

NIVAS News

Summer 2011



Letter from the Chair

Various key issues have been high on the agenda in our second year as an independent society. One is recruitment of new members—and holding on to those who joined us the first year. The other is running another conference at a time when money and study leave are hard to obtain. In spite of the latter challenge, I am delighted to say that we attracted more than 100 delegates to what was again a very successful conference. I hope those of you who were able to attend enjoyed the 2-day event in June.

Another key factor is understanding what members expect of NIVAS, and how much they are willing to put into it via the website and the work of the subgroups. A society is only as good as its members, so I encourage you all to: Re-register as members, try to get at least two colleagues to sign up as well, write something for the newsletter or website, and submit a poster or abstract for next year's conference

We also had two committee members leaving us. We say goodbye to Michele Malster, an active member of NIVAS and a long-standing member of the Royal College of Nursing IV Forum. We also take leave of Sheila Inwood, who joined us more recently and has helped with our international speakers. Sheila is now on the Association of Vascular Access (AVA) committee, and will continue to work with us from that perspective. The committee would like to thank them both for their support and hard work. We have now appointed three new committee members—a nurse, a doctor and a pharmacist. We really can now call ourselves a multiprofessional society. We look forward to working with them.

Read on for further information on a range of topics, including a report from the annual conference—and have a great summer!

Lisa Dougherty

Contents

| | |
|--|-----|
| Letter from the Chair | 1 |
| Letter from the Editor | 1 |
| NIVAS second annual conference 2011: PICC and mix | 2-4 |
| NIVAS Annual General Meeting 2011 | 5 |
| BSAC European OPAT Summit and Exhibition | 6 |
| Teaching nurses to insert central venous catheters | 6 |

Letter from the Editor

Well, as this is last newsletter of which I shall be Editor, I would like to say how much I have enjoyed being a founder member of NIVAS and seeing our shared vision of an independent national society become a reality.

Pleasingly, other international organisations associated with vascular access and infusion therapies have been enthusiastic about the work of NIVAS, and their members regularly speak at our conferences. With this in mind, we are installing reciprocal links on our website to facilitate increased communication. The next stage is to develop the society as a multiprofessional forum. Our sponsors have provided excellent assistance, but for NIVAS to succeed in this endeavour it requires you, the members, to become more involved in the activities of the society, and to encourage clinicians and other professional colleagues to join.

Further opportunities to be involved with NIVAS include joining one of our specialist groups or attending the national conference. Our conference provides a great opportunity to network with other professionals involved in vascular access and infusion therapy, and to explore advances in practice, here and abroad, as well as influence the work of NIVAS at the AGM. This year we will have three new appointees to the board and there will be a new newsletter editor and website coordinator.

I would like to thank all our newsletter readers and website browsers for their interest and wish you all the best for the future.

Michele Malster

NIVAS second annual conference 2011: PICC and mix

Welcoming delegates to the second annual National Infusion and Vascular Access Society (NIVAS) conference, chair, Lisa Dougherty, commented on the international and multidisciplinary nature of the faculty for this 2-day event. She hoped those present would be enthused and stimulated by the renowned contributors from the UK and the USA, and that the sharing of knowledge across different disciplines would be of real benefit to all—not least patients. She also urged delegates to take the opportunity to visit the stands in the exhibition hall and let exhibitors know what new devices they would like to see.

What's new in vascular-access devices and technology?

Gail Sansivero, a Nurse Practitioner from Albany Medical College, New York, USA, told a packed auditorium that various studies of peripherally-inserted central catheters (PICCs) estimate PICC-malposition rates of approximately 10%. Possible consequences include increased risk of thrombosis and stenosis, device malfunction and even cardiac arrhythmias. The current practice of tip verification by X-ray is beset by problems, not least of which are radiation exposure and the fact that verification is post PICC insertion. Fluoroscopy allows manipulation of devices during PICC insertion, but also involves radiation exposure.

One recent solution is electrocardiograph (ECG)-guided placement using the catheter as an endovascular electrode to measure variations in P-wave height. Although results have shown near 100% success rates, ECG tip verification does require clinician education.

Another problem area is catheter securement, which Dr Sansivero said, has traditionally relied on sutures, adhesive add-on devices and prayer—the efficacy of the latter being unknown. A catheter securement device is being developed that has an integral locking mechanism, which can be deployed in under 10 seconds and remain *in situ* for up to 125 days.

Although Gail welcomed these new developments, she urged delegates to be innovative and creative, and to seek new ways of delivering improved patient care.

