

NIVAS News

Autumn 2010



Letter from the Chair

Welcome to the National Infusion and Vascular Access Society (NIVAS)—your voice on infusion therapy—and the first NIVAS newsletter.

It has been an exciting first year for NIVAS—finding the right team of organisers to work with, developing the NIVAS vision, choosing our logo, designing our website and finally organising our inaugural conference in London. Our conference was a great success and well attended by our supporters (see pages 2–3 for the highlights). One of our priorities now is to encourage membership from all the disciplines involved in infusion and vascular access, so do spread the word to your colleagues. Another of our plans is to establish specialist fora. Karen Bravery wants to set up a paediatric group and Jill Kayley will continue work on a community group, but there is scope for many more. We also plan to publish position papers on intravenous access issues—so your ideas and involvement will be required. Further information on both of these initiatives will be available in the next newsletter and on the website—which reminds me, please contribute to future newsletters with ideas, letters and advertisements for study days etc, and give us your feedback on the website.

The NIVAS Board (see page 4) is made up of familiar faces, and we are all enthusiastic about maintaining the high profile of infusion therapy and working to improve the standard of infusion care. We depend on your support and hope you will all work with us to make NIVAS a successful and useful organisation. Finally I would like to thank Lisa Dodgshon and her team at Succinct, who have been very supportive and helpful. We would not be at this stage, in such a short space of time, without them.

Lisa Dougherty

Contents

Letter from the Chair	1
I is for Infusion . . .	1
Challenges and controversy on the NIVAS podium	2–3
The NIVAS Board	4

I is for Infusion . . .

I wonder what you thought when you first saw “NIVAS”. Perhaps you assumed the “IV” must be something to do with intravenous practice. If so, you were right—but not entirely. The “V” belongs to “VA” for vascular access. The “I” is for infusion therapy in its widest context, not just IV infusions. Most of the founding NIVAS Board members have contributed to the Royal College of Nursing’s *Standards for Infusion Therapy*. If you have read this document, you will be aware that we were keen to expand beyond IV therapy—and now we have the opportunity. You will also have noticed that “nurse” does not appear in the society’s name. That is because we intend to become a multiprofessional society that represents all practitioners involved with vascular access and infusion therapies.

If we are to achieve our ambitions, we need your help. Please let us know your expectations of NIVAS—and what you are prepared to contribute. Our inaugural conference has already generated a lot of ideas. For example, some individuals made suggestions about our role as a national force for improving practice—and that is just the sort of inspiration we need. If you have not yet had a chance to share your ideas, you can do so via our website (www.NIVAS.org.uk).

As a member of the website management team, I would welcome suggestions about what resources you would like to find on our web pages. It is still early days, but we hope to make the website a place that meets your needs.

Michele Malster, Newsletter Co-Editor

Challenges and controversy on the NIVAS podium

Inaugural Annual Conference, 12 & 13 May 2010, London

For a more detailed account of the conference proceedings, please visit the NIVAS website (www.NIVAS.org.uk), where you can also view the presentations

It is hard to beat NIVAS for drive, determination and sheer chutzpah. Just 10 months after its foundation, it hosted a 2-day inaugural conference, featuring an impressive, multidisciplinary faculty of speakers, a busy exhibition area and an agenda that ranged from scientific presentations through to hands-on practical skills workshops.

On the opening morning, when Lisa Dougherty took the podium at London's elegant Hotel Russell, she reminded delegates that 12 May was an auspicious date—the birthday of Florence Nightingale—and she believed that the founder of modern nursing would have been proud to see a meeting involving so many nurses with specialist skills and experience. But she went on to emphasise that NIVAS is not only for nurses. “We are a multiprofessional society, and we want you to encourage your medical and pharmacy colleagues to join,” she said.

Intravenous therapy and biofilm

The conference took an international as well as a multidisciplinary perspective with the first speaker—Cynthia Crosby, a clinical microbiologist originally from the USA and Vice President of Global Medical Affairs, Infection Prevention, at CareFusion.

She began by pointing out that, in contrast with the UK, nurses in the USA do not generally place central venous catheters (CVCs). “You are leading nursing in a new direction,” she said. But she also cited the hazards of intravenous care—UK data show that 42% of hospital-acquired bloodstream infections in 2006 were related to CVCs. Cynthia strongly recommended the use of infection-control checklists by all healthcare personnel—including medical staff. “It is very empowering for nurses, who should make sure they stop procedures if the checklist is not followed properly.”

Cynthia then turned to the phenomenon of medical biofilm—the aggregation of micro-organisms (notably staphylococci) encased in polysaccharide “slime” that develops on catheters and other indwelling medical devices. Biofilm is difficult to penetrate with antibiotics and is a source of infection. However, it is possible to reduce its development through scrupulous hygiene and careful compliance with the instructions issued by device manufacturers. When long-term intravenous access is required, Cynthia also recommends consideration of antimicrobial locks, and she presented data on their efficacy.

