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## INTRODUCTION

A Transfusion transmitted bacterial infection (TTBI) is an adverse reaction (AR) occurring during or within a few hours of completion of a transfusion, due to the presence of bacteria in a labile blood product (LBP). Since 1995, the elements making it possible to establish the diagnosis of this AR as well as the action to be taken were framed on the lawful level by a circular AFS (Agence française du sang) updated in 2003. This update led to the publication of guidelines giving more precision on the clinical signs and limiting the realization of the microbiological examinations to approved laboratories (AL).

To improve the exploitation of the information received from the haemovigilance correspondents (HvC) and to draw it relevant conclusions, the working party in charge of TTBI of the Afssaps:

**ELABORATED TOOL** of help to the declaration, allowing to collect on the same document all the relative information of the AR.

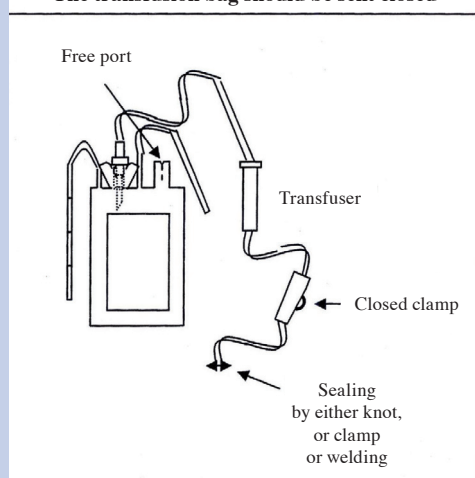
This form of declaration includes 2 parts:

- the first, completed at the health care establishment, contains information in connection with the recipient;
- the second part filled in by the blood establishment, includes on one hand information on the steps of preparation (methods of collection, type and references of the material, conservation and transport conditions) of the suspected LBL, and on the other hand, all information concerning the donor (age, date of the donation, type of collection, known or new donor, biological constants available at the time of donation, possible problems encountered).

**EMITTED ADVICES** to avoid the risk of false positive cultures (retrograde contamination of the LBP), to investigate correctly the AR (procedures in hospital, in the blood establishment), to carry out the microbiological investigations (installation of approved laboratories).

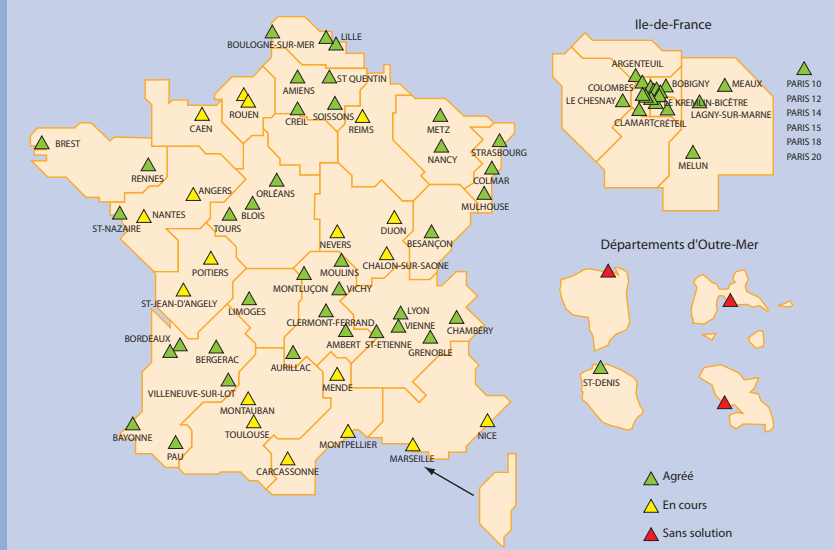
### ADMISSIBILITY OF THE SAMPLE

The transfusion bag should be sent closed



- Transfusion bag with the pipe hermetically closed [Closed clamp + stopper + knod(s)]
- Conservation and routing conditions
- Disconnection condition (to avoid blood backward flow) > Effects on the microbiological analyze

### TTBI : APPROVED LABORATORIES - May 2008



**WORKED OUT A GRID** to help the Haemovigilance correspondent (HvC) to score the imputability of the AR to the transfusion.

Case n°	Clinical signs compatible with the TTBI diagnosis	Microbiologicals results		Bacteria Genotyping (BG)	Final diagnosis	Transfusion imputability	Bacteria centralization (after experts groups opinion)
		LBP	Blood of recipient				
1	yes	Pos	Pos	Yes: same identity founded by BG	TTBI	4	yes
2	yes	Pos	Pos	No BG	TTBI	1 to 3	yes
3	yes	Pos	Neg	NA	TTBI	1 to 3	NA
4	Moderate clinicals signs	Pos	Neg	NA	Other diagnosis than TTBI or bacterial contamination of the sample	It depends of the other diagnosis selected	NA
5	Yes: but pre-existing or intercurrent infection	Pos or Neg	Neg or Pos	NA	Pre-existing Bacterial infection of the recipient	0	NA
6	yes	Neg	Neg	NA	Other diagnosis	It depends of the other clinical diagnosis selected	NA

**IN PRACTICE**, when a TTBI is suspected, the HvC of the blood establishment is quickly notified of this AR by the hospital HvC.

This fast information of the producer of LBP makes it possible to take all the necessary measures as possibly blocking LBPs issued from the same donation. In parallel, the AR is reported on line to the whole haemovigilance network (local, regional and national level) via the french on live reporting system, e-FIT.

In certain cases, the opinion of the working party on TTBI may be requested by email and an in-depth survey perhaps requested by the experts.

### IN CONCLUSION

This system allows a great reactivity, in order to quickly inform the various actors of the network with an simultaneously preventive and declaratory aim.