

## A GUIDE TO ASSIST CLINICIANS ORDERING THERAPEUTIC PLASMA EXCHANGE PROCEDURES

Consider the following factors when ordering therapeutic plasma exchange. You should also refer to your own facility's standards and procedures.

### 1. PROCEDURE TARGET: How much plasma needs to be exchanged?

- The standard of care is between 1 and 1.5 plasma volumes (PVs).<sup>1</sup>
- To calculate PV:  $PV = (1 - Hct) \times TBV$  (TBV = patient's total blood volume)
- If one (1.0) PV is exchanged, approximately 63% of disease mediators are removed. If one and a half (1.5) PVs are exchanged, approximately 78% of disease mediators are removed.<sup>2,3,4</sup>

### 2. FREQUENCY OF PROCEDURE:<sup>2,3,5</sup> How many therapeutic plasma exchange procedures are required?

- Frequency will depend on whether treatments are acute or chronic and may include:
  - Daily
  - Every other day
  - Other frequency, such as weekly or biweekly

### 3. REPLACEMENT FLUID: What types of replacement fluid are used for therapeutic plasma exchange?

- Options include:<sup>6</sup>
  - Plasma
  - Albumin (typically 5%)<sup>7,8</sup>
  - Saline (0.9% NaCl) can be used in small quantities to dilute either of the replacement fluids listed above<sup>9</sup>

### 4. ANTICOAGULATION: What type of anticoagulant is used for therapeutic plasma exchange?

Citrate dextrose solution A (ACD-A) is the typical anticoagulant used when performing centrifugal therapeutic plasma exchange.<sup>10</sup>

### 5. VASCULAR ACCESS: What type of vascular access can be used for therapeutic plasma exchange?

- Peripheral venous access is preferable when a patient has suitable peripheral veins.<sup>11</sup>
- Other access options include central venous access, such as catheters or ports, when peripheral access is not feasible.<sup>11</sup>

## REFERENCES

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### Terumo BCT, Inc.

10811 West Collins Ave.  
Lakewood, Colorado 80215-4440  
USA  
USA Phone: 1.877.339.4228  
Phone: +1.303.231.4357  
Fax: +1.303.542.5215

### Terumo BCT Europe N.V.

Europe, Middle East and Africa  
Ikarostraat 41  
1930 Zaventem  
Belgium  
Phone: +32.2.715.0590  
Fax: +32.2.721.0770

### Terumo BCT Asia Pte. Ltd.

89 Science Park Drive  
#04-25 (Lobby B)  
The Rutherford  
Singapore 118261  
Phone: +65.6715.3778  
Fax: +65.6774.1419

### Terumo BCT Latin America S.A.

La Pampa 1517—12th Floor  
C1428DZE  
Buenos Aires  
Argentina  
Phone: +54.11.5530.5200  
Fax: +54.11.5530.5201

### Terumo BCT Japan, Inc.

Tokyo Opera City Tower 49F,  
3-20-2, Nishi-Shinjuku,  
Shinjuku-ku, Tokyo 163-1450,  
Japan  
Phone: +81.3.6743.7890  
Fax: +81.3.6743.9800