The prospect of antibiotic resistance with antimicrobial locks was a key theme in the lively question-and-answer session that followed this presentation, and Cynthia suggested that use of antiseptics rather than antibiotics would reduce the risk.

Intravenous antibiotics—use and abuse

The theme of drug resistance continued with the next presentation, in which Esmita Charani, Research Pharmacist at the Centre for Infection Prevention and Management, Imperial College London, highlighted the importance of antibiotic stewardship, which she defined as a marriage of infection control and antibiotic management. Key features include compliance with mandatory infection control procedures, selection of antibiotics that do the least collateral damage and appropriate de-escalation of treatment when culture results are available. She noted that whereas hospital doctors do not usually prescribe outside of their own speciality, most will prescribe antibiotics—often unnecessarily.

CVC insertion in north-west London

Tim Wigmore, Consultant in Intensive Care Medicine at the Royal Marsden Foundation Trust, London, focused on his experience of developing a CVC care bundle, i.e. “a group of interventions related to patients with intravascular central catheters that, when implemented together, result in better outcomes than when implemented individually”. The five main elements of a CVC care bundle have been defined in the USA as hand hygiene, maximal barrier precautions, chlorhexidine skin antisepsis, use of an appropriate catheter site and administration system and regular review of continued requirement. Tim advocated a sixth element—ultrasound guidance of insertion—which he said had fewer complications than the landmark technique and is preferred by the National Institute for Health and Clinical Excellence (NICE).

A question from the audience focused on nurse training in CVC insertion, and Tim proposed the need for a national programme. “Perhaps NIVAS will be the forum for this,” he said.

Expert witness (the records usually speak for themselves)

In a marked contrast to the previous scientific/clinical programme, NIVAS board member Katie Scales provided a fascinating insight into her experience as an expert witness. She showed that when a claim is made, a thorough review of the records will usually reveal any weaknesses in the care process.

Decision making processes during IV drug administration

Lisa Dougherty returned to the podium to outline a study she has conducted showing that nurses sometimes fail to follow safe practice when preparing and administering intravenous drugs. For example, during observation, just seven out of 20 checked the patient's identity and allergy status in accordance with hospital policy. At interview, nurses explained that they would not always formally check the identity of someone they



knew well. However, there was greater compliance with the requirement to check the administration details of the drugs, despite the nurses' familiarity with the agents involved. Other issues included interruptions and distractions and failure to deliver a drug at the prescribed time.

Ensuring competency in calculation of doses and rates of administration

In the next presentation, Keith Weeks, Reader of Health Professional Education at the University of Glamorgan, and Research and Design Director, Authentic World Ltd, explained how competency can be assessed in a virtual environment. He said: "High-fidelity virtual clinical environments are creating a paradigm shift in facilitating the learning of essential knowledge and skills." Keith's e-learning model for dose calculation can be viewed on the NIVAS website (www.NIVAS.org.uk).

Standardisation of intravenous infusion concentrations

First at the podium in this two-part presentation was Peter Keeling, Consultant Anaesthetist at Frimley Park Hospital NHS Trust, Surrey, who explained that use of standard concentrations of intravenous medications would benefit patient safety by reducing the likelihood of errors during drug preparation. Mark Borthwick, Consultant Pharmacist at Oxford Radcliffe Hospitals NHS Trust, then considered how standardisation could be achieved. His research has shown that, despite a high degree of variability in the concentrations of 20 intravenous medications in use in critical care units across the UK, there are some clear areas of agreement, and most units would be prepared to use certain standard solutions at specified concentrations, if they became commercially available.

Pros and cons of central venous access (CVA) ports

The advantages and disadvantages of CVA ports versus Hickman lines and peripherally inserted central catheters (PICCs) were outlined by Matthew Gibson, Consultant Interventional Radiologist at the Royal Berkshire Hospital. In favour of ports, he cited ease of use, lower infection risk and reduced need for maintenance, in addition to patient factors such as comfort, cosmetic acceptability and compatibility with bathing/swimming and caring for small children. On the negative side, he listed the relative complexity of insertion and removal, and the risk of erosion, flipping and disconnection. A short video demonstrating port insertion can be viewed on the NIVAS website (www.NIVAS.org.uk).

The debate was continued by an examination of how the choice is made for small children. NIVAS board member Karen Bravery, Nurse Practitioner at Great Ormond Street Hospital

for Children, London, has found that whereas some families choose ports, generally because they are seen as allowing children to lead a relatively normal life, some prefer external catheters, largely out of fear of needles. Some families find the decision difficult to make, and some would prefer not to have to make the choice.

Families said they would welcome photographs of the devices in situ, case studies and video interviews with others who have already made the decision.

What happens when the tip is not in the superior vena cava?

