7.15.23 Quantra QPlus Hemostasis System Utilization on the Blocker Burn Unit Formulated: 8/1/2024	Reformatted: N/A Revised: N/A

I. Title

Quantra QPlus Hemostasis System Utilization on the Blocker Burn Unit

II. Policy

The purpose of this policy is to outline the guidelines for the use of the Quantra QPlus Hemostasis System for patient blood management, ensuring the effective and safe use of this technology to optimize patient outcomes.

The Quantra QPlus Hemostasis System is a point-of-care diagnostic device that provides rapid and comprehensive assessment of a patient's hemostasis status. It is used to guide transfusion and hemostatic therapy decisions in various clinical settings.

Indications for use:

- Major surgery (e.g., cardiac, liver transplantation, trauma).
- Severe trauma with suspected coagulopathy.
- Any situation where rapid assessment of coagulation status is required.

Results obtained with the Quantra QPlus System should not be the sole basis for patient diagnosis. The Quantra QPlus System results should always be considered within the clinical context of the individual patient. In the event of inconsistencies with the patient's clinical status, samples should be repeated or supplemented with additional clinical information and/or data.

III. Procedures

Cartridge Storage and Handling

- The QPlus should be stored in its pouch unopened until ready for use.
- The QPlus may be stored refrigerated or at room temperature (up to 86°F/28°C) until the expiry date stated on the label. If possible, store in refrigerated conditions.
- If stored refrigerated, remove from the refrigerator and place at room temperature unopened for a minimum of 30 minutes before use.
- Remove cartridge from the pouch immediately before use.
- Discard the cartridge if it sits outside of its pouch for longer than 15 minutes.

Sample Collection and Handling

- The QPlus requires a fresh sample of 3 mL or more of citrated venous or arterial whole blood collected in an evacuated tube containing 3.2% sodium citrate.
- Samples can be collected by venipuncture or from venous or arterial catheters.
- Do not use a discard tube as the sample.
- Gently invert the blood collection tube 5 times before attaching it to the cartridge.
- Store citrated blood at room temperature. Do not store at 2-8°C.
- Fresh blood kept at room temperature should be analyzed within 4 hours after collection.

- Samples should be collected and handled per the institution's policies and procedures pertaining to biohazardous material.

Testing Procedure

- Refer to the Quantra Hemostasis Analyzer User Manual for complete operating instructions including instructions for instrument setup.
- Prior to testing, keep the QPlus Cartridge in its pouch until ready to use.
- Prepare the Quantra Hemostasis Analyzer for testing.
- Once the analyzer is ready, remove cartridge from its pouch and inspect it. If the cartridge is damaged or missing components or lyophilized reagent beads do not use.
- When prompted by the onscreen instructions, insert the cartridge into the instrument.
- Confirm that the blood collection tube is filled to the minimum fill line and that the tube is gently inverted 5 times.
- Attach the sample tube to the cartridge.
- Press "Start" to initiate the test.

Interpretation of Results

- Ensure the results are interpreted by a trained professional.
- Use the Quantra QPlus System results to guide clinical decision-making for blood product administration.
- Consider the entire clinical context, including parameters such as clot time, clot stiffness, and fibrinolysis.

Management Based on Results

- Hypocoagulability:
  - Consider administration of platelets, cryoprecipitate, fibrinogen concentrate, or fresh frozen plasma (FFP) based on specific deficiencies identified by the Quantra QPlus System.
- Hypercoagulability:
  - Evaluate the need for anticoagulant therapy and adjust as necessary.
- Fibrinolysis:
  - Consider use antifibrinolytic agents if excessive fibrinolysis is detected.

IV. Related UTMB Policies and Procedures

IHOP - 09.13.29 - Transfusion of Blood Components, Adults and Pediatrics

V. Additional References

HemoSonics. (2023). *QPlus cartridge instructions for use.*

HemoSonics. (n.d.) *Quantra hemostasis system clinical compendium.*

Society for the Advancement of Blood Management. (2019). *Role of real-time/accurate diagnostic testing in patient blood management programs.*

VI. Dates Approved or Amended

Include origination date, dates of major or minor revisions and dates reviewed without changes.

Originated: 8/1/2024	
Reviewed with Changes	*Reviewed without Changes*
