

Figure S1: Case Report Form

Heparin-Induced Thrombocytopenia: Development and Validation of a Predictive Clinical Score

Patient : |_|_|_|

N° Patient : |_|_|_|

<i>Inclusion criteria</i>	YES	NO
Age ≥ 18 years :	☐ ₁	☐ ₂
Patient with suspected HIT requiring an ELISA assay:	☐ ₁	☐ ₂
Possible follow-up of 4 days after ELISA test performance:	☐ ₁	☐ ₂

 **in the case of one negative response, do not include the patient**

<i>Patient data</i>	
Year of birth:	_ _ _ _
Se:	
Male:	☐ ₁
Female:	☐ ₂

Date of HIT suspicion = D0 (DDMMYY)

/_/_/|_|_|/|_|_|/

This date could not be the day of test performance

Past History and Current Context

Past History	YES	NO
History of myocardial infarct:	☐ ₁	☐ ₂
History of stroke:	☐ ₁	☐ ₂
History of venous thromboembolism:	☐ ₁	☐ ₂
History of vascular surgery:	☐ ₁	☐ ₂
History of HIT:	☐ ₁	☐ ₂
Current Context	YES	NO
Active cancer	☐ ₁	☐ ₂
Peripheral arterial disease	☐ ₁	☐
Pregnancy or post partum	☐ ₁	☐ ₂
Autoimmune disease	☐ ₁	☐ ₂
Sepsis	☐ ₁	☐ ₂
DIC.....	☐ ₁	☐ ₂
Aortic Pump	☐ ₁	☐ ₂
Multiple blood transfusion	☐ ₁	☐ ₂
Major trauma	☐ ₁	☐ ₂
Shock	☐ ₁	☐ ₂
Inflammatory Syndrome	☐ ₁	☐ ₂
Hospitalisation in an intensive care unit.....	☐ ₁	☐ ₂
Other :	☐ ₁	☐ ₁
.....		
.....		

Previous treatment with heparin	YES	NO	UNKOWN
Had the patient received a treatment with heparin, danaparoid or fondaparinux during the previous 3 months? ☐₁ ☐₂ ☐₃ <u>If yes</u> 1. Type of treatment : 1.1. UFH: ☐₁ ☐₂ 1.2. LMWH: ☐₁ ☐₂ 1.3. Fondaparinux: ☐₁ ☐₂ 1.4. Danaparoid: ☐₁ ☐₂ 1.5. Therapeutic dose: ☐₁ ☐₂ 1.6. Prophylactic dose: ☐₁ ☐₂ 2. Route of administration: 2.1. Intravenous: ☐₁ ☐₂ 2.2. Subcutaneous: ☐₁ ☐₂ 2.3. Central intravenous catheter: ☐₁ ☐₂ 2.4. Cardiopulmonary bypass: ☐₁ ☐₂ 2.5. Dialysis circuit: ☐₁ ☐₂ ☐₁ ☐₂ ☐₁ ☐₂			
Had the patient received a treatment with heparin, danaparoid or fondaparinux later than within the previous 3 months? ☐₁ ☐₂ ☐₃ <u>If yes</u> 1. Type of treatment : 1.1. UFH: ☐₁ ☐₂ 1.2. LMWH: ☐₁ ☐₂ 1.3. Fondaparinux: ☐₁ ☐₂ 1.4. Danaparoid: ☐₁ ☐₂ 1.5. Therapeutic dose: ☐₁ ☐₂ 1.6. Prophylactic dose: ☐₁ ☐₂ 2. Route of administration: 2.1. Intravenous: ☐₁ ☐₂ 2.2. Subcutaneous: ☐₁ ☐₂ 2.3. Central intravenous catheter: ☐₁ ☐₂ 2.4. Cardiopulmonary bypass: ☐₁ ☐₂ 2.5. Dialysis catheter: ☐₁ ☐₂ ☐₁ ☐₂	YES	NO	UNKNOWN

