The State of Infusion Administration in US Health Care
We share your goal: to work toward zero IV complications. That’s why we developed the 3M™ PEAK™ Clinical Outcomes Program, giving you access to a team of 3M Clinical Specialists and a robust portfolio of tools to help you navigate IV care obstacles and implement change.

Learn more at 3M.com/PEAKINS

©3M 2018. All rights reserved. 3M, “3M Science. Applied to Life.,” are trademarks of 3M Company.
In this Issue

INS Board of Directors News
2018-19 Officers Installed

President’s Message
Direction is Key in Leading Tomorrow’s Health Care

INSight into INS
INS Launches New Brand

COVER STORY
Researchers from Purdue University, Michigan State University, and Vanderbilt University, in collaboration with INS, reveal results from the second survey of infusion-related study questions.

Faculty File
Linda A. Treiber, PhD, MSN, RN, and Jackie H. Jones, EdD, MSN, RN, talk about their research on infusion therapy-related medication errors and nurses who experience the “second victim” phenomenon.

INS 2018 Rocked Cleveland!
Another successful annual meeting is in the books! Our Meetings Manager shares highlights and photos from Cleveland.

Guest Feature
Taking Inventory—Reclaiming Your Passion at Work

Risk Management Focus
What Nurses Need to Know About Statutes of Limitations
WELCOME THE 2018-2019
INS BOARD OF DIRECTORS

President
INS is pleased to welcome Felicia Schaps, MSN-Ed, RN, CRNI®, OCN®, CNSC, IgCN, as its president. A nurse for more than 30 years, Felicia is the general manager of ContinuumRx of Northern Virginia in Chantilly, Virginia.

Director-at-Large
Max Holder, BSN, RN, CRNI®, will serve as an INS director-at-large. Max is currently the nurse manager of the vascular access team at Baylor University Medical Center at Dallas.

President Elect
Lynn Deutsch, MSN, RN, CRNI®, VA-BC, has been elected INS president elect. She is an associate professor of nursing at Austin Community College in Austin, Texas, and a member of the Seton Family of Hospitals’ vascular access team.

Director-at-Large
Angela Skelton, BSN, RN, CRNI®, has been elected a new director-at-large. Angela is manager of outpatient chemotherapy/infusion services at United Regional Health Care System in Wichita Falls, Texas.

Presidential Advisor
Pamela Jacobs, MHA, BSN, RN, CRNI®, OCN®, will serve as presidential advisor for 2018-2019. She is currently director of clinical education for the Norton Cancer Institute, Norton Healthcare, in Louisville, Kentucky.

Public Member
Donald J. Filibeck, PharmD, MBA, CSP, FASHP, will serve as the board’s public member. Don is vice president, pharmacy, for Option Care in Bannockburn, Illinois, where he provides operational and clinical pharmacy support for Option Care branch locations.

Secretary/Treasurer
Lisa Bruce, BSN, RN, CRNI®, IgCN, will serve as INS secretary-treasurer. She is currently senior branch infusion manager for Coram Infusion Pharmacy in Anchorage, Alaska.

Chief Executive Officer
Mary Alexander, MA, RN, CRNI®, CAE, FAAN, is CEO of INS and INCC. As INS CEO, she is responsible for the management of an international, nonprofit specialty nursing organization. As INCC CEO, Mary oversees the CRNI® credentialing program. She is also editor of the Journal of Infusion Nursing.
Some of the greatest leaders of the past have said it best:

“We are not retreating. We are advancing in another direction.”

*Douglas McArthur*

“The great thing in this world is not so much where we stand, as in what direction we are moving.”

*Oliver Wendell Holmes*

“Efforts and courage are not enough without purpose and direction.”

*John F. Kennedy*

“Lack of direction, not lack of time, is the problem. We all have 24-hour days.”

*Zig Ziglar*

Pastor Andy Stanley, a present-day Christian leader whom I follow says, “Direction, not intention, determines destination.”

Direction is key. Giving direction and receiving direction are equally important. As they seek direction from leaders, staff members often say, “Please tell us what to do.” A good leader communicates the plan or strategy using the art of giving good directions.

Follow these guidelines and they may help you become a better leader. First, know what you want as a leader. Define the result you seek and how to get there. Write the steps down and review them to determine whether there’s a better or a simpler way to achieve the result. Second, once you have identified the desired goal, think about how the employees who will be involved may feel. That will affect how instructions are given and what is heard. Third, when giving instructions, provide the information employees will need to succeed, without demands or apologies. Leaders who sound bossy may not give the instructions their employees deserve. Finally, explain clearly the what, why, and how: the expected outcome, why you are giving instructions, and, if possible, demonstrate the behavior you are asking of them.

Initially, infusion nurse managers may not know the art of giving directions, but the skill can be learned! Practice how to provide instruction. Your tone of voice, choice of words, and body language can affect your ability to gain support and promote a healthy workplace. Teach and show respect.
by talking about the importance of the work in relation to the organization’s overall goals. Be specific, welcome questions, and watch out for these pitfalls: Unless you’re in the military, do not bark orders. When asked why, never respond, “Because I say so.” Recognize that staff members may have conflicting priorities and deadlines, and never, ever fail to offer thanks and praise for jobs well done.5

On the flip side, knowing how to take direction is important, too. You can’t be an effective leader without having been a follower at some time. However, sometimes bosses are too hands-off in an attempt to avoid over-managing. Not getting enough guidance, feedback, or resources can cause frustration among employees. To get back on track, an employee should always start by asking the leader why. “Help me understand” is a good lead-in for this kind of conversation. Be objective so you’re not blaming your manager without thinking about your part in the issue.

Don’t label your manager a slacker or wonder what he or she does all day. It can be hard not to think the manager gets all the credit for the work being done. Try putting yourself in his or her shoes and work on appreciating your manager in public and in private. Treat your manager with the same respect you want. Never approach your manager with anger or aggression. Be prepared to tell your manager what your needs are, defining exactly the kind of support you need. Arrange a time when you and your manager can meet and discuss concerns. Reaffirm your commitment and give positive feedback about the management style you like. Most important, recognize when the relationship is not working. You have choices. You can change how you feel or move on to another position and another manager.5

Destinations are best arrived at by following a roadmap. Managers need to set priorities, so staff members know what to expect and what to do. They need to remind their team of their individual and organizational goals and draw a connection between priorities and goals. Managers should also be sure to emphasize how everyone is expected to behave at work and then celebrate achievements. Priorities, goals, and behaviors are the what, why, and how of managing effective teams. Staff members want clarity with direction and want to know why it matters. Finally, they must know how they are expected to behave.7

The delivery of infusion therapy by nurses who have specialized knowledge, skill, and leadership is vital for tomorrow’s health care. The two-way street of giving direction and taking direction creates success for all.
Dr. Treiber and Dr. Jones presented their research on the second victims of infusion errors at INS National Academy in Cincinnati, Ohio, in 2016. They have been conducting research on medication errors for more than a decade and have written a dozen articles on the topic.

