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**Lab Dept:** Coagulation

**Test Name:** FACTOR VIII ASSAY

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***General Information***

**Lab Order Codes:** F8

**Synonyms:** AHF; AHG; Antihemophiliac Factor; FVIII; VIIIIC; Factor VIII Activity

**CPT Codes:** 85240 - Clotting; factor VIII (AHG), one stage

**Test Includes:** Factor 8 level reported as a %.

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***Logistics***

**Test Indications:** Useful for the detection of a single factor congenital deficiency for Hemophilia A or von Willebrand's disease or an acquired deficiency due to liver disease or DIC.

**Lab Testing Sections:** Coagulation

**Phone Numbers:** MIN Lab: 612-813-6280

STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 4 hours

**Special Instructions:** Patient should not be receiving heparin. If so, this should be noted on the request form. Heparin therapy will affect certain coagulation factors or assays, preclude their performance, or cause spurious results. Indicate when specimen is drawn from a line or a heparin lock. Deliver immediately to the laboratory.

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***Specimen***

**Specimen Type:** Whole blood

**Container:** Light Blue top (Buffered Na Citrate 3.2%) tube

**Draw Volume:** 2.7 mL blood

**Processed Volume:** 0.9 mL plasma

**Collection:**

- A clean venipuncture is essential, avoid foaming.

- Entire sample must be collected with single collection, pooling of sample is unacceptable.
- Capillary collection is unacceptable.
- Patient's with a hematocrit level >55% must have a special tube made to adjust for the hematocrit; contact lab for a special tube.
- Mix thoroughly by gentle inversion. Deliver immediately to the laboratory at room temperature via courier or pneumatic tube.

**Off campus collections:**

- Must be tested within 4 hours.
- Do not refrigerate.
- If not received in our lab within 4 hours of collection, sample must be centrifuged and \*platelet-poor plasma removed from cells and transferred to an aliquot tube being careful not to disturb the cell layer. Centrifuge the plasma a second time and transfer into a clean aliquot tube being careful not to include any residual platelets on the bottom of the tube. Freeze at -20°C and deliver to the lab on dry ice within 2 weeks.

**\*Validation of your lab's centrifuge for platelet poor plasma is required.**

**Special Processing:**

Lab Staff: Spin sample collected in blue top tube(s) for 5 minutes on the Stat Spin centrifuge, remove plasma and transfer to a 4 mL BCS sample cup(s), spin remaining plasma again for 5 minutes in the Stat Spin Centrifuge. Transfer plasma to new BCS sample cup(s) for analysis (as specifically stated in each procedure) leaving approximately 200 mcL in the bottom of the original cup to discard.

**Patient Preparation:**

Avoid heparin therapy for two days prior to the test.

**Sample Rejection:**

Improper tube; clotted samples; underfilled tube; mislabeled or unlabeled specimens

**Interpretive**

**Reference Range:**

Age	Range
0 – 1 day	61 – 139%
2 – 5 days	55 – 121%
6 – 30 days	58 – 124%
31 – 90 days	56 – 102%
91 – 180 days	55 – 91%
6 months – 5 years	59 – 142%
6 – 10 years	55 – 120%

11 – 16 years	53 – 131%
>16 years	50 – 150%

**Critical Values:**

N/A

**Limitations:**

Interpretation of the results may be limited if patient is receiving anticoagulant therapy or if test is done more than 2 hours after collection. Results will be increased in patients taking oral contraceptives.

**Methodology:**

APTT clotting time correction of factor 8 deficient plasma. Patient dilutions are compared to a known set of standard dilutions and a percentage is determined.

**Contraindications:**

Patient on anticoagulant therapy.

**References:**

Andrew M et al (1987) Development of the Human Coagulation System in the Full-Term Infant, Blood 70:165-72

Andrew M et al (1988) Development of the Human Coagulation System in the Healthy Premature Infant 72:1651-57

Andrew M et al (1992) Development of the Human Coagulation System During Early Childhood 80:1998-2005

**Updates:**

5/24/2010: Tubing of patient specimens is no longer prohibited.  
 12/15/2010: Updated processing information.  
 9/15/2014: Added Off Campus collection info.