The American Red Cross offers regular educational opportunities as a convenient way for healthcare providers to receive relevant blood banking and transfusion medicine information. The bi-monthly sessions, presented via WebEx webinars, are recorded and posted on our SUCCESS® website. To access this content, click on the Webinar Series link on the SUCCESS home page.

These educational recordings, unlike the majority of SUCCESS® content, will not provide SUCCESS CEU/CME credit but do offer additional learning opportunities for you and your staff, and can be certified by your hospital as facility contact hours, if so desired.

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CURRENT COURSE OFFERINGS

ADMINISTRATION OF BLOOD COMPONENTS

Blood Administration in the Hospital Setting: Adults (presented 2/4/2016)
- Recognize the importance of meeting patient safety goals in regard to identification of patients, patient samples, and blood components.
- Describe both nursing and laboratory responsibilities in the safe administration of blood components.
- Identify the appropriate equipment to use for both routine and emergent transfusion scenarios.

Blood Administration: Informed Consent (presented 1/7/2016)
- Recognize the regulatory and accreditation agencies that provide oversight for informed consent.
- Identify the elements of an informed consent required by regulatory and accreditation agencies.
- Determine if it is necessary to develop audits for the informed consent process.

Massive Transfusion: A Protocol for Bleeding and Non-Bleeding Patients (presented 5/5/2016)
- Discuss basics of massive transfusions.
- Discuss “empiric” versus “tailored” approach to massive transfusions.
- Discuss massive transfusion protocols that cover bleeding and non-bleeding patients.

Preoperative Anemia (presented 1/28/2016)
- Describe the incidence of preoperative anemia.
- Identify populations at risk for preoperative anemia.
- Become familiar with pathophysiology of anemia of chronic disease, the evaluation of a patient for anemia preoperatively, and treatment options for preoperative anemia.

Transfusion Management in Sickle Cell Patients (presented 8/4/2016)
- Discuss the history, pathophysiology, and common laboratory findings in a patient with sickle cell disease.
- Identify clinical presentations of sickle cell disease.
- Review considerations for Transfusion management in sickle cell patients.

Visual Inspection of Blood Products (presented 7/21/2016)
- Identify steps in performing visual inspection of all blood products.
- Recognize causes of bacterial contamination in blood products, including a review of the AABB bulletin concerning investigation of possible bacterial contamination of platelets.
- Identify common characteristics of a septic transfusion reaction.
ADVERSE REACTIONS TO TRANSFUSION

**Adverse Reactions to Transfusion: Descriptions and Risks (presented 7/7/2016)**
- List the five types of adverse reactions to transfusion with the highest number of reported transfusion related fatalities.
- Recognize the difference between acute and delayed adverse reactions upon onset of symptoms.
- Identify signs and symptoms associated with both common and rare adverse events that may be related to transfusion.

**Adverse Reactions to Transfusion: Investigation (Part 1) (presented 4/2/2015)**
- Utilize the CDC biovigilance/hemovigilance module’s standard terminology and definitions to manage adverse reactions to transfusion.
- Identify ways to manage a patient suspected of having an adverse reaction to transfusion and immediate steps the laboratory should perform when an adverse reaction to transfusion is suspected.
- List reporting requirements in the event of an adverse transfusion reaction.

**Adverse Reactions to Transfusion: Investigation (Part 2) (presented 5/7/2015)**
- Utilize the CDC biovigilance/hemovigilance module’s standard terminology and definitions to manage adverse reactions to transfusion.
- Identify ways the laboratory can perform an extended investigation and the pathologists involvement in this investigation.
- List reporting requirements in the event of an adverse transfusion reaction.

ALL CASE STUDIES

**Adventures in Perinatal and Pediatric Transfusion (presented 1/5/2017)**
- Identify communication challenges in your own practice; improve verbal and written communication with clinicians.
- Select RBCs for intrauterine transfusion and prioritize certain characteristics.
- Interpret elutions and effectively communicate the interpretation to clinicians and state the indications for thermal amplitude testing.

**Case Studies (presented 6/16/2016)**
- Apply blood bank knowledge and utilize testing results to resolve patient work-ups.
- Recognize that hasty conclusions made during preliminary testing are not always consistent with final results.

**Multiples, High Frequency, and a Cold: Oh My! (presented 3/2/2017)**
- Verbalize the importance of a patient history and be able to correlate history with diagnosis.
- Differentiate the high frequency antigens in the Duffy Blood Group System.
- List three different techniques used when working with a cold reactive antibody.
- Discuss the role of molecular genotype testing in complex serological work.