**INSider:** Why are infusion therapy-related medication error rates higher than others?

**LT:** There are multiple reasons, but I think the main one is they are often given in high-stress, high-stakes situations. Sometimes it’s the result of hurrying, rushing, preparing a patient for surgery, or a code situation. Other times it is unfamiliarity with infusion methods, protocols, and technologies, such as giving a bolus or setting up infusion equipment incorrectly.
INSider: What are some of the most common infusion therapy-related medication errors?

LT: From our research, we found that medications that required titration were often miscalculated and the wrong dose was given. Heparin infusion errors—both over and under dosages—were among the most commonly reported. The overall category of intravenous antibiotics is another, in part because these medications are so commonly prescribed. Other categories were sedatives, narcotics, and cardiovascular medications.

INSider: What are some of the underlying causes of these medication errors?

LT: The nurses in our research often say that errors were caused because they failed to double-check medications when they were overly busy, tired, understaffed, distracted, and under time pressure. Another factor was that the medications they received from pharmacy were incorrect. Being new, inexperienced, and unfamiliar with infusion procedures were also underlying causes.

INSider: Explain the difference between individual- and systems-level approaches as to why errors occur?

LT: Individual-level approaches focus on simple human error. It is a “person-blame” approach. The effort is then on fixing or correcting the individual’s behavior. Sometimes that is absolutely appropriate. Anybody can make a mistake. Education and counseling should be the response in those cases. Other times, if the person acted recklessly or maliciously, then sanctions might be in order. We need to know the difference and when to intervene.

Systems-level approaches look at the big picture. In complex, interconnected systems, such as hospitals and health care, there are so many opportunities for things to go wrong. In fact, it is surprising that more errors don’t occur. A systems approach is going to analyze the process. What is it about the system that makes errors more likely? You could say that errors occur because of bad system design.

INSider: What is the “second victim” phenomenon?

JJ: The definition by Scott et al1 is probably the most inclusive one. It includes any health care provider who is involved in an error or any other patient-related injury and feels traumatized or suffers emotionally from the event. Second victims oftentimes blame themselves for a poor outcome. Our research might expand this definition to indicate that a poor patient outcome doesn’t have to be part of the definition. We have found that second victims are traumatized even without patient harm. The potential harm that an error might cause is sufficient to cause the nurse to become a second victim.

INSider: How can we help colleagues who are struggling as second victims?

JJ: There are many ways we can help a colleague. One of the first would be to encourage him or her to seek out and access the resources available in their organization. An easy way to help is to simply be there for that colleague: Allow him or her to express their feelings, emotions, and thoughts about the situation. You can’t fix it and shouldn’t give reassurances, but you can listen and allow the person to tell the story of what happened. Offer your support, your concern, and your compassion.

INSider: How have you incorporated case studies from past and more recent events into your research?

JJ: We have incorporated some of the information provided to us during our research into current manuscripts, research, and presentations. We are creating an elective course on “Improving Quality and Safety in Patient Care,” and in this course, we are incorporating case studies that we’ve discovered while doing research.

INSider: What role does nursing education play in presenting the second victim?

JJ: This is actually the focus of our current research project. We realized that nursing education’s role in preventing second victims is not well articulated or defined. We are working with national experts and other nurse educators to define exactly what nursing education can and should be doing. We hope you will stay tuned!

For more in-depth information, we encourage members to read Dr. Treiber’s and Dr. Jones’ article, “Making an Infusion Error: The Second Victims of Infusion Therapy-Related Medication Errors,” in the May/June 2018 print issue of the Journal of Infusion Nursing or online at https://journals.lww.com/journalofinfusionnursing.com. You can also listen to their podcast on the INS LEARNING CENTER at www.learningcenter.ins1.org/products/the-second-victim-of-infusion-therapy-related-adverse-events.

Reference

INS 2018 Rocked Cleveland!
Meghan Trupiano, INS Meetings Manager

From the moment attendees arrived, excitement, energy, and passion filled the city of Cleveland. Not only was INS 2018 in town, the Cavs were playing in the NBA Eastern Conference finals, and runners were gearing up for the Cleveland Marathon! The excitement was contagious and definitely spread to INS’ Annual Meeting and Exhibition.

For those who had never been to Cleveland, many were pleasantly surprised by its beauty on the shores of Lake Erie and the abundance of restaurants and entertainment within walking distance of INS’ venue. INS 2018 attendees also enjoyed exclusive access to one of Cleveland’s most well-known attractions: The Rock & Roll Hall of Fame. Hors d’oeuvres and beverages were served throughout the evening as attendees walked through the exhibits and rocked out to some of the biggest names in music.

The action-packed location was a bonus to what INS 2018 had in store for attendees. The meeting kicked off on Friday evening with a welcome for “rookies” at the First-Time Attendee Reception, a relaxing but informative cocktail hour for those who had never been to an INS meeting. The reception provided first-timers with the opportunity to connect with long-time attendees, who provided tips on getting the most from the meeting. Lots of laughs were exchanged, and it set the tone for the rest of the weekend.

The meeting began with INS President Pamela Jacobs, MHA, BSN, RN, CRNI®, OCN®, welcoming those in attendance and sharing INS’ accomplishments during the past year. She also recognized scholarship winners and INS Member of the Year, Patricia Kampf, BSN, RN, CRNI®. INCC Chair Lisa Gorski, MS, HHCNS-BC, CRNI®, FAAN, recognized the CRNI® of the Year, Sonda Brown, MSN, RN, CRNI®. After the opening session, we welcomed INS Keynote Speaker Elizabeth Smart. You could hear a pin drop as she shared details of her harrowing kidnapping ordeal, how she recovered, and how she continues to move forward with her life and young family each day.

At the exhibit hall, attendees could choose from a number of activities that included exploring 80 exhibitor booths, meeting Elizabeth Smart and receiving a signed copy of her book, viewing demonstrations at the exhibitor theaters, and voting for their favorite ePoster presentation.

