Program Description

Pre-Conference Workshop: Thursday, January 24, 2019: 2.5 contact hours
Conference: Friday, January 25, 2019: 6.5 contact hours | Saturday, January 26, 2019: 6.5 contact hours
Total meeting equals: 15.5 contact hours

Friday | 25 January 2019

Updated as of 01/19/2019

08:15 – 08:45 Opening Session — Hall A

08:45 – 10:15 Education Session — Hall A

Chimeric Antigen Receptor T Cell (CAR T Cell) Therapy Updates and Cellular Therapy Quality Challenges

This session is designed to raise awareness of several unique quality aspects associated with manufacturing and clinically administering CAR T cellular products for a variety of implications. Main points to consider range from GMP considerations unique to immune effector cells both those manufactured at academic or commercial facilities, clinical program infrastructure, and the extensive training required to achieve appropriate intradepartmental coordination. Additional challenges include defining outcomes and assessment algorithms, logistics of long-term follow-up, and how to effectively interface with the CIBMTR data repository.

10:45 – 12:15 Concurrent Education Sessions — Hall A

Personalized Transfusion Medicine and Immunohematology

What does the future hold for Transfusion Medicine and Immunohematology? Can we somehow minimize the risk of alloimmunisation by giving a better product? This session will focus on the efforts being made in many laboratories to culture erythrocytes in vitro, with the aim of producing units of blood that are tailor-made to the patient. However, production of sufficient blood to help our patients is still very much in the future. In the meantime, Immunohematology laboratories worldwide have been investing time and effort into providing serologic and/or genotype-matched blood for patients requiring chronic transfusion. Three country's experiences (Brazil, France, USA) implementing genotype matching protocols for patients with sickle cell disease will be reviewed. The progress and success of these programs will be discussed.

10:45 – 12:15 Concurrent Education Sessions — Hall B

Treating Coagulopathies

With the advent of direct oral anticoagulants (DOACs), the armamentarium for treating or preventing thromboembolic events has expanded along with vitamin K antagonists (VKA). Despite increasing use of DOACs, VKA remains an important and potent oral anticoagulant therapy in certain clinical conditions where DOACs may not be helpful or studied (e.g. mechanical heart valves, left ventricular assist device, antiphospholipid syndrome etc). VKA therapy is fraught with poor time in therapeutic range (TTR) along with higher incidence of intracranial hemorrhage (ICH) as compared to DOACs. However, some DOACs have a higher incidence of gastrointestinal bleeding. Anticoagulants may require reversal of their effect in patients who present with major bleeding or require an urgent surgical procedure. VKA can be reversed effectively with four factor prothrombin complex concentrates (4F-PCC) along with vitamin K (usually intravenously), however, when 4F-PCC is unavailable then plasma maybe used for its reversal. For direct thrombin inhibitor (dabigatran) associated bleeding, a specific antidote, a monoclonal antibody against dabigatran, idarucizumab (Praxbind) is available. Similarly, a specific reversal agent andexanet, has been recently FDA approved for FXa inhibitors. It is a recombinant decoy molecule that mimics FXa and binds to FXa inhibitors tightly, which frees up native FXa to participate in coagulation cascade to generate thrombin. Since DOACs have much shorter half-lives (10-12 hours) as compared to VKA (2-3 days), it is prudent to assess their effect in patients' plasma before using any reversal agent. This presentation will provide practical approaches for anticoagulation reversal in clinical practice.

14:00 – 15:30 Concurrent Education Sessions — Hall A

Iron from Vein to Vein

This session will provide tips for successful strategic interventions to improve donor iron health, taking into consideration evidence-based findings, blood center operational constraints, and impact to the blood supply. The audience will gain a better appreciation for the rationale behind the need for a donor iron management plan as well as valuable insights for the successful execution of a donor health initiative. We will specifically discuss the various strategies that blood collection establishments may consider and implement. Experience with a donor ferritin testing program will highlight real-world challenges in mitigating the progressive iron depletion that occurs from whole blood and apheresis donation.

