

WOCOVA  
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GREECE



# Near Infrared Technology for Peripheral Venous Access



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# Disclosures

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- I am a paid consultant for AccuVein
- I use NIR everyday in my clinical practice

# Objectives

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- Understand the importance of how pre-access venous assessment (NIR) is improving vein choices and reducing complications.
- Review efforts to adopt NIR vein visualization technology to improve practice.
- Describe how NIR improves workflow, reduces costs and promotes peripheral venous best practice.

**N**

**Assessment**

**I**

**Site Choice**

**R**

**Insertion**



# The NIR Advantage

- Rapid, accurate assessment of viable venous targets
- Identification of potential ideal veins for placement
- Assessment of ideal veins for refill, flow, valves, aberrations
- Placement planning for optimal positioning/ stabilization
- Guide for precise catheter placement, tip location
- Realtime feedback on vein movement, puncture, collapse
- Early identification of vessel trauma, hematoma, malposition
- Blind stick avoidance, optimizing blood draws
- Post insertional assessment

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Clinically Valuable	Available without NIR
Yes	No
Yes	No
Yes	No
Yes	Maybe
Yes	No
Yes	No
Yes	No

**Rapid, accurate assessment of  
viable venous targets**



# Fast Screening Without a Tourniquet



# Faster Assessment and Quicker Quality Venous Access

- No touch assessment without a tourniquet
- Find ideal venous target
- No wasted set up time
- Sterilely place, flush, dress, Next
- If no NIR target, I grab the Ultrasound

**Better PIV sites with NIR**

# Identifying Specific Vein



# Ideal Vein Site for PIV Access

- Not across joint\*
- Adequate size\*
- Adequate SQ tissue
- Healthy vein wall
- Straight pathway **NIR**
- Forearm > Hand & AC\*
- No valves within area of catheter **NIR**
- No thrombus **NIR**
- Good venous flow **NIR**
- Tip not near tortuosities or bifurcations **NIR**

**INS Policies and Procedures, Section 3 VAD Placement p 52, 2021\***

# Easier Forearm PIV Placement



# Easy Valve Identification



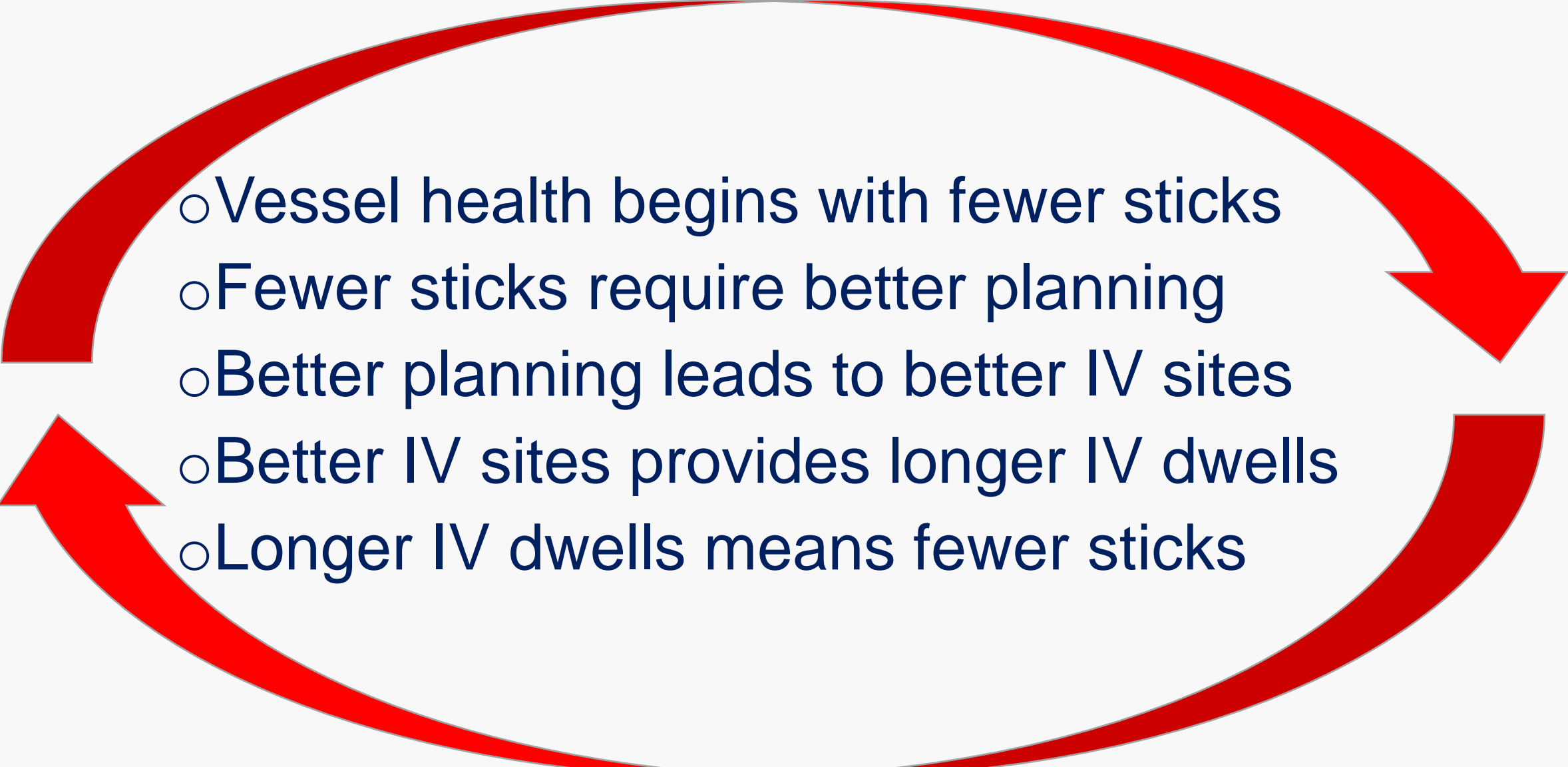
# Site It Right with the NIR light!