Old age—a venous access challenge

By contrast, the presentation by Janice Gabriel, Nurse Director, Central South Coast Cancer Network, focused on a more neglected area of vascular access—the treatment of elderly patients. She detailed the four phases of vessel aging, including loss of connective tissue around the vein and reduced nitric oxide production leading to veins that are more rigid and fragile. Elderly patients are likely to have veins that are harder to access, bruise easily and are more prone to deep damage. Janice emphasised the importance of proper assessment and documenting of the patient and the therapy involved. Device selection should be based on using the smallest gauge, for the shortest time possible.

Sonoguided central venous access

Jack Le Donne took the rostrum to the accompaniment of rock music to deliver a hugely entertaining presentation on ultrasound-guided central venous access. Amid the razzamatazz, however, there were some important messages. He repeatedly emphasised the importance of tip verification when attempting to place a central venous



NEW BOARD
MEMBER



Andrew Bodenham

Andrew is a Consultant in Anaesthesia and Intensive Care Medicine at Leeds General Infirmary. He has wide-ranging medical interests including the provision of vascular access. Andrew is particularly interested in the development of safer interventional procedures. Andrew trained in London, Cambridge, Brisbane and Leeds.

catheter, and backed up his assertions with some compelling evidence. Using still photographs and videos of ultrasound imaging, he demonstrated that assumptions about vein position, size and patency could not safely be made. Many delegates were surprised to learn that veins are constantly contracting and dilating—and in some cases swing from side to side. Following a lively question and answer session, few attendees can have remained unconvinced of the need to avoid unguided central venous access procedures, which Jack referred to as ‘blind sticking’.

NCEPOD findings on parenteral nutrition

Chemotherapy Lead and Nurse Practitioner, Central South Coast Cancer Network, Claire Marsh, followed Dr Le Donne with a sobering overview of the findings of the National Confidential Enquiry into Patient Outcome and Death (NCEPOD) report, *Parenteral nutrition: a mixed bag*. Key findings of the NCEPOD report included evidence of poor clinical practice and deficiencies in catheter placement, with avoidable complications arising in 54% of adults.

Catheter-related infection

Continuing the theme of avoidable complications, Thomas Nifong of Metamark Genetics Inc, observed that during his 45-minute presentation, approximately 256 patients worldwide will acquire a catheter-related infection, from which four will die. The single most important infection-prevention strategy is to institute a culture of best practice—possibly with an optimal-practice champion. Tracking and reporting of outcomes, and empowerment of team members to halt a procedure if there is a breach in sterile procedure, are key.

Vesicant extravasation: prevention, detection and management

The first day of the conference ended on a stimulating note with a presentation on extravasation by Lisa Schulmeister, Oncology Nursing Consultant, Louisiana, USA. Patient risk

factors include tattoos, oedema, small or older veins and subcutaneous fat. Device-related risk factors include catheter misplacement/migration, catheter damage during insertion, occlusion of the catheter tip and catheter damage *in situ*. It is vital to monitor constantly for signs of extravasation—early detection and prompt action are key to reducing tissue damage. Although there are several extravasation antidotes and treatments, few have been properly documented. Dexrazoxane is an exception in that in two clinical trials it has been shown to reduce necrosis, and thereby remove the need for surgery in up to 98% of patients.

Developments in prevention of infection

Following an excellent first day of the conference, day two began in much the same vein. Tom Elliott, Consultant Microbiologist, University Hospital, Birmingham, delivered an insightful presentation on prevention of catheter-related infection. Large numbers of organisms reside on the skin surface, and vascular access inevitably involves pushing these organisms through the skin layers into the blood vessel, with the associated risk of infection. This risk is reduced by proper skin cleansing with the correct antiseptic agent. Iodine and alcohol have both been shown to have poor efficacy in destroying residual skin microorganisms following cleaning, whereas chlorhexidine gluconate (CHG) has a long duration antiseptic effect. Tom asked delegates for a show of hands and was pleased to see that very few of those present were still using iodine or alcohol for skin cleansing. He urged delegates to take advantage of developments in technology, but also to insist on best practice on every occasion.

Marcia Wise, Clinical Marketing Manager for BD Medical, continued the infection prevention theme as she presented an overview of needleless connectors, which have been identified

**NEW BOARD
MEMBER**



Jackie Nicholson

Jackie is a Clinical Nurse Specialist in Intravenous Therapy at the Royal Surrey County Hospital in Guildford. She trained at the Middlesex Hospital and came into her current role from a background in intensive care nursing and practice development. Jackie has set up a PICC and midline insertion service at her trust and is particularly interested in infection prevention in relation to IV therapy, and the promotion of IV therapy in the community.



as a source of infection. Care must be taken to ensure that they are compatible with other equipment to prevent leakage, and that proper cleaning of all devices is carried out.

