Blood transfusion: Side effects

Reaction	What is it	Incidence
Acute hemolytic transfusion reaction (AHTR)	is a life-threatening reaction caused by acute intravascular hemolysis of transfused red blood cells (RBCs), often caused by a clerical error that results in transfusion of a product not intended for the recipient	1:76,000, virtually all occurring with RBC transfusion
Anaphylactic transfusion reaction	Any allergic reaction other than hives constitutes an anaphylactic transfusion reaction. This includes angioedema, wheezing, and/or hypotension	1:20,000 to 1:50,000
Febrile non-hemolytic transfusion reaction (FNHTR)	FNHTRs are common; these reactions are characterized by fever, usually accompanied by chills, in the absence of other systemic symptoms	0.1 to 1 percent
Transfusion-associated circulatory overload (TACO)	TACO is a form of pulmonary edema due to volume excess or circulatory overload; it typically occurs in patients who receive a large volume of a transfused product over a short period of time, or in those with underlying cardiovascular disease	<1 percent of transfused patients, although this may represent underreporting, and the frequency may be higher in hospitalized patients, especially patients in the intensive care unit.
Transfusion-associated sepsis	Transfusion-associated sepsis (or bacterial infection) is caused by transfusion of a product that contains a microorganism	1:50,000 for platelets; 1:5,000,000 RBCs
Transfusion-related acute lung injury (TRALI)	TRALI is a life-threatening form of acute lung injury that occurs when recipient neutrophils are activated by the transfused product in an appropriately primed pulmonary vasculature	<0.01 percent
Urticarial transfusion reaction (UTR)	Urticarial reactions are associated with hives but no other allergic findings (ie, no wheezing, angioedema, hypotension). The most common cause is an antigen-antibody interaction that occurs between patient and the product	1 to 3 percent

Question:

A patient suspected of having TRALI:

a. Should never receive blood products again
b. Presents hives and hypotension as the main clinical characteristic
c. Requires diuretics
d. Requires supplemental O2

Answer: D - Therapy is largely supportive and may include intubation and mechanical ventilation. A subsequent evaluation is directed at identifying an implicated donor so that the individual does not continue to donate.