As it has been for many years, the education was top notch. This year INS 2018 took that a step further and added even more interactive programming. Fourteen sessions involved audience polling, a new game show-style session was both entertaining and informative, and top infusion-related questions were addressed by “Ask INS” experts.

Learning was, of course, the main objective, but fun activities were scattered throughout the meeting, too. Dozens of attendees wanted to “Be the Guitar Hero” at INS 2018. This involved finding a hidden replica of an electric guitar and claiming a prize. CRNI®s were provided with a VIP Lounge to relax and connect with colleagues. The lounge included comfortable furniture, relaxing music, games, and snacks—a great atmosphere to take a break from the hustle and bustle of the day.

Every year, the meeting grows, changes, and progresses. The plans for INS 2019 are already underway—we hope you’ll join us next May in Baltimore!
Don’t see yourself here? Check out www.ins1.org/Conferences for more photos from INS 2018.
You may have noticed some changes at INS. Over the past year, things have looked new and interesting, whether it has been the change from Newsline to INSider or the recently redesigned LEARNING CENTER.

Well, we’re about to take it up another notch! INS is introducing a new logo and website.

INS has been a pillar in the infusion nursing community since its founding, so the “look” of the organization needs to remain true to its roots, while at the same time conveying a fresh, forward-thinking perspective. This approach was key in the creation of the new logo, which incorporates the history of INS, while paving the way to the future. We took the strong elements that came from our previous design and made it stronger with the use of a cleaner, easier-to-read typeface. The significance of the lines inside the INS letters indicate that infusion nurses are leaders. The longer, middle line shows that INS members are ahead of the rest. This has never been truer than it is right now. At INS, we provide the most trusted resources available for infusion nurses, helping them lead the way in their field.

Along with our new logo comes a new color palette. Color says so much about a brand and its longevity. This color update conveys a feeling of young professionalism, a design that fuses the passion of a youthful start-up company with the value of an organization you have known and trusted for decades. The green, blues, and purples are intended to resemble the modern look of a health care organization.

But, how are we going to translate our new logo and color palette into something that will best serve you, our members? Through a new website! Whether you wish to register for the latest CRNI® exam or find out more about INS’ Annual Meeting and Exhibition or National Academy, you will be able to find what you need online. Our new online home will house all of the same high-quality information with improved navigation, allowing users like you to find exactly what you’re looking for with ease.

By the end of 2018, INS will be a renewed organization with an upgraded online presence and a contemporary INS brand. We’re excited about sharing the new site with you.

Andy Warhol said, “Security breeds stagnation.” At INS, we refuse to accept anything less than the best. That’s what this project is about: change. Without change, there’s no forward progress. That’s why we will continue to evolve. So put your sunglasses on, because here at INS we see a bright future ahead!

Reference
The State of Infusion Administration in US Health Care: Prevalence of the Primary Care Model and Its Dual Effects on Nurse Engagement and Burnout

Benjamin R. Pratt, MS, MSW
Regenstrief Center for Healthcare Engineering
Purdue University

Benjamin B. Dunford, PhD
Regenstrief Center for Healthcare Engineering
Purdue University

Fred P. Morgeson, PhD
Michigan State University

Timothy J. Vogus, PhD
Vanderbilt University

Mary Alexander, MA, RN, CRNI®, CAE, FAAN
INS Chief Executive Officer

INS has once again collaborated with researchers from Purdue University, Michigan State University, and Vanderbilt University to pursue the answers to 3 important infusion-related study questions. First, which occupational groups perform what infusion-related tasks in US health care organizations? Second, how have infusion administration practices changed in the last 1 to 2 decades? And third, how have changes in infusion practice affected nurses in clinical settings?

During the fall of 2017, the second of 3 waves of data was collected from INS-affiliated nurse respondents throughout the United States. Findings from the first survey were shared at INS 2017 in Minneapolis. This report focuses on the findings of the second survey. Overall, 994 INS members started the survey and 769 completed it, resulting in a completion rate of 77%. Respondent demographics can be found in the visual summary at https://bit.ly/2vYXkvU.

Survey 2 Results: Which Occupational Groups Perform What Infusion-Related Tasks?
Corroborating and extending previous research,¹ the study found that infusion-related tasks are performed primarily by nurses following the primary care model of infusion...
administration, which relies on registered nurses (RNs) to perform infusion tasks without the support of a specialized infusion team. More than three-quarters (77%) of respondents indicated that RNs do preinfusion assessments, while only 9% of respondents indicated that such assessments are performed by an infusion team in their organizations. Similarly, 82% of respondents indicated that peripheral catheter placements are performed by RNs in their organizations, whereas approximately 15% of respondents indicated that an infusion team is responsible for peripheral infusions in the organizations in which they work. Responsibilities regarding central vascular access device (CVAD) placement vary more significantly, with 21% of respondents stating that RNs place CVADs in the organizations in which they work, 34% of respondents indicating that infusion teams place CVADs in their organizations, and 24% of respondents stating that physicians place CVADs in the organizations in which they work.

The administration of infusion therapies is, predictably, much more RN focused, as 92% of respondents indicate that RNs administer infusion therapies, compared to slightly less than 6% who indicate that this task is performed by infusion teams. Similarly, the task of monitoring infusions is much more likely to be performed by an RN (74% of respondents) than by an infusion team (9% of respondents) or a pharmacist (8% of respondents). Monitoring the infusion site for infection is almost exclusively performed by RNs (90% of respondents), with only 8% of respondents indicating that an infusion team performs this task in their organizations. While nearly three-quarters of respondents (74%) stated that RNs are responsible for infusion dressing changes, nearly a quarter (23%) indicated that this task is performed by an infusion team in their organizations. Respondents stated that the tasks of flushing and locking catheters are, again, almost exclusively performed by RNs (94% compared to 4% performed by an infusion team), as are catheter and device removals associated with peripheral infusions (90% RNs compared to 7% infusion teams). As with CVAD placement, practices regarding the removal of catheters and devices associated with CVADs are more varied. However, RNs perform the bulk of these duties as well, with 58% of respondents indicating that RNs remove CVADs, compared to 20%, who stated that this task is performed by an infusion team, and 12% of respondents, who indicated that this task is the responsibility of physicians in the organizations in which they work.

Survey 2 Results: How Has Infusion Administration Changed During the Past 2 Decades?

