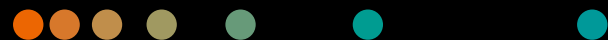
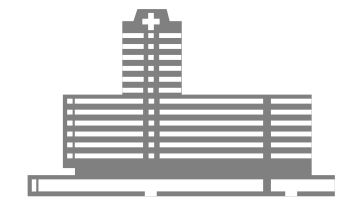
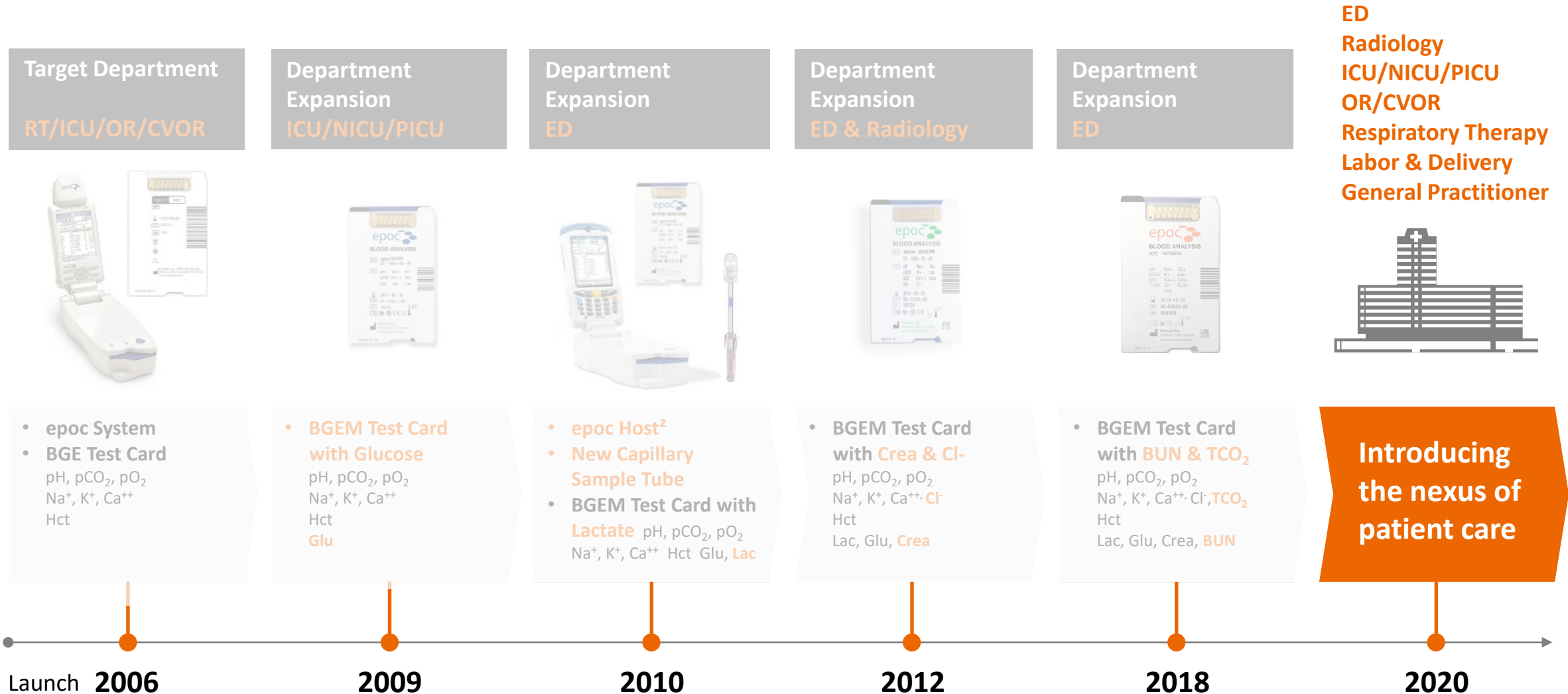


