WOCOVA
MEET THE EXPERTS

How to organize and manage a Vascular Access Team

Ton van Boxtel MSc

Conflict of Interest

Nothing to disclose

Why organize a Vascular Access Team

- See one, Do one, Teach one
  - Not based on research
  - No new knowledge
  - No innovation on materials and procedures
  - Not ‘State of the Art’

Why organize a Vascular Access Team

- Many different ideas about the importance of Vascular Access
  - Often seen as a generic skill
  - Go to the patient and give it a try
    - Often without supervision
- Patients are still suffering
- Many differences in procedures
- Many differences in skills
- Lack of ‘cost effectiveness studies’
  - Only cost of materials is counted
- ‘State of the Art’ and ‘Best Practice’ techniques need more focus
  - **Open** Versus Ultrasound Guided Tunneled Central Venous Access in children: A Randomized Controlled Study
    Sandappen et.al., journal of surgical research april 2021
    Open = Cut down method

Why organize a Vascular Access Team

- Significant incidence of failures
- Complications
- Delays
- Waste of material
- Less than the minimum levels of safety and cost-effectiveness

The benefits of an I.V. team in hospital practice

I.V. teams can benefit the patient, the hospital and the nursing profession. I.V. teams reduce fear, non-compliance and infection. Standardized procedures lead to safe and cost-effective care

Lisa Dougherty, 1969

Given the current rates of complications, costs, waste, and inefficiencies in our current processes, there is little doubt that each hospital or medical center must devote attention to infusion therapy

An invasive therapy that touches virtually all patients entering the facility.

Hadaway, 2013

A Vascular Access Team can help achieving the goal to improve VA for patients!!

Definition of Team

- A group of people with different skills and different tasks, who work together on a common project, service, or goal, with a meshing of functions and mutual support

  courses.washington.edu/

- A group of individuals (human or non-human) working together to achieve their goal

  en.wikipedia.org/wiki/Team

- Specialized teams have demonstrated unequivocal effectiveness in reducing infections, complications and cost of infusion therapy

  CDC, 2011)

Infusion Team/Vascular Access Team (VAT)

- A group of clinicians centrally structured within the facility charged with the goal of accuracy, efficiency, and consistency for delivery of infusion and vascular access services. Staff mix varies, however this team should be led by a registered nurse specializing in this practice. Scope of service, team name, and roles of team members vary greatly

2021, INS Standards of Practice

ORGANIZATION OF INFUSION AND VASCULAR ACCESS SERVICES

- Infusion therapy requires inter-professional collaboration among all clinicians
- The scope of services provided by the infusion team/ vascular access team (VAT) is structured to meet patient and organizational needs for safe delivery/administration of quality infusion therapy
- Infusion and vascular access services provided in the community follow regulations applicable in each country

2021, INS Standards of Practice

Health Care Team

- Consequently, the roles of the infusion team/VAT members include direct care providers, educators, consultants, coaches, mentors, advocates, coordinators, and managers.

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Vascular Access Device Inserters and Care Team

- Surgeons
- Infectiologists
- Nurses
- Anesthesiologists
- Pediatricians
- Interventional Radiologists
- Etc.

These clinicians can all be VAD inserters.

Should have the right competences

Use the Same Names (Nomenclature)

- Peripheral canulla
- Long canulla
- Midline
- PICC

- Subclavian / Axillary, Jugular catheter
- Femoral catheter
- Tunneled CVC
- Implanted Port
  - Arm Port, Thorax Port

- PIVC: Peripheral IV < 5cm
- Mini Midline > 5 – < 12 cm
- Midline > 12 – < 25 cm
- PICC: Peripherally Inserted Central Catheter
- CICC: Centrally Inserted Central Catheter
- FICC: Femoral Inserted Central Catheter
- (Hickmann, Broviac, PICC)
- PICC Port, Vascular Access Port

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Vascular Access Devices

- PIVC, Mini Midline, Midline – inserted by all clinicians
- PICC's - in most countries inserted by nurses and doctors
  - Often not recognized as CVC
- CICC's – Mainly inserted by doctors
- FICC's - not regularly inserted by nurses
- Implanted thorax ports - mainly doctors
- Implanted Arm Ports (PICC – Ports) increasingly inserted by nurses. E.g.: Greece, Italy, ….. ?

Indirect VA Team Members

- Purchasing department
- Management (with Mandate)
- University
  - Advanced training
  - Research
- Nursing school
- (Patient representative)
- Nurses at wards
- Home care nurses
- Pharmacy

Vascular Access Specialist Team

- Communication between all team members
  - Aligning: VAD's and other materials used, indications, technics, care, complication management, data collection and research

- Team members
  - Inserters
  - Indirect
    - Following the same protocol
    - Input depending on role within the team

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National Differences

- History
- Hierarchy
- Leadership
- Rules and regulations
  - Health Insurances
- Resources
- Infrastructure
  - Access to a hospital
  - Local care facilities

Influencing factors for managing a VAT

- Tender structure
  - Forced to use certain products as part of a portfolio, mainly based on price and not on total outcome!
- Division structure of an organization
  - Segmented non flexible budget
- Only counting material cost
  - Not always labor cost
  - Only doctors fee
- Reimbursement structure

Evidence

Vascular Access Specialist Teams for device insertion and prevention of failure

Conclusion

This review failed to locate any published randomized controlled trials to support or refute the assertion that vascular access specialist teams for device insertion and prevention of failure are superior to the generalist model

Cochrane review, P. Carr et al, 2018

Evidence for VAST's

- Best-practice care is supported by a consistent, knowledgeable, and skilled approach. Higher levels of inserter knowledge and confidence, built upon experience and procedural competence, suggest the VAST approach has positive insertion outcomes for patients

  (Alexandrou 2014; Harnage 2012; Jackson 2012).

- Some studies include follow-up care, which can include clinical tasks such as dressing replacement and daily assessment for potential removal. Even with a limited scope of 'insertion only', VASTs have reported better outcomes for first-time insertion success (Carr 2010).

- Reducing the number of failed needle insertions is an important infection prevention strategy (da Silva 2010), and one that can reduce patient stress and length of hospital stay (Barton 1998).

How to organize a VAT

- Do your homework
  - Identify the need
  - Identify the options
  - Collect data and evidence
  - Cost-effectiveness
  - Contact champions

How to manage a VAT

- Collect proof for your existence
  - Examples from other centers
  - Data collection
- Share results
  - BOD and CEO
  - At congresses
  - Publish
  - PR
- Implement the VAT in the organizational structure

How to manage a VAT

- Budget
- Resources
- Project funding
  - Health Insurance funds based on outcomes and cost-effectiveness
  - Interested companies
- Research
- Create the need for expertise
- Team relations

How to manage a VAT

- Team relations
  - Attention for the social context of the team
    - Show interest in team members
    - Share responsibility
    - Divide tasks
    - Organize team activities
      - Education
      - Social gathering

Recent Development

- Improvement of insertion techniques
- Consensus on use of ultrasound
  - No blind sticking (Ledonne)
- Prevention of complications
  - Tip positioning
  - Choice of materials
  - Care and management
  - Education
  - Certification
  - etc.

Future of Vascular Access in the World

- Patients are better informed and involved
  - More online sources
  - Not always accurate (Stat of the Art) knowledge
- Treatment for patients should not / is not different
  - Why differences in VA training for doctors and nurses inserting a PIVC?
- Increased options for treatment
- Global sharing of skills, knowledge, innovations, research

More team work!!

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