The i-STAT® System—Meeting Emergency Department Needs With Point-of-Care Testing

The i-STAT System delivers critical test results in minutes at the bedside to accelerate decisions about patient care.

For in vitro diagnostic use only. For intended use information, see pages 6–7.
The hospital environment is undergoing a fundamental change. Many institutions are undergoing a transition to admit patients through an emergency department. While quality of care remains a primary focus, this environment also demands efficiency. Patients often present with urgent health care needs, and rapid diagnosis and treatment can be critical.

- **Process improvement:** with this greater demand for efficiency, emergency departments must identify ways to improve their processes
- **Limited resources:** this improvement must often be made with limited resources
- **Important implications:** how an emergency department performs in this environment can have significant implications for the patient and the department
To meet the demand for efficiency, many emergency departments are turning to point-of-care testing.

Point-of-care testing is diagnostic testing that is performed at or near the patient’s bedside. Importantly, point-of-care testing provides diagnostic information in minutes so that health care providers can make earlier treatment decisions. This clearly benefits patients in the emergency department—when every minute counts.

- **Complements the lab:** point-of-care testing is a model that allows an emergency department to fulfill its diagnostic needs and maintain a true focus on the patient

- **Offers rapid turnaround:** the quick turnaround time for test results can reinforce timeliness of care, making a meaningful difference to patients

- **Increases productivity:** point-of-care testing supports process improvement by increasing operational efficiencies in the emergency department
The i-STAT System: An Advanced Handheld Blood Analysis Platform

An advanced point-of-care testing platform, the i-STAT System delivers real-time, lab-quality results at the patient’s bedside to accelerate decisions about patient care. The i-STAT System features single-use, disposable cartridges that perform a broad range of the most commonly performed diagnostic tests (see pages 6-7).

- **Intuitive & easy to use**
  - Requires no special sample preparation or user calibration
  - Offers step-by-step prompts throughout the testing process

- **Lightweight & portable**
  - Weighs only 650 grams with rechargeable battery

- **Broadly applicable**
  - Supports the care of multiple patients throughout the emergency department with just 1 handheld device

- **Reliable & safe**
  - Delivers lab-accurate results and initiates preset quality control diagnostics to reinforce compliance

4 Easy Steps to Getting Important Results

**Step 1:** Apply a few drops of blood into cartridge

**Step 2:** Insert cartridge into the handheld

**Step 3:** View results within minutes

**Step 4:** Print or upload results

For in vitro diagnostic use only.
The i-STAT System: Providing Value in the Emergency Department

The i-STAT System may help your department advance patient care. i-STAT has been shown to:

- Provide lab-quality test results in minutes to accelerate decision-making regarding patient care
- Eliminate process steps and handoffs, helping to reduce the risk of errors and promote patient safety
- Expedite patient assessment and care, and emergency department length of stay
- Drive efficiencies in the emergency department and throughout the continuum of care

Bedside testing with the i-STAT System provides real-time, lab-quality test results that can help expedite diagnosis, treatment, and admittance/discharge of patients.

For intended use information, see pages 6–7.
The *i-STAT System* offers a broad testing platform that accommodates the emergency department’s most common diagnostic tests.

**Basic Metabolic Status**

*Application:* Rapid evaluation of metabolic status and renal function

Results in 2 minutes

**Acute Coronary Syndrome**

*Application:* Quick triage of patients with chest pain, including those with acute coronary syndrome

Results in 10 minutes

**Congestive Heart Failure**

*Application:* Rapid diagnosis of patients presenting with shortness of breath (acute dyspnea)

Results in 10 minutes

**Intended Use**

**cTnl**

The *i-STAT cardiac troponin I (cTnI)* test is an *in vitro* diagnostic test for the quantitative measurement of cardiac troponin I (cTnI) in whole blood or plasma. Measurements of cardiac troponin I are used in the diagnosis and treatment of myocardial infarction and as an aid in the risk stratification of patients with acute coronary syndromes with respect to their relative risk of mortality.

**BNP**

The *i-STAT BNP* test is an *in vitro* diagnostic test for the quantitative measurement of B-type natriuretic peptide (BNP) in whole blood or plasma samples using EDTA as the anticoagulant. BNP measurements can be used as an aid in the diagnosis and assessment of the severity of congestive heart failure.

*Based on customer feedback, *i-STAT System* cartridges are being redesigned to increase ease of use. The redesigned cartridge performs consistently with the original (data on file with Abbott Point of Care). Cartridge components, instructions for use, and intended use remain the same.*
**Intended Use**

**Lactate**
The test for lactate, as part of the *i-STAT System*, is intended for use in the *in vitro* quantification of lactate in arterial, venous, or capillary whole blood. The *i-STAT* lactate test is useful for (1) the diagnosis and treatment of lactic acidosis in conjunction with measurements of blood acid/base status, (2) monitoring tissue hypoxia and strenuous physical exertion, and (3) diagnosis of hyperlactatemia.

**PT/INR**
The *i-STAT PT*, a prothrombin time test, is useful for monitoring patients receiving oral anticoagulation therapy such as Coumadin® or warfarin.

**ACT Celite®**
The *i-STAT Celite Activated Clotting Time (Celite ACT)* test is an *in vitro* diagnostic test that uses fresh, whole blood, and is useful for monitoring patients receiving heparin for treatment of pulmonary embolism or venous thrombosis, and for monitoring anticoagulation therapy in patients undergoing medical procedures such as catheterization, cardiac surgery, surgery, organ transplant, and dialysis.

---

*The *i-STAT Kaolin Activated Clotting Time (Kaolin ACT)* test is also available in certain regions. Coumadin is a registered trademark of Bristol-Myers Squibb.*
Advancing Patient Care With the i-STAT System

Supporting both quality and efficiency, the i-STAT System can help your emergency department streamline the blood analysis process to advance patient care:

- **Accelerate decisions about patient care**
  - Lab-quality results in minutes

- **Improve operational efficiency**
  - Rapid triage, patient assessment, and care
  - Reduced length of stay

- **Meet a wide range of diagnostic needs**
  - The most comprehensive bedside testing platform available

- **Reinforce patient-focused care**
  - Diagnosis and treatment right at the bedside

To learn more about advancing patient care with the i-STAT System:


For in vitro diagnostic use only.