Patients Still View Transfusion as Risky Despite Vast Blood Safety Improvements

Transfusion-transmission of HIV during the 1980s left a lasting impression on the general public, creating a fear of transfusion. Despite vast improvements in blood safety that have made transfusion one of the safest clinical procedures in medicine, the general public probably continues to view blood transfusion as risky, according to a recent publication in *Transfusion Medicine Reviews*.

In a review of studies from the 1990s to the early 2000s regarding the public’s perception of risk from blood transfusion, the researchers found that most people base their heightened perception of transfusion risk upon heuristics, rules of thumb, based on factors including emotions, gut instinct, and memories of past experiences like those of transfusion-transmitted HIV in the 1980s. The review, led by Brian Custer, PhD, associate investigator at Blood Systems Research Institute, also highlighted the need for the media and medical professionals to communicate transfusion risks more effectively and for more studies on this subject, especially in the US; all of the studies included were conducted outside the US.

“Are patients afraid of receiving blood? The answer is that we do not really know in the US. Studies of risk perception in other countries indicate people are still afraid of infections from blood transfusion as a result of HIV and hepatitis C virus,” Dr. Custer told the *ABC Newsletter*. “Virtually nothing is known about whether patients are afraid of non-infectious threats of transfusion, such as receiving the wrong blood type. Understanding risk perception of transfusion is an important step in being better able to discuss the current risks and benefits of transfusion.”

**Understanding Risk Perception.** The discipline of understanding and measuring risk perception is a relatively new one. The researchers reference the psychometric theory of perceived risk developed by Slovic and colleagues, which assumes that risk is determined by subjective feelings and knowledge, but not necessarily by facts. This theory breaks down risk perception into three categories:

- dread – fear of fatal consequences or future threat;
- unknown risk – fear of unobservable or uncontrollable outcomes; and
- affect – emotions or “gut feeling” related to the risk.

(continued on page 3)
A recent survey found that Congress is less popular than root canals, traffic jams, and Brussels sprouts. Between partisan wrangling, brinksmanship, and the challenge of coming to agreement, it’s no wonder many would prefer eating their vegetables to watching the legislative process.

And yet, Congress has enjoyed a number of important achievements in recent months. On Jan. 1, Congress approved the American Taxpayer Relief Act, a bill that protects 98 percent of Americans from significant tax increases. Both the House and the Senate recently passed budgets, setting out fiscal roadmaps for the coming year. On March 21, Congress passed a bill that will fund the federal government for the balance of the fiscal year.

Sadly, the future looks murkier. The Treasury Department indicates that the government will reach its borrowing limit sometime this summer. House Republicans are demanding dollar-for-dollar spending cuts for any increase in the debt ceiling. The White House has called for new tax revenue. Neither side appears anxious to budge. This debate will take place as $85 billion dollars in 2013 sequestration cuts begin to take effect.

All of this comes in the midst of the ongoing implementation of health reform. States are busy determining whether they will operate their own health insurance exchanges and whether they will expand Medicaid. The medical device tax, a health reform provision that could impact the prices blood centers pay for certain medical devices, took effect in January.

In a threatening environment for healthcare providers, the only solution is to be active. We will all need to write our members of Congress, visit their offices, and invite them to tour our blood centers. Those who are not active in the political process continue to face great risks in a time of budgetary uncertainty. Consider the large number of new members – 84 in the House and 13 in the Senate – that need to be educated on blood center issues. In the great words of former Sen. Alan Simpson, we all need to “take part or get taken apart.”

The outcome of the coming months is unclear, but this much is certain – ABC members will need to be engaged to ensure the interests of blood centers are represented. As you do so, grab a bowl of Brussels sprouts and get ready for a wild ride.

– Eric Rasmussen

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Studies have also shown that culture and demographic factors, including sex, race, education, and socio-economic status can have a high impact on one’s risk perception.

However, the authors note that people like to use shortcuts when assessing risk, rather than examining the facts. These are heuristics, which are simple rules that explain one’s decision-making and perception of risk. For example, representativeness allows people to judge something based upon its similarities to other hazards or situations. This can be problematic, because one might incorrectly compare the likelihood of acquiring HIV from transfusion in the 1980s to the current risk of acquiring a transfusion-transmitted infection; the risks of transfusion-transmitted HIV and hepatitis C virus (HCV) are now 1 in 2 million units of blood. Availability refers to an event’s frequency based on how easily it can be recalled. This method also presents an issue, because the infections during the 1980s were highly publicized in the media and are still readily recalled by many patients today, despite low contemporary risks.

The Study Design. To better understand the public’s risk perception of transfusion, the investigators searched various databases for studies from the 1980s to the present that used some data collection method to measure transfusion risk perception of different stakeholders through a number of questions. They reviewed the studies to ensure that only high quality studies were included in the analysis. Of 30 studies found through the literature search, 15 met the inclusion criteria, the majority of which were performed in the UK and Canada. The authors note it is important to keep this in mind, as the risk perception of UK and Canadian citizens may be different from that of Americans.

Results. Studies from the UK and Canada comparing perceived transfusion risk perception of doctors vs. the general public confirmed that doctors and other medical professionals perceive risk in a more probabilistic manner (using probabilities derived from an objective evidence base), while the general public relies more on intuition. These studies found that the general public tends to view transfusion as riskier than do physicians. “They (the general public) have less access to medical information, (so) they are more likely to have lower confidence in what they know and thus rely more on heuristics to make decisions,” explained the authors. Research included in this review also showed that higher calibrated knowledge (what people think they know) was associated with a lower perceived risk.

When compared to 10 other hazards (activities associated with risk), one UK study showed that blood transfusion was rated the least risky and most beneficial by respondents representing the general public. Other studies echoed this finding, with blood transfusion being perceived as less risky than most other hazards, such as smoking, alcohol, and genetically modified food. The studies showed that people with lower education and income, as well as women, minorities, and married persons, perceived transfusion as more risky than did other groups.

The majority of studies included showed that most participants rated donated blood as less risky than blood substitutes, such as chemical-based, bacteria-based, and bovine-based blood oxygen carriers. Despite these findings, participants in Canadian and Australian studies indicated that they would rather preoperatively donate their own blood for transfusion during surgery or receive a family member’s blood than receive an allogeneic transfusion. This likely correlates to fear of the unknown, as some respondents indicated that autologous or family donation gave them a feeling of control in reducing risk.

Conclusion. This review supports the notion that scientists and physicians are trained to perceive risk in a probabilistic manner, while the general public tends to base its risk perception off of intuition and past
Transfusion Risk Perception (continued from page 3)

experiences, write the authors. It highlights the need for improved risk communication and management, both through the media and medical professionals, the two main sources from which people obtain medical information.

