

To VAD or Not To VAD: Are Decisions Based on Evidence or Bias Opinion?

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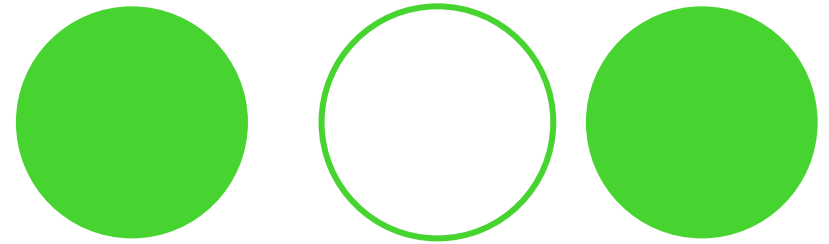
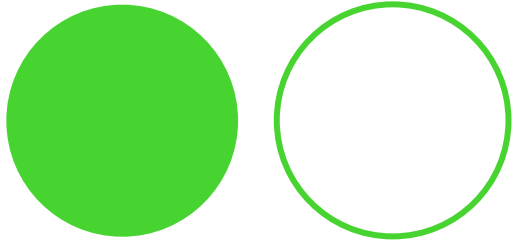
Problem Identification

Primary and chemotherapy nurses identified:

- Difficulties accessing veins before and during chemotherapy
- No systemic therapy program guidelines for:
 - identifying those patients that should be informed about a venous access device
- Results are inconsistencies in professional practice and professional conflict

Nurses observations

- Increase time is required to obtain venous access
 - Level of skill
 - Veins become scarred and non-usable
 - Patient is anxious
- Increase anxiety for the nurse
 - Slowing down patient flow in the chemotherapy unit
- Patient anxiety
 - Sedative may be required



➤ PICC line limbs-

- Pain
- Restrictive movement

➤ Conflict between nurses

- Primary nurses present information in a way that is not “rushed” or “negative”- patient cognitive fatigue- “too much information”
- Chemotherapy nurses question patients about the need for a VAD

CCSEO chemotherapy administration- IV or VAD?

- Currently no consensus or existing guidelines
- Decisions are based on:
 - Physician and/or nurse preference
 - Disease site e.g. breast, hematology, GI
 - Chemotherapy regimen e.g. CEF, ABVD, FOFIRI, Herceptin
 - Previous chemotherapy
 - Possible infection
 - Possible VAD-related thromboses
 - Patient request

CCSEO implanted, tunneled or non-tunneled VAD?

- Currently no consensus or existing guidelines
- Decisions are based on:
 - Physician and/or nurse preference
 - Disease site e.g. breast, hematology, GI
 - Chemotherapy regimen e.g. CEF, ABVD, FOFIRI, Herceptin
 - Possible infection
 - Possible VAD-related thromboses
 - Stem cell harvest/transplant

Assessing venous access



2006/03/03

Assessing venous access



Chemotherapy regimen-Continuous 5 FU (Anal Canal Cancer)

Regimen: (curative)
Continuous 5FU X 96 hours
Mitomycin IV bolus day 1

2006/03/09

Chemotherapy regimen-Continuous 5 FU (Anal Canal Cancer)

Outcome:
Patient received
same regimen 4 weeks later
Via perph. IV

2006/03/09



Chemotherapy regimen-Cisplatin (Esophagus Cancer)

Regimen: (palliative)
Cisplatin IV daily X 4 days,
Continuous 5 FU X 96 hours

Extravasation? Flare?

A photograph of a patient's forearm, likely the left arm, showing an intravenous (IV) line and a yellow plastic drip chamber secured with white tape. A purple outline is drawn on the skin, indicating a potential site of extravasation or flare. The patient is lying on a light blue hospital gown. The text 'Extravasation? Flare?' is overlaid on the image.

