



CONTINUOUS MONONUCLEAR CELL COLLECTION (CMNC) PROTOCOL

ADVANCING THERAPEUTIC APHERESIS AND CELL
COLLECTIONS TO THE NEXT LEVEL OF PATIENT CARE

TERUMOBCT
Unlocking the Potential of Blood

SPECTRA OPTIA® APHERESIS SYSTEM

Giving you versatility and customization

The Spectra Optia system allows you to perform efficient mononuclear cell (MNC) collections. With this procedure, you can collect 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

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| Consistent results | Automated Interface Management System (AIMS) is designed to produce consistent results through interface stability |
| Efficient collection <i>Mean values ± standard deviation*</i> | CD34+ CE1 (%) = 84.8 ± 16.39 , N = 22 MNC CE1 (%) = 62.9 ± 17.60 , N = 21 |
| Product purity <i>Mean values ± standard deviation*</i> | Hematocrit (%) = 5.0 ± 2.06 , N = 22 Granulocyte (%) = 18.3 ± 11.71 , N = 22 |
| Low platelet loss <i>Mean values ± standard deviation*</i> | Platelet CE1 (%) = 26.2 ± 11.82 , N = 21 |
| Streamlined processing | Continuous MNC collection through single-stage processing |
| Procedural flexibility | Versatile software is designed for a wide range of device interaction preferences and operator skill levels Operator controls: Inlet flow rate (5 mL/min to 142 mL/min) Collect pump flow rate (0.5 mL/min to 10 mL/min) Packing factor (1 to 20) Collection preference (10 to 90) Gives you the ability to specify how much plasma to collect into the plasma bag or collection bag |
| Minimal system interactions | Allows you to spend more focused time with your patients |
| Intuitive graphical user interface | Streamlines your procedure management with touch-screen instructions and simple data entry |

*Refer to the CMNC Clinical Trial Data Sheet



How It Works

THE PERFORMANCE YOU EXPECT

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

- Monitors the collect port and interface position 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 the targeted components

CONTINUOUS PROCESSING

WHOLE BLOOD ENTERS THE CHANNEL

The packing factor and channel design allow for the separation of white blood cells (WBCs).

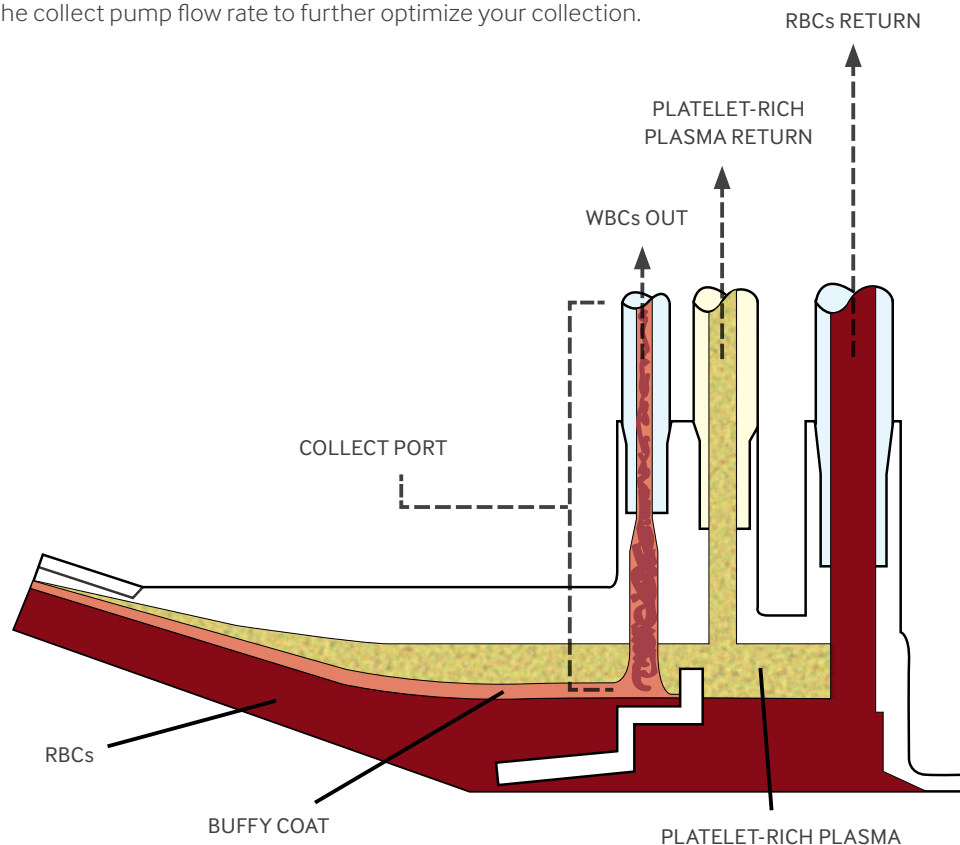
INTERFACE ESTABLISHED

- AIM system quickly establishes the interface at the collect port
- Buffy Coat accumulates
- AIM system controls the concentration of cells by adjusting the plasma pump flow rate