The authors suggest methods of more effectively communicating transfusion risk, including conveying risk information in a “gain frame” as opposed to a “loss frame” (e.g. the number of people expected to live, as opposed to the number expected to die). Visual communication, such as written information or graphics, has also been effective in improving knowledge and reducing dread regarding transfusion risk. Clinicians in the UK developed a checklist tool to improve patients’ understanding of transfusion risks, which the authors suggest may be worth exploring further.

“These findings may help give rise to future studies of risk perception in transfusion medicine and help create a foundation for medical professionals and policy makers to further develop and implement programs and services to improve patient-physician relationships and ultimately improve risk perception toward transfusion,” conclude the authors. They suggest that more studies should be conducted on this topic, particularly in the US.

Fourth BOOTS Workshop Covers Strategic Performance Management

The following commentary was submitted to the ABC Newsletter by Patrick E. Hogle, senior partner of ProGuide Management Resources.

ProGuide recently led the fourth BOOTS* workshop in Orlando, Fla. This session, titled “Strategic Performance Management: Achieving World-Class Performance with the Balanced Scorecard, Executive Dashboards, and the Plan→Do→Review Process,” focused on how to use the proper measures to gauge operational performance. However, beyond simply discussing the difference between key performance indicators (KPIs) and critical performance measures (CPMs), this session also presented best practices in how to ensure a genuine focus on strategic performance. The basis for this dialogue was the European Foundation for Quality Management’s Business Excellence Model, which ensures consideration of a myriad of strategic performance angles.

“As the IT Director at BCA, much of my time is spent on developing our dashboard of metrics. I found the discussions around key performance indicators, and more importantly, critical performance indicators, to tie right in with what we need to provide to our blood center users to make their operations more efficient. This was my first BOOTS session, and I look forward to future sessions,” said Greg Bishop, BCA’s director of information services.

Leadership was also highlighted during this session with healthy discussion surrounding the focus of a company’s mission and vision statements. We mutually assessed why so many of these texts do not include strategic ideas or directions, and the pitfalls caused by this issue. Attendees also discussed how to create and sustain change, how to develop managerial maturity, ways to nurture creativity and innovation, and the requirement to manage an operation by process, facts, and information – all with a focus on improving performance through tactical and strategic means.

“BOOTS was a great opportunity to network and exchange ideas with other leaders within the blood banking industry,” said Scott Bush, CEO of Suncoast Communities Blood Bank (SCBB). “In light of the evolution taking place in our industry, we must be nimble in order to adapt quickly and efficiently to new trends. The session helped me to realize that SCBB is on the right path, by becoming more innovative and expanding our services beyond just traditional blood collections. Changes are coming, and by virtue of hands-on strategic management, which demands accountability, independent blood banks can be poised to lead the way in a manner that is effective and efficient, while focusing on what is in the best interest of our patients and hospital partners.”

As is customary with the BOOTS workshops, participants agreed to undertake a session-related project upon returning to their home blood centers. The projects selected in this session included the following:

- Focus on “perfect order fulfillment” to determine the future state of the distribution function with a goal of reducing the cost per delivery while minimizing returns. Ultimately, a vendor-managed inventory model could be adopted.
- Standardize communications between the tele-recruitment staff in the contact center and the blood centers it serves to reduce the cost of stock-outs.
- Enhance the staff training program to improve interdepartmental knowledge of overall blood bank operations to decrease the number of deviations and their associated tangible cost to the organization.
- Undertake a comprehensive evaluation of an underperforming fixed site to determine root causes for performance issues and develop a plan to mitigate them.

(continued on page 6)
All participants took part in the usual post-session, anonymous course evaluation and rated their experience as either satisfactory or very satisfactory. Also, all agreed that the session was worth the time and money they invested to attend.

“The session was outstanding and the facilitator was highly skilled in operations, as well as all areas of fiscal responsibility within blood centers. The participants were an amazing group of leaders in the field, willing to share their expertise, and all refreshingly honest in discussing areas requiring enhancement,” said Jeannie Mascolino, executive director of collections at New York Blood Center. “It was inspiring, as well as educational, to observe the creative synergy of the participants, and to discuss best practices in installing strategic performance management measures within our blood centers. For anyone who may be curious, I am confident that our participation will yield great returns; the cost and the time was very well spent.”

*Blood Operations Optimization Training Sessions is an industry-specific program sponsored jointly by ABC and BCA in conjunction with ProGuide Management Resources, a management consulting firm that has worked with more than 100 blood centers worldwide over the past two decades. There is still limited space available in the remaining BOOTS courses for March, April, and May.

ABC hopes that other blood center executives will take advantage of this opportunity. The BOOTS agenda is available at http://bit.ly/BOOTS_Agenda. Registration can be accessed online at http://www.event.com/d/1cgxb5/1Q.

Rick Hart to Retire as CEO of Community Blood Center in Appleton (Wis.)

Rick Hart recently announced that he plans to retire later this year as the CEO of Community of Blood Center (CBC), Appleton (Wis.). Under his leadership, the Community Blood Center has expanded markets, modernized infrastructure, enhanced operations, and built a leadership team that is prepared for the 21st century, said the center’s press release.

Before assuming his current position, Mr. Hart was the head of the blood services division at BloodCenter of Wisconsin. He served for nearly 30 years in senior executive capacities at a number of major medical centers. Mr. Hart noted in the press release that he hopes to pursue more of his personal interests in his retirement and feels that the blood center is well equipped for the future.

“I’m a die-hard Green Bay Packers fan, but have long admired how Denver Bronco quarterback John Elway left professional football after winning the Super Bowl. That’s how I see the timing of my departure from CBC. It is a great time to pass the baton.”

A national search for a new CEO is being conducted by Flannery & Associates, LLC, based in Pewaukee, Wis., said the release.
Register Today - Special Offers Now Available

2013 BOOTS - Blood Bank Operations Optimization Training Sessions

Brought to you with the generous support of:

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BOOTS is a specialized training program aimed at assisting blood center leadership in getting the most out of their numerous assets: labor, equipment, processes, cash flow, and capacity. The past two cycles of BOOTS have facilitated projects with savings commitments exceeding $15 million.

New Registration Benefits!

2 for 1: Full scholarship for one staff member who accompanies a paying CEO on his/her registration to a BOOTS session

3 in ‘13: Full scholarship to any blood center that has signed up three staff members for BOOTS sessions (Session 8 excluded)

5 in 5: Full scholarship to anyone who has attended five ABC specialty workshops in the past five years

Contact Lori at lbeaston@AmericasBlood.org for more information or to obtain one of the offered benefits.

