PREPROCEDURAL ULTRASOUND:
Optimizing vein selection & catheter sizing

VYGON
Value Life

1 Beyond Vein Visualization :
◆ Choosing the Most Suitable Vessel

Preprocedural ultrasound

Identify the **most suitable vein** to achieve **reliable access** while **minimizing** catheter and insertion-related **complications**.

Benefits

- Clinical decision-making
- Procedural success
- First-attempt success rates
- The number of punctures, vessel trauma & patient discomfort
- Preserves future access sites
- Early detection of vascular abnormalities

IMPROVE LONG-TERM VASCULAR ACCESS OUTCOMES

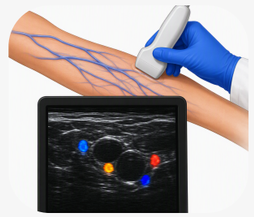
1 Assess vessel morphology

- Diameter & depth
- Patency & compressibility
- Distance from surroundings structures (arteries, nerves & pleura)

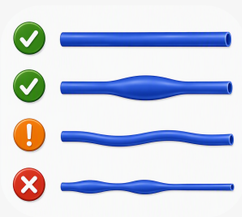


2 Perform dynamic vessell mapping

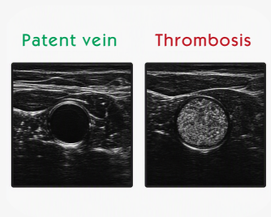
Vessel course



Anatomical variations



Thrombosis or stenosis



Respiratory & arterial pulsatility-related changes



Standardized ultrasound assessment protocols

(R) Rapid (V) Vein (A) Assessment

RaPeVA	RaCeVA	RaFeVA
Peripheral Veins	Central Veins	Femoral Veins

Zanaboni C, Bevilacqua M, Bernasconi F, Appierto L, Annetta MG, Pittiruti M. Caliber of the deep veins of the arm in infants and neonates: The VEEIN study (Vascular Echography Evaluation in Infants and Neonates). J Vasc Access. 2024
Spencer TR, Pittiruti M. Rapid Central Vein Assessment (RaCeVA): A systematic, standardized approach for ultrasound assessment before central venous catheterization. J Vasc Access. 2019
Brescia F, Pittiruti M, Ostroff M, Biasucci DG. Rapid Femoral Vein Assessment (RaFeVA): A systematic protocol for ultrasound evaluation of the veins of the lower limb, so to optimize the insertion of femorally inserted central catheters. J Vasc Access. 2021