

**The study took place on may 17<sup>th</sup> 2022.**  
**The observation period ended on may 20<sup>th</sup> 2022.**

**Preliminary Results – at 547 catheters in 537 Patients:**

- Total: 537 Patients = 100 %
  - Male 324 = 60.3%
  - Female 213 = 39.7%

**Distribution in access sites and sides:**

- Internal Jugular Vein 449 = 82.1 %
  - RIJV 378 = 84.2% 69.1 %
  - LIJV 71 = 15.8% 13.0 %
- Subclavian Vein 63 = 11.5 %
  - RSV 28 = 44.4% 5.1 %
  - LSV 35 = 55.6% 6.4 %
- Femoral Vein 32 = 5.9 %
  - RFV 17 = 53.1% 3.1 %
  - LFV 15 = 46.9% 2.8 %
- Basilica 1 = 0.17 %
- External Jugular Vein 2 = 0.33 %

**Types of central venous catheters used:**

- Multiple Lumen CVC 416 = 77.8 %
- High Flow CVC 67 = 12.5 %
- Introducer Sheath 45 = 8.4 %
- Other 7 = 1.3 %

**Ultrasound guidance (%) in central venous access procedures:**

- US guidance 446 = 81.5 %

**Percentage of patients getting a central line**

- On ventilator 337 = 61.6 %



**Malpositions** (here, introducer sheaths were not counted as well as two RA positions in neurosurgical patients being operated on in sitting positions) **30/490 = 6.1 %**

- Right atrium (RA) 20
- Ipsilateral subclavian vein 3
- Contralateral internal jugular vein 1
- Ipsilateral brachiocephalic vein 1
- Contralateral brachiocephalic vein 1
- CVC reverted with U turn (US diagnosed) 1
- Lumbal vein 1
- Intrapleural position 1
- Right axillar vein (ipsilateral) 1

**Mechanical complications** referred to 547 central venous access procedures: **63/547 = 11.5 %**

- Arterial cannulation 2
- Failure (Abandonment of procedure at the intended site) 3
- Arrhythmia 9
- Multiple punctures ( $\geq 3$  skin punctures) 32
  - Examples with failure to advance GW
    - LIJV 2
    - RSV 2
    - RIJV 2
- Arterial punctures 4
- Change of puncture site 8
- Intrapleural position 1
- Pneumothorax 1
- Infusothorax 1
- Hematoma local 1
- Thrombosis 24 h after CVAP via RIJV 1