Non-hemolytic Adverse Transfusion Reactions Reported to JRC Blood Centers (2010)

Transfusion-associated adverse reaction and/or suspected transfusion transmitted infectious cases were reported by medical institutions to JRC blood centers. This issue of Transfusion Information shows the result of analysis for non-hemolytic adverse reaction cases in 2010, the most frequently reported cases.

The Number of Reports of Suspected Adverse Reactions* and/or Infections Associated with Transfusion (reports from medical institutions; cases later evaluated to be unrelated to transfusion included)

(details of reports p. 1108-130)

\* Adverse reactions to plasma derivatives are excluded

Transfusion Information

Non-hemolytic Adverse Transfusion Reactions (2010)

Breakdown of cases by symptoms

The numbers and percentages of non-hemolytic adverse reaction cases categorized by symptoms are shown below. Severe cases were predominant for the following symptoms, and the number of these cases accounted for 41.8% of the total number: Anaphylactic shock, anaphylactic reaction, dyspnea, hypotension, and transfusion related acute lung injury (TRALI).

Transfused blood components

Most of the non-hemolytic adverse reactions were caused by platelets or red cells.

Note that the blood components mentioned above all include components irradiated before issue, and components irradiated at medical institutions.

* A total of 1,579 cases were reported for non-hemolytic adverse transfusion reactions; however, 4 cases that were evaluated by the reporting physician as being “unrelated to transfusion” were excluded from the analysis.

Notes

[Anaphylactic reaction]
A condition characterized by generalized flushing, urticaria, angioedema (e.g., face edema and laryngeal edema), dyspnea, and other similar systemic symptoms.
[Anaphylactic shock]
Anaphylactic reaction accompanied with hypotension.
[Hypotension]
Hypotension with no other clinical signs such as skin symptoms or dyspnea.
[Anaphylactic shock and/or TRALI**]
Anaphylactic shock associated with in-hospital acute lung injury.

\* Cases of suspected cardiogenic pulmonary edema included
** Cases of possible TRALI included

*Excluded frozen-thawed red cells and blood for exchange transfusion.
The number of TRALI and p-TRALI cases by year

This chart describes the number of TRALI and possible TRALI (p-TRALI) cases reported by medical institutions that were evaluated to meet the relevant diagnostic criteria. In 2010, 9 TRALI cases and 15 p-TRALI cases were confirmed. During the seven years (2004 to 2010), 17 cases were considered to be fatal TRALI.

In case any of adverse reactions and/or infections related to transfusion of blood components or administration of plasma derivatives, please notify the medical representatives of your local JRC blood center immediately. Please provide the residual products, the recipient’s pre- and post-transfusion samples, and any other related materials; it is helpful to investigate and/or identify the cause. For storage of residual products and the recipient’s samples, refer to the “Guidelines for lookback studies of blood products.”

Online Haemovigilance Information for Healthcare Professionals

URL http://www.jrc.or.jp/mr/english/

Issued by:
Medical Information Division, Blood Service Headquarters, Japanese Red Cross Society
1-1-3, Shiba Daimon, Minato-ku, Tokyo 105-8521, Japan

* For more information, please contact the medical representatives of your local JRC blood center.