Respondents were asked how infusion administration practices have changed in the organization in which they work during their time with that organization. As respondents’ average tenure with their current organizations was slightly more than 13 years, this information provided a window into the major changes in infusion practice that have occurred during that crucial time frame. According to respondents, the biggest changes in infusion administration since they started working in their current organizations have related to vascular access for CVAD placement and catheter/device removal associated with CVADs. For CVAD placement, 37% of respondents indicated the task was originally performed by physicians when they started with their organizations, compared to 24% who indicated that it was initially performed by RNs, and only 22% who indicated that CVAD placement was the responsibility of an infusion team when they started with the organization. Interestingly, these data indicate that infusion teams have acquired increased responsibility from RNs and physicians with regard to CVAD placement during the past few years. In contrast, however, it appears that both RNs and infusion teams have assumed additional responsibilities with regard to CVAD removal during the past decade or so, as 55% of respondents indicated that RNs were responsible for this task when they started with the organization, compared to 17% who specified that an infusion team performed this task when they started with the organization, and 18% who stated that this task belonged to physicians when they started with the organization.
Survey 2 Results: How Have Changes in Infusion Administration Affected Nurses?

A key aspect of this study is the way in which changes in infusion administration practices affect nurses in clinical settings. Research on the design of work indicates that adding complex and meaningful duties to employees’ job descriptions increases employee motivation, satisfaction, and engagement with work—the term engagement referring to the level of physical, cognitive, and emotional energy which an employee invests in her/his work. However, other research has demonstrated that the addition of complex and meaningful responsibilities to employees’ work can increase the likelihood of stress, burnout, and other negative work outcomes. Because survey respondents indicated that infusion work is meaningful (with an average score of 4.36 out of 5 on a 4-item scale measuring the significance of infusion tasks), the aforementioned theories were tested.

First, respondents who worked in organizations without an infusion team were compared to those in organizations with an infusion team. It was found that those working in organizations with an infusion team indicated they were more able to be engaged in their work, in general, than those in organizations without infusion teams. To further test this idea, 202 respondents in the survey were identified who worked in organizations when the organizations disbanded their infusion teams. Rather than experiencing enhanced engagement with the addition of infusion responsibilities, respondents who took on additional infusion-related work in the wake of their organizations’ disbanding of infusion teams reported higher levels of burnout than those in organizations without the support of an infusion team. Also, respondents who have been assigned additional infusion-related work in the wake of their organizations’ disbanding of infusion teams reported higher levels of burnout than their nurse colleagues who were not assigned additional infusion duties when infusion teams in their organizations were disbanded. While these data have been invaluable to the Purdue Infusion Study, more data will be needed to understand fully the effects of infusion practices on nurses as employees, and on clinical outcomes such as infection rates and hospital readmissions.

Nurses play a critical role in assuring high quality patient care and, thus, understanding nurses’ experiences and attitudes regarding infusion administration practices is vital for patient well-being. For these reasons, the research team looks forward to learning from INS-affiliated respondents when the third survey of the Purdue Infusion Study is disseminated later this year.

Conclusion

In responding to Survey 2 of the Purdue Infusion Study, respondents indicated that the primary care model is by far the most common method of infusion practice in contemporary US health care organizations. While most infusion tasks have been increasingly assigned to individual bedside RNs over the past decade, it appears that infusion team use has increased slightly with complex and specialized infusion practices previously exclusive to physicians, such as CVAD placement and removal.

Respondents to Survey 2 also provided key information regarding the effects of changes in infusion administration practices on key nurse employee outcomes. Specifically, respondents in organizations with an infusion team reported being more able to engage with their nursing roles than those in organizations without the support of an infusion team. Also, respondents who have been assigned additional infusion-related work in the wake of their organizations’ disbanding of infusion teams reported higher levels of burnout than their nurse colleagues who were not assigned additional infusion duties when infusion teams in their organizations were disbanded. While these data have been invaluable to the Purdue Infusion Study, more data will be needed to understand fully the effects of infusion practices on nurses as employees, and on clinical outcomes such as infection rates and hospital readmissions.

Nurses play a critical role in assuring high quality patient care and, thus, understanding nurses’ experiences and attitudes regarding infusion administration practices is vital for patient well-being. For these reasons, the research team looks forward to learning from INS-affiliated respondents when the third survey of the Purdue Infusion Study is disseminated later this year.

References

Ethical conduct is an integral component of any research study. Infusion nursing research is no exception. In fact, it plays an important role, since many of the interventions used with infusion nursing research are associated with risks. These risks may involve procedures that are invasive, outside the usual standard protocol, and involve innovative devices. Ethical standards should be integrated in every research study, from inception to dissemination.

Ethical principles have been developed as the result of historical practices that have violated human rights, including the Nazi experiments during World War 2,1 the Tuskegee Syphilis study,2,3 and the Willowbrook study.4 Even today, human rights violations occur in research studies. Ethical standards and principles have been developed to protect human rights in research.

Ethical principles of autonomy, beneficence, nonmaleficence, justice, veracity, fidelity, and confidentiality should be upheld for every research study involving human participants. Investigators and research teams must understand these principles and the role they play in ethical practices.

• Autonomy: Patients must be able to make an unencumbered, independent decision without coercion to participate in the research study. The patient has the right to withdraw from the study without consequence. Patients have the right to full disclosure of the study, including an explanation of purpose, risks and benefits, data collection and use, confidentiality and anonymity, and dissemination of findings. This principle underlies the concept of informed consent and the capacity to make a fully informed decision.5

• Beneficence: An assessment of the benefits of participating in the research study should be identified, whether there is an individual benefit for the participant or one for society.6

• Nonmaleficence: Every participant should be free of harm. Any risks associated with participating in the research study should be identified and disclosed. The benefits should outweigh the risks involved.7

• Justice: The investigator must apply equality and equity to all participants throughout the research study. Participants must represent those who will benefit from the study’s outcomes and must not be chosen for convenience.8

• Veracity: The investigator must reveal all disclosures related to the study. Participants must understand and be informed of all facets of the study, including their expected involvement, the study’s duration, and the privacy of and access to their personal information.5

• Fidelity: A trusting relationship between the researchers and participants is essential. The researcher trusts the participant to represent him- or herself honestly and provide reliable information. The participant trusts the researcher will maintain confidentiality and safeguard him or her. The participant can withdraw from the study without penalty or consequence.5,6

• Confidentiality: The researcher must maintain the confidentiality of participants through deidentifying personal information. Personal information should not be entered into any electronic databases. Access and storage of data should be kept in a locked room to which only the researchers have a key and access. Electronic information should be password-protected. The participant should be informed of how the personal information is protected, how long the information will be kept, and when and how the information will be destroyed.6

Infusion nursing research must comply with the ethical standards of research. The National Institutes of Health has identified 7 guiding principles for clinical research based on ethical theory9,10 which all researchers should review and be knowledgeable about their application to ensure the ethical integrity of a study and the protection of research participants.

