

# Beyond the Dressing for PICCs - Strategy for Cost-Savings and Work Efficiency

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WOCOVA  
World Congress Vascular Access

# Disclosure

- Product discussion with no support or influence from Interrad Medical/Securacath.
- Employed by Providence Health Care, **St. Paul's Hospital – Vancouver, BC Canada**
  - Nurse Educator for IV Therapy, Vascular Access and Home Infusion Programs
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- Board of Directors – Vascular Access Certification Corporation (**VACC**)
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# Objectives

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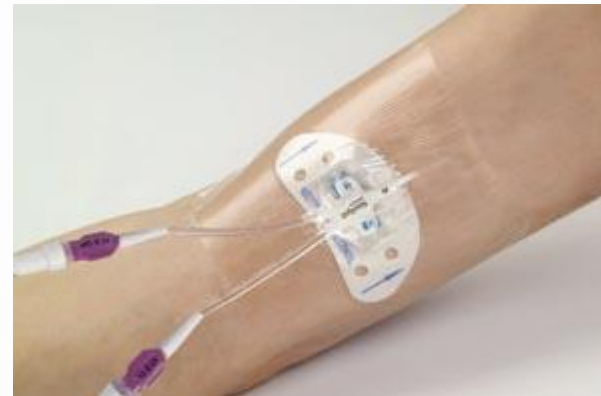
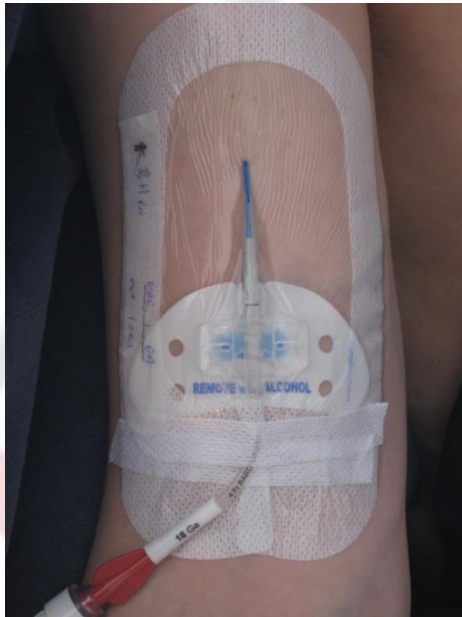
- Describe the experience of a 600-bed hospital challenged with PICC malpositions.
- Discuss challenges with PICC securement.
- Discuss the evaluation process for a securement device.
- Describe the outcomes of the evaluation and goals for future use of a new securement device.

# Background

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- PICC Team – bedside insertions
- ~1200 PICC insertions / year
- Care and maintenance (dressing changes) performed by **general unit staff**, not IV Team staff
- PICC dressing: Use of adhesive securement device plus transparent adhesive dressing.

- PICC with adhesive securement, transparent dressing.



# Problems

- Malposition occurs *after* the dressing is removed during the dressing change procedure.
- Dressing change procedure “taking too long” = staff anxious, afraid to do dressing change.
  - Time for procedure: ~40-45 minutes

***“What’s a cm here and there?”***

***“Oops”***

- PICC with dressing off, for cleaning



# Beyond the Dressing

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With adhesive securement and dressing only:

- Issues:
  - Pistoning = mechanical phlebitis
- Malposition rate: 15-20%
  - During dressing change procedure: 88%
  - Accidental pull (attached to pump, wheelchair, etc.): 12%



# Impact

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~ 200 PICCs affected:

- Cost implication
- Resource drain
- Workload inefficiencies
- Unnecessary procedures – unscheduled dressing changes; malposition – confirmation by CXR, removable and replacement due to malposition

# Hard Costs

Issue	Estimated \$\$\$ (Cdn)
Unscheduled dressing changes <ul style="list-style-type: none"><li>• estimates for dressing supplies</li><li>• estimates for time for clinician</li></ul>	\$75 Total time = 1 hour
Repeat CXR	\$150
Exchange of malpositioned PICC <ul style="list-style-type: none"><li>• estimates for supplies</li><li>• estimates for time for clinician</li></ul>	\$275 Total time = 2 hours
Removal and replacement of malpositioned PICC <ul style="list-style-type: none"><li>• estimates for supplies</li><li>• estimates for time for clinician</li></ul>	\$275 Total time = 2 hours

# Soft Costs

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- Workload inefficiencies
- Patient satisfaction
  - Increased length of stay
- Delay in treatment
- Suboptimal outcomes, therapeutic levels not achieved

***Essentially can become “hard cost” issues***

# Contributing Factors

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- Untrained staff (~2000 nurses)
  - Lack of confidence
  - “The last time I did a PICC dressing was 2 months ago”
- Unstable patients; combative, restless
- Limited space in rooms for aseptic dressing change procedure

# Contributing Factors

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- Cleaning PICC site:
  - Manipulation of PICC catheter at site when using swab pads or swab sticks for cleaning skin (gentle friction)
  - Allowing to dry adequately: risk for malposition during wait time

# Options

- Sutures?
  - Not since 1995
- Steristrips?
  - Not since 2001
- Adhesive dressing - new stronger adhesives work with dressing on skin (change weekly)
- Anchoring device – no change required for life of PICC

# Thinking “Outside the Box”

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- Staff feedback – not comfortable with “just dressing” (even if claim with securement)
- Anchoring device “novel”
  - Easy to educate for dressing change procedure
  - Easy for staff to learn; no risk of PICC dislodgement at all
  - Patients surveyed: specific patient population (cystic fibrosis)





# Challenges

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- Focused education for PICC Team for proper insertion of anchoring device with PICC insertion
- Education for general unit staff to not remove device.
- Patients for discharge or transfer out of hospital – other hospitals, communities not aware or using device.

# Success

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Total 60 devices used for pilot evaluation

- 0 – malpositions with device use
- 2 – accidental removal (delirious patients)
  - **\*\*No skin tearing, damage**
- Increased staff satisfaction
  - Increased confidence with dressing change
  - Decreased anxiety, fear with dressing change
  - Increased efficiencies, workload management



# Unexpected Outcome

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- Patients with skin integrity issues
  - Adhesive component of dressing
  - Cleaning solution: “allow to dry completely”
  - Malposition risk
- Anchoring device use successful – without adhesive dressing allowing skin to heal
  - No clear transparent dressing
  - Securement provided

# Moving Forward

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- Clinicians on general units demanding device on PICCs
- Cost implication – ongoing work on business plan to implement throughout hospitals (~1200 PICCs / year)
- Using device on more patients:
  - High-risk for malposition (delirium, alcohol withdrawal, drug use)
  - Other: on request by patient, clinical team

# Summary

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- Challenges with PICC securement
- Moving away from adhesive securement device
- Goal to maintain skin integrity

# Conclusion

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Use of new securement device not only made additional PICC insertions possible, but surveys of staff revealed that PICC dressing change procedures became:

- less stressful (for staff and patient)
- less time-consuming
- generally easier to do.

# Conclusion

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- Change equated to:
  - increased work efficiencies
  - overall satisfaction with the product – clinician and patients (Yes we surveyed patients for pain, comfort and overall satisfaction)

Full implementation of this new securement device is in progress.



# Thank you

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