

“Over the last decade, the number of reported instances of lost guide wires during central venous catheterization has increased rapidly” Pokharel et al (2015).

Reference:

Pokharel, K., Biswas, B.K., Tripathi, M. and Subedi, A. (2015) Missed Central Venous Guide Wires: A Systematic Analysis of Published Case Reports. Critical Care Medicine. April 9th. .

Retained central venous catheter guide wires reviewed [@ivteam](http://ctt.ec/fGcaf+)  
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Abstract:

**OBJECTIVE:** The inadvertent loss of an entire guide wire during central venous catheterization can lead to serious patient harm and require additional investigations as well as retrieval procedures. We aimed to analyze globally published reports of lost wires during central venous catheterization to understand its possible etiology, presentation, treatment, and outcomes with an objective of finding solutions to make the procedure safer.

**DATA SOURCES:** MEDLINE, Scopus, and CINAHL, supplemented by scanning the reference lists of relevant publications.

**STUDY SELECTION:** All reports describing an inadvertent intravascular loss of a complete guide wire during placement of central venous catheters published up to December 2014 were included. Reports exclusively describing the 1) retrieval method, 2) partially retained guide wires, and 3) entrapped guide wires during withdrawal were excluded.

**DATA EXTRACTION:** In each instance, we collected data about the method of the missed guide wire detection, the time interval between the procedure and detection, the supplementary investigations performed to confirm the diagnosis, and the risk factors associated with such events as well as the complications, the final outcome, and the wire retrieval methods used.

**DATA SYNTHESIS:** A systematic analysis of the accessed publications was performed.

**CONCLUSIONS:** Over the last decade, the number of reported instances of lost guide wires during central venous catheterization has increased rapidly. Unsupervised or improperly

supervised insertions of the central catheters by trainees, distractions during insertions, and high workload are the main risk factors. A retained guide wire increases the risk and cost of additional diagnostic and therapeutic interventions, as well as imposing many minor-to-serious life-threatening complications. Continuing education along with simulator-based skill development, vigilant supervision, and a shared workload during out of hours working are likely to prevent such occurrences.

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