References
Communications is crucial in health care. But despite how knowledgeable a clinician is, if he or she cannot adequately explain to a patient his or her understanding of a condition or an issue, that clinician’s expertise may become markedly less useful. Inadequate communication and its subsequent effect on efficiency and attention to detail can contribute to concerns such as lower rates of medication adherence, decreased patient satisfaction, a drop in team satisfaction, diminished patient safety, and increased malpractice risk.

With the infusion of biologics, a newer course of treatment in medicine, there’s much to be discovered, unique challenges to be addressed, and hurdles to jump. Insurance companies and public programs, such as Medicare, are constantly changing reimbursements and, with that, the requirements for reimbursement for biologics and related infusions. In addition, state laws governing prior authorization, step-therapy requirements, and nonmedical switching vary from state to state.

There are several federal laws emerging that are being voted on and amended, which could change how Employee Retirement Income Security Act (ERISA) plans, which include employer health insurance plans, would be regulated. New biologics and biosimilars seem to be announced every month, and most have several off-label uses. With new information constantly being communicated between industry professionals and providers, taking the best possible care of patients can become increasingly more difficult, complex, and time consuming.

It’s essential that infusion professionals pursue continuing education and share their knowledge with one another. Such conversations help identify and overcome the challenges providers face that prevent them from helping ensure their patients receive the highest quality care.

We’re all in this together: patients, physicians, nurses, staff, caregivers, me, and you. Communication and collaboration are integral to the growth and success of prescribers’ offices, patient outcomes, and the sustainable delivery of health care.

Do you have questions? Are you knowledgeable and would you like to help? Have you discovered an amazing new resource that will have an impact on prescribers’ offices everywhere? Would you simply like to be kept in the know?

The National Infusion Center Association (NICA) has created a new Infusion Confusion Forum. This user-friendly, online tool connects infusion providers and infusion center staff with colleagues who work in office-based infusion centers across the nation. Topics include biologics and biosimilars; patient access challenges; reimbursement, billing, coding, and claims issues; and a general section where individuals can ask just about anything, from advice on the best infusion center office equipment to best practices on how to clear medication from an intravenous catheter. While anyone can contribute to a topic, the forum also has moderators—individuals with experience in various areas of practice—who help keep discussions relevant, appropriate, and productive. They are proactive in answering questions and giving the best advice possible.

Contribute to the infusion community by participating in NICA’s Infusion Confusion Forum. Visit infusioncenter.org/forums/today.

References
Do you love what you do? Is your passion for your work as an infusion nurse the same today as it was when you started your career? If not, what has changed? What is detracting from your energy? Or in contrast, what is fueling you to an even greater level of job satisfaction? It’s time to take inventory!

Regardless of how you answered those questions, my suspicion is you came into the field to help others and to have a positive impact on the lives of patients and families. As an infusion nurse, you interact with patients and families faced with some of the most challenging diagnoses and treatment plans. You know your role is critical and that it requires you to be clinically proficient as well as emotionally available for your patients and their families. What an incredible responsibility and honor. And what a challenging role to fill.

So how do you stay focused? How do you juggle maintaining your clinical proficiency, your emotional well-being, your work-life balance, and your passion for and connection to your work all at the same time?

If you find that your passion for your work and your job satisfaction continues to grow, congratulations! The Medscape Nurse Career Satisfaction Report 2016 found that 95% of nurses were glad they became nurses and close to 80% would have made the same career choice again. To maximize this positive journey, you may want to take inventory of what is contributing to these feelings.

If you find your passion for your work and your job satisfaction are waning a bit, you’re not alone. The AMN Healthcare’s 2015 Survey of Registered Nurses found that, while most nurses were proud of the work they did and their career choice, many were not as satisfied with their current jobs. Furthermore, there’s concern that burnout among health care professionals may be on the rise, as a result of the increase in their additional administrative and nonpatient-centered responsibilities directly related to the implementation of advanced electronic document management systems, patient portals, and quality metrics tracking, to name a few. Identifying the source of your decreased job satisfaction is the first step toward reclaiming your passion and reconnecting with the career you know and love.

5 Steps to Reclaiming Your Passion at Work

1. Connect with your core values.
   - What is it about your work you value most?
   - What is it about your job that challenges you most or causes you the most inner conflict?

2. Reclaim your “why.”
   - How does the work you do have a positive impact on you?
     - your family and/or friends?
     - your patients and their families?
     - your employer?
     - the world?
   - What other differences do you make as a result of your work?

3. Check your attitude.
   - How would you describe your attitude about what is challenging you most or causing you conflict in your current job?
   - How could you view these challenges differently to help foster a more positive attitude?
   - What changes could you make to minimize the negative impact these challenges have on your work?
Take time for you.
As a caregiver you probably put everyone else's needs before your own. Determine how to create time for your own well-being.

• What is one activity you do that fuels your well-being?
• How can you incorporate this activity into your daily or weekly routine?
• How will this contribute to improving or maintaining your job satisfaction?
• How will this have an impact on the lives of the patients, families, and others you interact with on the job?

Learn something new.

• What is one aspect of your profession you have always been curious about but haven’t taken time to learn? Challenge yourself to broaden your professional skill set by continuing to learn, either formally through a certification program or informally through your own reading, research, and participation.
• Share your goal with a colleague or invite that person to join you.

Reconnecting with your passion for your job opens up opportunities for greater fulfillment and an increased ability to provide care at the highest level—likely the reason you chose your profession to begin with. But like so many goals, it’s easier said than done. In my work as an executive coach, my passion is helping professionals like you continue to thrive and grow in their careers. I believe you are an extraordinary contributor to the world we live in, and it is my goal to help ensure you continue to love your career and job.

I first encountered infusion nurses about 7 years ago when my mother was fighting cancer. Infusion nurses were integral in my mother’s care and, despite the circumstances, they provided tremendous peace and joy to her and our family. We spent hours playing games and talking with my mother during her chemotherapy infusions. It was infusion nurses like you who helped ensure her experience was as positive as it could be by sitting with her, sharing personal lives and experiences, and treating her with compassion and dignity. It was infusion nurses like you who made my mother feel “normal.” What an amazing gift to my family and me.

