

Table 1.

<b>ONE VAST Bundle</b>	<b>Group 1 Bedside Clinicians</b>	<b>Group 2 VAST USGPV</b>	<b>Factors to Avoid</b>
<b>O= One</b>	First attempt and assessment by staff nurses, APP, and Medical Providers to provide PIV placement	One needlestick is our goal to minimize waste, cost, and promote patient satisfaction with PIVC care	Multiple attempts at PIVC placement
<b>N= Needlestick</b>	No ultrasound; possible use of accuvein technology	Needlestick is limited to goal of one poke using ultrasound guidance	Avoid causing patient anxiety and dissatisfaction
<b>E= Everytime</b>	Attempt placing PIVC but if unsuccessful; consult VAST	Everytime - utilization of ultrasound everytime reduces variation in practice	Delay in treatment by not establishing PIV access
<b>V= Vein</b>	Placement variability insertions to hand/foot/wrist/antecubital vein or other areas of flexion and suboptimal sites	Vein preservation promotion. Placing the appropriate type and size device based on catheter to vein ratio	Vein depletion, venous thrombosis, and vessel health compromise (esp. CKD patients)
<b>A= Advanced Assessment and Accurate Review</b>	Variation in practice due to staffing and workload burden to assess PIVC sites timely for complications	Advanced assessment and daily rounds by VAST to review PIV sites, photo documentation, and accurate review with VAST collection tool and satisfaction survey	Avoid complications associated with dressings or securement and proactively intervene before PIVC failure or complications (i.e. phlebitis or infiltrations)
<b>S= Specialty and Supplies</b>	Variation in levels of competency and proficiency in PIV insertion skills. Supply waste due to multiple attempts	Specialists (VA-BC) Team with 99% success rate and standardized approach with USGPVs will reduce supply waste using aseptic no touch technique (ANTT)	Avoid variability and inconsistency in practice and decrease supply waste
<b>T= Technology and Transformative Training</b>	No ultrasound; possible use of accuvein technology. Training on proper documentation reflecting number of attempts	Technology (ultrasound) on all PIVC insertions provides real time guidance in catheter placement. Transformative training means that the VAST team will continue to provide learning opportunities for bedside clinicians and learners on USGPV and fundamentals of PIVC insertion, care and maintenance	Avoid short dwell time or PIVC failure by using technology (ultrasound guidance) to insert longer length catheters in optimal locations

Table 2.

# Caring Wisely Proposal

## New PIV Workflow

### VAST Workflow

- VAST will aim to implement ONE VAST bundle on all new admits requiring PIVC placement (one needlestick)
- VAST will receive Inpatient PIV Consult order in APeX (similar to PICC/Midline orders)
- VAST will conduct chart review & triage PIVCS based on indication and need as provided in consult request
- VAST will start PIVC according to the ONE VAST Bundle
- VAST will capture requests in VAST data collection tool
- VAST will perform daily rounding on intervention group patients
- If VAST identifies the need for a new PIVC, a new PIV Consult will be entered and inserted during rounding.
- VAST will conduct chart review on control group daily

### RN PIV Workflow

- 10CVT RNs to notify VAST on all new admits
- 10CVT RNs to use Inpatient PIV Consult order for any new PIV request
  - Consult will capture:
    - Indication (i.e. CT contrast, blood, fluid bolus)
    - Number of attempts \_\_\_\_\_
    - Is the vein palpable? Y/N and is the vein visualized? Y/N
    - Prompt for special considerations: arm restrictions, behavioral alert
- 10CVT RNs will be able to view Kardex if/when PIV Consult is placed (to avoid multiple requests to VAST)
- When PIVCs are no longer working, RN to discontinue PIV, document reason, and complete LDA flowsheet.
- 10CVT RNs will continue current workflow for establishing PIVCs during non-VAST hours 1900-0700 (PM shift)
- If unsuccessful in establishing access during PM shift, enter PIV Consult order for VAST to follow-up on AM shift (for non-emergent needs). If emergent, continue with current workflow of contacting RRT during P shift.

Table 3.

	<b>Group 1 Catheters - Bedside Clinicians</b>		<b>Group 2 Catheters - VAST USGPiV Team</b>			
<b>27,332 FY22 Admits</b> <small>UCSF adult discharge total equivalent to admits from Dr. Cat Lau</small>	<b>Catheter Usage</b> 12hr usage	<b>Catheters Per Pt Visit</b>	<b>Catheter Usage</b> 12hr usage	<b>Catheters Per Pt Visit</b>		
<b>Catheter Usage</b>	<b>42,911 Catheters</b>	<b>3.14</b> 42,911/13,666	<b>13,666 Catheters</b> 99% Success Rate - 1 Catheter 13,666 * 1	<b>1</b>		
	<b>Bedside Clinician Hours</b>		<b>VAST USGPiV Team Hours</b>			
<b>Time to Place IV</b>	<b>14,304</b> 42,911 * 20 minutes/60		<b>4,555</b> 13,666 * 20 minutes/60			
<b>IV Costs</b>	<b>Labor</b>	<b>Supplies</b>	<b>Total</b>	<b>Labor</b>	<b>Supplies</b>	<b>Total</b>
	<b>\$32.67</b>	<b>\$5.00</b>	<b>\$1,616,457</b>	<b>\$32.67</b>	<b>\$5.00</b>	<b>\$514,798</b>
	<small>RN \$98/hr Catheter \$1.57+Kit \$3.03+NS \$0.22</small>		42,911*37.67	<small>RN \$98/hr Catheter \$1.50+Kit\$3.03+Gel\$.34+NS \$0.22</small>		13,666*37.67
<b>Economic Impacts of VAST USGPiV Team</b>						
<b>Annual Time Savings</b>	Bedside Clinician Hrs - VAST Nursing Hrs		14,304 - 4,555	<b>9,749 Nursing Hours</b>		
<b>Annual Cost Savings</b>	Baseline IV Labor & Supply Cost - VAST IV Cost		\$1,616,457 – \$514,798	<b>\$1,101,659 Annual Cost Savings</b>		