CHG has now been incorporated into the gel matrix of an antiseptic pad that has been shown to significantly reduce infection rates. In a presentation on the transparent CHG gel pad dressing, Maurice Madeo of 3m Healthcare, outlined a number of advantages, including allowing visual inspection of the access site, rapid and durable antimicrobial action, and good adhesion even in the presence of fluids around the device-insertion site.

Heparin: to flush or not to flush?

Karen Bravery, Advanced Nurse Practitioner, Haematology, Great Ormond Street Hospital, London, delivered an initial report on the controversial practice of heparin flushing of central venous access devices. Heparin flushes are used to prevent thrombus formation and prolong catheter patency, but the efficacy of this practice is unproven. Practice varies and there is a risk of administering the wrong concentration of heparin, which has led to death in neonates. To address these concerns, a NIVAS-backed survey has been undertaken which is still in the early stages, but will be reported at a later date.

Poster presentations

The afternoon session was taken up with poster presentations, all of which were described by chair Janice Gabriel as excellent. The winners of the best abstract poster were Jennifer Caguioa and Chris Greensitt, with their poster titled *Can PICC line surveillance make a difference?* The audience then voted for the best presentation and the overall winner was Lisa

Dougherty, with her poster titled *Using the flush-out technique for managing extravasation.*

Closing remarks

Janice Gabriel drew proceedings to a close by thanking everyone involved and expressing her delight at the positive feedback she had received. The enthusiasm with which the entire conference programme had been received was testament to how informative and worthwhile the presentations had been. The friendly and collaborative nature of the event, both in presentation sessions and throughout the exhibition hall, made her feel more like she was at Friends Reunited than a conference—all of which bode well for the 2012 meeting, which is now in planning.

Slides from presentations are available in the Members section of the NIVAS website.

www.nivas.org.uk

DATE FOR YOUR DIARY:

The 3rd Annual NIVAS Conference will be taking place over 21–22 May 2012 at The Hotel Russell in London.



NEW BOARD
MEMBER



Susan Keeling

Susan is a pharmacist based at Imperial College NHS Trust. Her role is to co-ordinate the production of the Injectable Medicines Guide (IMG) website. As a NIVAS board member, Susan aims to act as a link between pharmacists and NIVAS, and to help ensure that appropriate information is disseminated to both parties.

NIVAS AGM 2011

Opening remarks

NIVAS chair, Lisa Dougherty, opened the Annual General Meeting by reminding those present of the NIVAS vision:

All patients and carers will have access to an optimal standard of care in any setting provided by practitioners who have appropriate expertise in the practice of vascular access and infusion therapy

She then outlined the aims and objectives of the society:

- Aims:
 - To promote excellence in infusion therapy and vascular access
 - To encourage and provide opportunities for networking with other healthcare professionals involved with infusion therapy and vascular access
 - To support all healthcare professionals working in infusion therapy and vascular access through education and research
 - To influence infusion therapy and vascular access nationally and internationally
- Objectives:
 - To develop forums for infusion therapy and vascular access through conferences, study days and regional/network meetings
 - To inform and influence national policy makers, e.g. the Department of Health, the National Patient Safety Agency, the Medicines and Healthcare products Regulatory Agency, the National Institute for Health and Clinical Excellence and other professional bodies involved in the care of patients receiving infusion therapies
 - To work in partnership with other organisations to promote best practice in infusion therapy and vascular access within the UK
 - To facilitate communication with NIVAS members through appropriate media e.g. newsletters, websites, symposia, and by providing networking opportunities
 - To garner opinion, share innovative and expert practice and evaluate topical issues
 - To provide expert advice on issues relating to infusion therapy and vascular access
 - To hold an Annual General Meeting for members

Achievements

Specialist subgroups

Two specialist subgroups have been established:

- Community subgroup:
 - 29 members have registered an interest (21 present at conference)
- Central venous access device subgroup:
 - Four members have registered interest (one present at conference)

If enough interest in subgroups can be generated, there is the potential to run study days, hold meetings, carry out projects and develop educational tools. The intention is to emulate the UK Oncology Nursing Society (UKONS) model and engage in activities around the UK regions.

Membership

Although corporate membership has grown from seven members in 2010 to 22 in 2011, individual membership numbers are down from 142 in 2010 to 97 this year. One reason may be slow rates of re-registration, but there also appears to be a regional difference, with most members clustered in London and the south of England. Attendees were encouraged to attempt to recruit at least one new member from their own place of work over the coming year.

There was also a suggestion that the 2012 annual conference might be held in the north of England to encourage more people from that area to join. However, based on the board's previous experience, meetings held outside of London do not lead to an increase in regional membership applications. There is also a requirement that the conference location should be readily accessible to international delegates.