2013 BOOTS Schedule and Topics

Session 6: Ensuring a Quality Approach on Your LEAN Journey; April 9-11, 2013
Session 7: Evolution of the Blood Bank Culture & Enterprise; April 16-18, 2013
Session 8: Mergers & Acquisitions in the Blood Industry *NEW*; April 23-24, 2013
  *Only $995, scholarship included.*
Session 9: “4P” Supply Chain Optimization; May 14-16, 2013
Session 10: Canceled
Session 11: Demand-Based Recruitment and Collections *NEW*; September 17-19, 2013

Hotel: Grand Bohemian Hotel; Orlando, FL
Rate: $195 + tax; single/double

For group code and reservation link, please see registration information below. Group reservation deadlines are Mondays three weeks prior to each session start date.

Registration Details & Fees

ABC and BCA members, and ABC’s international partners: $2,500 per session
All other registrants: $4,375 per session

To view agenda, go to http://bit.ly/BOOTS_Agenda
To register, go to http://www.event.com/d/1opvb3/1Q

Through a generous grant from Terumo BCT, ABC is able to provide $1,000 educational scholarships to BOOTS participants. Scholarships are limited and offered on a first-come, first-served basis. Information available upon registration.

Orlando International Airport (MCO) is served by all major US airlines, including discount carriers Southwest and AirTran. It offers non-stop service to/from 84 major and secondary US airports; check www.orlandoairports.net for more information.
Miriam A. Markowitz Offers Healthcare Leadership Expertise as AABB’s New CEO

Miriam A. Markowitz will become AABB’s new CEO on May 20, announced AABB President Susan L. Stramer, PhD, in an e-mail to members this morning (March 4). Ms. Markowitz replaces outgoing CEO Karen L. Shoos, who has held this position since 1994 and announced her retirement in July 2012 (see *ABC Newsletter*, 7/27/12)

Ms. Markowitz currently serves as vice president and chief operating officer at Georgetown University Medical Center (GUMC), an academic medical center with a three-part mission of research, teaching, and service. In this role, she serves as strategy advisor and supports relationship development with outside organizations regarding program development, public-private partnerships, and regulatory and policy-making issues. In addition, she oversees medical center operations, including facilities management, strategic planning implementation, and coordination with Georgetown University-wide departments and functions.

Prior to joining GUMC in 2011, Ms. Markowitz served as corporate vice president of strategy and business development at Children’s National Medical Center (CNMC). She spent seven years in diverse executive roles at CNMC, starting as executive director for the Center for Cancer and Blood Services. During her tenure, she was responsible for strategy development and implementation, as well as operations related to ambulatory services and facility master planning. She had many external-facing responsibilities that included developing and expanding clinical services in the region and internationally and other partnership-related initiatives. She worked closely with CNMC’s foundation and government relations functions.

Ms. Markowitz received a Bachelor of Arts degree in economics from Brandeis University and a Master of Science degree in health policy and management from Harvard School of Public Health. She serves on the board of directors for the National Marrow Donor Program as vice chair. She recently completed two terms as mayoral appointee to the Board of Medicine-District of Columbia. Miriam is married and has two adult children.

Dr. Stramer noted that the AABB board of directors welcomes Ms. Markowitz to the AABB team, and that more information about the new CEO will be featured in AABB’s publications. The *ABC Newsletter* will publish any updates.

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**ABC Seeks New CEO**

America’s Blood Centers, the largest network of non-profit community blood programs in North America, seeks a Chief Executive Officer to ensure the execution of the organization’s mission and vision. Under the general direction of the President and Board of Directors, the CEO takes active and personal charge of the conduct of all America’s Blood Centers’ businesses, finances, and its employees. Working with the volunteer leadership, the CEO is responsible for the development of achievable organizational goals and objectives. Working with staff and volunteer committees, the CEO is responsible for turning those goals and objectives into effective programs and projects. He/she assures the prompt and effective implementation of policies, programs, and plans approved by the Board of Directors. Applicants must have 3 years experience in the not-for-profit environment and 10-plus years experience in senior management, with a preference of at least 5 in blood banking. Experience in national organizations is also highly desirable as well as an advanced degree in science, business, or the healthcare field. Excellent skills required in: business and financial management and decision making; written and oral communications; project and strategic planning, development and implementation; team leadership; issues management; and legislative advocacy and public policy analysis. Working knowledge of Microsoft Office Suite (i.e., Outlook, Word, Excel, Access) and Internet essential. Must be willing and able to travel, sometimes at short notice. Must live in the Washington, D.C. metropolitan area or willing to relocate. Excellent benefits package. To view full list of description of duties and responsibilities, visit [http://members.americasblood.org/go.cfm?do=FileCenter.Get&fid=4248](http://members.americasblood.org/go.cfm?do=FileCenter.Get&fid=4248). To apply, send cover letter, résumé and salary history and expectations to America’s Blood Centers, reference: CEO Search, to hr@americasblood.org by April 26, 2013.
We have Georgia on Our Minds!

America’s Blood Centers
It’s About Life.

2013
Quality Workshop
Poster Contest

The poster contest is a wonderful opportunity to share your experiences with other quality professionals. Workshop attendees will vote for their favorite posters. Prizes will be awarded.

You do not need to attend the workshop to submit a poster! E-mail your poster to Leslie Norwood at mnorwood@americasblood.org. ABC will display all submitted posters at the workshop.

Please contact Galen Kline at gkline@bloodsystems.org if you have additional questions. All posters will be available for viewing on the ABC Members’ Only Website after the workshop.

NEW Submission Deadline: April 12, 2013

Atlanta is the #1 City in the US for FUN according to the Trident Fun Index. Let your artistic side shine when designing your poster!!!
Q&A with ABC’s Executive Services and Accounting Department

America’s Blood Centers’ Staff Answers your Questions

America’s Blood Centers recently conducted its SEQuaLS assessment, a customer service survey that solicits feedback from member blood centers on ABC’s activities. Through this assessment, members were able to pose questions to the ABC staff. Each ABC department will respond to these questions through this weekly Q&A column in the Newsletter.

Q: What are the benefits of attending ABC’s Financial Management Workshop?

A: The two most important benefits of attending America’s Blood Centers’ Financial Management Workshop are the relevancy of the topics discussed and opportunities to network with your peers.

The topics selected come from ABC’s CFO (chief financial officer) Forum and deal with the issues that CFOs are facing everyday and/or will have to face in the future. The topics generally are applicable to all participants, regardless of size of a participant’s blood center or the diversity of programs offered by that particular center.

Furthermore, the peer networking facilitated by this workshop is invaluable. It provides opportunities for ABC members to put faces with voices, and to foster relationships of trust and cooperation. The one-on-one communication enables detailed discussion of common concerns and tried solutions.

The best judges regarding the benefit of the workshop are the past participants themselves. Below are just a few comments from previous attendees’ evaluation forms.

