i-STAT PT^{plus} Cartridge

Intended for use with i-STAT 1 Analyzers (Model 300-G, Model 300W)

NAME

i-STAT PT^{plus} Cartridge (REF 03P89-50)

INTENDED USE

The i-STAT PT^{plus} cartridge is intended for use in the *in vitro* quantitative measurement of the clot time of the extrinsic coagulation pathway when activated by thromboplastin in non-anticoagulated whole blood (venous or capillary), using the i-STAT 1 System. Measurements of prothrombin time are used to aid in the monitoring of patients receiving anticoagulant therapy with coumarin derivatives. The i-STAT PT^{plus} Prothrombin Time test result is reported in seconds and as an International Normalized Ratio (INR). The test is intended for point of care use and is for prescription use only.

SUMMARY AND EXPLANATION / CLINICAL SIGNIFICANCE

The i-STAT PT^{plus} cartridge is used for the whole blood determination of the prothrombin time used to aid in the monitoring of patients receiving anticoagulant therapy with coumarin derivatives. The test determines the time required for complete activation of the extrinsic pathway of the coagulation cascade when initiated (activated) with a thromboplastin.

TEST PRINCIPLE

In a prothrombin time test, coagulation is initiated by exposing the sample to tissue thromboplastin. In traditional prothrombin time tests, complete activation is indicated when activated thrombin converts fibrinogen to fibrin and extensive or localized clots are detected mechanically or optically. The i-STAT Prothrombin time test is similar except that the endpoint is indicated by the conversion of a thrombin substrate other than fibrinogen. An electrochemical sensor is used to detect this conversion.

The added thrombin substrate is as follows: Tos-glycine-proline-arginine--NH-C_6H_4-NH-C_6H_4-OCH_3

Thrombin cleaves the amide bond at the carboxy terminus of the arginine residue (denoted by the two dashes) because the bond structurally resembles the thrombin-cleaved amide linkage in fibrinogen. The product of the thrombin-substrate reaction is the electrochemically inert tripeptide Tos-Gly-Pro-Arg and the electroactive compound NH_3^+-C_6H_4-NH-C_6H_4- OCH_3. A formation of the electroactive compound is

detected amperometrically and the detected current is used to generate the clot time.

The prothrombin time test result is reported as an International Normalized Ratio (INR) and/or in seconds. The INR is the recommended method of result reporting for monitoring of oral anticoagulant therapy.[1] A Mean Normal i-STAT prothrombin time (sec) and an International Sensitivity Index (ISI) value are determined following the World Health Organization (WHO) recommendations at a CAP-accredited facility using the available WHO human recombinant thromboplastin reagent[1]. INR results are calculated using the following equation:

$$INR = \left[\frac{\text{Patient i-STAT prothrombin time (sec)}}{\text{Mean Normal i-STAT prothrombin time (sec)}}\right]^{ISI}$$

The displayed units of seconds reflect the traditional plasma prothrombin time (PT). The reported time is derived from the INR result and the equation below using an ISI of 1.0 and a typical Mean Normal Plasma PT time of 10.1 seconds.

$$INR = \left[\frac{\text{Patient i-STAT prothrombin time (sec)}}{\text{Mean Normal Plasma prothrombin time (sec)}}\right]^{ISI}$$

REAGENTS

Contents

Each i-STAT PT*plus* cartridge provides a sample collection chamber, sensors to detect the coagulation endpoint and dry reagents necessary to initiate and allow coagulation. Inert matrix components and reagents are present in the sensor channel and include the following reactive ingredients:

Reactive Ingredient	Biological Source	Minimum Quantity
Recombinant Tissue Thromboplastin	Human	0.5 ng
Heparinase I	*Flavobacterium heparinum*	0.00004 IU
Thrombin Substrate	N/A	0.38 ng

Warnings and Precautions

- For *in vitro* diagnostic use.
- DO NOT RE-USE - cartridges are intended for single-use only.
- Although the sample is contained within the cartridge, used cartridges should be disposed of as biohazardous waste according to local, state, and national regulatory guidelines.
- The i-STAT System automatically runs a comprehensive set of quality checks of instrument and cartridge performance each time a sample is tested. This internal quality system will suppress results by generating a Quality Check Code (QCC), if the instrument or cartridge does not meet certain specifications. To minimize the probability of delivering a result with medically significant error the internal specifications are very stringent. It is typical for the

[1] http://www.who.int/bloodproducts/catalogue/en/index.html

system to suppress a very small percentage of results in normal operation given the stringency of these specifications. If however the analyzer or cartridges have been compromised, results may be persistently suppressed, and one or the other must be replaced to restore normal operating conditions. Where unavailability of results while awaiting replacement of analyzers or cartridges is unacceptable, Abbott Point of Care Inc. recommends maintaining both a backup analyzer and cartridges from an alternate lot number.