# epoc Blood Analysis System

System Overview



# Evolution of epoc Blood Analysis System

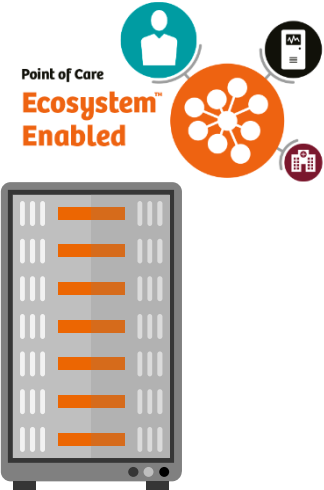
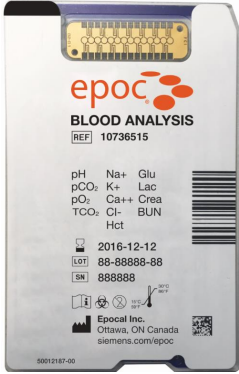


# epoc System Components

epoc<sup>®</sup> NXS Host  
Mobile Computer



epoc Reader



Middleware/Data  
Management

epoc NXS Host  
epoc Reader

epoc BGEM  
Test Card

epoc Care-Fill™  
Capillary Tubes

POC Informatics

# epoc Blood Gas Analysis System

The epoc Blood Gas Analysis System is a portable blood analyzer composed of THREE items:



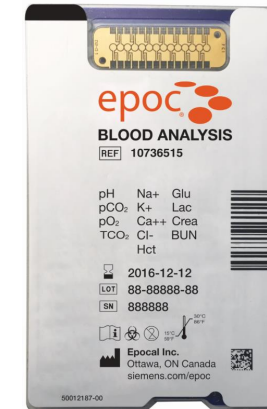
Host

Communicates via Bluetooth with epoc Reader. Host calculates analytical values sent from Reader. Similar in size to a handheld PDA.



Reader

Battery-powered device with internal barcode scanner. The Reader accepts test cards, measures electrical signals from test card sensors, and transmits test results via Bluetooth to epoc Host.