	☐ ₁ ☐ ₂ ☐ ₁ ☐ ₂
--	--

Current Episode of HIT Suspicion

Current Treatment	☐ YES	☐ NO	☐ UNKNOWN
Type of treatment :			
1. UFH:	☐ ₁	☐ ₂	
2. LMWH:	☐ ₁	☐ ₂	
3. Fondaparinux:	☐ ₁	☐ ₂	
4. UFH and then LMWH:	☐ ₁	☐ ₂	
5. LMWH and then UFH:	☐ ₁	☐ ₂	
6. UFH and then fondaparinux:	☐ ₁	☐ ₂	
7. Fondaparinux and then UFH:	☐ ₁	☐	
8. LMWH and then fondaparinux:	☐ ₁	☐	
9. Fondaparinux and then LMWH:	☐ ₁	☐ ₂	
10. Therapeutic doses:	☐ ₁	☐ ₂	
11. Prophylactic doses :	☐ ₁	☐ ₂	
12. Prophylactic and then therapeutic doses:			
13. Therapeutic and then prophylactic doses:	☐ ₁	☐ ₂	
Route of administration no. 1 :	☐ ₁	☐ ₂	
1. Intravenous:	☐ ₁	☐ ₂	
2. Subcutaneous:	☐ ₁	☐ ₂	
3. Central intravenous catheter	☐ ₁	☐ ₂	
4. Cardiopulmonary bypass			
5. Dialysis catheter:	☐ ₁	☐ ₂	
Route of administration no. 2 :	☐ ₁	☐ ₂	
1. Intravenous:	☐ ₁	☐ ₂	
2. Sub cutaneous:	☐ ₁	☐ ₂	
3. Central intravenous catheter	☐ ₁	☐ ₂	
4. Cardiopulmonary bypass	☐ ₁	☐ ₂	
5. Dialysis catheter:	☐ ₁	☐ ₂	
Had the «heparin» treatment been discontinued for at least 24 hours?	☐ ₁	☐ ₂	

If Yes :

1. from 1 to 2 days :

2. from 2 to 3 days :

3. from 3 à 7 days :

☐₁ ☐₂

☐₁ ☐₂

☐₁ ☐₂

☐₁ ☐₂

☐₁ ☐₂

☐₁ ☐₂

☐₁ ☐₂

☐₁ ☐₂

☐₁ ☐₂

Current indication for the «heparin» treatment

YES

NO

Therapeutic doses

☐₁

☐₂

If Yes: Indication :

1. Venous thromboembolism.....

☐₁

☐₂

2. Cerebral venous thrombosis

☐₁

☐₂

3. Portal vein thrombosis

☐₁

☐₂

4. Other site of venous thrombosis

☐₁

☐₂

5. Acute coronary syndrome

☐₁

☐₂

6. Arrhythmia

☐₁

☐₂

7. Stroke

☐₁

☐₂

8. Valve prosthesis.....

☐₁

☐₂

9. Arterial thrombosis of lower limbs.....

☐₁

☐₂

10. Other site of arterial thrombosis.....

☐₁

☐₂

11. Post-cardiac surgery (CPB)	☐ ₁	☐ ₂
Date of CPB __/__/__		
12 Other :	☐ ₁	☐ ₂
Prophylactic:	☐ ₁	☐ ₂
<u>If Yes:</u> Indication :		
1. Medical	☐ ₁	☐ ₂
2. Post-orthopedic surgery	☐ ₁	☐ ₂
3. Post-cardiac surgery (CPB)	☐ ₁	☐ ₂
Date of CBP __/__/__		
4. Post-peripheral vascular surgery	☐ ₁	☐ ₂
5. Post-neoplastic surgery	☐ ₁	☐ ₂
6. Other post-surgery	☐ ₁	☐ ₂
7. Sequential hemofiltration	☐ ₁	☐ ₂
8. Continuous hemofiltration	☐ ₁	☐ ₂
9. Other	☐ ₁	☐ ₂

<i>Platelet count before the «heparin» treatment</i>	
Date of blood sample withdrawal:	
1. Platelet count (Giga/L) :	

<i>Date of «heparin» therapy initiation</i>	
Date of HIT suspicion	
Number of days of « heparin » treatment	

Use of other drugs inducing thrombocytopenia

Has the patient received other drugs inducing thrombocytopenia?