- “My first ABC workshop. A lot of good information and networking."
- “Well defined cross section of financial/operational issues."
- “Excellent presentations with a great deal of helpful information.”
- “Many interesting concepts presented. [The] information [provided] was helpful and practical. [The] concepts [were] not only theoretical. [I] appreciated suggestions for practical application and would like more suggestions for implementation of theories presented.”
- “[I] have already begun thinking of ways in which we can apply some of the material that was shared.”
- “I always learn something that can be used at my center.”
- “Excellent. This is one of the best educational opportunities provided by ABC. Thank you.”

To be sure, every comment is not positive, but the most common complaint is that we should offer the workshop every year – a testament to value this workshop offers attendees. The next Financial Management Workshop is scheduled for Sept. 19-20, 2013 in Dallas, Texas with more details to be announced. ♦
RESEARCH IN BRIEF

The results of an extended analysis of a recent trial of GlaxoSmithKline’s RTS,S/AS01E malaria vaccine candidate are again disappointing, showing that the vaccine’s efficacy wanes rather quickly over time. Although the protection rate of the vaccine is initially as high as 53 percent, after an average of eight months, that rate falls to 16.8 percent. This trial, published in the New England Journal of Medicine (NEJM) on March 20, follows one published on Nov. 9 in NEJM, which showed that infants vaccinated in the trial had only about a third fewer infections than the control group (see ABC Newsletter, 11/16/12). “It was a bit surprising to see the efficacy waned so significantly over time. In the fourth year, the vaccine did not show any protection,” Ally Olotu of the Kenya Medical Research Institute Wellcome Trust Research Programme, who led the follow-up study, told Reuters. The study involved 447 children in Kilifi, Kenya, who had been part of a phase II trial, to assess the safety and efficacy of RTS,S. Of the 447 children, 320 were able to be followed up for four years. Phillip Bejon, one of the researchers, told Reuters that despite the falling efficacy, “there is still a clear benefit to the vaccine.” “Many of the children (in Africa) will experience multiple episodes of clinical malaria infection, but overall we found that 65 cases of malaria were averted over the four-year period for every 100 children vaccinated,” he said. Full data from the final-stage trials involving more than 15,000 children are expected by the end of next year, reported Reuters. (Source: Reuters, 3/20/13)


The journal Critical Care recently published an article regarding point-of-care coagulation management in intensive care medicine. Coagulopathy (a condition in which blood does not clot properly) in critically ill patients is common and can develop for many reasons. Coagulopathy-associated risk of bleeding and the use of allogeneic blood products are independent risk factors for morbidity and mortality, according to the article. Therefore, prompt and correct identification of the underlying causes of these coagulation abnormalities is required in order to administer the proper treatment. This Critical Care article reviews the most frequent coagulation abnormalities in critically ill patients. In particular, it discusses differential diagnoses, benefits and limitations of point-of-care coagulation management and hemotherapy algorithms. The article is available online at no charge http://ccforum.com/content/17/2/218.


A study published in March’s Transfusion, conducted by the Norwegian Naval Special Operation Commando, demonstrated that phlebotomy did not decrease soldiers’ combat performance after giving blood. The findings suggest that “buddy transfusion” for soldiers in combat may be feasible for healthy, well-trained soldiers. When soldiers are severely injured on the battlefield, whole blood transfusion can be potentially life-saving, especially in situations with delayed transport. However, blood components are not normally available on the battlefield. Therefore, a method called “buddy transfusion,” which allows a combat buddy to donate fresh whole blood for the injured soldier, has been explored as a potential method of more quickly delivering blood. The researchers sought to explore the effects of donating one unit of blood (450 mL) on physical performance and shooting skills among fit active duty elite soldiers. The researchers also tested whether the soldiers were able to learn the phlebotomy and sternal reinfusion skills necessary to perform buddy transfusion after only a short lecture on the process. The researchers enrolled 25 non-smoking male soldiers from Norway’s Navy special forces unit. Participants were split into three groups, designating an activity to be completed before and after

(continued on page 10)
RESEARCH IN BRIEF (continued from page 9)

phlebotomy to measure the effects of donating blood on their performance: Group 1 – Bruce protocol treadmill stress test, push-ups, and pull-ups; Group 2 – 50-round pistol shooting test; and Group 3 – uphill hiking exercise carrying a 20-kg backpack. The main finding of the study was that donation of 450 mL of blood by Norwegian Navy special forces soldiers did not immediately reduce physical performance or combat skills. Also, the non-medic soldiers had a 100 percent success rate in blood collection and infusion on fellow soldiers. “We believe that far-forward resuscitation of casualties in hemorrhagic shock is needed ... one of the many solutions is to design educational programs to teach selected soldiers practical skills needed to perform buddy transfusion,” write the authors. They add that further studies are needed to clarify the effects of donations on soldiers, as well as efforts to optimize the blood components.

Citation: Strandense G, et al. Donor performance of combat readiness skills of special forces soldiers are maintained immediately after whole blood donation: A study to support the development of a prehospital fresh whole blood transfusion program. Transfusion. 2013 March.53(3):526-530.

BRIEFLY NOTED

An article published on March 14 in BMJ (previously the British Medicine Journal) discusses the case of a 75-year-old woman undergoing surgery, giving advice on how to prepare a Jehovah’s Witness for surgery. Jehovah’s Witnesses do not accept blood transfusions, whether allogeneic or autologous, because they have beliefs against infusing blood into the body. In the case described in BMJ by Lillian Cooper of Royal London Hospital and colleagues, a 75-year-old woman underwent elective, right sided mastectomy. Because she is a Jehovah’s Witness, her advanced directive stated that she would not accept blood products. Her medical history included mitral regurgitation, diverticulitis, and autoimmune hypothyroidism, for which she took levothyroxine. After extensive multidisciplinary preoperative planning, she underwent successful surgery without use of blood products. Her hemoglobin was 90 g/L preoperatively, 122 g/L on admission, and 109 g/L postoperatively. The authors note that despite the surgery not having major risk of blood loss, it was important to correct the patient’s preoperative anemia to optimize her recovery. They achieved this through erythropoietin injections and intravenous iron, and her hemoglobin increased by 30 g/L before surgery. As expected, she experienced minimal blood loss intraoperatively, recovered well, and was discharged in good health after four days for ongoing management for her breast cancer. The paper provides advice on preparing Jehovah’s Witnesses for surgery in a question answer format addressing how the patient should be counseled, how the patient can be optimized preoperatively, what measures can help minimize blood loss, who the medical team can turn to for advice, and if it’s possible to perform major surgical procedures without the use of blood products. The authors write that a thorough history, examination, and appropriate investigations to identify chronic disease, anemia, and clotting abnormalities are essential. Perioperative measures aim to maximize hematopoiesis, minimize blood loss, and maximize oxygen delivery to tissues. Intraoperatively, meticulous hemostasis is essential, write the authors. For immediate advice, the on-call hematologist can be contacted. They add that evidence suggests that use of extreme blood management strategies can allow for major surgeries to be performed without blood, with equal or better outcomes in the short- and long-term. The article is available to BMJ subscribers or for purchase at: www.bmj.com/content/346/bmj.f1588.