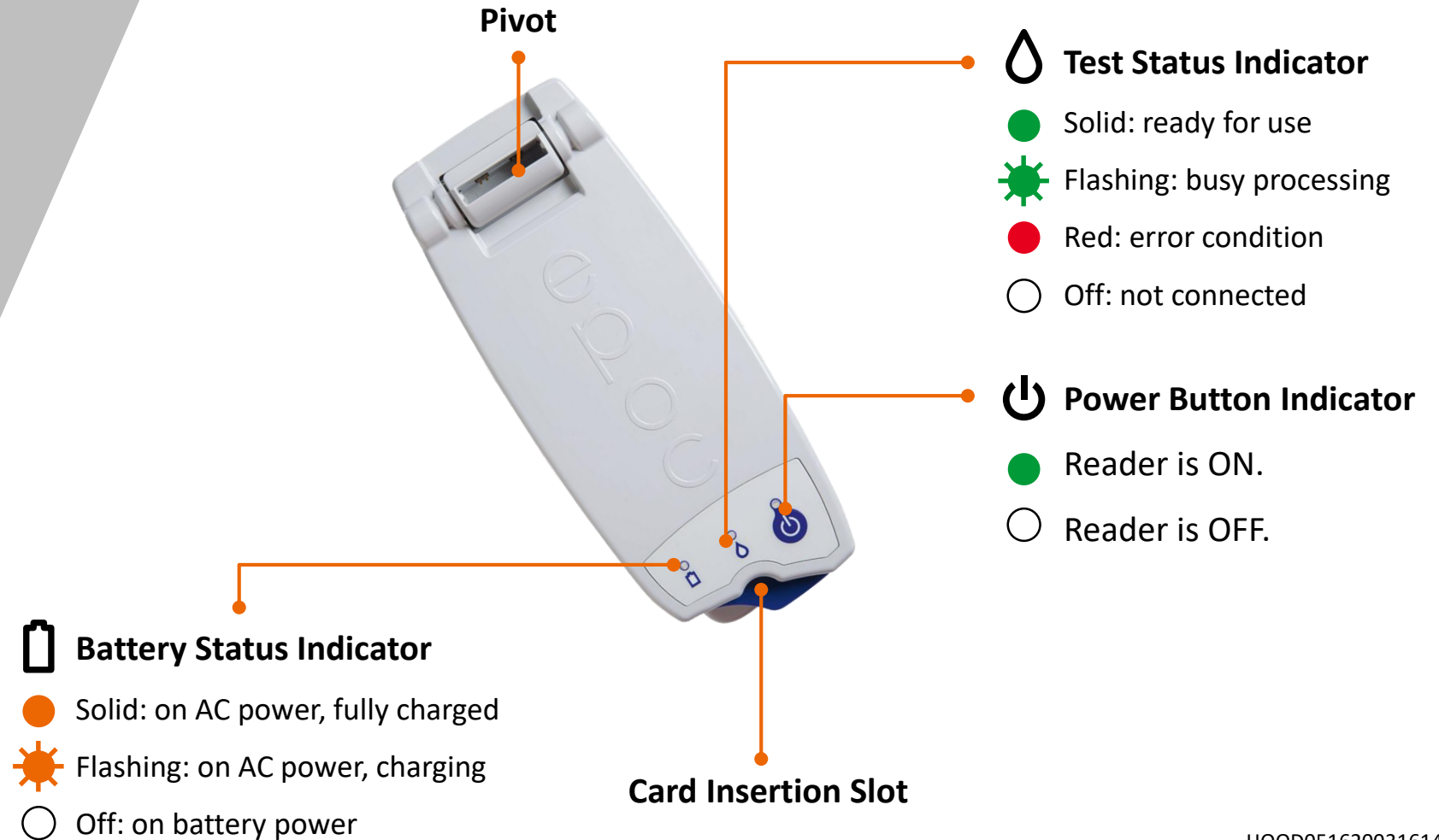
Test Card

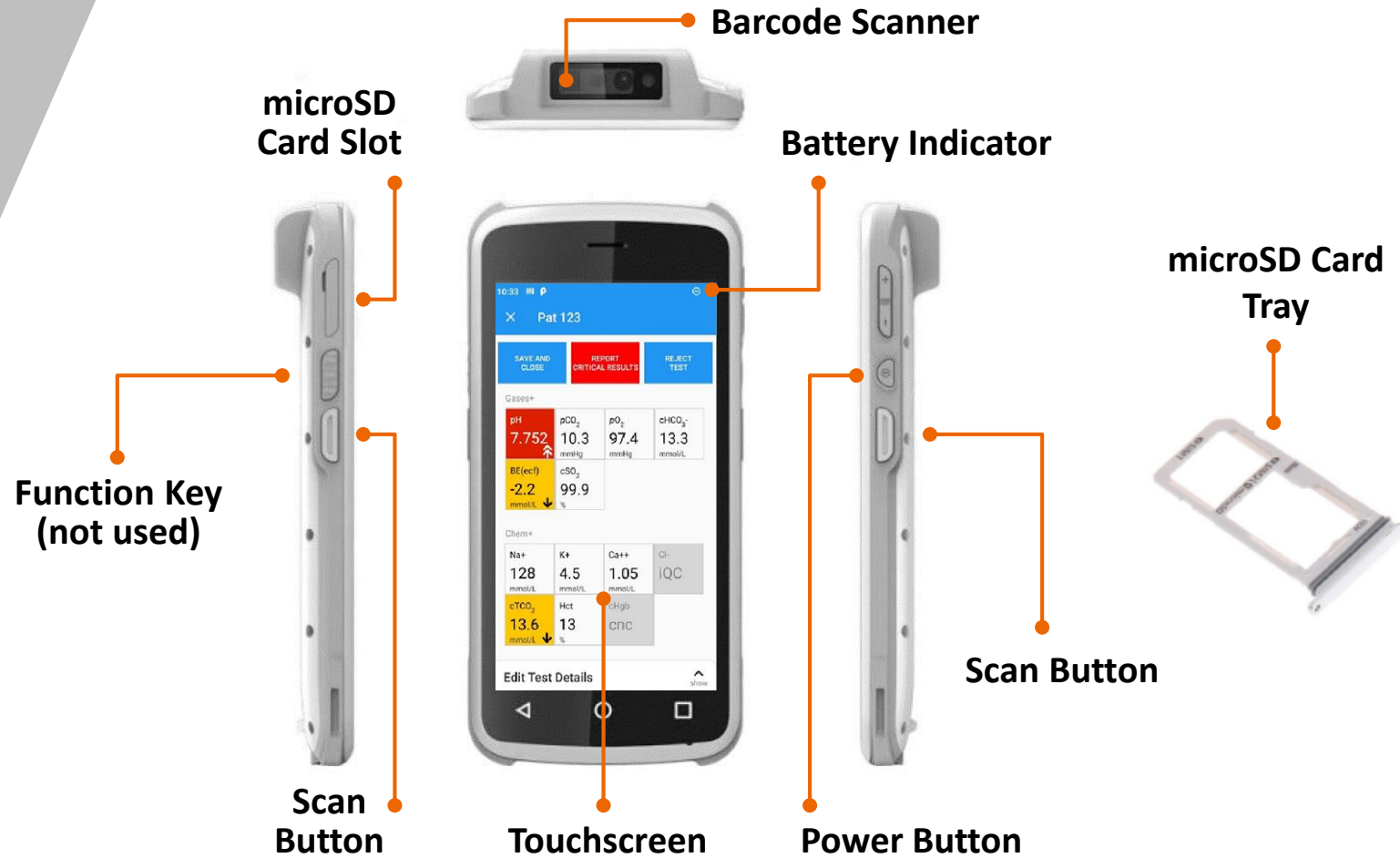
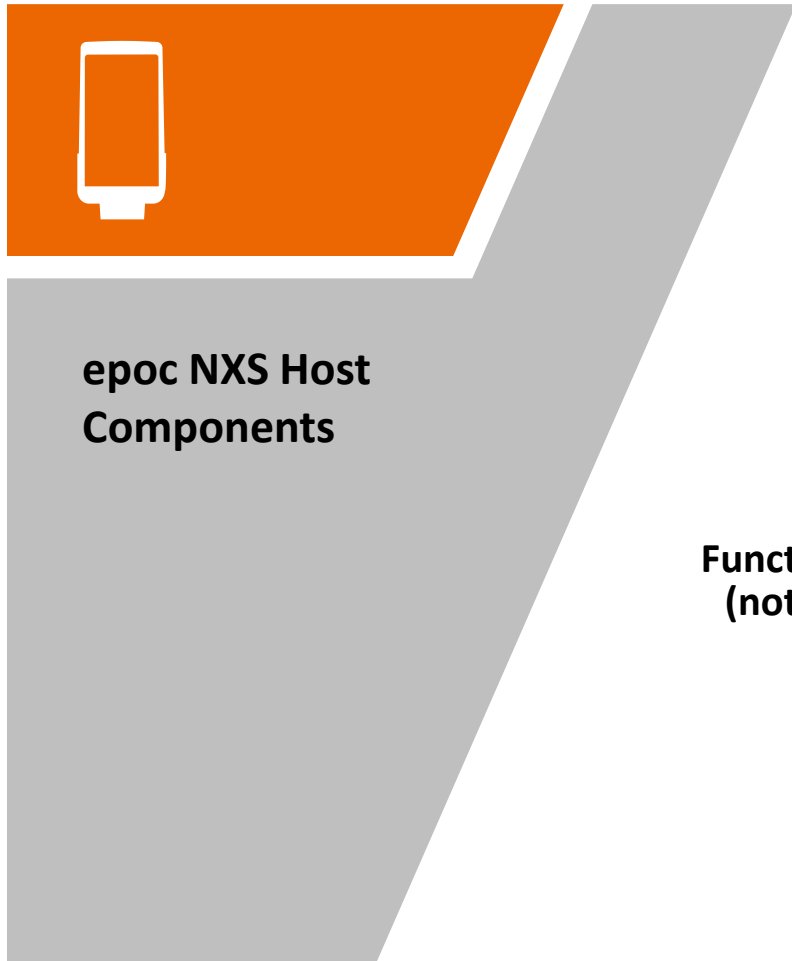
Single-use, room temperature-stable, credit card-sized card with port for blood sample entry. It contains an array of sensors and calibration fluid in a sealed reservoir.