For additional warnings and precautions about the i-STAT 1 System refer to the i-STAT 1 System Manual located at www.globalpointofcare.abbott.

Storage Conditions

- Refrigerated at 2-8 °C (35-46 °F) until expiration date.
- Room temperature at 18-30 °C (64-86 °F) for up to 14 days.

INSTRUMENTS

The i-STAT PT*plus* cartridge is intended for use with the i-STAT 1 analyzer.

The i-STAT System should be used by healthcare professionals trained and certified to use the system and should be used according to the facility's policies and procedures.

The i-STAT System incorporates a comprehensive group of components needed to perform blood analysis at the point of care. A portable i-STAT 1 analyzer, a cartridge with the required tests, and 2-3 drops of blood will allow the caregiver to view quantitative test results.

For a detailed description of the analyzer and system procedures, refer to the i-STAT 1 System Manual located at www.globalpointofcare.abbott.

SPECIMEN COLLECTION AND PREPARATION FOR ANALYSIS

Specimen Types

Fresh whole blood from finger puncture or venous samples.
Sample Volume: Approximately 20 µL

Blood Collection Options and Test Timing (time from collection to cartridge fill)

Test Timing: Immediately after collection

Blood Collection

Finger Puncture

- Prepare lancet device and set aside until needed.
- Clean and prepare the finger to be sampled using a 70% aqueous solution of isopropanol (70% v/v).[2]
  - Allow the finger to dry thoroughly before sampling. When disinfecting fingerstick skin

puncture sites, swabs or solutions containing substances other than isopropanol (e.g., chlorhexidine digluconate) are not recommended.
  - Refer to the Limitations of the i-STAT PT*plus* Test section below for more information.
- Prick the bottom side of the fingertip with the lancet device.
- The sample should be immediately applied to the sample well of a cartridge.
- If a second measurement is required, a fresh sample should be obtained.

Venipunctures

- Collection technique resulting in good blood flow must be used.
- The sample for testing should be drawn into a plastic collection device (either a plastic syringe or a plastic evacuated tube).
- The collection device cannot contain anticoagulants such as EDTA, oxalate, or citrate.
- The collection device cannot contain clot activators or serum separators.
- The sample should be immediately dispensed into the sample well of a cartridge.
- If a second measurement is required, a fresh sample should be obtained.

Note: Some experts recommend drawing and discarding a (venous) sample of at least 1.0 ml prior to drawing sample for coagulation testing.[3]

For detailed instructions for sample collection and preparation for analysis, refer to the Sample Collection section of the i-STAT 1 System Manual located at www.globalpointofcare.abbott.

PROCEDURE FOR PATIENT TESTING

Each cartridge is sealed in a foil pouch for protection during storage – do not use if pouch has been punctured.

- A cartridge should not be removed from its protective pouch until it is at room temperature (18-30 °C or 64-86 °F). For best results, the cartridge and analyzer should be at room temperature.
- Since condensation on a cold cartridge may prevent proper contact with the analyzer, allow refrigerated cartridges to equilibrate at room temperature for 5 minutes for a single cartridge and 1 hour for an entire box before use.
- Use a cartridge immediately after removing it from its protective pouch. Prolonged exposure may cause a cartridge to fail a quality check.
- Do not return unopened, previously refrigerated cartridges to the refrigerator.
- Cartridges may be stored at room temperature for the timeframe indicated on the cartridge box.

Filling and Sealing the Cartridge (after cartridge has been equilibrated and blood sample has been collected)

1. Remove cartridge from foil pouch and place the cartridge on a flat surface.

2. Follow the specimen collection instructions provided above (Specimen Collection and

Preparation for Analysis) for finger puncture or venipuncture.