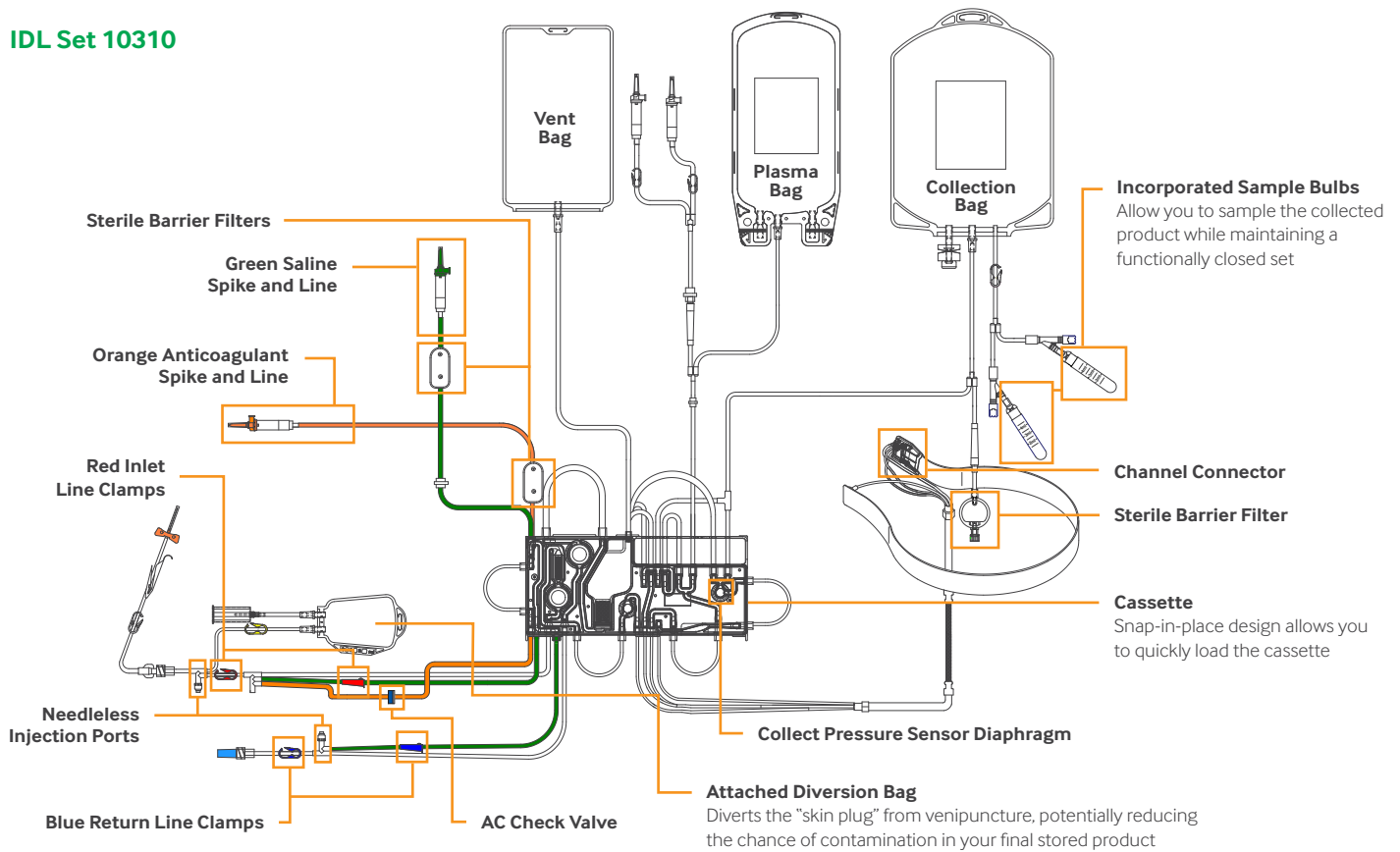
RED BLOOD CELLS (RBCs) AND PLASMA PUMPED BACK TO THE PATIENT

TARGETED CELLS CONTINUOUSLY PUMPED INTO THE COLLECTION BAG

You may monitor and adjust the depth at which the cells are collected within the Buffy Coat layer based on the desired hematocrit of the collected product; you may also adjust the collect pump flow rate to further optimize your collection.



IDL Set 10310



| | |
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| Low-volume tubing set Extracorporeal volume (ECV) = 253 mL (typical), 297 mL (maximum)* | Supports patient comfort and safety Lower ECV under normal operating conditions than the COBE® Spectra system WBC set (285 mL)* |
| Compact packaging | Minimizes the space required for storage |
| Color-coded components | Simplifies setup and operation |

*Under normal operating conditions, the ECV will not exceed the typical ECV value. Under certain infrequent alarm conditions, such as during reservoir recovery after a reservoir alarm, the ECV may momentarily increase to the maximum ECV value.

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

TERUMOBCT

As a global leader in blood component, therapeutic apheresis and cellular technologies, we believe in the potential of blood to do even more for patients than it does today. This belief inspires our innovation and strengthens our collaboration with customers.

UNLOCKING THE POTENTIAL OF BLOOD | TERUMOBCT.COM

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