- Easier forearm placements
- Avoiding Valves and other obstacles
- Planning placement for longer dwell
- Optimizing sites for a durable dressing



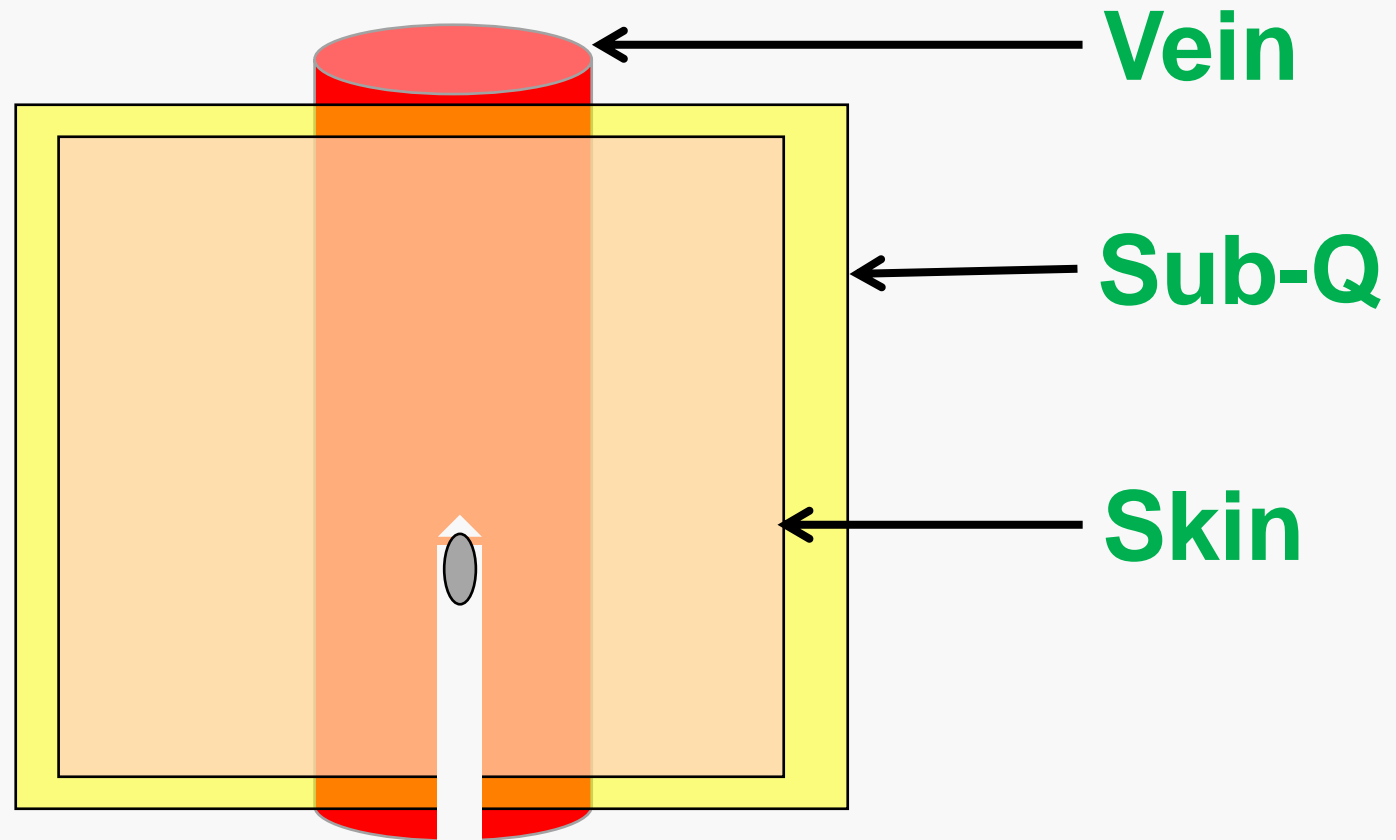
**NIR Promotes Vessel Health!**

# How NIR Does IVs Better

- Vessel health begins with fewer sticks
  - Fewer sticks require better planning
  - Better planning leads to better IV sites
  - Better IV sites provides longer IV dwells
  - Longer IV dwells means fewer sticks
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# **How to Have Fewer Misses, More NIR Hits!**

# Avoid NIR Misses



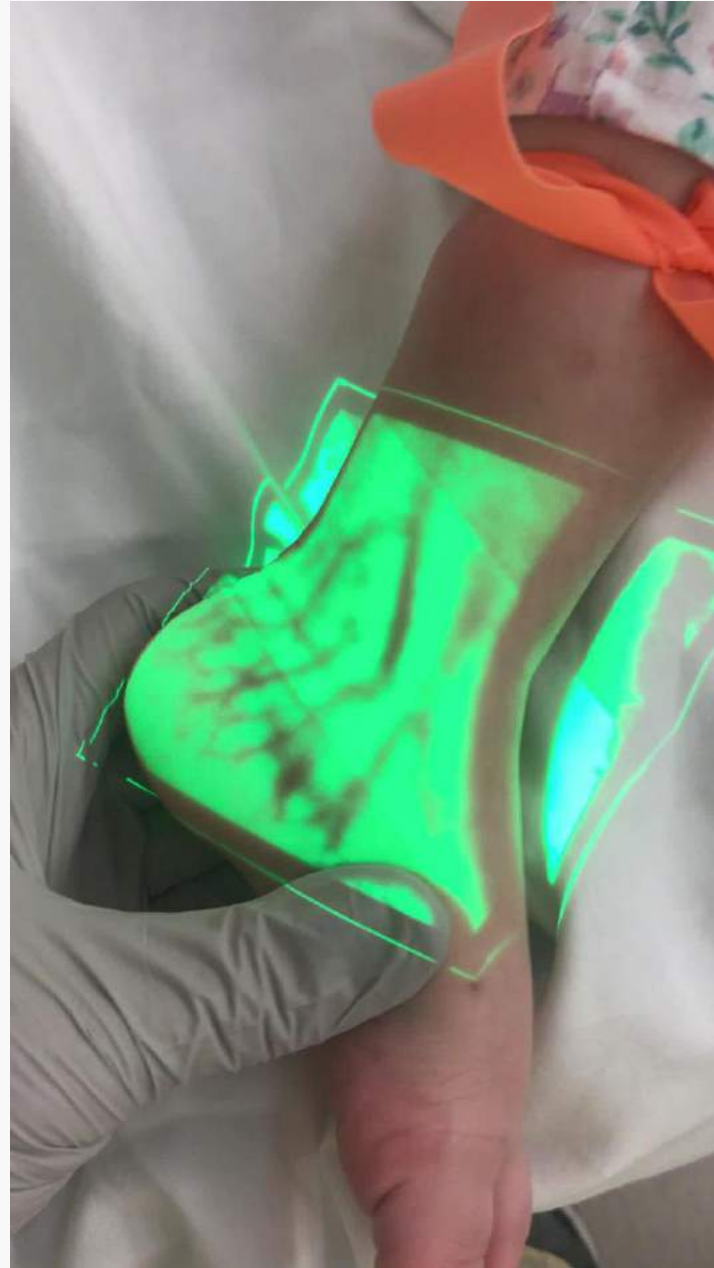
**A Center Stick Controls 2 of 3 Dimensions**

# Steps for NIR Stick Success

- Ideal vein identified with NIR
- NIR positioned in hands free stand
- Adequate tourniquet application
- Identify valve position
- Appropriate asepsis - No further site contamination!
- Slight tension on vein distally
- Stick exact center of the vein & advance
- Appropriate catheter stabilization

**More Success with NIR**

# First NIR Stick Success!



**Know Where You Go with NIR!**



# NIR Leaves Going Blind Behind!

- See where the vessel is going
- Watch what the needle does when you stick
- Avoid Obstacles and Tortuousities
- No digging, No fishing, No rolling, No Excuses!
- Catch mistakes early
- Simplified Insertional Asepsis