3. The sample should be immediately dispensed into the sample well of the cartridge.
   A) Finger puncture:
   Gently squeeze the finger, developing a hanging drop of blood and perform the test with the first sample of blood. Avoid strong repetitive pressure ("milking") as it may cause hemolysis or tissue fluid contamination of the specimen. Cartridge is properly filled when the sample reaches the 'fill to' mark and a small amount of sample is in the sample well. The sample should be continuous, no bubbles or breaks (see System Manual for details).
   B) Venipuncture:
   Slowly dispense sample into the sample well until the sample reaches the fill mark indicated on the cartridge. Cartridge is properly filled when the sample reaches the 'fill to' mark and a small amount of sample is in the sample well. The sample should be continuous, no bubbles or breaks (see System Manual for details).

Note: A single drop of blood from either a finger puncture or as formed at the tip of a syringe will typically be sufficient. If a larger volume is delivered to the sample well, use caution when closing the cartridge as excess blood may be expelled from the cartridge.

4. Fold the snap closure of the cartridge over the sample well.

Performing Patient Analysis

1. Press the power button to turn on the analyzer.
2. Press 2 for *i-STAT Cartridge*.
3. Follow the analyzer prompts.
4. Scan the lot number on the cartridge pouch.
5. Continue normal procedures for preparing the sample, and filling and sealing the cartridge.
6. Push the sealed cartridge into the cartridge port until it clicks into place. Wait for the test to complete.
7. Review the results.

Note: Ensure that the instrument remains on a flat, vibration-free surface with the display facing up for testing. A level surface includes running the analyzer in the Downloader/Recharger.

For additional information for cartridge testing, refer to the i-STAT 1 System Manual located at www.globalpointofcare.abbott.

Analysis Time

Up to 300 sec (5 min)

Quality Control

The i-STAT quality control regimen comprises four aspects, with a system design that reduces the opportunity for error, including:

1. A series of automated, on-line quality measurements that monitors the sensors, fluidics, and instrumentation each time a test is performed.
2. A series of automated, on-line procedural checks monitors the user each time a test is

performed.

3. Liquid materials that are used to verify the performance of a batch of cartridges when they are first received or when storage conditions are in question. The performance of this procedure is not a Manufacturer's Quality System Instruction (MQSI).
4. Traditional quality control measurements verify the instrumentation using an independent device, which simulates the characteristics of the electrochemical sensors in a way that stresses the performance characteristics of the instrumentation.

For information on Quality Control for the analyzer, refer to the i-STAT 1 System Manual located at www.globalpointofcare.abbott. For information on performing liquid quality control, refer to the i-STAT PT*plus* controls instructions for use located at www.globalpointofcare.abbott.

EXPECTED VALUES

Reportable Range

Test / Abbreviation	Units	ReportableRange
Prothrombin Time (PT*plus*)	INR	0.8 – 8.0
	seconds	8.1 – 80.8

Interpretation of results:

- Various conditions can cause results to display a symbol or be suppressed. For additional explanation on these results refer to the i-STAT 1 System Manual.

Reference Range

A reference interval study was conducted with venous and capillary samples from apparently healthy adult subjects. The venous samples were collected in plastic tubes and capillary samples were obtained via fingerstick. Testing was performed with three cartridges lots on the i-STAT 1 System at three (3) clinical sites. Reference intervals for INR and seconds in venous and capillary samples were determined according to the CLSI Guideline EP28-A3c.4 The data are summarized in the table below:

Specimen Type	N	Unit	Mean	Range
Capillary	146	INR*	1.1	0.9 - 1.3
		Seconds**	10.6	9.0 - 13.8
Venous	154	INR*	1.1	0.9 - 1.3
		Seconds**	10.6	9.2 - 13.0

*Pooled by sample type across all sites.

**Due to the rounding of parameters in the equation to convert INR to seconds, small differences in seconds can be observed.

The PT*plus* cartridge reference range for whole blood listed above is similar to reference ranges derived from plasma measurements with standard laboratory methods.

The reference ranges programmed into the analyzer and shown above are intended to be used as guides for the interpretation of results. Since reference ranges may vary with demographic factors such as age,

sex, race and ethnicity, it is recommended that reference ranges be determined for the population being tested.
Each facility should establish its own reference range to assure proper representation of specific populations.

METROLOGICAL TRACEABILITY

The i-STAT System test for prothrombin time measures the International Normalized Ratio (INR) (dimensionless) expressing the relative time interval required for complete activation, by thromboplastin, of the coagulation cascade in capillary or venous whole blood. i-STAT prothrombin time values assigned to i-STAT's controls are traceable to the World Health Organization (WHO) international reference measurement procedures and the International Reference Preparation (IRP) recommended by the WHO.[5] i-STAT System controls are validated for use only with the i-STAT System and assigned values may not be commutable with other methods. Further information regarding metrological traceability is available from Abbott Point of Care Inc.