2006/03/24

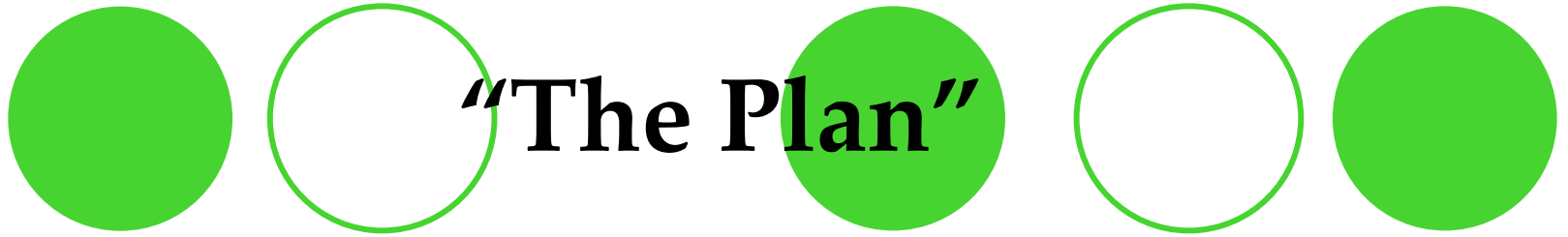
Chemotherapy regimen-Cisplatin (Esophagus Cancer)

Outcome:
PICC line inserted
after 2nd week of treatment

2006/03/31

Patient centered leadership

Nurses in the cancer centre consulted with the clinical practice leader, oncology on how to *“influence and mobilize”* the systemic therapy *“troops”* into addressing the interdisciplinary practice issue



Presentation on May 18, 2006-

"Oncology Lecture Series, Department of Oncology, Faculty of Health Sciences, Queen's University"

- Review current evidenced based guidelines
- Ask patients to relate experiences
- Photograph peripheral IV sites
- Develop recommendations

What do we know about VAD's?

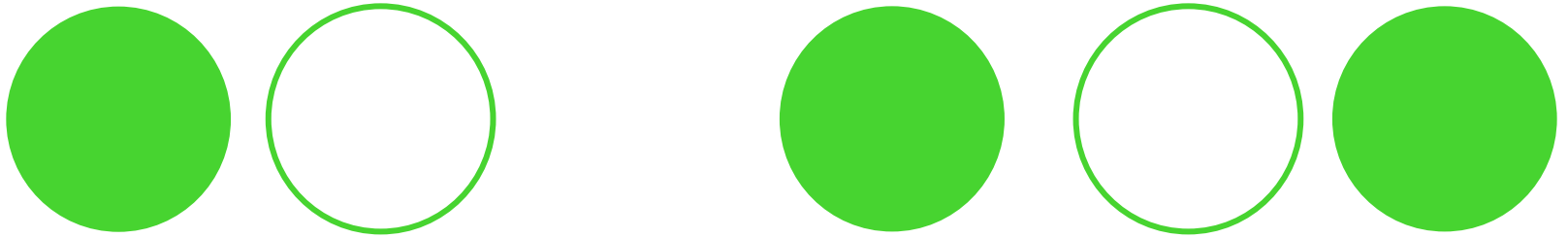
➤ 3 main types:

- Implanted and tunneled are inserted directly into large veins e.g. jugular, subclavian, with the tip positioned in the SVC
- Non-tunneled e.g. PICC line are inserted into a peripheral vein in the arm, with the tip positioned in the SVC (long term)
 - e.g. apheresis “perm” used to collect peripheral blood stem cells (short term)

What do we and don't we know about cancer, chemotherapy and VAD's?