## epoc Reader Components

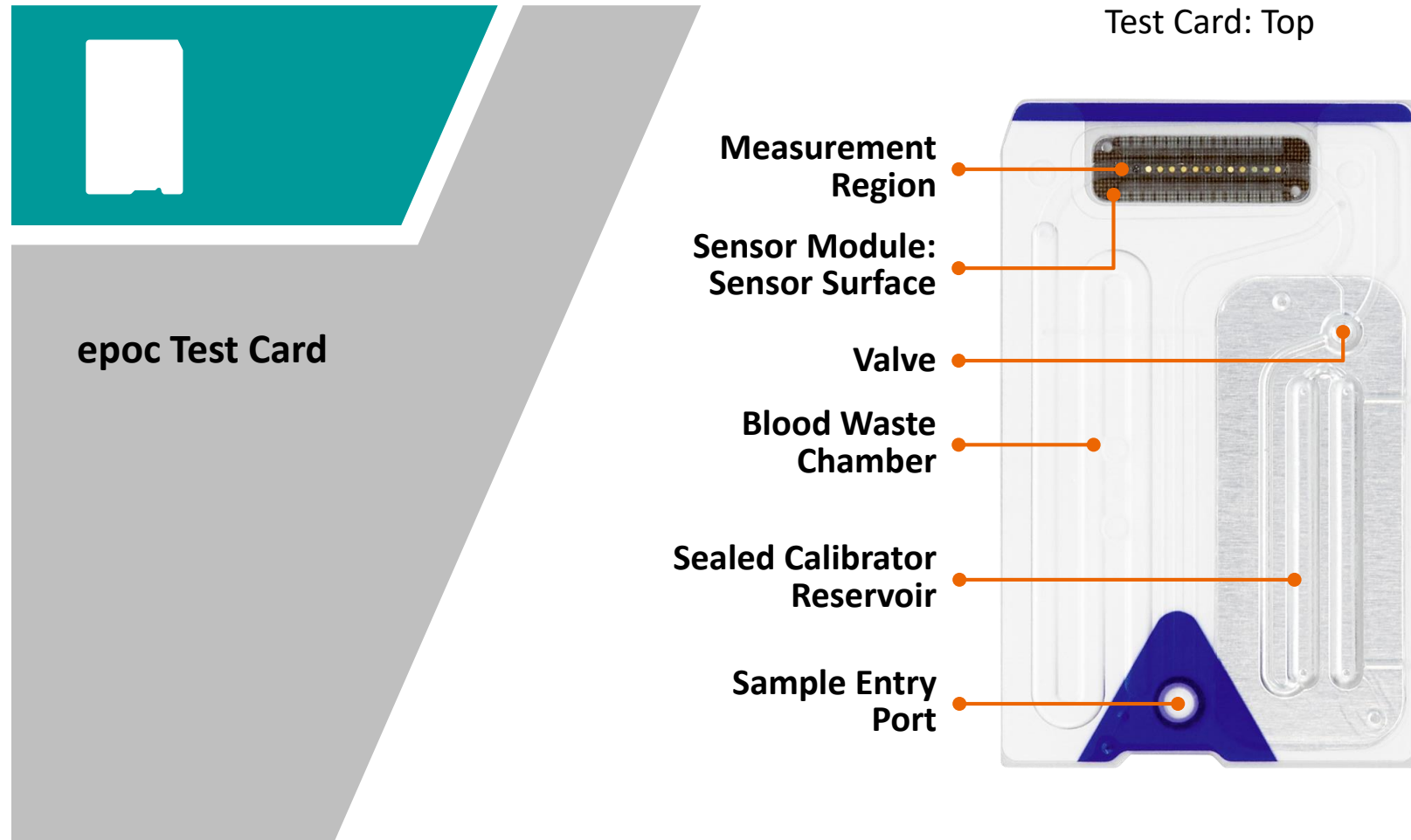
The figure shows the Reader's primary components and status light indicators.





