice Guidelines

Draft Guidelines

Evidence Based Practice for POCT

Comments should be directed to [James H. Nichols](#)

Published Guidelines

- [Cardiac Markers - 1999](#)
- [Diabetes Mellitus - 2002](#)
- [Emergency Toxicology - 2003](#)
- [Hepatic Injury - 2000](#)
- [Thyroid Disease - 2002](#)

[Word Document](#)

[PDF Format](#)

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Draft Guidelines Open for Comment

- [Evidence Based Practice for POCT - 2004](#)
- [Biomarkers of Acute Coronary Syndrome and Heart Failure - 2004](#)

Draft Guidelines In Development

- [Maternal and Fetal Health Risk Assessment - 2003](#)
Version 2

Evidence Based Practice for POCT Sponsors



- Sponsors provide an Educational Grant to NACB for the development and publication of practice guidelines
- A variety of sponsorship levels are available

