



Intravenous literature: Tian, G., Chen, B., Qi, L. and Zhu, Y. (2011) Modified insertion of a peripherally inserted central catheter: taking the chest radiograph earlier. *Critical Care Nurse*. 31(2), p.64-9.

#### Abstract:

Placement of the tip of a peripherally inserted central catheter in the lower third of the superior vena cava is essential to minimize the risk of complications. Sometimes, however, the catheter tip cannot be localized clearly on the chest radiograph, and repositioning a catheter at bedside is difficult, sometimes impossible. A chest radiograph obtained just after the catheter is inserted, before the guidewire is removed, can be helpful. With the guidewire in the catheter, the catheter and its tip can be seen clearly on the radiograph. If the catheter was inserted via the wrong route or the tip is not at the appropriate location, the catheter can be repositioned easily with the guidewire in it. Between January 1, 2007, and May 31, 2009, 225 catheters were placed by using this method in our department. Of these, 33 tips (14.7%) were initially malpositioned. The tips of all these catheters were repositioned in the lower third of the superior vena cava by using this method. No catheter was exchanged or removed. The infection rate for catheter placement did not increase when this method was used. This modification facilitates accurate location of the catheter tip on the chest radiograph, making it easy to correct any malposition (by withdrawing, advancing, or even reinserting the catheter after withdrawal).