Citation: Cooper L, et al. Preparing a Jehovah’s Witness for major elective surgery. BMJ. 2013 March 14;346:f1588.
BRIEFLY NOTED (continued from page 10)

Research presented at the Conference on Retroviruses and Opportunistic Infections suggests specific T-cell responses may be key to long term control and even functional cure of HIV infection. While the baby who was reportedly “functionally cured” of HIV through early antiretroviral treatment (see ABC Newsletter, 3/15/13) gained attention during the 20th Conference on Retroviruses and Opportunistic Infections, other studies presented will likely have more impact in finding a cure for HIV. “New findings about how a subset of CD4+ white blood cells invaded by HIV may control the course of the disease promise to have a far more profound impact on the field. These ‘central memory cells’ might even help explain the underlying mechanism behind the child’s apparent cure,” writes Jon Cohen in Science. “HIV preferentially invades T lymphocytes that have CD4 receptors on their surfaces. The resulting destruction of CD4 cells over a decade or so cripples the immune system and is the hallmark of AIDS,” according to the article. But the process takes many years because the central memory cell, a type of CD4+ T lymphocyte (or the Tcm cells) churns out clones of itself and can almost refill the body’s pool of CD4 cells as fast as HIV drains it. However, some infected Tcm cells become reservoirs of latent virus that rekindle infection if anti-retrovirals are stopped. One study conducted by Jintant Ananworanich at the Thai Red Cross AIDS Research Center in Bangkok and a team from the US Armed Forces Research Institute of Medical Sciences have been identifying people shortly after becoming infected with HIV and encouraging them to start antiretroviral treatment immediately. They show that early treatment prevents the seeding of latent reservoirs in long-lived central memory T cells. The researchers suggest these people might be ideal candidates for future case studies that they plan to conduct with novel interventions aimed at purging reservoirs. Another study, by the University of California’s Christina Ramirez Kitchen and colleagues examined people who naturally control HIV better than others and protect their Tcm cells without the help of antiretrovirals. They found that the elite controllers stood out in part because their Tcm cells down-regulated a key receptor that HIV needs for entry and were less permissive to HIV infection. Conversely, the researchers noted that people whose immune systems did not rebound even though antiretrovirals controlled their infections had Tcm cells with impaired function. These studies presented at the recent conference brought attention to the role of central memory cells in finding an HIV cure.

Citation: Ananworanich J et al. Early ART Intervention Restricts the Seeding of the HIV Reservoir in Long-lived Central Memory CD4 T Cells. Paper 47. 20th CROI. Available at www.retroconference.org/2013b/Abstracts/46426.htm.


PGA Tour golfer, D.A. Points, won the Houston Open on March 31, earning him an invitation to the Masters in two weeks, reported the Associated Press last week. While watching Mr. Points at the Houston Open last Sunday, some blood center professionals may have noticed a familiar blood drop being sported on Mr. Points’ sleeve. That is because Mr. Points is sponsored by America’s Blood Centers, thanks to a generous grant from the Institute for Transfusion Medicine (ITxM). ITxM has also sponsored Mr. Points and other pro golfers to play in the Foundation for America’s Blood Centers Annual Links for Life Golf Tournament, a fundraising event where blood center leaders come out to golf in support of the FABC. (Source: Associated Press, 4/1/13) ♦
REGULATORY NEWS

Anyone operating under business associate agreements with hospitals, standards organizations, and others covered healthcare entities must be in compliance with new Health Insurance Portability and Accountability Act (HIPAA) rules for electronic health records (EHRs) by Sept. 23, 2013. A final rule issued in January by the Department of Health and Human Services’ Office for Civil Rights implements HIPAA requirements for EHRs contained in the HITECH portion of the American Recovery and Reinvestment Act of 2009. The new requirements extend the legal liability of HIPAA compliance to business associates of healthcare providers and spell out a number of measures designed to give patients more of a say over how and whether information contained in their records is disclosed and by whom. The HITECH Act increased and tiered the civil monetary penalties for noncompliance in an interim final rule published on Oct. 30, 2009, and HHS published a notice of proposed rulemaking on July 14, 2010, to implement many of the remaining privacy, security, and enforcement provisions of the HITECH Act. The final rule became effective on March 26, 2013 and both covered entities and business associates must be in compliance 180 days from that date. Diane Killion, general counsel for AABB, said that covered entities, business associates, or business associate subcontractors may continue to operate under existing agreements if, prior to Jan. 25, 2013, the agreement was in compliance with current HIPAA rules and the agreement is not modified between March 26 and Sept. 23 of this year. Operation can continue until the agreement is renewed or modified on or after Sept. 23 or Sept. 23, 2014, whichever comes first. AABB has business associate agreements with its institutional members, including independent blood centers, that are covered entities as defined by HIPAA. Those agreements already are in place to help ensure HIPAA and HITECH compliance with regard to patient records, including EHRs. America’s Blood Centers (ABC) has received questions about which blood center activities would be covered by the HIPAA rules related to EHRs. Generally, blood donation is exempted from HIPAA; however, blood centers performing patient-related services are likely covered entities. Such services could include therapeutic apheresis, reference laboratory services, and crossmatching for hospital clients. Blood center officials are encouraged to consult with counsel familiar with federal and state healthcare privacy laws to determine whether their facility is a covered entity. ABC will be sending the Office for Civil Rights a letter seeking further clarification on this issue. [Author’s note: Thanks to AABB for providing guidance on the HIPAA deadlines and related matters.] The 563-page final rule can be viewed at http://bit.ly/SaqXzl.

