Allergic Reactions to FP/CSP: Managing the Risk

• The first sign of an allergic reaction can range from mild skin irritation like urticaria to severe and sometimes fatal reactions like noncardiogenic pulmonary edema and hypotension.

• Allergic reactions are due to immunological differences between the donor and recipient.¹

• Reactions may occur at the time of transfusion if the patient is sensitive to an allergen in the donor plasma.²

• An allergic reaction may be delayed and still occur up to several weeks post transfusion if the patient has been sensitized by an antibody from the donor plasma.²,³

• Allergic reactions to plasma are common in the treatment of TTP occurring in 65.8% of treated patients.⁴

• Solvent/detergent treated pooled plasma has a lower risk of allergic reaction because potentially harmful substances are diluted or removed.⁵

• Patients need to understand the signs and symptoms of allergic reaction to FP transfusion, especially those patients with repeated exposures.

The National Advisory Committee on Blood and Blood Products has determined that solvent/detergent treated plasma should be considered for patients* who⁶:

- Have experienced an allergic reaction to frozen plasma (FP) or,
- Have a pre-existing lung disorder or,
- Need FP but a blood group compatible product is not available in a timely manner.

* May be considered for patients with thrombotic thrombocytopenic purpura (TTP) or hemolytic uremic syndrome (HUS) with associated factor H deficiency or clotting factor deficiencies for which specific licensed concentrates may not be readily available.
Considerations for patients receiving a FP transfusion

- Is the patient aware of the signs and symptoms of an allergic reaction?

- Has the patient experienced a previous allergic reaction during or after FP transfusion?

- Is the patient being premedicated (possibly indicating a previous allergic reaction)?

- Does the patient have an underlying lung condition that could compromise their respiratory system, such as asthma, COPD, bronchitis or emphysema?

- Is the appropriate blood group compatible product available for the patient?

- Does this patient reject FP/CSP because of religious or cultural beliefs?

“Counting down the bags of donor plasma is all you can do to wait for it to end. You don’t know if you will have an allergic reaction to the next bag and how severe that reaction might be until it happens. Just cross your fingers and hope you don’t react.”

– Respondent, Answering TTP Community Survey

References