It was wonderful having the opportunity to engage with many of you during my presentation at INS 2018 in Cleveland. Thank you for your feedback and honesty about both the joys and challenges you face in your work. If you are feeling challenged or your passion for the remarkable work you do is waning, I would love to connect with you one-on-one.

Thank you for all you do!

About the Author
Sue Salvemini, MEd, BS, ACC, CPC, ELI-MP, is the founder and president of Focal Pointe Consulting Group, Inc. An executive coach and author, Sue has more than 25 years of corporate and active-duty military experience developing leaders, building teams, and launching medical device products and businesses. Her presentation on this topic at INS 2018 was very well received. Contact Sue with your questions at sue@focalpointeinc.com.

References
Do you remember the details of interactions with every patient you cared for 2 months ago? What about 1 year ago? The reality is nurses cannot rely on memory to recall details that could make the difference in successfully defending themselves against a lawsuit. After all, most of us can’t recall what we had for dinner 2 nights ago.

The statute of limitations refers to the maximum amount of time between when an incident took place and when legal action can occur. Medical malpractice lawsuits can occur months or years after you last cared for the patient. Remember that following best practices for documenting and retaining records will help protect you in such a situation.

**Why statutes of limitations?**

Statutes of limitations specify the amount of time between when an injury occurs and when the injured party can file a valid cause of action in court. The intent of limiting this time frame is to promote fairness. After all, memories fade over time and witnesses can become incapacitated or die, making it difficult for the accused person to mount a reasonable defense.\(^1\)

Statutes of limitations vary by state and the nature of the offense, and they can be quite specific. For example, in Pennsylvania the statute of limitations for filing a medical malpractice lawsuit is 2 years from the date of the injury,\(^2,3\) but in California, it is 3 years or 1 year from the date the injured party should have known about the injury, whichever is the earlier date.\(^4\)

In addition, the time associated with statutes of limitations typically is longer for minors. Most states have statutory provisions that allow individuals to have the same amount of time for commencing legal action beginning after the minor becomes an adult.

**Documentation provides protection**

As a nurse, it’s likely you realize the importance of documenting what treatment you have provided, but it’s easy to forget—or not document completely—when you’re caught up in a busy workday. However, not recording key information makes it more difficult for an attorney to defend you in the event of legal action.

Protect yourself by documenting patient interactions, whether they occur in person, on the phone, or electronically. Use the information in the Documentation Tips table on the next page to remind yourself of what and how to document. Consider the tips to evaluate whether your documentation meets professional standards and legal requirements and make improvements to your practice as needed.

**Retaining records**

Because of statutes of limitations, you could be named in a lawsuit long after your last interaction with a patient. That’s why it’s important to retain records based on state and federal laws and regulations.

The Health Insurance Portability and Accountability Act requires the retention of records that contain protected health information for 6 years after the last visit. This rule preempts state laws that might require less time. Some experts recommend keeping records for as long as 10 years. In the case of minors, experts recommend keeping records until the child reaches the age of majority plus the maximum length of time your state defines as the statute of limitations.

**Shield your nursing practice**

Statutes of limitations provide some protection against lawsuits years after you see a patient, but they also provide ample opportunity for lawsuits by individuals who may no longer be a patient. Help protect yourself from liability by documenting completely and retaining records that can provide evidence of your care.

You can find information about state and federal requirements related to retention of medical records at [www.healthinfolaw.org/topics/60](http://www.healthinfolaw.org/topics/60)
Documentation Tips

Follow these tips to help ensure that complete documentation—not your memory—protects you in the event of legal action in response to a complaint from a patient.

• Check that you have the correct chart before you begin writing.
• Make sure your documentation reflects the nursing process and your professional capabilities.
• Chart promptly. If you wait until the end of your shift, you could forget to include important information.
• Chart in chronological order, specify exact times, and do not chart ahead of time.
• Keep comments factual, objective, and complete to avoid any perception of bias.
• Write clearly and concisely. Avoid using words, such as “appears” or “apparently,” when describing signs and symptoms or imprecise descriptions, such as “bed-soaked” or “a large amount.”
• Document all communications: face-to-face, electronic, and by telephone.
• Don’t chart a symptom, such as “c/o pain,” without also charting what you did about it.
• If you make an error when documenting, make the correction, noting the date and time of the correction.
• If you remember an important point after you’ve completed your documentation, chart the information with a notation that it’s a “late entry.” Include the date and time of the late entry.
• Adhere to documentation requirements in states where you practice, your organization’s policies, and professional standards. If there’s a conflict, use the most rigorous requirement.

References


This risk management information was provided by Nurses Service Organization (NSO), the nation’s largest provider of nurses’ professional liability insurance coverage for over 550,000 nurses since 1976. INS endorses the individual professional liability insurance policy administered through NSO and underwritten by American Casualty Company of Reading, Pennsylvania, a CNA company. Reproduction without permission of the publisher is prohibited. For questions, send an email to service@nso.com, call (800) 247-1500, or visit www.nso.com.
Potassium chloride concentrate unsafe in a syringe

ISMP learned that at least 1 of the 503B outsourcers (Nephron) is distributing potassium chloride (KCl) concentrate to hospitals in a syringe (Figure 1). These were ordered by mistake by a hospital pharmacy technician and then reported to us. It’s unknown if other outsourcing companies provide syringes of concentrated KCl as well. For safety reasons, ISMP highly recommends not using these products. Perhaps the syringes are meant for use only in the pharmacy as an additive to be diluted in a minibag or large volume parenteral due to the shortage of commercially available premixed KCl infusion products. But the last manufacturer to distribute additive syringes of KCl concentrate injection, Abbott Laboratories, withdrew the product from the market in 2000 (Knox CA, Liu W, Brushwood DB. Potassium chloride for injection concentrate: time for a risk evaluation and mitigation strategy. Am J Health Syst Pharm. 2014;71[3]:238-42). For now, the shortage of minibags of plain solutions is resolving, and it is unclear why outsourcers cannot provide KCl in a sterile vial or already mixed in a minibag.