☐₁ YES ☐₂ NO

1. Antibiotic therapy:

☐₁ YES ☐₂ NO

If yes: 1.1. Quinolone

☐₁ YES ☐₂ NO

|_|_| |_|_| |_|_|

Start (DDMMYY)

|_|_| |_|_| |_|_|

End (DDMMYY)

Not stopped |_|_|

1.2. β lactam

☐₁ YES ☐₂ NO

|_|_| |_|_| |_|_|

Start (DDMMYY)

|_|_| |_|_| |_|_|

End (DDMMYY)

Not stopped |_|_|

1.3. Vancomycin or teicoplanin.....

☐₁ YES ☐₂ NO

|_|_| |_|_| |_|_|

Start (DDMMYY)

|_|_| |_|_| |_|_|

End (DDMMYY)

Not stopped |_|_|

1.4. Rifampicin or isoniazid

☐₁ YES ☐₂ NO

|_|_| |_|_| |_|_|

Start (DDMMYY)

|_|_| |_|_| |_|_|

End (DDMMYY)

Not stopped |_|_|

1.5. Amphotericin or fluconazole....

☐₁ YES ☐₂ NO

|_|_| |_|_| |_|_|

Start (DDMMYY)

|_|_| |_|_| |_|_|

End (DDMMYY)

Not stopped |_|_|

1.6. Other treatments

☐₁ YES

☐₂ NO

Start (DDMMYY)

|_|_| |_|_| |_|_|

End (DDMMYY)

|_|_| |_|_| |_|_|

Not stopped |_|

2. Chemotherapy

☐₁ YES

☐₂ NO

Start (DDMMYY)

|_|_| |_|_| |_|_|

End (DDMMYY)

--	--	--	--	--	--	--	--

Not stopped |_|

3. Anti-GPIIb IIIa

☐₁ YES

☐₂ NO

Start (DDMMYY)

|_|_| |_|_| |_|_|

End (DDMMYY)

|_|_| |_|_| |_|_| Non stopped

|_|

4. Furosemide

☐₁ YES

☐₂ NO

Start (DDMMYY)

|_|_| |_|_| |_|_|

End (DDMMYY)

|_|_| |_|_| |_|_|

Not stopped |_|

5. Proton pump inhibitors

☐₁ YES

☐₂ NO

Start (DDMMYY)

|_|_| |_|_| |_|_|

End (DDMMYY)

|_|_| |_|_| |_|_|

Not stopped |_|

6. Other treatments

☐₁ YES

☐₂ NO

Start (DDMMYY)

|_|_| |_|_| |_|_|

End (DDMMYY)

|_|_| |_|_| |_|_|

Not stopped |_|

Events occurring from heparin or fondaparinux therapy initiation to HIT suspicion

Has the patient experienced one or more events?	☐ ₁ YES ☐ ₂ NO
If <u>yes</u> , 1. Thrombotic events:	☐ ₁ YES ☐ ₂ NO
1.2. New arterial thrombosis	☐ ₁ YES ☐ ₂ NO
- Site of this new arterial thrombosis	
_____ 1.2.1. Number of arterial thrombosis	_ _
events:.....	_ _ _ _ _ _
Date of the first event (DDMMYY)	_ _ _ _ _ _
Date of the second event (DDMMYY)	☐ ₁ YES ☐ ₂ NO
1.3. Pulmonary embolism	☐ ₁ YES ☐ ₂ NO
1.4. New venous Thrombosis	_ _ _ _ _ _
Date of the first event (DDMMYY)	_ _ _ _ _ _
Date of the second event (DDMMYY)	☐ ₁ YES ☐ ₂ NO
1.5. Extension of a previous venous thrombosis	☐ ₁ YES ☐ ₂ NO
1.6. Extension of a previous arterial thrombosis	☐ ₁ YES ☐ ₂ NO
1.7. Was the extension or the new thrombosis diagnosed by systematic ultrasonography (was the thrombotic event a non-symptomatic event ?)	☐ ₁ YES ☐ ₂ NO
2. Bleeding events:	☐ ₁ YES ☐ ₂ NO
If <u>yes</u> , 2.1. Requiring blood transfusion	☐ ₁ YES ☐ ₂ NO
2.2. Requiring surgery.....	☐ ₁ YES ☐ ₂ NO
Date of the bleeding(DDMMYY)	_ _ _ _ _ _

TREATMENT AND PLATELET COUNTS FROM THE BEGINNING OF “HEPARIN” THERAPY TO HIT SUSPICION

* D0 = Date of HIT Suspicion

Day	Date	UFH	LMWH	Fondaparinux	Platelets (G/l)
D-0	_ _ _ _ _ _ _	_	_	_	_ _ _
D-1	_ _ _ _ _ _ _	_	_	_	_ _ _
D-2	_ _ _ _ _ _ _	_	_	_	_ _ _
D-3	_ _ _ _ _ _ _	_	_	_	_ _ _
D-4	_ _ _ _ _ _ _	_	_	_	_ _ _
D-5	_ _ _ _ _ _ _	_	_	_	_ _ _
D-6	_ _ _ _ _ _ _	_	_	_	_ _ _
D-7	_ _ _ _ _ _ _	_	_	_	_ _ _
D-8	_ _ _ _ _ _ _	_	_	_	_ _ _
D-9	_ _ _ _ _ _ _	_	_	_	_ _ _
D-10	_ _ _ _ _ _ _	_	_	_	_ _ _
D-11	_ _ _ _ _ _ _	_	_	_	_ _ _
D-12	_ _ _ _ _ _ _	_	_	_	_ _ _

