



### **Accurate and immediate bedside results without spending more.**

The epoc™ point of care blood analysis system is the first and only wireless bedside testing solution to use Smart Card technology. This breakthrough technology provides state-of-the-art lab results directly to a hand-held Mobile Computer. It's easy to use. It requires no refrigeration of consumables. It interfaces with your facility's existing wireless system. And in most cases it does it all for less than you're spending now waiting for lab results.

### **Accurate results in 30 seconds.**

The quality of test results from the epoc system are equal to or better than the results generated by traditional blood gas or chemistry analyzers run in a laboratory. Why? Because, once fresh blood is passed across biosensors on the epoc test card, results are sent to your Mobile Computer in just 30 seconds. Other systems often require more time between sample acquisition, sample entry and analysis and can result in sample degradation and possibly compromised results.

### **Higher technology equals lower cost.**

epoc is significantly more cost effective to implement and use than other POC systems. In fact, the operational costs for the epoc system are usually equal to (or less than!) the cost of testing with conventional analyzers. With epoc you will easily attain the recognized benefits of an improved critical care process without the theoretical implementation models that typically demand labor reductions and other operational changes to meet financial objectives.



### Fast and easy.

Unlike other systems, epoc test cards have no refrigerated storage requirements. The cards can be placed at the patient bedside with the card reader, at the nurses' station, in the operating suite—whenever and wherever it's most convenient for the flow of patient care. All that's required is a 100 microliter blood sample.

### epoc eliminates errors.

Immediate introduction of a patient's blood sample into an epoc test card minimizes pre-analytical sample handling errors. And because the complete test record is captured at the point of care, post-analytical errors are also reduced. The epocsystem features bar code scanning for patient ID, operator ID and test card information—minimizing data entry and transcription errors. Automated monitoring of all steps in the testing process assures error detection and reduction.



epoc requires virtually no modification to your current procedures or model of care. It seamlessly integrates into your WLAN or mobile EMR solutions—or existing point of care testing installations. And epoc is expandable as future needs evolve. Additional card readers can be placed where needed, and can interact with an unlimited number of epoc Mobile Computers.

## epoc fits your organization today — and tomorrow.

epoc easily fits into your clinical care process. With its small size and wireless capability, epoc keeps caregivers at the bedside where they are needed most, not running back and forth between a distant workstation or laboratory. It seamlessly integrates into your existing wireless network and easily interfaces into your hospital's LIS/HIS system. Additional epoc readers can be placed where needed, and can interact with an unlimited number of epoc Mobile Computers.

The epoc system also has an evolving test menu and will have numerous panels available in the near future. Its completely modular — which allows customized implementation solutions to fit the specific needs of any clinical workflow throughout the organization.

## Perfect for Respiratory Therapists and other care providers.

The epoc BGEM™ Test Card is a blood gas, electrolyte and metabolite panel consisting of the following:

- measured analytes: pH, pCO<sub>2</sub>, pO<sub>2</sub>, Na<sup>+</sup>, K<sup>+</sup>, Ca<sup>++</sup>, Glu, Lac, Hct
- calculated values: cTCO<sub>2</sub>, cHCO<sub>3</sub><sup>-</sup>, BE(ecf), BE(b), cSO<sub>2</sub>, cHgb



## epoc Blood Analysis System

epoc test cards are single-use bar code identified units containing a biosensor array, calibration solution and fluidics. Test cards generate electrochemical assay signals and quality control signals which are read by detectors in the epoc Reader.

Upon insertion of a test card, the epoc Reader scans the card's bar code, initiates sensor calibration and provides thermal control of the assay. It reads electrochemical signals and quality control signals from the test card and converts them to a secure wireless transmission format.

The epoc mobile computer, a customized Mobile Computer, can receive transmitted signals from one or more epocReaders. The Mobile Computer associates the test results and reader ID with a patient ID and user ID—scanned or manually entered — to complete the test record. The complete test record is wirelessly transmitted to the epoc Data Manager for further compliance reporting, analysis and system management.



**epoc**

**SmartCard Technology**

- Easy to use
- Room temperature storage
- Ready for use at any time
- Integrated calibration and quality checks
- Results in just 30 seconds
- Barcoded for error-free panel identification & lot number, and inventory records

**epoc test cards currently in development include additional blood chemistries, hemostasis, hematology and immunoassay panels.**

#### **epoc BGEM Test Card Analytes, Selected Parameters**

Measurement Parameters	Units	Range
pH	pH units	6.5-8.0
pCO <sub>2</sub>	mmHg	5-250
pO <sub>2</sub>	mmHg	5-750
Na <sup>+</sup>	mmol/L	85-180
K <sup>+</sup>	mmol/L	1.5-12
Ca <sup>++</sup>	mmol/L	0.25-4
Glu	mg/dL	20-700
Lac	mmol/L	0.30-20.00
Hct	%PCV	10-75

Calculated Parameters	Units	Range
cTCO <sub>2</sub>	mmol/L	1-85
cHCO <sub>3</sub> <sup>-</sup>	mmol/L	1-85
BE(ecf)	mmol/L	-30–+30
BE(b)	mmol/L	-30–+30
cSO <sub>2</sub>	%	0-100
cHgb	g/dL	3.3-25