14:00 – 15:30 Concurrent Education Sessions — Hall B

Patient Blood Management from Pediatrics to Adults

Patient blood management (PBM) is a comprehensive strategy aimed at optimizing patient and procedural parameters to support only evidence-based transfusions. With the increased adoption of electronic health records (EHRs), great opportunities have arose to provide specific guidance to providers to support PBM. The bulk of this has focused on clinical decision support (CDS) aimed at reducing provider blood ordering and/or to basing it on recent patient labs. While this session will cover this aspect, it will introduce novel aspects of using prediction and machine learning to optimize an array of other important domains such as inventory management and predicting response to products for targeted therapy. This session will discuss various patient blood management strategies targeted in a predominantly pediatric patient population, including formulation of transfusion guidelines as well as maximum surgical blood ordering schedules. Topics will also include the challenges of implementing evidence-based practices in pediatrics compared to adult-centric medicine and information technology applications to facilitate adherence to recommended transfusion practices.

16:00 – 17:30 Education Session — Hall A

Updates for Adult and Pediatric Therapeutic Apheresis

This session will use a case based format to illustrate how the "Guidelines on the Use of Therapeutic Apheresis in Clinical Practice—Evidence-Based Approach from the Writing Committee of the American Society for Apheresis" are applied to requests for therapeutic apheresis in adult patients. Several recently published studies will be presented to illustrate how these guidelines continue to evolve to provide evidence based treatment recommendations.

Saturday | 26 January 2019

Updated as of 01/19/2019

08:30 Education Session — Hall A

What's New for Platelet Bacterial Mitigation and Transfusion Associated Circulatory Overload

This session will review current strategies for reducing risk of bacterial contamination in platelets and evaluate criteria for when to culture residual components to detect contaminated units when transfusion reactions are reported to the Transfusion Service. The second half of the session will review the results of a recent international project to revise the Transfusion Associated Circulatory Overload definition.

10:30 – 11:15 Session I — Hall A

Apheresis Case Scenarios
This interactive round table discussion will focus on case studies related to apheresis. Each discussion will take place twice.

Molecular and Immunohematology
This interactive round table discussion will focus on topics surrounding molecular and immunohematology. Each discussion will take place twice.

Difficult Blood Management Cases in the Operating Room
This interactive round table discussion will focus on difficult blood management cases in the operating room. Each discussion will take place twice.

Transfusion Reactions
This interactive round table discussion will focus on topics surrounding transfusion reactions. Each discussion will take place twice.

10:30 – 11:15 Session I — Hall B

Cellular Therapy
This interactive round table discussion will focus on topics surrounding cellular therapies. Each discussion will take place twice.

Quality and Inventory Management
This interactive round table discussion will focus on topics surround quality and inventory management. Each discussion will take place twice

Sickle Cell Anemia and Hemoglobinopathies
This interactive round table discussion will focus on topics surrounding sickle cell anemia and hemogloinopathies. Each discussion will take place twice.

Autoimmune Hemolytic Anemia
This interactive round table discussion will focus on topics surrounding autoimmune hemolytic anemia. Each discussion will take place twice.

11:15 – 12:00 Session II — Hall A

Apheresis Case Scenarios
This interactive round table discussion will focus on case studies related to apheresis. Each discussion will take place twice.

Molecular and Immunohematology
This interactive round table discussion will focus on topics surrounding molecular and immunohematology. Each discussion will take place twice.

Difficult Blood Management Cases in the Operating Room
This interactive round table discussion will focus on difficult blood management cases in the operating room. Each discussion will take place twice.