# epoc Test Card

The high-value<sup>1</sup> patient-side testing product for a single blood sample



Room-temperature storage



barcoded with lot and expiration for error-free test panel recognition



92  $\mu$ L sample syringe/90  $\mu$ L sample capillary



Arterial, venous, or capillary whole-blood samples

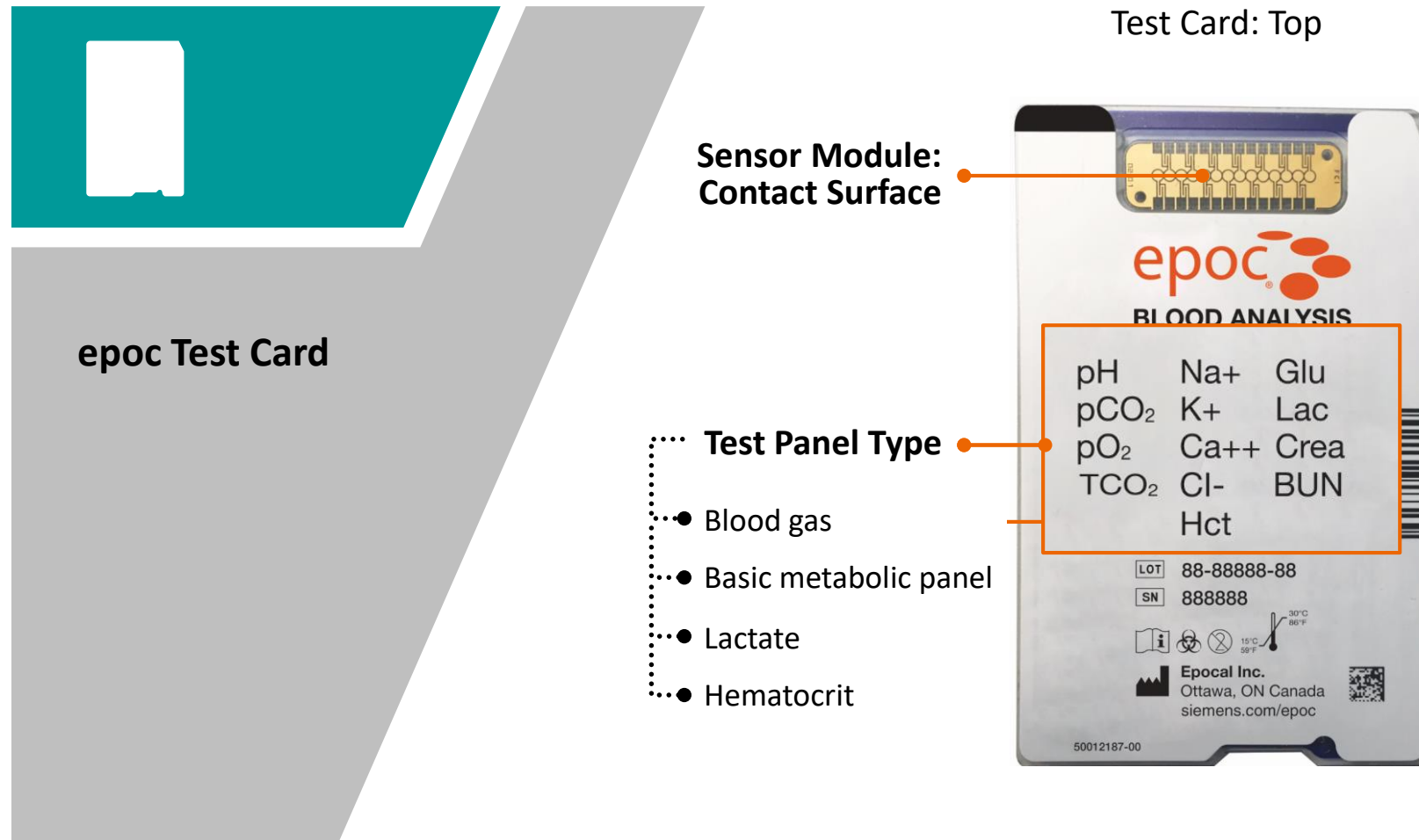


Simplified inventory management

1. Woods C, Culton D. Using the epoc point of care blood analysis system reduces costs, improves operational efficiencies, and enhances patient care. Pinnacle Health System.

# epoc BGEM Test Card

Accurate results for a full panel of critical tests in less than 1 minute after sample introduction at the patient's side



Test Card: Top

## 13 critical tests on a single card

### Blood Gas

pH                      pCO<sub>2</sub>                      pO<sub>2</sub>

### Basic metabolic panel

Na<sup>+</sup>                      K<sup>+</sup>                      Ca<sup>++</sup>  
Cl<sup>-</sup>                      Glu                      Crea  
BUN                      TCO<sub>2</sub>

### Lactate

Lac