➤ Central venous access devices usage keeps increasing:

- long term chemotherapy administration e.g. FOFIRI-colon, palliative intent, continue until disease progression
- high dose chemotherapy (stem cell rescue)
- administration of vesicants
- poor peripheral venous access



- No guidelines to how long access devices can reside e.g. CDC - PICC lines
- Long term effects of vesicants and all chemotherapy on the internal lumen of the catheters

Access device guidelines

Oncology Nursing Society (2004)

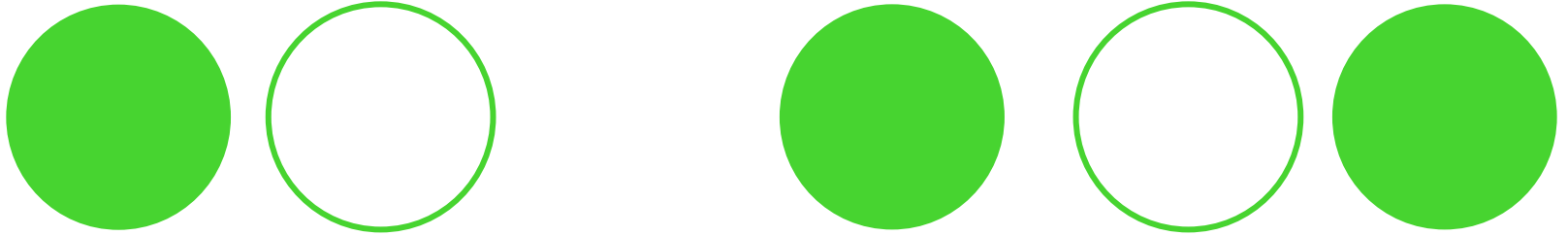
- Few randomized, controlled have been undertaken and evaluated to guide nursing care
- Extensive literature search on each access device was undertaken-synthesized the evidence
- Guidelines develop focus on strict hand washing and maintenance care using aseptic technique
- Recommend organizations to regularly monitor for infection and occlusion rates to guide their policies

Assessment & device selection for vascular access guidelines

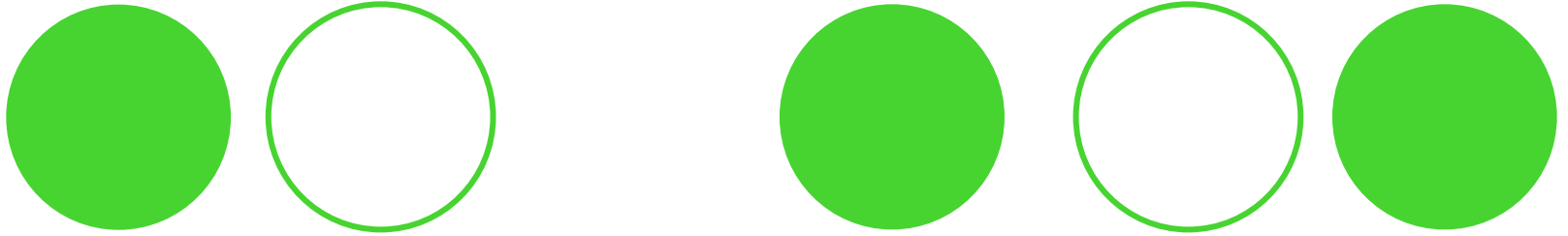
RNAO (2004)

Recommendations-

1. Develop decision tree to guide assessment and decision to implement
2. To include in the assessment:
 - Therapy, duration, physical assessment, health history, support systems and resources, device availability and patient preference



3. Standardize education process and information to support patients making and informed consent
4. Comprehensive documentation form
5. Education for nurses on “teaching patients” and provide appropriate teaching aides
6. Advocate that CCSEO nurses are involved in product evaluation
7. Implement a QA system e.g. infection rates, catheter related thromboses etc.



8. Advocate for a regional standardization of practice-implementation of RNAO guideline
9. Research to include all key stakeholders to determine: cost, quality of life, different regimens etc.

Managing central venous access devices in cancer patients: A systematic review

Cancer Care Ontario (2006)

In patients who require systemic therapy for cancer, what are the factors that have an impact on the decision to insert a central venous access device?

“there is insufficient evidence to determine specific risk factors that may have an impact on the decision to insert a VAD”

Future research recommendations-research that can supply evidence to inform decision-making

Thank you

