

EACTA SURVEY ON COAGULATION MANAGEMENT IN CARDIAC OPERATIONS

Section I – Institution details

Institution:

Country:

Number of cardiac operations during the last 12 months:.....

- Number of adult cases:
- Number of pediatric (< 12 ys) cases:

If the Institution is doing Pediatric Cases, in the following sections please answer only with regard to adult cases, unless differently stated

Section II – Preoperative assessment

1. Before a cardiac operation, with or without CPB, please indicate which kind of hemostasis/coagulation assessment is routinely followed, besides the common laboratory test (aPTT, PT, Platelet Count, Fibrinogen level)
 - ☐ Antithrombin (ATIII) activity.
 - ☐ Thromboelastography
 - ☐ Bleeding time
 - ☐ Platelet Function Analyzer
 - ☐ Other kinds of platelet function tests (i.e. aggregometry)
 - ☐ Research of antibodies for HIT diagnosis
2. In selected populations of patients under major anti-platelet therapy, patients receiving intravenous heparin, patients under warfarin therapy...), which kind of additional tests are performed?
 - ☐ ATIII activity
 - ☐ Thromboelastography
 - ☐ Bleeding time
 - ☐ Platelet Function Analyzer
 - ☐ Other kinds of platelet function tests (i.e. aggregometry)
 - ☐ Research of antibodies for HIT diagnosis
 - ☐ Coagulation factors activity determination (i.e. vWF, Factor V....)

3. Please indicate the percentage of patients in which the following tests were performed before a cardiac operation during the last 12 months.

- ☐ ATIII activity%
- ☐ Thromboelastography%
- ☐ Bleeding time%
- ☐ Platelet Function Analyzer%
- ☐ Other kinds of platelet function tests (i.e. aggregometry)%
- ☐ Research of antibodies for HIT diagnosis%
- ☐ Coagulation factors activity determination (i.e. vWF, Factor V....)%

4. In case of low ATIII activity values before a cardiac operation, are you correcting this value using purified ATIII?

- ☐ Yes ☐ No

If you correct a low ATIII activity value before the operation, which is the threshold value for using purified ATIII?

ATIII value

- ☐ < 50%
- ☐ < 55%
- ☐ < 60%
- ☐ < 65%
- ☐ < 70%
- ☐ < 75%
- ☐ < 80%

5. In case of low antithrombin activity values before a cardiac operation, are you correcting this value using fresh frozen plasma?

- ☐ Yes
☐ No

7. What is the percentage of patients receiving purified ATIII before a cardiac operation in your Institution during the last 12 months:%

8. How do you expect will evolve (increase or decrease) the % of patients receiving purified ATIII before a cardiac operation in your Institution in the following 3 years?:.....% per year.

Section III – Pre and during CPB coagulation management

1. From the total cardiac operations in adults performed ATIII your Institution during the last 12 months, which % did require CPB?:.....
 2. Which of the following drugs are ROUTINELY used before or during CPB?
 - ☐ Tranexamic acid
 - ☐ Other antifibrinolytic agents (excluded aprotinin)
 - ☐ Aprotinin
 3. How much is the ACT value considered adequate for establishing and maintaining CPB in your Institution?
 - ☐ > 400 seconds
 - ☐ > 450 seconds
 - ☐ > 480 seconds
 - ☐ > 500 seconds
 4. How are you monitoring the adequacy of anticoagulation before and during CPB?
 - ☐ Celite standard ACT
 - ☐ Kaolin standard ACT
 - ☐ Heparin monitoring systems (HMS or others)
 5. How much is the heparin bolus dose that you give before going on CPB?IU/kg
 6. From the total CPB performed, which % did develop heparin resistance (defined as failure to reach an adequate ACT despite a standard dose of heparin, or to maintain the ATC during CPB)?:.....
 7. In case of heparin resistance, what do you do?
 - ☐ I only give further doses of heparin until normalization of ACT
 - ☐ I give a supplemental dose of heparin, if the ACT is still low, I give purified ATIII
 - ☐ I give a supplemental dose of heparin, if the ACT is still low, I give fresh frozen plasma
 - ☐ I immediately give purified ATIII
 - Dose (Adults)
 - Dose (Pediatric patients)
 - ☐ I immediately give fresh frozen plasma
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Section IV – Post CPB coagulation management

1. Which of the following drugs are ROUTINELY used after CPB?

- ☐ Tranexamic acid
- ☐ Other antifibrinolytic agents (excluded aprotinin)
- ☐ Aprotinin
- ☐ Desmopressin

2. How do you antagonize heparin?

- ☐ Protamine ATIII a 1.3 to 1 ratio
- ☐ Protamine ATIII a 1 to 1 ratio
- ☐ I follow the indications of the heparin monitoring system (HMS or others)
- ☐ I follow the indications of a TEG with and without heparinase

3. Which of the following tests are ROUTINELY done after CPB?

- ☐ TEG
- ☐ PFA – 100
- ☐ Other platelet function assays

4. Which of the following tests are done after CPB in selected population of patients?

- ☐ TEG
- ☐ PFA – 100
- ☐ Other platelet function assays

5. In presence of the evidence for postoperative bleeding inside the operating room, what strategy are you following?

- ☐ Additional dose of protamine, if ineffective fresh frozen plasma and/or platelets
 - ☐ Check the coagulation with TEG and/or platelet function tests and apply the needed therapy
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Section V – ICU management

1. Which of the following tests are routinely performed ATIII the arrival in ICU?

- ☐ ATIII activity
- ☐ Thromboelastography
- ☐ Bleeding time
- ☐ PFA – 100
- ☐ Sonoclot
- ☐ Other kinds of platelet function tests (i.e. aggregometry)

2. In presence of low ATIII activity values, are you correcting with purified ATIII?

- ☐ Yes ☐ No

If yes, what is the threshold value?

ATIII value

- ☐ < 40%
- ☐ < 45%
- ☐ < 50%
- ☐ < 55%
- ☐ < 60%
- ☐ < 65%
- ☐ < 70%
- ☐ < 75%

3. From the total cardiac operations in adults performed ATIII your Institution during the last 12 months, which % did require purified ATIII supplementation ATIII ICU?:.....%.

4. Please indicate the rate of patients receiving the following blood products in your Institution during the last 12 months.

Packed red cells%
Fresh frozen plasma%
Platelets%
Cryoprecipitates%
Recombinant Factor VII%

5. Are you satisfied with the present situation of hemostasis/coagulation management ATIII your Institution?

- ☐ Completely
- ☐ Partially.
- ☐ No

Additional comments