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11:15 – 12:00 Session II — Hall B

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13:30 – 15:00 Concurrent Education Sessions — Hall A

Transfusion Service Mythbusters

Transfusion Service Mythbusters aims to uncover the truth behind popular myths and legends in the blood banking world with unbridled curiosity and conversations regarding best practices in transfusion medicine. Hoping to inspire all blood bankers, the panel will interact and challenge us to get involved with proving or disproving popular myths, misconceptions or legends in our specialized world. The first speaker will explore how Myths arise and are maintained in our own professional practice and discuss how to mitigate their effects

13:30 – 15:00 Concurrent Education Sessions — Hall B

Be Prepared for a Man-Made Mass Casualty Event

Emergency transfusion preparedness is increasingly being recognised as an important element in the healthcare response to Mass Casualty Events (MCE). Planning should support an integrated response between the acute health care services and the providers of blood. In the UK, the lessons identified from other recent incidents are being incorporated into operational planning and revised guidance for hospitals. The guidance has been informed by the global experience of civilian MCEs and the changing trends in trauma care including haemorrhage control. Planning assumes that trauma care starts in the pre-hospital space with continuity of care within the hospital sector. Recent publications suggest that only a modest number of patients hospitalised following MCEs require transfusion. The mean demand is consistently calculated at 2-3 red cell units within the first 6 hr. The demand when using whole blood is assumed to be less. However, a small number of critically injured with multi-trauma may require access to haemostatic component support. Demand planning is only one aspect of transfusion emergency preparedness. Equal efforts must address patient identification, organisation of transfusion staff and laboratory management. Dynamic transfusion triage enables the best use of blood and laboratory resources. The principles of triage can also be applied to blood donation. Many blood services have reporting meeting initial demand for blood from existing stock. Others may rely on emergency donation. The demand is greatest within the first 12 hours however there may be ongoing demand for several weeks. Careful communication with donor communities is essential following MCEs to manage a controlled replenishment of stocks and encourage future donation. Demand planning should consider both component type and blood group to meet demand but minimise waste. Blood services are encouraged to plan for MCEs and work together for mutual support. Trauma networks and military-civilian partnerships provide collaboratives for policy, planning, education and exercising.

This session will review lessons learned from recent mass casualty events, explore how we may continue to provide optimal trauma patient care during a mass casualty event, and summarize possible solutions to our time-sensitive inventory challenges.

15:30 – 17:00 Education Session — Hall A

Pregnancy Challenges for the Transfusion Medicine Service and the Therapeutic Apheresis Service

Pregnancy is an immunological challenge for the mother and transfusion medicine service is often involved in the management of several conditions including hemolytic disease of the fetus and newborn (HDFN). Despite the use of anti-D immunoprophylaxis, development of anti-D is not uncommon especially in unsupervised pregnancies. Transfusion medicine service is involved in the detection of anti-D alloantibody in the mother, followed by titration and further management based on subsequent titers during the pregnancy. This may involve intrauterine transfusions and/or neonatal red cell exchange. Apart from anti-D, other clinically significant alloantibodies (e.g.g anti-K) are often involved in the HDFN. The management involves providing offending antigen negative (usually O negative), relatively fresh red blood cells (<7 days old) that are leukoreduced (CMV safe) and irradiated. Apart from gestational thrombocytopenia, immune thrombocytopenia is not uncommon that requires a hematologist and transfusion medicine specialist working together to provide safe hemostatic environment that may require platelet transfusion. One of the rare but devastating disease encountered is thrombotic thrombocytopenic purpura (TTP), which could be the first presentation of a rare congenital TTP (cTTP) form or it could be autoimmune TTP (aTTP). The cTTP requires demonstration of a severe deficiency of ADAMTS13 enzyme (<10% activity) without an inhibitor and often a genetic mutation. With the completion of pharmacokinetic studies of recombinant ADAMTS13, management of cTTP will dramatically change from frequent plasma infusion therapy to safer rADAMTS13 infusions. This presentation will provide practical approaches to tackle these challenges.

17:00 – 17:30 Closing Session