ANTIBODY DETECTION AND IDENTIFICATION

**Antibody Detection and Identification (presented 5/21/2015)**
- Identify pre-analytical considerations for antibody identification.
- Describe possible testing options to determine antibody specificity (given the results of an antibody panel).
- List limitations of performing a red blood cell phenotype and suggest solutions to overcome those limitations.

**Clinical Management of the Serological Interference by DARA (presented 3/3/2016)**
- Explain the clinical benefits of DARA in treating multiple myeloma patients.
- Explain how DARA interferes with pretransfusion testing.
- Identify and apply various mitigation techniques used to remove the interference of DARA in pretransfusion testing.

**Importance of Drug History when Attempting a Serologic Workup (presented 3/3/2016)**
- Recognize drugs that are most likely to influence serologic testing.
- Characterize the mechanism of Daratumumab (DARA) interference and know the appropriate testing alternatives that can be performed or ordered when patients are on the drug.
- Summarize a drug history that can aid in testing and interpretation of results.

**Warm Autoantibodies (presented 3/16/2017)**
- Define warm autoantibody and the serologic characteristics observed in the presence of a warm autoantibody.
- Discuss serologic techniques used and testing performed in warm autoantibody investigation.
- Review case studies to apply techniques utilized.
**BLOOD COMPONENTS**

**Blood Components and Transfusion Therapy** *(presented 5/19/2016)*
- Discuss the testing procedures involved in donor processing, including anticoagulant solution and infectious disease testing performed.
- Identify blood components, their main function, and indications for transfusion for: red blood cells, platelets, plasma, cryoprecipitate, and granulocytes.
- Classify 'specialized' components that may be requested or required for transfusion.

**Platelet Transfusions: Managing the Platelet Refractory Patient, ABO Compatible, Crossmatched, HLA matched, PAS Platelets** *(presented 11/3/2016)*
- Identify the mechanisms of platelet refractoriness, including recognition and management of patient refractoriness to platelet transfusion.
- Describe new platelet products, including platelets with additive solutions, PAS Platelets and pathogen reduced platelets.

**Practical Use of Platelet Antibody Testing and Matched Platelets** *(presented 10/20/2016)*
- Utilize case studies to demonstrate platelet antibody testing and use of specialized platelet products.
- Recognize the basics of platelet testing: what can be learned and when to order tests.
- Understand platelet testing results to help decide if matched platelets are clinically useful and which platelet product should be ordered.

**BLOOD GROUPS**

**Clinical Importance of Rh System Variants in Patients and Donors** *(presented 12/1/2016)*
- Understand and describe disease caused by or associated with Rh blood group variation, particularly in obstetrics.
- Determine when to refer patients for high resolution molecular characterization of the Rh system, particularly for RhD.

**RH Blood Group System** *(presented 2/18/2016)*
- Discuss the history and importance of the Rh system including Rh genes, biochemistry, and antigen development.
- Review antigens of the Rh system (including phenotype, genotype, and nomenclature) and the associated clinical significance of Rh alloantibodies.
- Define AABB standards for Rh(D) typing in donors, transfusion candidates and obstetric patients.

**RhD Genotyping – Resolving Discrepancies and Assessing Risk** *(presented 12/1/2016)*
- Describe how serologic weak D reactivity can be explained by genetic variation in the RHD gene.
- Recognize when RHD genotyping can be useful to resolve D typing discrepancies and to inform about risk of alloimmunization by transfusion or pregnancy.

**Serologic Detection of Weak and Partial D - What Does it Mean for Patients and Donors** *(presented 3/17/2016)*
- Participants will gain knowledge to evaluate clinical situations involving weak or partial D types.
- Be able to associate literature review on transfusion of selected antigen negative blood to apply to transfusion decisions and recognize and classify results that require further study.

**BLOOD UTILIZATION OR PBM**

**A Clinical Tool for Transfusion Therapy: The American Red Cross Compendium of Transfusion Practice Guidelines, 3rd Edition** *(presented 1/26/2017)*
- Review contents of the 3rd edition of the ARC Compendium to develop familiarity with information relevant to transfusion practice.
- Identify and discuss new educational content of the Compendium.
- Discuss selected transfusion topics, based on recent publications and/or guidelines.

**Indications for Blood Component Transfusion** *(presented 6/2/2016)*
- Review indications for transfusion of:
  - Red blood cells (RBCs)
  - Plasma
  - Platelets

**COAGULATION FACTORS**

**Coagulation Disorders** *(presented 3/2/2017)*
- Describe the clinical presentation and laboratory findings of primary and secondary coagulation disorders.
- Differentiate the pathophysiology and diagnostic approaches to coagulation disorders.
- Summarize updated guidelines on HIT.
INFECTION DISEASES

Hemorrhagic Fevers and Other Emerging Infectious Threats *(presented 3/5/2015)*
- Define and characterize the hemorrhagic diseases and other infectious agents currently affecting transfusion medicine.
- Describe the currently accepted testing and transfusion strategies for afflicted patients.
- Identify the potential infectious threats on the horizon that have potential to impact transfusion medicine.

