Unlocking the Potential of Blood

Mononuclear cell collection—U.S.
Advancing therapeutic apheresis and cell collections to the next level of patient care

Working with You

Each and every interaction we have with you is important. By fostering open and ongoing relationships, we bring more value to you and the patients we are all focused on serving. Even after the technology is in place, we continue to provide you with:

- Education and training
- Clinical and scientific support
- User groups and professional networks
- Technical support
- Customer support

Low volume tubing set

| Maximum extracorporeal volume (ECV)* | Accommodates smaller patients and supports patient comfort and safety |

Functionally closed system

- Reduces the risk of microbial contamination of product
- Incorporates product sampling capabilities while maintaining a functionally closed set
- Provides the ability to add solutions to collection bag while maintaining a functionally closed set

Compact packaging

- Minimizes the space required for storage

Color-coded components

- Simplifies setup and operation

*Maximum ECV with reservoir filled to high-level sensor (under certain infrequent alarm conditions)
The Spectra Optia system allows you to perform efficient peripheral blood stem cell collections. With this procedure, you can collect mononuclear cells (MNCs) including monocytes, lymphocytes, CD34+ and dendritic cells. Additionally, you can customize each procedure to meet the specific needs of each donor or patient.

**PROCEDURE AND SYSTEM HIGHLIGHTS**

| Procedural flexibility | Features versatile software designed for a wide range of operator skill levels and device interaction preferences
| | Allows for procedural adjustments to optimize collection
| | Minimizes system interactions, allowing you to spend more focused time with patients
| | Gives you the ability to specify and direct concurrent plasma in four ways:
| | Direct collection
| | Gravity transfer
| | Combined method
| | Direct to plasma bag
| Collect specific product volume | Allows you to choose the collected product volume to ensure the desired maximum volume is not exceeded
| Consistent results | Automated Interface Management (AIM) system is designed to produce consistent results through interface stability
| Efficient collection | Autologous CD34+ CE1(%) = 70, N = 24
| | Allogeneic (mobilized) CD34+ CE1(%) = 77, N = 15
| Product purity | Red cell contamination
| | Autologous hematocrit(%) = 1.81, N = 25
| | Allogeneic (mobilized) hematocrit(%) = 4.0, N = 14
| | Allogeneic (non-mobilized) hematocrit(%) = 4.0, N = 14
| | Granulocyte contamination
| | Autologous granulocyte(%) = 29.0, N = 25
| | Allogeneic (mobilized) granulocyte(%) = 15.0, N = 15
| | Allogeneic (non-mobilized) granulocyte(%) = 1.7, N = 15
| | Platelet decrease
| | Autologous platelets(%) = 46, N = 23
| | Allogeneic (mobilized) platelets(%) = 28, N = 15
| | Allogeneic (non-mobilized) platelets(%) = 21, N = 15
| Intuitive graphical user interface | Streamlines procedure management with touch-screen instructions and simple data entry
| | Provides thorough on-screen explanations of alarms and troubleshooting instructions

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**How it Works**

The AIM system provides continuous interface monitoring, interpretation and adjustment for efficient MNC collection.

- Monitors the interface position and thickness of separated blood components, up to 25 times per second with a resolution of approximately 10 microns
- Interprets interface information using a patented optical detection system
- Adjusts the pumps and valves to manage the interface position and efficiently remove targeted components

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1. **INTERFACE ESTABLISHED**
   - AIM system quickly establishes blood interface layer at the collect port
   - White blood cell layer accumulates
   - AIM system detects the presence of cells and automatically adjusts the interface to optimize the collection

2. **CHAMBER FILLS**
   - Pumps automatically adjust to ensure that red blood cells, granulocytes, platelets and plasma are continually returned to patient
   - Targeted cells accumulate in the chamber
   - Innovative chamber technology is designed to reduce non-target cells in the final product

3. **COLLECTION BEGINS**
   - Pumps and valves automatically adjust to flush the chamber with plasma
   - Targeted cells flow into the collection bag
   - Pumps and valves automatically adjust to re-establish interface and entire process is repeated

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1 Refer to the Multiple Myeloma Patient Data Sheet. Data on file.
2 Refer to the Donor Study Data Sheet. Data on file.
COLLECTION SET

- **Sterile Barrier Filters**
- **Green Saline Spike and Line**
- **Orange Anticoagulant Spike and Line**
- **Red Inlet Clamps**
- **Blue Return Clamps**
- **AC Check Valve**
- **Vent Bag**
- **Plasma Bag**
- **Collection Bag**
- **Incorporated Sample Bulbs**
- **Channel Connector**
- **Cassette**
- **Pre-Attached Diversion Bag**

**Low volume tubing set**
- Maximum extracorporeal volume (ECV) = 191 mL
  - Accommodates smaller patients and supports patient comfort and safety
  - Reduces the risk of microbial contamination of product
  - Functionally closed system
  - Incorporates product sampling capabilities while maintaining a functionally closed set
  - Provides the ability to add solutions to collection bag while maintaining a functionally closed set

**Compact packaging**
- Minimizes the space required for storage

**Color-coded components**
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- **SPECTRA OPTIA® APERHERESIS SYSTEM**
- **Compact packaging**
  - Minimizes the space required for storage
- **Color-coded components**
  - Simplifies setup and operation

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