The Food and Drug Administration has published notice of an urgent recall of BIVGAM Globulin Intravenous (Human), 10% Liquid, 100 mL sterile vial. The lot number of the recalled product is 120016 and the expiration date is March 31, 2014. During a routine annual reserve inspection, visible particles were observed in the noted lot number of BIVGAM Immune Globulin Intravenous (Human), 10% Liquid. In the interest of patient safety, Biotest is voluntarily recalling this lot from market. Inspections of other lots of the product have not shown the presence of these particles and are not being recalled. Consignees are asked to examine stocks immediately to determine if they have any of lot 120016 on hand. If so, discontinue distributing the lot and promptly return vials to Biotest’s Boca Raton, Florida facility. The recall information is available at http://1.usa.gov/16Bq9Ym (Source: FDA drug recall, 4/5/13)
GLOBAL NEWS

NHS Blood and Transplant (NHSBT), the blood service of England and north Wales, recently released its Research and Development Triennial Report for 2009-2012. The report summarizes NHSBT’s research programs over the past three years, with research focusing on areas including donor health and behavior, transfusion microbiology, appropriate use of blood, erythrocyte biology and immunology, platelet biology and genomics, organ donation and transplantation, stem cells and immunotherapies, and molecular and tissue engineering. The report can be accessed at www.nhsbt.nhs.uk/triennial-report/. (Source: NHSBT Research and Development Triennial Report, 2009-2012. ♦)

INFECTIOUS DISEASE UPDATES

HIV

The Centers for Disease Control and Prevention reported in its March 15 Morbidity and Mortality Weekly Report (MMWR) that in a cohort of high-risk heterosexuals, the rate of HIV infection was about five times higher than in the general population. Among the cohort – 8,473 men and women of low socioeconomic status living in 21 urban areas – the overall prevalence of HIV was 2.3 percent, compared with the estimated 0.45 percent for all people 13 and older in the US. The data were collected through the National Behavioral Surveillance system, which, on a three-year cycle, examines HIV among three high-risk groups: gay and bisexual men, heterosexual men and women, and injection drug users. It focuses on those living in areas with a high AIDS burden. The 2010 survey focused on poor and ill-educated residents of the 21 urban areas, surveying them about their HIV status and offering anonymous testing. Of the 8,473 participants, 197 tested positive, with prevalence similar among men and women: 2.2 percent and 2.5 percent, respectively. Of those who tested positive, 89 (43.9 percent) had never had a positive HIV test before the survey. Among the entire group, 25.8 percent had never been tested before the survey. While the overall prevalence was higher than the national estimate, it remains markedly lower than the 18 percent observed in gay and bisexual men, according to CDC figures presented at the recent Conference on Retroviruses and Opportunistic Infections. The report also highlighted disparities in prevalence among race and ethnicity, education, income, and drug use. The authors note that these findings highlight the need to increase HIV prevention efforts for certain populations, such as drug users, those without a high school education, and the unemployed. Also, efforts to address health inequities are necessary, particularly among African Americans and Hispanics/Latinos, who comprised 91.7 percent of the study participants. The high percentage of HIV-positive persons who did not previously know their status suggests a need to increase testing initiatives and HIV awareness campaigns in these populations to help HIV-positive individuals begin treatment earlier and prevent further spread of the virus. The report is available at www.cdc.gov/mmwr/preview/mmwrhtml/mm6210a2.htm. (Source: CDC MMWR, 3/15/13)

INFLUENZA A(H7N9)

The US Centers for Disease Control and Prevention reported today (April 5) that 14 cases of human infection with influenza A(H7N9) virus have been confirmed in China. The novel avian flu strain killed six people near China’s Anhui and Zhejiang provinces and Shanghai. Other cases have been detected in the Jiangsu province of eastern China. The World Health Organization (WHO) reported on April 4 that there is no link between the cases. “At this time, there is no evidence of ongoing human-to-human transmission,” said WHO in a Global Alert Response statement on Thursday. CDC is continuing to post

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INFECTIOUS DISEASE UPDATES (continued from page 13)

information about the novel avian flu strain as it becomes available at: http://1.usa.gov/XJ5Uqc. CDC notes that so far, infections have resulted in severe respiratory illness and, in some cases, death. The Chinese government is actively investigating this event and has heightened disease surveillance for early detection, diagnosis, and treatment. The government has advised the population to maintain good personal hygiene, including frequent hand washing and avoiding direct contact with sick or dead animals. WHO does not advise any special screenings at points of entry with regard to this event, nor does it recommend that any travel or trade restrictions be applied. More information is available on the WHO website at www.who.int/csr/don/2013_04_04/en/index.html. (Sources: WHO Global Alert Response, 4/3/13, 4/4/13; CDC Avian Influenza A (H7N9) Virus, 4/3/13; CDC Health Advisory Alert, 4/5/13)

HEPATITIS C VIRUS

A novel approach to hepatitis C virus (HCV) treatment demonstrated promising efficacy and safety results in an early stage trial reported on March 27 in the New England Journal of Medicine. Blocking the liver-expressed microRNA-122 (miR-122) led to dose-dependent and persistent declines in HCV, according to Harry Janssen, MD, PhD, and colleagues of the University Health Network in Toronto. The antisense oligonucleotide miravirsen, which binds miR-122, had no dose-limiting adverse events and did not appear to give rise to resistance, reported the authors. They noted that miR-122 binds to two sites in the HCV genome – an attachment that is essential for the “stability and propagation” of the virus. Miravirsen, in turn, binds to miR-122, making it unavailable to HCV. The researchers reported that miravirsen suppressed HCV in animal studies and showed no adverse events in healthy volunteers. They enrolled 36 treatment-naive patients with genotype 1 HCV and randomly assigned them to placebo or one of three doses of miravirsen. Miravirsen, they reported, led to dose-dependent reduction in HCV RNA. The authors of an accompanying editorial in the journal note that the long-term safety of the antisense molecule is important, since one of the functions of miR-122 is to act as a tumor suppressor. However, they concluded that “pending satisfactory answers to the questions regarding safety,” miravirsen or other microRNAs might be useful in a cocktail of anti-HCV agents that would have various targets.” (Source: MedPage Today, 3/27/13)

Citation: Janssen HL, et al. Treatment of HCV infection by targeting microRNA. N Engl J Med. 2013 March 27 [Epub ahead of print]


We Welcome Your Articles

We at the ABC Newsletter welcome freelance articles on any subject relevant to the blood banking community. Writers are encouraged to submit short proposals or unsolicited manuscripts of no more than 1,100 words. While ABC cannot pay for freelance pieces, the writer’s name and title will be included at the end of the story, brief news item, or commentary. If proposing a story, please write a few paragraphs describing the idea and sources of information you will use, your present job and background, and your qualifications for writing on the topic. ABC staff cannot guarantee all stories will be published, and all outside writing will be subject to editing for style, clarity, brevity, and good taste. Please submit ideas and manuscripts to ABC Publications Editor Betty Klinck at newsletter@americasblood.org. You will be sent a writer’s guide that provides information on style conventions, story structure, deadlines, etc.
STOPLIGHT®: Status of the ABC Blood Supply, 2012 vs. 2013

