Preparing to Take The Qualification In Apheresis Exam

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Associate Director Apheresis Operations
Argos Therapeutics
WAA and The French Society For Apheresis 2016 Congress
April 27-29, 2016
Paris, France
Exam process

- The examination consists of a 50-question multiple choice timed-test that must be completed in 90 minutes. The successful candidate will receive documentation of his/her qualification which is valid for 3 years.
- Requalification may be obtained every 3 years with a $50 application fee and documentation of completion of 6 contact-hours of acceptable continuing education / other activities in apheresis.
- We are happy to announce that there will be a dedicated room in the Westin Mission Hills Golf Resort & Spa in Palm Springs where you can take the exam, providing you bring a laptop.
- Please note that to be eligible to take the QIA exam at the ASFA meeting in early May, you should apply online at the beginning of February. **Apply through ASCP as early as possible if you wish to take the exam at the ASFA Annual Meeting.**
The ASFA Website

• www.apheresis.org
How to get information

Qualification in Apheresis (QIA)

ASFA is pleased to offer a Qualification in Apheresis (QIA) in partnership with The Board of Certification (BOC) of the American Society for Clinical Pathology (ASCP) as of January 2016!

Prove your competency in apheresis by taking the QIA exam! In order to add the letters QIA after your name, follow this link: http://www.ascp.org/content/board-of-certification/qualification/step-1/qualification-in-apheresis-qia

An eligible applicant does not have to be a member of ASFA or ASCP but must satisfy the requirements of at least one of the following routes:

- **ROUTE 1**: RN, LPN, or LVN with U.S. state license, certificate, or diploma*, AND 3 years full-time acceptable experience in apheresis or 5 years part-time acceptable experience in apheresis within the last 10 years.
- **ROUTE 2**: Professional nurse diploma or equivalent received outside of the U.S.*, AND 3 years full-time acceptable experience in apheresis or 5 years part-time acceptable experience in apheresis within the last 10 years.
- **ROUTE 3**: ASCP or ASCP certification in the following categories: MLS/MT, BB, SBB or MLT AND 3 years full-time acceptable experience in apheresis or 5 years part-time acceptable experience in apheresis within the last 10 years.
- **ROUTE 4**: Baccalaureate degree from a regionally accredited college/university in the U.S. or an accredited/approved
How do I begin to Study?

• Each of these subtests comprises a specific percentage of the overall 50-question qualification examination. The subtests for the examination are outlined in the slides to follow.
How the Exam is Structured

- The Qualification in Apheresis examination questions encompass different topics or subtests within the area of Apheresis:

Topics Covered

- Basic Science
- Clinical Applications
- Donor/Patient Care
- Instrumentation
- Operational Considerations and Standards
- Guidelines
- Regulations (ASFA, AABB, CAP, FDA, FACT, HIPAA, TJC, etc.).
QUALIFICATION IN APHERESIS (QIA)

Topic Outline

The Qualification in Apheresis examination questions encompass different topics or subtopics within the area of Apheresis: Basic Science, Clinical Applications, Donor/Patient Care, Instrumentation, Operational Considerations, and Standards, Guidelines, and Regulations (ASFA, AABB, CAP, FDA, FACT, HIPAA, TJIC, etc.). Each of these subtopics comprises a specific percentage of the overall 50-question qualification examination. The subtopics for the examination are outlined below:

I. Basic Science (5-10%)
   A. Hematology/Immunology
   B. Immunohematology/Immunogenetics
   C. Blood composition

II. Clinical Applications (10-20%)
   A. Donor Apheresis
      1. Selection
      2. Pretransfusion testing
      3. Storage
   B. Therapeutic Apheresis
      1. General principles
      2. Specific techniques
   C. Cell Therapy
      1. Hematopoietic progenitor cells
      2. Autologous hematopoietic progenitor cells
      3. Allogeneic hematopoietic progenitor cells
      4. Cord blood

III. Donor/Patient Care (30-40%)
   A. Assessment/Monitoring
   B. Replacement fluids
   C. Medications (e.g., calcium, antiplatelet agents)
   D. Drug interactions
   E. Venous access
   F. Fluid balance
   G. Blood product selection
   H. Adverse reactions

IV. Instrumentation (10-20%)
   A. Theoretical principles of separation
      1. Centrifugation
      2. Membrane separation
   B. Separation techniques
      1. Extracorporeal oxygenation
      2. Extracorporeal support
   C. Operational considerations
      1. Quality assurance
      2. Quality control
   D. Data analysis

V. Operational Considerations (10-20%)
   A. Quality assurance (e.g., cGMP, cGTP, validation)
   B. Quality control
   C. Equipment maintenance
   D. Safety
   E. Infection control

VI. Standards, Guidelines, and Regulations
   (ASFA, AABB, CAP, FDA, FACT, HIPAA, TJIC, etc.) (10-20%)
   A. Informed consent
   B. Confidentiality
   C. Donor selection
   D. Facility licensure and accreditation
   E. Training and competency
   F. Occupational safety and health administration

All Board of Certification examinations use conventional and/or multiple choice formats for results and reference ranges.

