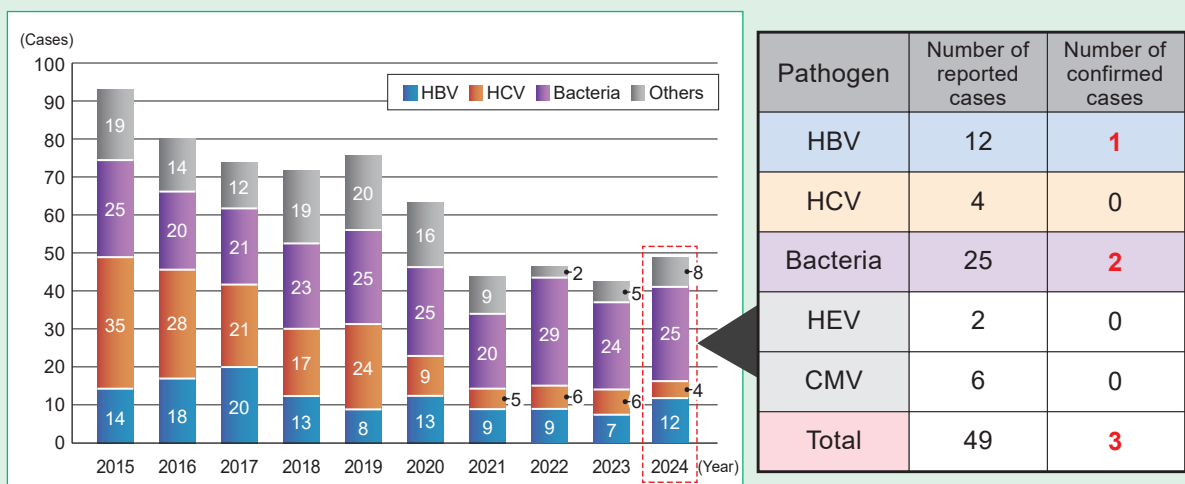


## Infectious Cases that were Likely Related to Transfused Blood Components (2024)

JRCS analyzed and evaluated suspected cases of viral and other transfusion-transmitted infections (TTIs) reported by medical institutions to JRC blood centers (voluntary reports), as well as cases subjected to post-donation information-based retrospective studies (lookback studies). In 2024, 1 HBV infection case and 2 bacterial infection cases were confirmed through detection of viral nucleic acid and bacteria in repository samples of the implicated or subsequent blood donations.

### Annual number of cases reported to JRC blood centers as suspected transfusion-transmitted infections and breakdown of the reported cases by pathogen in 2024.



### Summary of case reports: Cases confirmed to be TTIs based on detection of pathogens in relevant items such as repository samples of donated blood (2024)

#### HBV

● Voluntary reports: Cases reported by medical institutions as suspected transfusion-transmitted viral infections

| Case No. | Blood component (year and month of blood collection) | Primary disease       | Age | Sex | Pre-transfusion test                  |              | Post-transfusion test          |                       | ALT            |                       | Patient outcome |
|----------|--|-----------------------|-----|-----|---------------------------------------|--------------|--------------------------------|-----------------------|----------------|-----------------------|-----------------|
|          |  |                       |     |     | Markers tested                        | Test results | Positive conversion of markers | Time from transfusion | Maximum (IU/L) | Time from transfusion |                 |
| 1        | Ir-RBC-LR (2024.3)                                   | Aortic valve stenosis | 70s | M   | HBV-DNA<br>HBs-Ag<br>HBs-Ab<br>HBc-Ab | Neg.         | HBs-Ag                         | 12 wks                | 1044           | 15 wks                | Recovering      |

#### Bacteria

● Voluntary reports: Cases reported by medical institutions as suspected transfusion-transmitted bacterial infections

| Case No. | Blood component (year and month of blood collection) | Primary disease                     | Age | Sex | Symptoms  | Time to onset (from start of administration) | Results of post-transfusion blood culture   |   | Patient outcome |
|----------|--|-------------------------------------|-----|-----|---|--|---|---|-----------------|
|          |  |                                     |     |     |   |  | Blood component   | Patient blood   |                 |
| 1        | Ir-PC-LR (2024.3)                                    | Idiopathic thrombocytopenic purpura | 30s | F   | Headache, loss of consciousness, hypotension, fever                   | 1 hr and 25 minutes                          | <i>Streptococcus dysgalactiae</i> subsp. <i>equisimilis</i> (Group G hemolytic streptococcus) | <i>Streptococcus dysgalactiae</i> subsp. <i>equisimilis</i> (Group G hemolytic streptococcus) | Recovered       |
| 2        | Ir-PC-LR (2024.3)                                    | Diffuse large B-cell lymphoma       | 70s | F   | Chills and shivering, decreased oxygen saturation, fever, hypotension | 45 minutes                                   | <i>Serratia marcescens</i>  | <i>Serratia marcescens</i>  | Recovering      |