PERFORMANCE CHARACTERISTICS

The typical performance data are summarized below.

Precision

Data from duplicate testing in the capillary method comparison study were used to evaluate capillary whole blood precision. Data were separated into three (3) ranges: non-therapeutic (INR 0.8 - 1.9), therapeutic (INR 2.0 - 4.5), and very high therapeutic (INR 4.6 - 8.0). Whole blood precision using data from duplicate testing in the venous method comparison study was also assessed in the same three ranges. The mean, pooled standard deviation, %CV and their respective 95% confidence intervals (CI) for PT in seconds and INR were calculated for each subject level by site and with all sites combined. The tables below summarize this data for all sites combined.

Capillary Whole Blood PT (seconds) Precision

Site	Interval	N	Mean		Standard Deviation		%CV	
			Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
All Sites	Non-therapeutic	58*	14.89	14.06 to 15.73	1.414	1.197 to 1.727	9.5	8.0 to 11.6
	Therapeutic	119*	28.51	27.73 to 29.30	1.495	1.327 to 1.713	5.2	4.7 to 6.0
	Very High Therapeutic	9	50.71	42.88 to 58.54	2.109	1.451 to 3.851	4.2	2.9 to 7.6

*Results with outliers included

Capillary Whole Blood PT INR Precision								
Site	Interval	N	Mean		Standard Deviation		%CV	
			Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
All Sites	Non-therapeutic	58*	1.48	1.39 to 1.56	0.143	0.121 to 0.174	9.7	8.2 to 11.8
	Therapeutic	119*	2.82	2.74 to 2.90	0.148	0.131 to 0.169	5.2	4.6 to 6.0
	Very High Therapeutic	9	5.02	4.24 to 5.80	0.201	0.139 to 0.368	4.0	2.8 to 7.3

*Results with outliers included

Venous Whole Blood PT (seconds) Precision								
Site	Interval	N	Mean		Standard Deviation		%CV	
			Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
All Sites	Non-therapeutic	65*	14.69	13.95 to 15.43	1.047	0.894 to 1.263	7.1	6.1 to 8.6
	Therapeutic	131	28.78	27.97 to 29.59	0.660	0.589 to 0.751	2.3	2.0 to 2.6
	Very High Therapeutic	13*	54.37	48.44 to 60.31	0.785	0.569 to 1.264	1.4	1.0 to 2.3

*Results with outliers included

Venous Whole Blood PT INR Precision								
Site	Interval	N	Mean		Standard Deviation		%CV	
			Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
All Sites	Non-therapeutic	65*	1.45	1.38 to 1.53	0.109	0.093 to 0.131	7.5	6.4 to 9.0
	Therapeutic	131	2.85	2.77 to 2.93	0.069	0.061 to 0.078	2.4	2.1 to 2.7
	Very High Therapeutic	13*	5.38	3.80 to 5.97	0.088	0.064 to 0.141	1.6	1.2 to 2.6

*Results with outliers included

A multiday precision study was performed with i-STAT PT*plus* control fluids and was based upon guidance provided in CLSI EP05-A3[6]. Duplicates of each fluid were tested twice a day for 20 days. The averaged statistics for total (within laboratory) precision (SD, standard deviation) are represented below. SD and %CV are typical of current performance, however results in individual laboratories may vary from these data.

Results	Control Level	N	Mean	SD	CV(%)
INR	Level 1	359	1.03	0.033	3.1
	Level 2	355	2.34	0.106	4.5
Seconds	Level 1	359	10.44	0.329	3.1
	Level 2	355	23.64	1.067	4.5

Method Comparison

Venous and capillary whole blood specimens were prospectively collected from subjects undergoing coumarin therapy and from subjects who were not on anticoagulant therapy at three (3) clinical sites. Both venous and capillary specimens were tested in duplicate on the i-STAT 1 Analyzer and plasma from the venous whole blood specimens was tested in duplicate on the Sysmex CS-2500 reference instrument using Dade® Innovin® reagent. The study design and analysis method were based on recommendations from CLSI guideline EP09c ED3[7].