MEMBER NEWS

The Buffalo Bills announced on March 28 a new partnership agreement with Unyts to host donation events at the team’s Ralph Wilson Stadium. As part of the agreement, Unyts will host four unique donation events in conjunction with the Bills both at Ralph Wilson Stadium and around the Greater Buffalo, N.Y. community. Also, Unyts will be a game-week sponsor for a to-be-determined regular season game on the 2013 schedule, and will receive various team advertising, promotional, and hospital assets throughout the season. “Encouraging Bills fans to donate blood, and to consider eye, organ and tissue donation, through a great organization like Unyts is one thing that we can do to make a significant impact in Western New York,” said Bruce Popko, Bills senior vice president of Business Development. “We are pleased to partner with them on a multi-faceted marketing campaign and look forward to helping them achieve greater brand recognition amongst our fans.” Unyts President and CEO Mark Simon added, “It’s important for Unyts to partner with an organization that truly gives back to this community. The Bills organization has been doing just that for decades and we are happy to be part of the team. Being part of the football community will help us to spread our message of organ, eye, tissue, and blood donation to a large audience across Western New York and beyond.” (Source: Buffalo Bills press release, 4/4/13)

United Blood Services (UBS) attracted 1,214 participants for its 11th annual Bloodgushers Run/Walk on Saturday, March 30 in Midland, Texas. The event, which raises awareness for blood donation and funds for UBS, included a half-marathon, 10k, and 5k routes, as well as a 1k for the kids. UBS collected 134 blood donations in lieu of the registration fee, in addition to several thousand dollars raised to benefit UBS. “Our community has grown so much recently and we need to be able to keep pace with the blood needs in our area,” said satellite center director of UBS Texas in Midland, Lee Hartmann. “As you can see from the turnout, there are so many people that are interested in being healthy, and that’s what we need: happy, health blood donors.”

Participants of UBS’s 11th annual Bloodgusher Run/Walk on March 30 cross the finish line.

MEMBER NEWS (continued on page 16)
MEMBER NEWS (continued from page 15)

Nearly 500 blood donors turned out for BloodCenter of Wisconsin and the Milwaukee Bucks’ 13th Annual Milwaukee Bucks Blood Drive on March 25. The blood drive was held at the BMO Harris Bradley Center in Milwaukee. BloodCenter of Wisconsin emphasized to donors that their donations are helping members of the community, like seven-year-old Santos of West Bend, who needed blood transfusions to keep him alive when he was born prematurely. Santos was even able to stop by the blood drive and take a photo with the Milwaukee Bucks mascot, Bango (pictured right). In gratitude for those who gave blood, the Bucks provided all donors with a voucher for two Bucks tickets to a future game and a limited-edition Bucks blood drive T-shirt. (Source: BloodCenter of Wisconsin press release, 3/25/13)

PEOPLE

Demin Wang, PhD, senior investigator at BloodCenter of Wisconsin’s Blood Research Institute, has been named the recipient of the John B. and Judith A. Gardetto Chair for Cancer Research, BloodCenter of Wisconsin announced in a press release on Tuesday. The $1 million endowment will further Dr. Wang’s research on leukemia. Dr. Wang has been with the Blood Research Institute since 2000. He is a member of the Molecular and Cellular Hematology Study at the National Institutes of Health, a peer review group that evaluates research grant applications. He also serves as an editor for the Journal of Immunology. Dr. Wang is a recipient of the Leukemia and Lymphoma Society Scholar Award. “The tremendous generosity of this endowment will enable Dr. Wang to advance the great work he is accomplishing to advance patient care,” said Gilbert C. White II, MD, director of the Blood Research Institute. “Tomorrow’s breakthroughs are dependent on the discoveries we make today with the knowledge and world renowned expertise of our scientists and physicians. This gift will have a profound impact on those discoveries. I am very grateful to the Gardetto family for making this important research possible.” (Source: BloodCenter of Wisconsin press release, 4/2/13)

COMPANY NEWS

Entegrion, based in the Research Triangle Park of North Carolina, has partnered with Italian biopharma Kendrion Melville to develop and commercialize its freeze dried plasma product, reported the Triangle Business Journal on March 28. The product, called Resusix, is aimed at accelerating the resuscitation of injured soldiers. Since it is not generally possible to keep a freezer for storing fresh frozen plasma in combat areas, the company seeks to fill that void for the military and to have an extended shelf life compared to fresh frozen plasma. The Entegrion-developed dehydrated plasma starts human clinical trials later this year, funded primarily through US Department of Defense contracts. The newly announced partnership also allows both companies to jointly advance the product’s clinical development and gives Kendrion exclusive worldwide commercialization rights. (Source: Triangle Business Journal, 3/28/13)
COMPANY NEWS (continued from page 16)

OneBlood has selected BloodHub as its supply chain automation partner, announced BloodHub in a press release on March 28. OneBlood will deploy BloodHub’s online ordering, hospital inventory, and logistics platform, seeking platform integration, more predictable management of customer service and hospital inventories, as well as consolidation of system-wide processes, said the release. OneBlood also seeks to save on costs through staff productivity gains, error reduction, fewer outdates, and improved production planning through use of the BloodHub platform. “BloodHub is built on an open, standards-based architecture that renders integration with our existing information assets not only possible, but easy and seamless. The open architecture also allows us to mine valuable data streams to uncover additional opportunities for cost savings and efficiencies,” said Lance Reed, OneBlood’s chief information and technology officer. “BloodHub’s innovative security model and robust hosting infrastructure ensure that OneBlood’s valuable operational data remain secure yet available. The press release is available at http://bit.ly/YCCau2. (Source: BloodHub press release, 3/28/13) ♦

CLASSIFIED ADVERTISING

Classified advertisements, including notices of positions available and wanted, are published free of charge for a maximum of three weeks per position per calendar year for ABC institutional members. There are charges for non-members: $139 per placement for ABC Newsletter subscribers and $279 for non-subscribers. Notices ordinarily are limited to 150 words. To place an ad, contact Leslie Norwood at the ABC office. Phone: (202) 654-2917; fax: (202) 393-5527; e-mail: mnorwood@americasblood.org.

EQUIPMENT AVAILABLE:

**For Sale.** Tecan/Tigris System – performed Ulrio and WNV Assays. In use from 6/29/09-11/25/12. To make an offer, please contact Bobby Merrill at (859) 519-3763 or bmerrill@kybloodcenter.org.

**For Sale.** Abbott Prism. Purchased new from Abbott and used two to three days per week by a small blood center. In excellent condition. Contact Janet Howard with Western Kentucky Regional Blood Center at (270) 684-9296 or jhnet@wkrbc.org.

POSITIONS AVAILABLE:

**Technical Services Director.** Community Blood Services is an independent blood center that collects blood donations, and offers cord blood banking and operates one of NMDP’s largest bone marrow registries has an immediate need for a Technical Services Director. Join a team of supportive and accomplished professionals and be rewarded for your contributions and make a difference! This position is responsible for managing all aspects of the Processing and Reference laboratories in order to maintain the highest regulatory standards. The Director will ensure high quality, cost-effective testing services, continued compliance and accreditation, and ongoing operational efficiencies. The Director will supervise and provide leadership/guidance to the team of employees within the Processing and Reference labs. Additionally, he/she will be a part of the management team collaborating on operating issues, developing new business ideas and procedures, as well as interacting with area hospital representatives to ultimately help drive current and future programs. Qualifications include a bachelor’s degree in a healthcare discipline; master’s degree preferred. MT (ASCP) and SBB or BB certification or eligibility a must. Immunology experience a plus. Qualified candidates, please apply to Technical Services Director Application. Community Blood Services is an equal opportunity and affirmative action employer.