**Are You Going Blind?**



**No Excuse!**



# Please Be NIR Sighted!

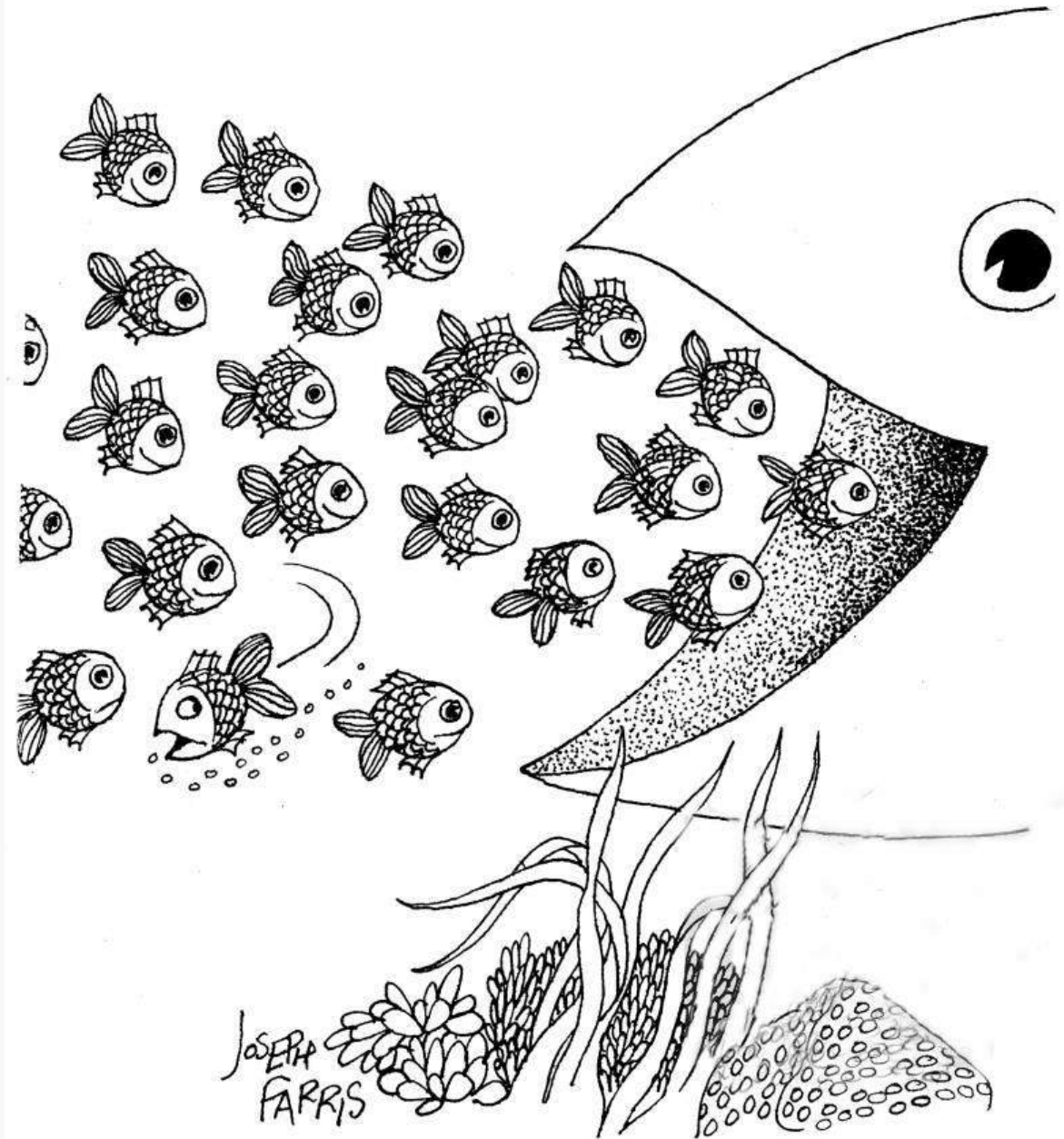


# NIR is Your MVVBP!

- Help improve the quality of your PIV access program with NIR.
- Better site choice gives higher first stick success, prolonged dwells, less pain, & more smiles
- NIR is the most valuable player for peripheral venous Best Practice!
- If you're not using NIR, you're not doing your best.

# Thank You!

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"I don't think I'll play follow the leader anymore!"

# References

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3. Inal S, Demir D. Impact of peripheral venous catheter placement with vein visualization device support on success rate and pain levels in pediatric patients aged 0 to 3 years. *Pediatric Emergency Care* 2018 May15.
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5. Demir D, Inal S. Does the use of a vein visualization device for peripheral venous catheter placement increase success rate in pediatric patients? *Pediatr Emerg Care* 2019 Jul;35(7):474-479.
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