### Hematocrit

Hct

## Additional calculated values

|                        |                      |                                |
|------------------------|----------------------|--------------------------------|
| AGap                   | AGapK                | cHCO <sub>3</sub> <sup>-</sup> |
| cTCO <sub>2</sub>      | BE(ecf)              | BE(b)                          |
| cSO <sub>2</sub>       | cHgb                 | eGFRmdr <sup>†</sup>           |
| eGFRmdr-a <sup>†</sup> | eGFRckd <sup>‡</sup> | eGFRckd-a <sup>‡</sup>         |
| eGFRswz <sup>§</sup>   | BUN/Crea             | Urea/Crea                      |

Values >60 will be reported as >60 mL/min/1.73 m<sup>2</sup>

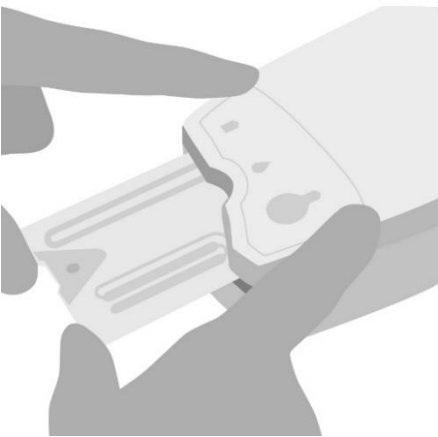
<sup>†</sup>IDMS-traceable MDRD type

<sup>‡</sup>CKD-EPI equation

<sup>§</sup>Bedside Schwartz equation



# Workflow



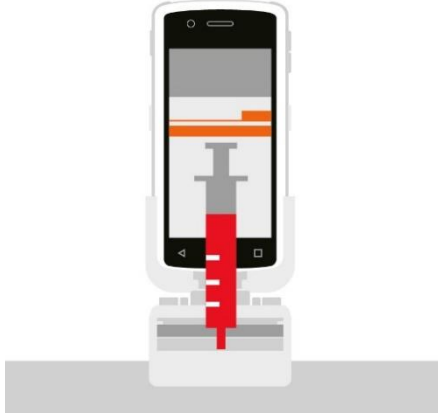
Insert test card



Scan patient



Draw sample



Inject sample



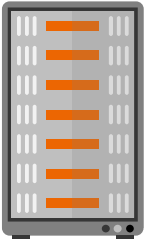
Wireless reporting

Review results

Deliver therapy



POC Informatics



Middleware/Data Management