Renal replacement therapy (RRT) in the setting of acute kidney injury (AKI) is generally provided by either tunneled or nontunneled dialysis catheters (TDCs or NTDCs), used immediately after insertion” Kelly and Mendu (2019).

Abstract:

Renal replacement therapy (RRT) in the setting of acute kidney injury (AKI) is generally provided by either tunneled or nontunneled dialysis catheters (TDCs or NTDCs), used immediately after insertion. Current consensus guidelines suggest using NTDCs rather than TDCs for vascular access in AKI primarily for logistical reasons, including ease of insertion and timeliness. However, there is increasing evidence that, compared to NTDCs, TDCs are associated with fewer complications (mechanical and infectious) and better dialysis delivery. Nevertheless, this evidence must be balanced by the feasibility and practicality of implementing a “TDC-first approach.” In this paper, we assess the current evidence base for vascular access choice for AKI requiring RRT. We make the case for increased use of TDCs as first-line vascular access given growing observational evidence for improved patient outcomes; including decreased risk of infection and thrombosis, increased blood flow rates and decreased treatment interruptions, compared to NDTCs. We advocate for further research to test the feasibility and outcomes associated with a TDC-first approach to AKI-RRT access. A TDC-first approach has the potential to improve RRT clinical outcomes and reduce resource utilization and cost.

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