Coming to you, Now







Domestic and foreign medical societies^{*} recommend the use of ultrasound for vascular

cannulation as it allows the operator to identify the vascular information and real-time needle placement.¹⁻⁴



Accuracy

Ultrasound guidance increased the likelihood of successful intravenous cannulation when compared with the landmark technique. $^{\rm 56}$



Efficiency

Ultrasound guidance had a **shorter operative time** than the landmark technique for central line and chest tube insertions.⁷⁸



Application

Ultrasound guidance allows to identify the placement of catheter insertion at bedside for **highrisk patients in ICU** who are hematologically unstable, have difficulty in repositioning and have anatomical deformations.⁹

Vascular cannulation in **pediatric patients** is highly complex due to their smaller vascular diameter and less collaboration than adults

Ultrasound guidance could make the maneuvers easier.^{38,10,11}

Safety

A meta-analysis showed **a lower complication rate** associated with venous catheter placement using ultrasound guidance in comparison with landmark method (relative risk 0.22; 95% Cl 0.10-0.45).¹²

| Effect of ultrasound guidance on catheter placement complications ¹² | Relative risk (95% Cl) | Favoring Ultrasound Guidance | Favoring Landmark Method |
|--|---|------------------------------|--------------------------|
| | Internal Jugular Velin Combined: 0.26 (0.11, 0.58) | ⊢ ●1 | |
| | Subclavian Vein Combined: 0.11 (0.02, 0.56) | ⊢ | |
| | Internal Jugular & Subclavian Vein Combined: 0.22 (0.10, 0.45) | ⊢ ● | |
| | | 0.0001 0.01 0.1 | 1 10 10 |
| | | Relative risk (log scale | e) |

*Korean society of emergency radiology, American society of echocardiography and the Society of cardiovascular anesthesiologists

• Portable ultrasound: Clinical applicability VS. Conventional ultrasound

In a non-inferiority analysis of portable ultrasound vs. conventional ultrasound, the non-inferiority of portable ultrasound was demonstrated with respect to the time and number of venous puncture.¹³

Portable ultrasound has the potential for broad application in clinical settings in need of ultrasound-guided venipuncture, especially in wards, emergency rooms, and pre-hospital settings.

| Portable ultrasound vs. Conventional ultrasound: A non-inferiority analysis ¹³ | | Portable ultrasound | Conventional ultrasound | Non-inferiority margin | Difference (95% Cl) Portable ultrasound - Conventional ultrasound | p value for non- inferiority |
|--|--|------------------------|----------------------------|---|---|------------------------------------|
| | Mean puncture time (s) | 56.4 (10.9) | 45.5 (4.0) | 45.5 (+100% of conventional ultrasound) | Non-inferior Not Nor-inferior -10 0 10 20 30 40 10.9 (-12.9 to 34.6) | < 0.01 |
| | Mean number of punctures (times) | 1.15 (0.12) | 1.12 (0.06) | 1.12 (+100% of conventional ultrasound) | Non-inferior Not Nor-Inferior -10 -5 0 | <0.001 |

: Ultrasound-guided applications in ICU

In ICU, SONON features comprehensive vascular applications in need of catheter insertions including central venous catheterization, peripherally inserted central catheter and A line.



IJV, Internal Jugular Vein; CA, Carotid Artery; PV, Peripheral Vein; FA, Femoral Artery; FV, Femoral Vein

FOR USAGE IN ICU



All in One Portable Ultrasound

SONON 500L Specifications (Linear type)

| Frequency | 6/8/10/12 MHz | | |
|-----------------|---|--|--|
| Scan Depth | 3cm~6cm | | |
| Applications | Musculoskeletal (MSK), Vascular, Small parts (Breast, Thyroid), and Thorax (Thoracic/Pleural motion and Fluid detection imaging) | | |
| Weight | 260g | | |
| Using Time | 1hour 30min(Scan) 12 hours(Stand-by) | | |
| Recharging Time | 1 hour 30 min(Full) | | |
| Operation mode | B, CF, M, PW | | |
| | | | |

*500L image are rendered design and may differ from the actual product

SONON 500L Features overview



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