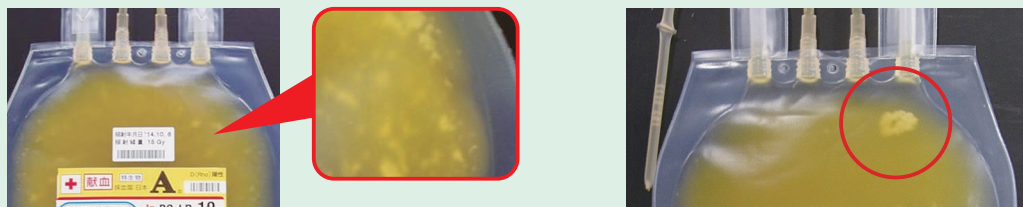
## Visual inspection of platelet components

All platelet components supplied on or after July 30, 2025 have been subjected to bacterial screening. Although the introduction of bacterial screening is expected to improve safety, bacterial contamination cannot be completely eliminated.

Please check **whether there are many or large aggregates** in platelet components **and whether there is a sudden change in appearance**, and continue to monitor the patient after transfusion.

If any symptoms suggestive of bacterial infection are observed, transfusion should be immediately discontinued and appropriate measures should be taken.

- **Presence of aggregates/clots:** Aggregates/clots may occur due to the growth of contaminating bacteria.



Aggregates caused by contamination with *Staphylococcus aureus* (cases before introduction of bacterial screening)

In case of any suspected adverse reactions or infections related to transfusion of blood components, please notify medical representatives of your local JRC blood center immediately.

(Reference) Notice: "Appearance of platelet components after introduction of bacterial screening"

## Specimens for investigation of suspected bacterial infection cases (2024)

In order to identify the cause, it is important to investigate the implicated blood component bags (including the used bags).

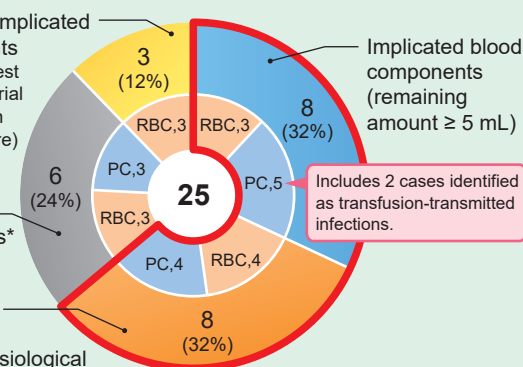
|  | 2022 | 2023 | 2024 |
|--|------|------|------|
| Percentage of implicated blood components investigated (including used bags) | 62%  | 84%  | 64%  |

\*In the past, there have been no cases in which bacteria were detected from plasma co-components.

Segment of the implicated blood components (Bacterial culture test targeting the bacterial species detected in patient blood culture)

Plasma co-components\*

Implicated blood components (Used bags: Physiological saline was aseptically added.)



## Storage of used bags

### How to store used bags

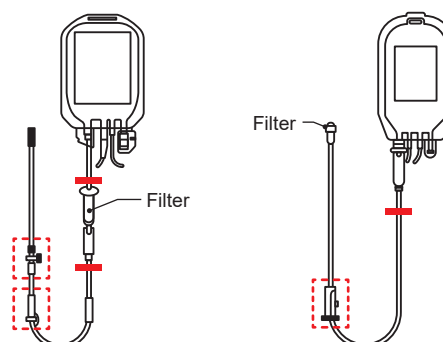
**Red frame:** Tighten the clamp and the three-way stopcock.

**Red line:** Seal the tube with a tube sealer (or forceps). (If these items are not available, ligate the tube tightly.)

The used bag must be put in a clean plastic bag and stored in a refrigerator (Do not freeze).

Transfusion set

Platelet transfusion set



\*The position of filters varies depending on the type of transfusion set.

For the storage of used bags, refer to the "Guidelines for Lookback Studies of Blood Products."

Japanese Red Cross Society  
Haemovigilance Information English website

For blood products and transfusion information

Japanese Red Cross Society  
Haemovigilance Information

Search



<https://www.jrc.or.jp/mr/>

Transfusion Information 2509-188

Issued by:

Medical Information Division, Technical Department,  
Blood Service Headquarters, Japanese Red Cross Society  
1-2-1 Shiba-Koen, Minato-ku, Tokyo 105-0011, Japan

\* For any inquiries, please contact the Safety Vigilance Division via email (anzenkanri@jrc.or.jp).