Liz Simcock, Clinical Nurse Specialist—Central Venous Access at UCL Hospitals NHS Trust, London, presented some of the challenges in the positioning of the venous access tip. The difficulties include interpretation of the patient X-ray image, definition of the boundaries of acceptable positioning and atypical anatomy. Liz illustrated her talk with several radiographic images, which can all be viewed on the NIVAS website (www.NIVAS.org.uk).

Midlines in the community

Intravenous access presents further challenges when it is carried out in the community, as Beverley Cattermole, Infusion Therapy Specialist Nurse in the High-tech Care Team at Berkshire East Community Health Services, explained. She said that use of midlines in the community "plays an important role in facilitating patients returning home while on intravenous therapy".

When placing a midline for a patient at home, she said the practitioner "needs to be resourceful". An assistant is required—either a colleague or, in some cases, a family member. And she advocates the use of a large sterile field to provide plenty of working room.

Conference close

After the final session, which offered a choice of skills workshops, Lisa drew the 2-day proceedings to a close. She reflected on the evident success of the conference, and thanked everyone who had been involved in its organisation, including the main sponsors—CareFusion and Baxter Healthcare—and all the manufacturers that had contributed to the exhibition. She also had a big thank you for the delegates: "Without you, there would have been no conference."

Make sure you do not miss the next NIVAS Annual Conference, which will be held at the Hotel Russell, London, 15–16 June 2011. Registration details will be available on the NIVAS website shortly (www.NIVAS.org.uk).

The NIVAS Board



Lisa Dougherty

Lisa Dougherty has held the position of nurse consultant, IV therapy, at The Royal Marsden NHS Foundation Trust, London, since 2004. Lisa originally trained in South Africa, and began working in oncology in the UK in 1985, moving into IV therapy the following year. She has been involved in many national and international conferences and has written and edited a number of books. Lisa recently completed her doctorate in Clinical Practice, focusing on decision making by nurses during IV drug administration.



Karen Bravery

Karen Bravery is a nurse practitioner and IV practice development lead. Since qualifying as a nurse in 1982, she has gained a wealth of experience in paediatric oncology. Karen began working at The Great Ormond Street Hospital for Children NHS Trust, London, in 1992 and has held various posts, including clinical nurse specialist, IV therapy, and senior sister and senior nurse in haematology/oncology. Karen's current specialism is paediatric vascular access and intravenous therapy.



Janice Gabriel

Janice is nurse director for the Central South Coast Cancer Network. She qualified as a nurse in 1980 at University College Hospital, London, where she first became interested in vascular access. In 1994, she placed the first peripherally inserted central catheter (PICC) for a patient in the UK. Janice has written a number of papers and several book chapters relating to vascular access for patients undergoing chemotherapy, and prevention of needlestick injury.



Sheila Inwood

Sheila works as a clinical nurse specialist, focusing on vascular access, at Royal Berkshire Hospital, Reading. After qualifying in 1977 at Southampton University Hospital, she undertook further training in care of the ventilated patient at Guy's Hospital, London, in 1980. Sheila worked as an intensive-care nurse and manager for approximately 10 years and has vast experience working in intravenous nutrition and home intravenous therapy services. In 1993, as a clinical nurse specialist, Sheila developed and established a vascular-access service at a 700-bed hospital in Reading. She was one of the first nurses in the UK to place central venous catheters. Since 2003, Sheila has used ultrasound guidance to place various types of central venous catheters.



Jill Kayley

Jill works as an independent nurse consultant, specialising in community IV therapy. She has worked in the community since 1986, and received her District Nursing Certificate in 1988. Jill set up and developed the first community IV therapy service for adults in the UK in 1990, and managed the service for 13 years. She is involved in all aspects of IV therapy in the community, with particular interests in vascular access devices, antimicrobial therapy, chemotherapy and IV training for community nurses. Jill has been a speaker at many conferences and her writing has been published in a number of journals and books on IV therapy in the community.



Michele Malster

Michele specialises in peri-operative practice, working in anaesthetics and, more recently, in the day-surgery setting. During her career she has amassed a wealth of experience in peri-operative practice. Michele has devised and managed post-registration courses for nurses working in a range of settings that require the use of anaesthesia and conscious sedation.



Katie Scales

Katie is a consultant nurse in critical care at Charing Cross Hospital, London. Katie's extensive career in critical care nursing encompasses neonatal intensive care, intensive overnight recovery, adult general and cardiac intensive care, as well as cardiothoracic intensive care with transplantation. In 1989 she became a tutor on the ITU course at St Thomas' Hospital, London, and subsequently lectured in intensive care nursing at King's College London University. In 1995, Katie took a post as Senior Nurse Practice Development in the intensive care unit at Harefield Hospital, Middlesex, before becoming assistant director of nursing at the Hammersmith Hospitals NHS Trust, London, in 1997. Katie has had a career-long interest in intravenous therapy and was a committee member of the Royal College of Nursing IV therapy forum for many years. She has contributed to two UK textbooks on IV therapy and publishes regularly in this field.