END OF TOPIC OUTLINE

September 2015

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QUALIFICATION IN APHERESIS (QIA)

Suggested Reading for Examination Preparation

This list is intended only as a partial reference source. Its distribution does not indicate endorsement by the Board of Certification, American Society for Clinical Pathology, nor does the Society wish to imply that the content of this examination will be drawn solely from these publications.

JOURNALS

TEXTS
Apheresis Principles

Apheresis: Principles and Practice (3rd ed.)
Deshmukh, MD; AABB Press. Link to Purchase

REGULATIONS


ONLINE
AABB
American Association for Blood Banks
www.aabb.org

American Society for Histocompatibility and Immunogenetics
www.ashg.org

American Society for Hematology
www.asha.org

American Society for Clinical Pathology
www.ascp.org

American Society of Transplantation
www.anb.org

Centers for Disease Control and Prevention
www.cdc.gov

College of American Pathologists
www.cap.org

Food and Drug Administration
www.fda.gov

HIPAA
www.hhs.gov

Occupational Safety and Health Administration
www.osha.gov

January 2016

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Basic Science (5-10%)

A. Hematology/Coagulation

B. Immunohematology/Genetics
   1. Blood component therapy
   2. HLA
   3. ABO

C. Immunology
   1. Antibodies
   2. Immune complexes

D. Laboratory Testing
## Clinical Applications (10-20%)

<table>
<thead>
<tr>
<th>A. Donor Apheresis</th>
<th>B. Therapeutic Apheresis</th>
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<tbody>
<tr>
<td>1. Platelets</td>
<td>1. Plasma exchange</td>
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<tr>
<td>2. Red blood cells</td>
<td>2. Red cell exchange</td>
</tr>
<tr>
<td>4. White blood cells (e.g., granulocytes)</td>
<td>4. Selective adsorption/filtration procedures</td>
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</tbody>
</table>
Clinical Applications (cont.)

C. Cellular Therapy

1. Hematopoietic progenitor cells
2. Extracorporeal photopheresis (ECP)
3. Mononuclear cell collections
   (e.g., lymphocytes, monocytes)

D. Diseases Treated with Apheresis
Donor Patient Care (30-40%)

A. Assessment/Monitoring
B. Replacement Fluids
C. Anticoagulation
D. Medications (e.g., calcium, antihistamine) and Drug Interactions
E. Venous Access
F. Fluid Balance
G. Age-Related Considerations
H. Adverse Reactions
Instrumentation (10-20%)

A. Theories and Techniques of Separation
   1. Centrifugation
      (e.g., intermittent and continuous flow)
   2. Membrane
   3. Columns

B. General Principles of Automated Instruments*
   1. Anticoagulation of extracorporeal circuit
   2. Extracorporeal blood volume
   3. Efficiencies of separation and/or collection
   4. Clinical applications (see II.A.-D.)
Operational Considerations (10-20%)

- A. Quality Assurance (e.g., cGMP, cGTP, validation)
- B. Quality Control
  - 1. Product yield
  - 2. Instrument efficiencies
- C. Equipment Maintenance
- D. Safety (e.g., OSHA, CDC)
- E. Infection Control
Standards, Guidelines, and Regulations (10-20%)

- Including: ASFA, AABB, CAP, FDA, FACT, HIPAA, TJC, etc.
  A. Informed Consent
  B. Confidentiality
  C. Donor Selection
  D. Facility Licensure and Accreditation
  E. Training and Competency
Reading list

- The suggested reading list can be found on the ASFA website under the QIA tab.
  - Journals
  - Text
  - Regulations
Journals

• *Journal of Clinical Apheresis. American Society for Apheresis (ASFA), Wiley, British Columbia.*

• Reference for special issue
The Journal of Clinical Apheresis, the official publication of ASFA, provides the world's premier source of current information in the field of apheresis. The Journal presents work in all aspects of basic and clinical research, practical applications, emerging technologies and regulation in apheresis and related fields including hematology, nephrology, neurology, rheumatology, transplantation, cellular therapies, blood banking, transfusion medicine and others.

**Publication Schedule:**

The 2015 Journal of Clinical Apheresis publication schedule is as follows:

- Volume 29, Issue 1: February 2016
- Volume 29, Issue 2: April 2016
- Volume 29, Issue 3: June 2016
- Volume 29, Issue 4: August 2016
- Volume 29, Issue 5: October 2016
• **APHERESIS PRINCIPLES**

  • Linz, W. et al. (2014). *Principles of Apheresis Technology* (5th ed.). Vancouver, British Columbia: ASFA. [Link to Purchase]

Principles of Apheresis Technology


The Principles of Apheresis Technology is intended to provide the user with a basic overview of the theory and applications of apheresis. This publication is not intended to be all-inclusive, but rather, a tool to supplement past education and experience in the field of apheresis. The Principles of Apheresis Technology is intended to increase the reader’s awareness and understanding regarding apheresis technologies and applications. Additionally, The Principles of Apheresis Technology may be used as a basis for developing training programs for those new to the field of apheresis.