Zika Update *(presented 3/3/2016)*
- Reviews the characteristics of the Zika virus, including description, vectors, transmission, symptoms, prevention and protection of the blood supply.

Zika Virus *(presented 2/16/2017)*
- Describe the epidemiology, clinical presentations, diagnosis, and complications of Zika virus infection.
- Explain the risk Zika virus poses to the blood supply and the mitigation strategies being recommended by regulatory agencies.
- Discuss the result of investigational blood donor testing for Zika virus.

MOLECULAR BIOLOGY

Clinical Importance of Rh System Variants in Patients and Donors *(presented 12/1/2016)*
- Understand and describe disease caused by or associated with Rh blood group variation, particularly in obstetrics.
- Determine when to refer patients for high resolution molecular characterization of the Rh system, particularly for RhD.

RhD Genotyping – Resolving Discrepancies and Assessing Risk *(presented 12/1/2016)*
- Describe how serologic weak D reactivity can be explained by genetic variation in the RHD gene.
- Recognize when RHD genotyping can be useful to resolve D typing discrepancies and to inform about risk of alloimmunization by transfusion or pregnancy.

Transfusion Medicine in the Era of Personalized Genomic Medicine *(presented 4/7/2016)*
- Understand how genetic variation can determine quantitative and qualitative antigen expression.
- Understand how molecular methods can be used to predict antigen expression.
- Know when molecular immunohematology testing can improve transfusion medicine practice and more personalized patient care.

REGULATORY AND ACCREDITATION

Ask the Experts *(presented 12/1/2016)*
- Understand what is expected from each accrediting organization in regards to recommendations, interpretations, and requirements.

Ask the Experts: Question and Answer with Blood Bank Inspectors *(presented 10/6/2016)*
- Understand what is expected from each accrediting organization in regards to recommendations, interpretations, and requirements.
- Ask questions specific to local inspections by any of the represented organizations.

ISBT Terminology *(presented 12/15/2016)*
- Review ISBT Terminology
- Apply ISBT terminology for recording blood group antigens
- Describe other correct terminology used in blood bank

The Role of the Transfusion Safety Officer in Transfusion Medicine *(presented 10/6/2016)*
- Identify development and implementation strategies for a transfusion safety officer role – including experience and skills to consider when seeking a candidate AND training and support of the role.
- Recognize the impact and responsibilities of the transfusion safety officer role in a patient blood management program.

TRANSFUSION SERVICE TESTS & PROCEDURES

Platelet Transfusions: Managing the Platelet Refractory Patient, ABO Compatible, Crossmatched, HLA Matched and PAS Platelets *(presented 11/3/2016)*
- Identify the mechanisms of platelet refractoriness, including recognition and management of patient refractoriness to platelet transfusion.
- Describe new platelet products, including platelets with additive solutions, PAS Platelets and pathogen reduced platelets.
Practical Use of Platelet Antibody Testing and Matched Platelets (presented 10/20/2016)
- Utilize case studies to demonstrate platelet antibody testing and use of specialized platelet products.
- Recognize the basics of platelet testing: what can be learned and when to order tests.
- Understand platelet testing results to help decide if matched platelets are clinically useful and which platelet product should be ordered.

Prenatal Testing and Requirements (presented 10/6/2016)
- Differentiate clinically significant and insignificant antibodies in prenatal patients.
- Describe detection and monitoring techniques for clinically significant antibodies in prenatal patients.

Rh Immune Globulin (RhIG). One size does not fit all. (presented 10/6/2016)
- Overview of Rh prophylaxis and prevention of RhD immunization.
- Describe preparation and administration of Rh prophylaxis.
- Define current CAP recommendation for OB patients with weak or variable RhD typing.
- Describe challenges of typing for RhD by serologic methods.

Transfusion Management of the Sickle Cell Disease Patient (presented 8/18/2016)
- Evaluate data supporting the value of providing phenotypically matched red cells, including the antigen frequencies of commonly requested antigen negative red cell components.
- Indicate strategies for providing antigen negative blood for sickle cell patients.

Warm Autoantibodies (presented 3/16/2017)
- Define warm autoantibody and the serologic characteristics observed in the presence of a warm autoantibody.
- Discuss serologic techniques used and testing performed in warm autoantibody investigation.
- Review case studies to apply techniques utilized.

If you have any questions or comments on these postings, please contact our hospital education coordinator via email at hospitaleducationcoordinator@redcross.org.