Central Venous Access Device and Site Selection

Device Selection

For acutely ill persons requiring infusion of an irritant medication, hemodynamic monitoring (such as central venous pressure), or frequent blood draws for 2 weeks or less, a nontunneled central venous catheter and a peripherally inserted central venous catheter (PICC) are usually appropriate.

For people with acute kidney failure requiring central venous access for kidney replacement therapy for 2 weeks or less, a nontunneled dialysis catheter and a tunneled dialysis catheter are usually appropriate. For therapy duration of more than 2 weeks, a tunneled dialysis catheter is usually appropriate.

For people with cancer diagnoses requiring central venous access for weekly chemotherapy infusion for more than 2 weeks, a chest port and an arm port are usually appropriate.

For people requiring continuous or very frequent intravenous medications (except for total parenteral nutrition, which is nutrition given through a vein if someone can't eat or drink) for more than 2 weeks, a PICC and a tunneled central venous catheter are usually appropriate.

For people requiring long-term total parenteral nutrition and who have another reason for needing central access, a tunneled central venous catheter (double lumen) and a double-lumen PICC are usually appropriate.

For people with chronic kidney disease requiring central venous catheter infusions for more than 2 weeks, a tunneled central venous catheter (single or double lumen) is usually appropriate.

Site Selection

For people with acute illness requiring a central venous catheter for 2 weeks or less, the right or left internal jugular vein, right or left subclavian vein, and upper extremity vein are usually appropriate.

For people with chronic or end-stage kidney disease requiring a central venous catheter, the right or left internal jugular vein is usually appropriate.

For more information, see the Vascular Access Procedures (https://www.radiologyinfo.org/en/info/vasc_access) page.

— By Elaine Liang and Gregory J. Czuczman, MD. This information originally appeared in the *Journal of the American College of Radiology*.

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