Passing-Bablok regression analysis was performed for the first replicate of the i-STAT prothrombin time result versus the first replicate result from the Sysmex CS-2500. The slope, y-intercept, correlation coefficients (r), and their 95% confidence intervals (CI) were calculated by site and with all sites combined, where N is the number of specimens tested.

Method comparisons will vary from site to site due to differences in the sample handling, reagent and instrument systems in use, and other site-specific variables. A correlation study should be performed to establish the differences between the i-STAT Prothrombin time measurement and other methods used.

i-STAT PT (seconds) Passing Bablok Regression Statistics i-STAT 1 vs. Sysmex CS-2500

Matrix	N	i-STAT 1 PT (sec) Range	Sysmex PT (sec) Range	r		Slope		Intercept	
				Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
Venous	211*	8.5 – 80.5	9.7 – 83.1	0.92	0.90 to 0.94	1.037	0.994 to 1.082	-0.591	-1.500 to 0.151
Capillary	203*	8.6 – 80.5	9.7 – 83.1	0.91	0.88 to 0.93	1.023	0.979 to 1.070	-0.189	-1.052 to 0.641

*Results with outliers included

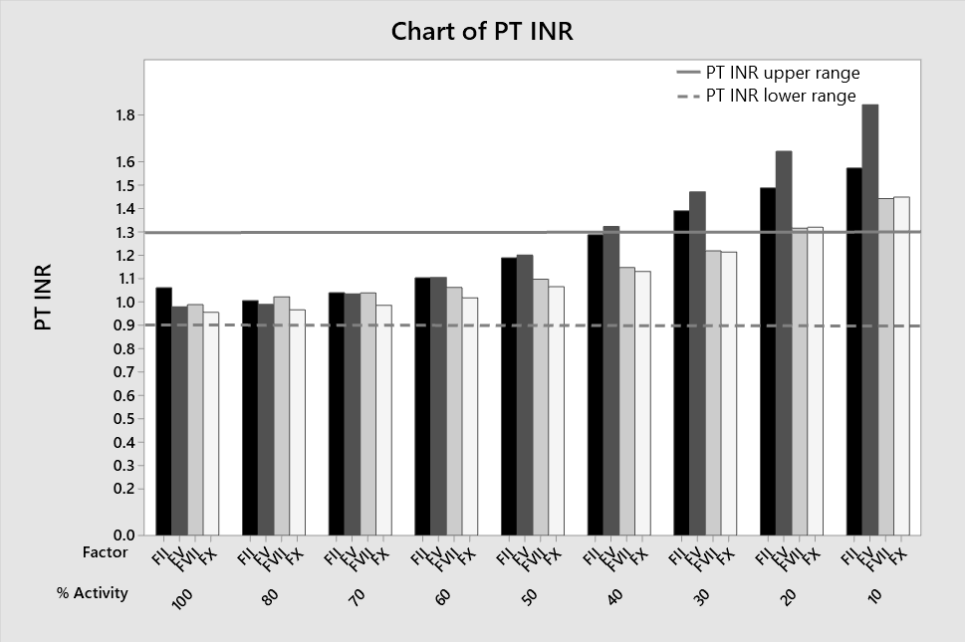
i-STAT PT INR Passing Bablok Regression Statistics i-STAT 1 vs. Sysmex CS-2500

Matrix	N	i-STAT 1 INR Range	Sysmex INR Range	r		Slope		Intercept	
				Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
Venous	211*	0.8 – 8.0	0.9 – 8.1	0.92	0.90 to 0.94	1.037	1.000 to 1.078	0.004	-0.079 to 0.075
Capillary	203*	0.8 – 8.0	0.9 – 8.1	0.91	0.89 to 0.93	1.022	0.984 to 1.061	0.047	-0.029 to 0.127

*Results with outliers included

Factor Sensitivity

The factor sensitivity for factors FII, FV, FVII and FX was determined using samples prepared by proportionately combining pooled normal plasma, red blood cells and factor-deficient plasma with various percent (%) factor activity ranging from 20%-100%. The results are summarized in the graph below.



The sensitivity of the prothrombin time test in the i-STAT PT*plus* cartridge to factors FII, FV, FVII and FX when tested on the i-STAT 1 System was estimated to be 39.5%, 42.0%, 21.5% and 22.0%, respectively.