This invaluable textbook, published by ASFA, provides a basic overview of the theory and applications of apheresis and can serve as a basis for developing training programs for those new to the field of apheresis. Topics covered include:

- Basic Science
- Apheresis Instrumentation
- Therapeutic Apheresis Procedures
- Clinical Decision Making & the ASFA Guidelines
- Vascular Access
- Care of Patients Receiving Therapeutic Apheresis
- Donor Apheresis
- Apheresis for Cellular Therapies
- Apheresis Program Management Essentials
- Regulatory Issues and Quality Activities
- Pediatric Apheresis Special Considerations for Children <25 Kg
REGULATIONS


More Regulations


- Food and Drug Administration. (March 10, 1995). Revision of FDA Memorandum of August 27, 1982: Requirements for Infrequent Plasmapheresis Donors. Rockville, MD: FDA. Available online: [Link to View]
Online Resources

- AABB www.aabb.org
- American Nephrology Nurses Association www.annanurse.org
- American Society for Apheresis www.apheresis.org
- American Society of Hematology www.hematology.org
- American Society of Nephrology www.asn-online.org
- Centers for Disease Control and Prevention www.cdc.gov
- College of American Pathologists www.cap.org
- Food and Drug Administration www.fda.gov
- HIPAA www.cms.hhs.gov/hipa
- Occupational Safety and Health Administration www.osha.gov
# Other Sources of Information

## PRECONFERENCE WORKSHOP: APHERESIS REVIEW SESSION
(PRE-REGISTRATION WITH ASFA AND ADDITIONAL REGISTRATION FEES REQUIRED)

The Apheresis Review Session will provide a basic overview of the theory and applications of apheresis medicine. Experts in the field will provide a broad overview of each of the topics and participants will have an opportunity to work with case studies. The Review Session is an appropriate preparatory course for the Qualification in Apheresis (QIA) Exam, offered by ASCP.

**Morning Chairs:** Debbie Ferrell, MSN, RN, HP(ASCP) & Margaret Hannan, LPN, AT (ASCP)
**Afternoon Chairs:** Bryan Prentice, RN, MSN & Alicia Garcia, RN, HP(ASCP)

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<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Instructor(s)</th>
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<tbody>
<tr>
<td>7:00AM – 7:30AM</td>
<td>Continental Breakfast</td>
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<tr>
<td>7:30AM – 7:45AM</td>
<td>Welcome</td>
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<tr>
<td>7:45AM – 8:15AM</td>
<td>Introduction to ASCP Qualification in Apheresis (QIA) Exam</td>
<td>Christina Anderson, RN, BSN, HP(ASCP)</td>
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<tr>
<td>8:15AM – 9:00AM</td>
<td>Basic Science in Apheresis</td>
<td>Hans Vrielink, MD</td>
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<tr>
<td>9:00AM – 10:00AM</td>
<td>Clinical Applications: Therapeutics</td>
<td>Jeffrey L. Winters, MD</td>
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<tr>
<td>10:00AM – 10:30AM</td>
<td>Break</td>
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<tr>
<td>10:30AM – 11:30AM</td>
<td>Clinical Applications: Donor and Cellular Therapy</td>
<td>Jay S. Raval, MD</td>
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<td>11:30AM – 12:15PM</td>
<td>Apheresis Instrumentation</td>
<td>Edwin A. Burgstaler, MT, HP(ASCP)</td>
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<td>12:15PM – 1:15PM</td>
<td>Lunch and Equipment Fair</td>
<td>Rancho Mirage Foyer</td>
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<td>1:15PM – 2:45PM</td>
<td>Donor and Patient Care</td>
<td>Leah L. Irwin, RN, MSN, CRNP</td>
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<td>2:45PM – 3:30PM</td>
<td>Apheresis Program Essentials</td>
<td>Darlene Cloutier, MT, HP</td>
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<tr>
<td>3:30PM – 3:45PM</td>
<td>Break</td>
<td></td>
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<tr>
<td>3:45PM – 4:30PM</td>
<td>Standards, Guidelines, and Regulations</td>
<td>Theresa C. Stec, BA, MT(ASCP)</td>
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<tr>
<td>4:30PM – 5:00PM</td>
<td>Wrap Up</td>
<td>Alicia Garcia, RN, HP(ASCP)</td>
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Additional Resources

• Joint Task Force For Apheresis Education

• Contact Information:
  • H.vrirlink@sanquin.nl
Thank You