Advancing IV Therapy: national update and developments

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Aim of Session

To provide an overview of how new technologies, techniques and roles have improved the patient experience and provided positive outcomes for both patients and staff.
National Overview
Tools and Technology
Vessel Health and Preservation (VHP)

Vessel Health and Preservation is an intentional process using evidence-based guidelines for selecting a vascular access device (VAD) that minimizes damage to vessels while preserving them for future use thus providing the Right Device for the Right Patient at the Right Time
Choose the best vascular access device based on diagnosis, acuity, prescribed therapy and duration

Select most appropriate device with the lowest risk for infection including least number of lumens
Right Patient

- Assess patient conditions that may contraindicate right device
- Level of acuity dictates specific access choices
- Risk factors
- History
- Assess need for vascular access team placement
Right Time

- Perform insertion as soon as possible (within 48 hours) of beginning of treatment plan
- Use ultrasound guidance for CVC/PICC assessment and insertion
- Remove device as soon as treatment complete; perform evaluation daily
- Performed for early identification of complications
- Is device appropriate, preserving vessel health and comfortable for patient?
- Is device still necessary or can meds change to oral?
Value of a Vessel Health and Preservation Programme

- Preserves vessel health through proactive patient assessment reducing liability for the institution
- Provides timely placement of reliable vascular access with efficiency of placement reducing overall cost per patient stay
- Provides device management specific to the patient’s medical condition consistent with National Guidelines and Recommendations
The Patient Experience – Have we improved it?
New technology for improving CVAD placement

SherLock 3CG System

1. Use Site~Rite* Ultrasound for guidance into the venous system
2. Use Sherlock* II TLS magnetic guidance for directional assistance
3. Use SherLock 3CG* TCS technology to provide catheter tip positioning and confirmation
Reducing the need for CXR to check tip location
New technology for improving cannula insertion

Accuvein
Vein Viewer
Veinsite
Evaluation results

– Feedback from staff during use
– Feedback from patients
Better methods for securing and dressing VADs

Issues

– Skin damage if adhesive dressing not removed correctly

– Problems when replacing adhesive securing devices leading to malpositions
Evaluation Feedback

– Feedback from PICC inserter
– Feedback from staff during use
– Feedback from staff on removal
– Feedback from patients
Patients experience of Securacath

Use in haematology/Oncology setting (Sandeluss, Price, Simcock and Patel 2013)
A Letter from America
OMG

A global investigation into use and management of peripheral catheters

Study aims:

• Identify and compare the prevalence of PIVCs in hospital populations worldwide
• Evaluate the prevalence of PIVC complications in patients worldwide
• To benchmark PIVC characteristics such as type, size, anatomical placement along with types of IV fluids and medications infused
• Identify the prevalence of redundant catheters insitu
• Identify current practices with PIVC dressings
• Identify current practices for PIVC securement
• To compare local hospital policies on PIVC insertion and management with international guidelines
• Encourage future international collaborative research amongst vascular access nurses, physicians and other members of the vascular access community

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Should discharging a patient with an IV cannula in situ be a never event?
What is a Never Event

Never events are serious, largely preventable patient safety incidents that should not occur if the available preventative measures have been implemented by health care providers.
Examples of Never Events related to IV Therapy

– Wrongly prepared high risk injectable medications
– Maladministration of a potassium containing solution
– Wrong route of chemotherapy
– Intravenous administration of epidural medication
– Overdose of midazolam for conscious sedation
– Air embolism
– Misidentification of patients
Criteria required for an event to be considered a never event

1. The incident resulted in severe harm or death or had the potential to cause severe harm or death?
   YES

2. There is evidence that the never event has occurred in the past and is a known source of risk?
   YES & NO

3. There is existing national guidance or safety recommendations, which if followed, would have prevented the incident from occurring?
   YES & NO

4. Occurrence of the never event can be easily identified, defined and measured on an ongoing basis?
   YES & NO
That 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 practise of vascular access and infusion therapy
• NIVAS and the Injectable medicines guide website (Medusa)

• Vessel Health Preservation

• NICE guidance on IV Fluids (2013)

• IV Supplement in BJN
What will the society deliver to its members?

– A vehicle to communicate with colleagues working in infusion therapy and vascular access and influence joint working audit and research
– Shared members’ expertise and opinion to help raise standards and quality of practice in infusion therapy and vascular access
– Educational initiatives that highlight practice innovations to meet the challenges of emergent technologies and working in partnership with industry
– Receipt of a biannual newsletter and the opportunity to air your views on the issues affecting infusion therapy and vascular access
– The opportunity to explore the potential of a national curriculum for teaching and learning materials
– Access to the members-only section of the website
Membership of the only novice-to-expert multi-professional UK organisation covering vascular access and infusion therapy

A collective voice that will influence the future of infusion therapy and vascular access and ensure practice is informed and developed by all disciplines

Discounts on your delegate fees for the NIVAS conference and other relevant meetings

**Individual membership costs £30.00 and is valid for 12 months from the date of joining**

- www.nivas.org.uk
Future of IV Therapy

– Expanding roles and boundaries
– Working within and creating national, European and International guidance
References

- Pittiruti, Mauro et al. (2011) The electrocardiographic method for positioning the tip of central venous catheters” Journal of Vascular Access 1004
- Pittiruti, Mauro et al. (2008) The EKG method for positioning the tip of PICCs: Results from two preliminary studies” JAVA. Vol.13, No. 4: 112-119
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