



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE  
PUBLIC HEALTH SERVICE  
FOOD AND DRUG ADMINISTRATION ION

BETHESDA, MARYLAND 202003

January 28, 1981

TO: All Registered Blood Collecting Facilities

FROM: Director, Bureau of Biologics, FDA

SUBJECT: Collection of Human Leukocytes for Further Manufacturing  
(Source Leukocytes)

In August 1980 the Bureau issued a set of guidelines for the collection of human leukocytes for further manufacturing. Comments on those guidelines were solicited and, on October 8, 1980, the Bureau convened a workshop to evaluate data on the real and potential risks to donors. Members of the Division of Blood and Blood Products consulted with experts in the field to obtain an additional spectrum of opinions on the performance of these procedures.

The consensus of opinion is that there is a potential risk associated with the collection of large numbers of lymphocytes from a donor. It is not possible, with the current state of knowledge, to quantitatively predict the frequency of donation which would endanger a specific donor. Therefore, any limitation to donation must be somewhat arbitrary. From the input received, the Bureau feels that an annual (rather than a lifetime) donation limit would allow adequate collection for the industry and would satisfactorily safeguard the donor. This change has been incorporated into revised guidelines, a copy of which is enclosed.

-Signature (Paul Parkman for)-  
Harry M. Meyer, Jr., M.D.

Enclosure

GUIDELINES FOR THE COLLECTION  
OF HUMAN LEUKOCYTES  
FOR FURTHER MANUFACTURING

Prepared by the  
Food and Drug Administration  
Bureau of Biologics  
January 1981

These guidelines should be observed by all registered blood collecting facilities who wish to collect leukocytes for further manufacturing (Source Leukocytes).

1. The collection of Source Leukocytes from whole blood donors shall meet the donor suitability criteria for the collection of whole blood as defined in 21 CFR 640.3.
2. The collection of Source Leukocytes from plasmapheresis donors (single unit) without any additional donor monitoring shall not be performed more frequently than once every eight weeks. The collection of Source Leukocytes under these conditions shall be obtained from the first unit of whole blood collected during the plasmapheresis procedure. Such donors shall meet the donor suitability criteria for the collection of Source Plasma (Human) as defined in 21 CFR 640.63.
3. The collection of Source Leukocytes from plasmapheresis donors (single or 'double units) may be performed no more frequently than once in a 48 hour period or twice in a seven day period, and shall not exceed the collection from more than 32 units of blood from a donor during a period of one year. Such donors shall meet the donor suitability criteria for the collection of Source Plasma

(Human) as defined in 21 CFR 640.63. In addition, white blood cell count shall be performed on the donor within 7 days prior to each collection of leukocytes. Leukocytes shall not be collected from donors whose white blood cell count is below 4000 per cubic millimeter.

4. Collection of Source Leukocytes by plasmapheresis at greater frequencies and total numbers than those defined in these guidelines must be conducted under protocols approved by the Director, Bureau of Biologics. Approvals will be given only where donor safety can be clearly demonstrated and monitored.
5. Collection of Source Leukocytes by machine leukapheresis must be conducted under protocols approved by the Director, Bureau of Biologics. Approvals will be given only where donor safety can be clearly demonstrated and monitored.
6. The methodology for the collection of the leukocytes shall assure maximum donor safety and sterility of all blood products
- 7 Donor informed consent shall adequately explain the potential risks of Source Leukocytes collection.
8. Results of tests for HB<sub>s</sub>Ag should be available to the manufacturer of Source Leukocytes before they are shipped for further manufacture. If HB<sub>s</sub>Ag test results cannot be available prior to shipping, the procedures to be used with

such Source Leukocytes must be submitted for approval by Director, Bureau of Biologics. This submission must include details of the system for communicating test results, procedures for quarantine of untested units and for identification and disposal of units found to be positive for HB<sub>s</sub>Ag.

9. The use of machine leukapheresis for leukocyte collection is still an experimental procedure which should not be implemented as a routine method for the collection of leukocytes for further manufacturing use. Its use should be limited for patient transfusion, blood cell component therapy, or as provided under item 5 of these guidelines. The Bureau will be developing standards for the collection of leukocytes intended for patient transfusion as well as for further manufacturing use. Because this is a new and developing area, the Bureau is collecting and evaluating scientific data and will be pleased to consider any information received on the safety of more frequent Leukocyte collection, including donor safety and the safety and efficacy of the blood products.
10. Labeling of the leukocytes shall comply with the Good Manufacturing Practices requirements defined in 21 CFR 640.120. The container label for the leukocyte product shall contain the following information:

SOURCE LEUKOCYTES  
CAUTION: FOR MANUFACTURING USE ONLY

Quantity of Source Material and Kind and Quantity  
of Anticoagulant

Donor or Lot Number \_\_\_\_\_

Date Collected \_\_\_\_\_

Volume \_\_\_\_\_ ml

Store at 10°C or colder

Non-Reactive for HBsAg by FDA Required Test

Name, Address and License Number (if Licensed) of the  
Collecting Facility

Biological products, such as Source Leukocytes, are subject to the licensing provisions of Section 351(a) of the Public Health Service Act. All establishments desiring to collect and ship Source Leukocytes for sale in interstate commerce must first obtain a product license. Licensed manufacturers of Source Plasma (Human) must obtain a separate license for Source Leukocytes and must amend their product license for Source Plasma (Human) to include their procedure for the collection of the leukocytes.

Appropriate license application forms for establishments intending to collect and ship Source Leukocytes for sale in interstate commerce for further manufacturing use may be obtained by writing to the following address:

Licensing Branch, HFB-720  
Bureau of Biologics  
Food and Drug Administration  
8800 Rockville Pike  
Bethesda, MD 20205