LIMITATIONS OF THE PROCEDURE

The i-STAT Prothrombin time (PT) test results should be assessed in conjunction with the patient's medical history, clinical examination, and other findings. If results appear inconsistent with the clinical assessment, the patient sample should be retested using another cartridge or another method.

Interference Testing

Interference studies were based on CLSI guideline EP07-A2[8], EP07-ED3[9], and EP07 supplement document EP37-ED1[10] as applicable. The substances listed were evaluated in whole blood (normal level prothrombin time) and vitamin-K factor depleted blood (therapeutic level prothrombin time). For those identified as an interferant the interference is described.

Substance	Test Concentration	Test Concentration (mg/dL)	Interference (Yes/No)	Comments
Acetaminophen	1324 µmol/L	$2.0x10^{1}$	No	
Acetylsalicylic Acid	3.62 mmol/L	$6.5x10^{1}$	No	
Ascorbic Acid	342 µmol/L	6.0	No	
Atorvastatin	750 µg/L	$7.5x10^{-2}$	No	
Unconjugated Bilirubin	684 µmol/L	$4.0x10^{1}$	No	
Conjugated Bilirubin	475 µmol/L	$4.0x10^{1}$	No	

Substance	Test Concentration	Test Concentration (mg/dL)	Interference (Yes/No)	Comments
Chlorhexidine digluconate	0.1%*	$1.0x10^{-3}$	Yes	Chlorhexidine digluconate at $9.58x10^{-4}$ % showed increased PT.
Daptomycin	0.55 mg/mL	$5.5x10^{1}$	Yes	Daptomycin at 0.2 mg/mL showed increased PT.
Enoxaparin	2.0 IU/mL*	2.0	No	
Epsilon-aminocaproic acid	0.39 mg/mL	$3.9x10^{1}$	No	
Fondaparinux	3.78 mg/L*	$3.8x10^{-1}$	No	
Hemoglobin	10 g/L	$1.0x10^{3}$	No	
Ibuprofen	2425 µmol/L	$5.0x10^{1}$	No	
Oritavancin	414 mg/L*	$4.1x10^{1}$	Yes	Oritavancin at 104 mg/L showed increased PT.
Prasugrel	265.5 ng/mL*	$2.7x10^{-2}$	No	
Tranexamic Acid	45 µg/mL*	$4.5x10^{6}$	No	
Triglycerides	37 mmol/L	$3.2x10^{3}$	No	
Uric Acid	1.4 mmol/L	$2.4x10^{1}$	No	

* No CLSI EP07-A2, EP07-ED3, or EP37-ED1 recommended test concentration available.

This is representative data and results may vary from study to study due to matrix effects. Viscosity, surface tension, turbidity, ionic strength and pH are common causes of matrix effects. It is possible that interfering substances other than those tested may be encountered. The degree of interference at concentrations other than those listed might not be predictable.

Factors Affecting Results

Factor	Effect
Anticoagulant medications	Factor Xa inhibitors (e.g., Apixaban and Rivaroxaban) and Direct thrombin inhibitors (DTI) (e.g., Argatroban and Dabigatran) are selectively acting anticoagulant medications used to both treat and prevent blood clots. As a result, they are expected to prolong clotting tests such as prothrombin time (PT) but the extent of elevation is dependent on the PT test. It is recommended that for patients being treated with any factor Xa inhibitor or direct thrombin inhibitor, including but not limited to apixaban, argatroban, dabigatran, and rivaroxaban, an alternate method be used to evaluate PT.
Unfractionated heparin	The i-STAT Prothrombin time test is not affected by unfractionated heparin concentrations up to 1.0 IU/mL.
Hematocrit	Hematocrits in the range of 24 - 54 %PCV have been demonstrated not to affect results.
Clotting factors	The i-STAT Prothrombin time test is not intended for evaluating individual factor deficiencies.
Lupus anticoagulant antibodies	The i-STAT Prothrombin time test is sensitive to the presence of lupus anticoagulant antibodies. If the presence of lupus anticoagulant antibodies is known or suspected, consider using a prothrombin time laboratory assay using a reagent that is known to be insensitive to lupus anticoagulant antibodies or an alternate laboratory method.
Fibrinogen	The i-STAT Prothrombin time test is not affected by fibrinogen concentrations between 63 and 702 mg/dL. The i-STAT PT*plus* cartridge electrogenic test methodology does not measure the physical clot and is not dependent on whether or not fibrinogen forms into an actual physical fibrin clot. As such, the i-STAT PT*plus* cartridge will not reflect the extension of coagulation time associated with the depletion of fibrinogen (e.g., consumptive coagulopathy), disseminated intravascular coagulation (DIC), or defibrination syndrome.
Cubicin®	Cubicin® (daptomycin for injection) has been found to cause a concentration-dependent false prolongation of prothrombin time (PT) and elevation of INR when using the i-STAT PT*plus* cartridge. It is recommended that for patients being treated with this antibiotic, an alternate method be used to evaluate PT.
Chlorhexidine digluconate	The i-STAT PT*plus* cartridge prothrombin time test may report a false prolongation of the prothrombin time (PT) and an elevation of the INR on samples contaminated with chlorhexidine digluconate.
Altitude	The i-STAT PT*plus* cartridge has not been evaluated at altitudes >10,000 feet. No impact on performance was found at altitudes up to 10,000 feet.
Anticoagulant	The presence of exogenously added citrate, oxalate, or EDTA from blood collection devices will interfere with test results.
Sample handling	Poor technique in sample collection may compromise the results. (See Specimen Collection and Preparation for Analysis above).
Sample collection device	Glass syringes or tubes may prematurely activate coagulation, resulting in accelerated clotting times and lower INRs. Venous samples must be collected into plastic syringes or tubes.