**RN – Therapeutic Apheresis Specialist.** If you have a passion for patient care, Oklahoma Blood Institute (OBI) could be the next logical step in your career. We’re seeking a nurse to join our dedicated team in Oklahoma City. Using specialized therapeutic apheresis

POSITIONS (continued on page 18)


**POSITIONS** (continued from page 17)

technology, YOU will provide life saving blood component therapies and you will perform specialized blood removal/replacement patient treatments in the hospital setting, including plasma exchange, cell therapy collections, cytapheresis, photopheresis, and red cell exchange (which includes extensive training). Requirements: Current Oklahoma RN license, and minimum of one year clinical experience. OBI offers a competitive salary, shift and call pay differentials and has an excellent benefits package including Health, Dental, Vision, Life, LTD, Flex Plan, PTO, Tuition Reimbursement and 401k Plan. Please apply on our website, http://obi.org/careers/. Applications/resumes will be accepted through 4/30/2013. EOE M/F/D/V Drug Free Work Environment

**President/CEO.** The Community Blood Center Inc. of Appleton, Wisconsin is a highly successful, growth oriented, independent, not-for-profit organization. CBC has been providing blood component products and services to both local and out of state hospitals since 1955. Focusing on quality, the blood center prides itself on its ability to offer all of its products and services at competitive pricing. Donor testing functions are performed in-house and there are four donor centers in Wisconsin. The President/CEO will provide overall leadership, direction, and general management for the organization. The President/CEO will work closely with the organization’s Board of Directors and its senior leadership to advance the vision set for the organization and to design and implement strategies needed to achieve those goals. Responsibilities include the delivery of the blood center’s mission, while maintaining the organization’s financial viability. Requirements for this position include a minimum of eight years senior leadership experience in blood banking. Candidates must possess exceptional strategic planning abilities coupled with strong interpersonal skills. Candidates with an MBA or MHA are preferred. To be considered for this outstanding opportunity, please present qualifications to Peter Flannery, Flannery & Associates, LLC, peter@flannerysearch.com. CBC is an equal opportunity employer.

**Director, Technical Services (United Blood Services, Lubbock, Texas).** This position serves as the technical subject matter expert and is responsible for the technical oversight of the community blood center. This position is also responsible for the management of component manufacturing and the immunohematology reference lab. Requirements: Bachelor’s degree in a related field, certification as a Medical Technologist, five years Laboratory experience and three years supervisory experience. Preferred: BB or SBB and previous blood bank or blood center experience. The incumbent needs to have the ability to promote a work team environment and have excellent communication, interpersonal and organizational skills. Must have good supervisory skills with the ability to utilize and develop personnel to execute job tasks. Must have the ability to analyze situations and take appropriate action, which may be under strict deadlines, and be able to conceptualize computer software applications and equipment automation. Qualified and interested candidates, please submit resume to UBS-HR, 2523 48th Street, Lubbock, TX 79413, Fax (480) 675-7587 or hsnodgrass@bloodsystems.org by Friday, April 12th. EOE M/F/D/V. Employee Drug Testing Required

**Quality Assurance Assistant Director.** QualTex Laboratories, an affiliate of the South Texas Blood & Tissue Center (STBTC), seeks an individual to provide QA managerial support for technical and business activities. Exhibit leadership and maintain knowledge of regulatory/quality requirements. Maintain excellent communication with all personnel for the Batch Release department for QualTex Laboratories. The incumbent must have a working knowledge of clinical laboratory techniques. Must maintain current knowledge of regulatory/quality requirements (national and international, i.e. FDA, EU, GHM, ISO, cGMP, and cGTP). Qualifications required include bachelor’s Degree in Science or related discipline required. Masters degree in related field preferred. Five years laboratory experience required. Two years supervisory experience required. Computer experience required. Certification: MT/CLS (ASCP) preferred. Texas Operators driver’s license required. Offering competitive salary, benefits, and relocation package. E-mail resume to hrdept2@bloodntissue.org or fax to (210) 731-5581. For information, call Human Resources at (800) 292-5534, ext. 1559. For further information, visit our website http://www.southtexasblood.org/Employment/HowtoApply.aspx.

**Lab Supervisor.** The Main Laboratory has an immediate opening for a full time 2nd shift supervisor of Testing. This position is responsible for the safe and efficient operation of the Testing Laboratory. This position supervises qualified staff in the execution of required testing for the blood center as well as outside collection sites. The position also has general management responsibilities such as scheduling staff, training, and ordering supplies. Educational Requirements: Current Rhode Island license required as Clinical Laboratory Scientist; ASCP MT, SBB, BB, NCA CLS certification; must meet requirements for Supervisor in Immunohematology, Hematology, Diagnostic Immunology and Chemistry as described in the Clinical Laboratory Improvement Act of 1988. Experience/Qualifications: At least two years of donor center testing experience; and ability to make sound judgments following FDA AABB standards. Please apply on line at www.ribc.org. Follow the links to “About Us” and “Careers” for an online application. Only applicants who are selected for interviews will be contacted directly.

**POSITIONS** (continued on page 19)
POSITIONS (continued from page 18)

JOIN THE TEAM THAT GIVES THE GIFT OF LIFE!
We are an Equal Opportunity Employer.

**Associate Medical Director.** BloodCenter of Wisconsin seeks physician to join growing Transfusion Medicine (TM) service of the Medical Sciences Institute. Physicians in TM direct transfusion services within three healthcare systems in Milwaukee area; provide direct patient care for therapeutic apheresis; consult with physicians regarding transfusion medicine issues and bleeding disorders; promote blood management; provide medical direction of specialized laboratories; and participate in on-call responsibilities. More than 110,000 blood products are transfused annually and nearly 2000 therapeutic apheresis and stem cell collection procedures are performed at the institutions directly served. Successful candidate expected to participate in clinical and/or applied research. BloodCenter has Transfusion Medicine Fellowship and SBB Program. MD or DO degree and board-certification in Pathology, Internal Medicine or Pediatrics required, as well as board certified/eligible in Blood Banking/Transfusion Medicine.

We offer a competitive salary and excellent benefits. Apply online: [www.bcw.edu/careers](http://www.bcw.edu/careers). We embrace and encourage diversity in our workforce. EEO/AAP.