D-13	_ _ _ _ _ _ _	_	_	_	_ _ _
D-14	_ _ _ _ _ _ _	_	_	_	_ _ _
D-15	_ _ _ _ _ _ _	_	_	_	_ _ _
D-16	_ _ _ _ _ _ _	_	_	_	_ _ _
D-17	_ _ _ _ _ _ _	_	_	_	_ _ _

D-18					
D-19					
D-20					
D-21					
D-22					
D-23					
D-24					
D-25					
D-26					

D-27					
D-28					
D-29					
D-30					
D-x					

HIT Biological tests

First test performed _____ 1. Date of the test: 2. Type of test and result: 2.1. PAT..... 2.2. ELISA 2.3. Serotonin release assay 2.4 Particle gel immunoassay		_ _ _ _ _ _ ☐₁ Positive ☐ ₂ Negative ☐ ₃ Not done ☐₁ Positive ☐ ₂ Negative ☐ ₃ Not done ☐ ₁ Positive ☐ ₂ Negative ☐ ₃ Not done ☐ ₁ Positive ☐ ₂ Negative ☐ ₃ Not done
Was a second test performed? If <u>yes</u>, 1. Date of the test: 2. Type of test and result: 2.1. PAT..... 2.2. ELISA 2.3. Serotonin release assay 2.4 Particle gel immunoassay		☐₁ YES ☐ ₂ NO _ _ _ _ _ _ ☐₁ Positive ☐ ₂ Negative ☐ ₃ Not done ☐₁ Positive ☐ ₂ Negative ☐ ₃ Not done ☐ ₁ Positive ☐ ₂ Negative ☐ ₃ Not done ☐ ₁ Positive ☐ ₂ Negative ☐ ₃ Not done
Was a third test performed? If <u>yes</u>, 1. Date of the test:		☐₁ YES ☐ ₂ NO _ _ _ _ _ _
2. Type of test and result:		
2.1. PAT..... 2.2. ELISA 2.3. Serotonin release assay 2.4 Particle gel immunoassay		☐₁ Positive ☐ ₂ Negative ☐ ₃ Not done ☐₁ Positive ☐ ₂ Negative ☐ ₃ Not done ☐ ₁ Positive ☐ ₂ Negative ☐ ₃ Not done ☐ ₁ Positive ☐ ₂ Negative ☐ ₃ Not done
Do you confirm at this time the diagnosis of HIT?		☐₁ Yes ☐ ₂ No ☐ ₃ Possible

BIOLOGICAL DATA

FIRST HIT TEST

Date of test performance | _ | _ | | _ | _ | | _ | _ |

	Test	
☐	1. PAT	
	1.1. Number of normal blood donor samples: 1.2. Verification of platelet sensitivity to HIT antibodies : 1.3. Best percentage sensitivity observed	_ _ _ _ _ _ _ _ _ _ %
☐	2. Serotonin release assay	
	2.1. Number of normal blood donor samples: 2.2. Verification of platelet sensitivity to HIT antibodies 2.3. Best percentage sensitivity observed	_ _ _ _ _ _ _ _ _ _ %
☐	3. ELISA	
	3.1. Type of kit: 3.2. Result (OD) : 3.3. Cut-off	_ , _ _ _ _ , _ _ _
☐	4. Particle gel immunoassay	☐ ₁ Positive ☐ ₂ Negative ☐ ₃ Not done

BIOLOGICAL DATA

SECOND HIT TEST

Date of test performance |__|__|__|__|__|__|

	Tests	
☐	1. PAT	
	1.4. Number of normal blood donor samples: 1.5. Verification of platelet sensitivity to HIT antibodies : 1.6. Best percentage sensitivity observed	_ _ _ _ _ _ _ _ _ _ %
☐	2. Serotonin release assay	