KEY TO SYMBOLS

Symbol	Definition Use
14	14 days room temperature storage at 18-30°C
	Use by or expiration date. An expiration date expressed as YYYY-MM-DD means the last day the product can be used.
LOT	Manufacturer's lot number or batch code. The lot number or batch will appear adjacent to this symbol.
	Contains sufficient for <n> tests
EC REP	Authorized representative in the European Community.
	Temperature limitations. The upper and lower limits for storage are adjacent to the upper and lower arms.
REF	Catalog number, list number, or reference
	Do not re-use
	Manufacturer
	Consult instructions for use or see System Manual for instructions.
IVD	*In vitro* diagnostic medical device
CE 0344	A mark that indicates conformity to the legal requirements of the appropriate European Union (EU) Directive(s) with respect to safety, health, environment and consumer protection.
	Device for near-patient testing
	Importer in the European Community
Rx Only	For prescription use only.

ADDITIONAL INFORMATION

To obtain additional product information and technical support, refer to the APOC website at www.globalpointofcare.abbott.

For a patient/user/third party in the European Union and in countries with identical regulatory regime (Regulation 2017/746/EU on In vitro Diagnostic Medical Devices); if, during the use of this device or as a result of its use, a serious incident has occurred, please report it to the manufacturer and/or its authorized representative and to your national authority.

REFERENCES

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4. CLSI. *Defining, Establishing, and Verifying, Reference Intervals in the clinical laboratory: Approved Guideline -Third Edition*. CLSI document EP28-A3c (ISBN 1-56238-682-4). Clinical Standard Institute, 940 West Valley Road, Suite 1400, Wayne, Pennsylvania 19087-1898.

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7. CLSI. *Measurement Procedure Comparison and Bias Estimation Using Patient Samples; Approved Guideline –Third Edition*, CLSI document EP09c (ISBN 978-1-68440-006-5 [Print]; ISBN 978-1-68440-007-2 [Electronic]). Clinical and Laboratory Standards Institute, 950 West Valley Road, Suite 2500, Wayne, Pennsylvania, 19087, USA, 2018.

8. CLSI. *Interference Testing in Clinical Chemistry; Approved Guideline - Second Edition.* CLSI document EP07-A2. Wayne, PA: Clinical Laboratory Standards Institute; 2005.

9. CLSI. *Interference Testing in Clinical Chemistry; Approved Guideline - Third Edition.* CLSI document EP07-ED3. Wayne, PA: Clinical Laboratory Standards Institute; 2018.

10. CLSI. *Supplemental Tables for Interference Testing in Clinical Chemistry; Approved Guideline - First Edition.* CLSI document EP37. Wayne, PA: Clinical Laboratory Standards Institute; 2018.

Technical Support: please contact your local service provider for service information.

For customers in the European Union: A summary of safety and performance (SSP) for this device is available at https://ec.europa.eu/tools/eudamed/ after the launch of the European Database on Medical Devices. Search for the device using the UDI-DI provided on the outer packaging of the device. A copy of the SSP can also be requested from the European Authorized Representative or the manufacturer.

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CE 0344

IVD

Rx ONLY