Multiprofessional board

In line with the objective of a more multiprofessional board, new board members have been elected for 2011:

- Jackie Nicholson, Clinical Nurse Specialist IV Therapy, Royal Surrey County Hospital, Guildford
- Susan Keeling, Pharmacist Injectable Medicines Guide Website Co-Ordinator, Charing Cross Hospital, London
- Dr Andrew Bodenham, Consultant in Anaesthesia and Intensive Care Medicine, Leeds General Infirmary
- Two vacancies on the board remain to be filled

Financial status

Treasurer, Jill Kayley, reported that NIVAS set up a bank account in 2011, with membership funds starting at £3,555 (individual membership currently stands at £30 per person). As of June 2011, the account was approximately £10,000 in profit, including a profit from the conference of just under £4,000.

NIVAS spending was low, with travel to meetings accounting for most expenses. Jill said that NIVAS was willing to fund study days, meetings and other educational events, regionally or nationally. She welcomed ideas from NIVAS members regarding subject areas for such days. The following suggestions were put forward:

- NIVAS sponsorship of local meetings involving a NIVAS representative and NIVAS-branded materials
- NIVAS position statements, e.g. on heparin flushing
- Structured learning to endorse and support standardisation of local audit
- Targeted training on numeracy and literacy for undergraduates
- Scholarships for non-NIVAS conferences and educational days

Date for your diary

The dates for the 3rd Annual NIVAS Conference, to be held in London, have now been set as Monday 21 and Tuesday 22 May 2012. Updates on the event will be announced on the NIVAS website (www.nivas.org.uk).

BSAC European OPAT Summit and Exhibition, 2011

This year's British Society for Antimicrobial Chemotherapy (BSAC) European Outpatient Parenteral Antimicrobial Therapy (OPAT) Summit Conference, held at the International Conference Centre, Birmingham, was attended by more than 300 healthcare professionals and exhibitors. The venue has a spacious main hall, which I found ideal for browsing the many exhibitors' stalls, viewing posters, networking and catching up with colleagues.

The packed 2-day programme included keynote presentations, plenary sessions, and workshops covering a wide range of topics. I was particularly enthused by presentations on different models of care for OPAT, and intrigued to learn which aspects worked well and how difficulties were overcome.

Corinne Reed (IV Coordinator, Salford) and I ran the workshop 'Nursing Issues in OPAT', which was gratifyingly well attended by nurses who were keen to discuss the day-to-day issues of running an OPAT service.

I was encouraged to learn of the setting up of a BSAC OPAT database by Mark Gilchrist, Lead Pharmacist for Infectious

Diseases at Imperial College, London. Once completed, the database will be a freely downloadable, practical, secure application for local OPAT centres, enabling them to input all aspects of each patient episode, including outcome measures. The accurate information gathered by the BSAC OPAT database will enable management and OPAT teams to produce reports that will inform the development of future services.

Despite the clear benefit to patients and healthcare providers, the implementation of OPAT services in the UK and Europe has been variable. This conference was the first of its kind to be held in the UK, and the enthusiasm, knowledge, expertise and guidance available on the day should help promote the development, implementation and expansion of OPAT services.

Jill Kayley

Independent Nurse Consultant in Community IV Therapy

Teaching nurses to insert central venous catheters

As you are no doubt aware, advanced-practice roles have been an integral part of nurse-led patient care for many years (Carroll. Nursing Standard, 2002). Instrumental in bringing about the changes in nursing practice that led to advanced practice roles were the European working times directive (Directive 93/104/EC 1993) and the Department of Health publication *Modernising nursing careers—setting the direction* (DH. London, 2006). Following implementation of these initiatives, role development came to be seen as fundamental to the career progression of qualified nurses.

Nowhere has the taking on of advanced roles—traditionally assigned to medical staff—been more evident than in the area of vascular access. In response, the Advanced Vascular Access Module has been developed to educate and support nurses seeking an advanced-practice role. The module is designed to give nurse practitioners the knowledge and skills to carry out vascular access procedures safely and competently. Furthermore, it provides a framework for the standardisation of practice at national and international level.

A bi-annual 20-week Advanced Vascular Access Module will begin in September 2011. The module can be taken as a standalone qualification, but may also count towards a postgraduate certificate or Masters degree. The module

will undergo continual development to meet the needs of advanced nurse practitioners from a wide variety of clinical specialisms.

For further information contact: linda.kelly@uws.ac.uk

Linda J Kelly

Lecturer in Advanced Clinical Practice,
University of the West of Scotland, Glasgow