	2.1. Number of normal blood donor samples: 2.2. Verification of platelet sensitivity to HIT antibodies 2.3. Best percentage sensitivity observed	_ _ _ _ _ _ _ _ _ %
☐	3. ELISA	
	3.1. Type of kit : 3.2. Result (OD) : 3.3. Cut-off	_ , _ _ _ _ , _ _ _
☐	4. Particle gel immunoassay	☐ ₁ Positive ☐ ₂ Negative ☐ ₃ Not done

BIOLOGICAL DATA

THIRD HIT TEST

Date Of Test performance |_|_|_|_|_|_|_|_|_|_|

	Tests	
☐	1. PAT	
	1.7. Number of normal blood donor samples: 1.8. Verification of platelet sensitivity to HIT antibodies : 1.9. Best percentage sensitivity observed	_ _ _ _ _ _ _ _ _ %
☐	2. Serotonin release assay	
	2.1. Number of normal blood donor samples: 2.2. Verification of platelet sensitivity to HIT antibodies 2.3. Best percentage sensitivity observed	_ _ _ _ _ _ _ _ _ %
☐	3. ELISA	
	3.1. Type of kit: 3.2. Result (OD) : 3.3. Cut-off	_ , _ _ _ _ , _ _ _
☐	4. Particle gel immunoassay	☐ ₁ Positive ☐ ₂ Negative ☐ ₃ Not done

CLINICAL EVOLUTION FROM HIT SUSPICION TO HOSPITAL DISCHARGE

- | | | |
|---|-------------------------------|-------------------------------|
| - Heparin continued | ☐ 1Yes | ☐ 2 No |
| Normalization of platelet count | ☐ 1Yes | ☐ 2 No |
| - Definitive withdrawal of heparin | ☐ 1Yes | ☐ 2 No |
| Normalization of platelet count | ☐ 1Yes | ☐ 2 No |
| - Heparin reintroduced after short withdrawal | ☐ 1Yes | ☐ 2 No |
| Normalization of platelet count | ☐ 1Yes | ☐ 2 No |
| - Were the drugs inducing thrombocytopenia stopped? | ☐ 1Yes | ☐ 2 No |
| | | |
| - Did thrombotic complications occur? | ☐ 1Yes | ☐ 2 No |
| - Did bleeding complications occur ? : | ☐ 1Yes | ☐ 2 No |
| <u>If yes</u> : | | |
| - requiring blood transfusion | ☐ 1Yes | ☐ 2 No |
| - requiring surgery | ☐ 1Yes | ☐ 2 No |
| Date of bleeding (DDMMYY) | _ _ _ | _ _ _ |
| - Did the bleeding lead to a fatal event ? | ☐ 1Yes | ☐ 2 No |

TREATMENT AND PLATELET COUNTS SINCE HIT SUSPICION

- D0 = Date of HIT Suspicion

[illegible][illegible]

D+20									
D+21									
D+22									
D+23									
D+24									
D+25									
D+26									
D+27									
D+28									
D+29									
D+30									

D+X									
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End of the study

1. Date of the end of follow-up: |__|__| |__|__| |__|__|

2. Death : ☐₁ YES ☐₂ NO

IF yes 1 date : |__|__| |__|__| |__|__|

Cause :

3. Did you find any cause other than HIT to explain the thrombocytopenia episode?

☐₁ YES ☐₂ NO

If yes, which cause?

.....

.....

4. At the end of hospitalization, was the patient discharged with a final diagnosis of HIT?

YES ☐_1 ☐_2 NO ☐_2 POSSIBLE

Additional comments: YES ☐ ₁ ☐ ₂ NO

If yes :

.....

.....

Experts

1) Do you confirm the diagnosis of HIT ?

HIT confirmed	☐	Yes	☐	No	☐	Possible
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2) Result of centralized performance of serotonin release assay:

Positive ☐ Negative ☐ Doubtful ☐ Non-specific Platelet Activation ☐

Number of normal blood donor samples	[--]
Verification of platelet sensitivity to HIT antibodies	[--]
Best percentage sensitivity of serotonin release assay obtained	
Low concentration of heparin	[---] %
Dose of heparin (IU)	[.-.] UI
- first high concentration of heparin	[---] %
Dose of heparin (IU)	[---] UI
- second high concentration of heparin	[---] %
Dose of heparin (UI)	[---] UI

3) What was it your final opinion?

- HIT diagnosis confirmed ☐

- HIT diagnosis possible ☐
- HIT diagnosis excluded ☐
- Request for another serotonin release assay ☐
- Request for additional clinical data ☐