ISMP can envision several ways in which these syringes might inadvertently make it to patient care areas and be erroneously used for intravenous (IV) injection to patients directly from the syringe, which may prove fatal. For example, there are still US hospitals without 24-hour pharmacy service where a nursing supervisor has the key to the pharmacy for after-hours access, a practice to be avoided because it elevates risk. The supervisor might find these syringes, not realize they are intended for use only after dilution, and take them to a patient care unit. Also, because of the recent shortage of saline and dextrose minibags, some hospitals have been sending syringes of other medications for nurses to administer after dilution in burette administration sets. It’s doubtful that a pharmacist would do this with concentrated KCl, but fatalities have been reported in the past due to pharmacy dispensed syringes of concentrated KCl that were inadvertently administered via IV push (see the same reference as above). In short, it has happened before and could happen again. The Joint Commission does not permit nursing access to the pharmacy after hours or concentrated KCl to be available on patient care units, even in vials. ISMP’s recommendation? Stay away from concentrated potassium products in syringes.

Rule of thumb with Simplist syringes

It is important for nurses to maintain pressure on the syringe plunger rod of any Simplist prefilled syringe (Fresenius Kabi) during IV drug administration via an IV port or stopcock attached to a running IV. Due to a drug shortage, a hospital that typically used Carpuject prefilled syringes of Dilaudid (Hydromorphone) 1 mg/mL obtained a supply of the drug in Simplist prefilled syringes. When a nurse needed to administer Dilaudid as a slow IV push via a patient’s free-flowing maintenance IV, she attached the syringe to a stopcock on the IV tubing. Rather than give the entire dose at once, the nurse intended to administer small doses in increments. After part of the dose had been administered, the nurse left the syringe attached to the stopcock and turned to chart the dose on a bedside computer. During this time, pressure on the plunger rod was not maintained. When the nurse turned around, she noticed that the syringe plunger rod had been ejected from the syringe barrel (Figure 2) and that the IV maintenance solution was free-flowing out of the back of the syringe.

Simplist syringes have a glass barrel that does not have a retaining ring (also referred to as a “backstop” or “positive stop”) to prevent the plunger rod from popping out with back pressure from a running IV solution. But according to an expert ISMP consulted, even some small syringes, such as 1 mL plastic syringes, may not have enough “positive stop” to prevent the plunger rod from popping out of the barrel, if the pressure from the maintenance IV solution is high enough. Nurses who administer small amounts of a drug from a syringe and then wait between the incremental doses, may not be aware of this. Please be sure nurses know they should always maintain thumb pressure on the plunger rod and never leave the syringe in place by itself while attached to an IV port or stopcock. Instructions for proper use of Simplist syringes are available at www.ismp.org/ext/2.
Dates to Watch

CRNI® Exam Dates
SEPTEMBER 1-30, 2018
MARCH 1-31, 2019

National Safety Month
JUNE 1-30

National Nursing Assistants Week
JUNE 15-22

National Immunization Awareness Month
AUGUST 1-31

National Health Center Week
AUGUST 12-18

INSider encourages the submission of articles, press releases, and other materials for editorial consideration, which are subject to editing and/or condensation. Such submissions do not guarantee publication. If you are interested in contributing to INSider, please contact the INS Publications Department. Photos become the property of INSider; return requests must be in writing. INSider is an official bimonthly publication of the Infusion Nurses Society. Copyright 2018 Infusion Nurses Society, Inc. All rights reserved.

For information contact:
INS Publications Department
315 Norwood Park South
Norwood, MA 02062
(781) 440-9408
leslie.nikou@ins1.org
INS established the Gardner Foundation to provide scholarships for INS members who are dedicated to advancing the delivery of quality infusion therapy and enhancing the specialty through stringent standards of practice and professional ethics. The Gardner Foundation honors the memory of Cheryl Gardner, CRNI®, who was INS president from 1980-81 and was serving as president of INCC at the time of her death in 1992. These scholarships recognize areas in which Cheryl excelled—infusion innovation, patient advocacy, and enhancing the image of infusion nurses. We congratulate our 2018 recipients and thank them for their commitment to the infusion specialty.

2018 GARDNER FOUNDATION SCHOLARSHIP RECIPIENTS

**Sharing Expertise Scholarship for Professional Education**

($1000)

Sponsored by B. Braun Medical, Inc.

Scholarships support and encourage professional infusion therapy education by providing educational assistance to nurses interested in attaining their Certified Registered Nurse Infusion (CRNI®) designation.

**2018 RECIPIENTS:**

DIERDRE ANNE GREENE  
DENISE KALBACH  
DAWN MCFADDEN  
MARIA MILILLO

**Gardner Foundation INS Meeting Scholarship**

($1000)

Scholarships support and recognize a commitment to continuing infusion therapy education.

**2018 RECIPIENTS:**

PEGGY BEACH  
LINDA BRECKLE  
CHRISTINE GALICKI  
TAMARA JOHNSON  
CYNTHIA SUMRALL

**Gardner Foundation Education Scholarship**

($1000)

Scholarship supports and recognizes a commitment to continuing education through a collegiate or post-collegiate program.

**2018 RECIPIENT:**

ELIZABETH FRITZ

**Leslie Baranowski Scholarship for Professional Excellence**

($2500)

Sponsored by BD Medical

Scholarships support and recognize a commitment to improving and enhancing the quality of infusion care through leadership activities.

**2018 RECIPIENTS:**

PATRICIA D’ANGELO  
DENISE KALBACH

**Ireta Neumann Scholarship for International Nurses**

($5000)

Sponsored by BD Medical

Scholarships support continuing education in infusion therapy for foreign-educated nurses living outside the United States.

**2018 RECIPIENTS:**

ARCHANA BASHYAL  
MICHAEL ANGELO LIBUNAO

**INS Presidential Leadership Scholarship**

($1000)

This scholarship honors an individual who embodies the commitment and contributions of INS past presidents through leadership in the infusion community.

**2018 RECIPIENT:**

CARLA REYNOLDS

**NSNA SCHOLARSHIP RECIPIENT**

INS, in conjunction with the National Student Nurses Association (NSNA), is pleased to announce that Katelyn Dalton of the University of Tennessee Knoxville was awarded the Infusion Nurses Society Student Leadership Scholarship through NSNA. As a long-time sponsor of this award, INS recognizes the importance of nursing leadership and the key role it plays in advancing the profession. We congratulate Katelyn and wish her well as she embarks on her nursing career.
March 2018 CRNI® Exam Results

Alabama
Ashley Smith

Arizona
Christine Garrard
Sally Goff

Arkansas
Kristin Brockman
Laura Skipper

California
Joseph Akins
Sabrina Bailey
Candice Flynt
Carol Garcia
Cynthia Huff
Luana Philpott

Colorado
Janet Azbell
Nicholas Vyles

Connecticut
Shannon Lee Reddish

Delaware
Karen Amspacher

Florida
Jaime Alexander Batista
Sandra Carmona Torres
Teresa Carr
Shayna Carter
Vanessa Magdael
Barbara Novy
Marlene Oria
Myrna Rivera
Telay L. Roberson
Carol Sickels

Georgia
Geoff Franqui

Idaho
Seren Askaw
Martha Dekruyf
Betty Foote
Monica Souliere

Illinois
Tura Angsten
Corey Laster
Michelle Mais-Smith
Carey Tramel

Indiana
Alicia Arnold
Elyse Chodur
Stacy Gray
Teresa Guernsey

Kansas
Dennis Griffin

Maine
Michelle Carmichael
Carol Dearborn
Stephanie Ferrante

Maryland
Jamie Adler

Massachusetts
Celeste Decensi
Dawn Guglielmo
Kristen Harrison
Rachael Hathaway
Denise Kalbach
Kori Utter

Michigan
Deborah James
Sandra Ponder

Minnesota
Nicole Braulick
Patrick Collins
Gage Hadden-Peck
Jenny L’Heureux
Melissa Sackett
Sheila Schreiber
Holly Tucker
Patricia Westcott

Mississippi
Nina Carman

Missouri
Erin Birke
Jennifer Burcke
Paige Luebbert
Melinda Osmack

Montana
Tracy Cashman

Nevada
Johanna Littlejohn

New Hampshire
Fredericka Ellis
Dawn McFadden

New Jersey
Jeanmarie Taylor
Jessica Wolf

New York
Louise Buquet
Lorrai Carpenter
Mikerdley Pierre

North Carolina
Crystal Shull

Ohio
Heather Hamilton
Pamela Mull

Oregon
Karen Choate
Jeffrey Lorenzen

Pennsylvania
Valerie Day
Holly Jordan
Susan Musselman
Ramona Roxanne Reeves
Diane Shannon
Tracy Walker

Tennessee
Karen Bucher

Texas
Michael Duphorne
John Maina
Jessica McNish
Lauren Nicholson

Vermont
Amy Lutteur
Stephanie Porter

Washington
Kiley Hulk
Deborah Langston
Jennifer Lee
Joy Selchow
Tammy Wright

West Virginia
Jon Casto

Washington, D.C.
Kimberley George-Shields
Raushan Rozenberg

Puerto Rico
Lisa Gonzalez-Hernandez

INTERNATIONAL

Singapore
Ruijuan Wang

CONGRATULATIONS!
Welcome New Members

February 2018

Jennifer Agnew
Katie Alcala
Crisanti Alviar
Juanita Anderson
Jacqueline Backes
Greta Backstrom
Furong Bao
Michelle Barton
Prima Bautista
Von Daryl Belina
Shanley Bellve
Caudette Boudreaux
Lisa Callas
Evadne Chambers-Keeling
Yueh-Jiuan Change
Guochun Chen
Yue Cong
Amy Connolly
Sonja Cooley Johnson
Juanita Cullings
Gail Dammert
Emily Diloreto
Margaret Dirden
Lisa Drucker
Anne Dunn
Brook Edelstein
Amanda Egan
Cliona Egan
Rebecca Endsley
Xiaoyan Fan
Nancy Fernelius
Cherie Fulchino
William Garelick
Mary Sue Gipaya
Emily Goolsby
Bren Hammond
Jennifer Hendrix
Sandra Hoff
Joyce Holtkamp
Li Hong
Kyle Houglend
Joan Housley
Justin Howerton
Elizabeth Hudson

Mary Jaeger
Karen Janis
Bamidele Jokodola
Ellen Jones
Sherri Jones
Rachel Kahle
Michelle Keim
Raeanne Kelly
Stacy Kenitzer
Jessica Kilcoyne
Cindy Krodinger-Copeland
Gina Kurz
Judith LaJoie
Joanie Larussa
Amanda Lee
Zhiguo Li
Yan Liu
Wanli Liu
Yang Chun Liu
Hong Lu
Trang Luu
Wendy Maclean
Gwendolyn Manuel
Emilia Mbanwite
Casey Mello
Jennifer Mendes
Kathleen Metzger
Barbara Meyer
Kate Milbury
Kenya Miller-Francis
Robert Mooney
Elizabeth Morrell
Mikayla Mucha
Tia Oderro
Nneoma Oparah
Ruthanne Owens
Heidi Pace
Mesha Park
Samantha Pate
Cynthia Pelletier
Guoping Qi
Yinbo Qin
Barbara Radtke
Rosetta Rafanelli
Jan Range

Brianna Regan
Galen Richards
Wilma Robert
Ashley Runyon
Jonathan Ryan
Melissa Sackett
Tracy Scuizillo
Crystal Seibel
Vikram Sengupta
Ken Shadel
Emily Simonich
Anna Smith
Jodi Spitler
Janene Stapleton
Linda Stevens
Cynthia Sulewski
Virginia Tanner
Sean Thomas
Irina Thornberg
Kara Tisler
Criselda Tropezado
Melissa Veillette
Jonathan Verseput
Stephanie Wakim
Amanda Walker
Jarod Walker
Sarah Walker
Lijun Wei
Jacquelyn Wescott
Dawn Whetzel
Amanda Whiteside
Ann Williams
Lisa Williamson
Latoya Woods
Yunyan Xianyu
Muzhang Xiao
Mingzhu Xin
Honglu Xu
Dengmei Xue
Amy Young
Couni Young
Yangfei Zhou
Haihua Zhu
WITH A POWERFUL PARTNER IN THE NEW BD. Industry leaders BD and Bard have joined forces to deliver a proven approach to reducing the frequency and impact of IV-related complications. From failed placements to CLABSI, IV-related complications are dangerous and costly. But they’re also preventable. BD Vascular Access Management is an integrated approach to total vascular access care that’s been proven to help hospitals reduce complications and improve outcomes. Now that we’ve come together as one team, our complementary strengths and the depth of our collective experience and expertise will powerfully enhance our ability to help our customers deliver the very best possible vascular access care. Discover the difference two companies becoming one can make. Discover the new BD.

Learn more about Vascular Access Management at bd.com/VAM-BD-Difference

© 2018 BD. BD and the BD Logo are trademarks of Becton, Dickinson and Company. MC9339 (0418) BD-2003