TITLE: Trellis-8 for Deep Vein Thrombosis: Clinical Effectiveness, Safety, and Guidelines

DATE: 28 June 2011

RESEARCH QUESTIONS

1. What is the clinical effectiveness for use of the Trellis-8 device for percutaneous mechanical thrombolysis for deep vein thrombosis?

2. What is the safety for use of the Trellis-8 device for percutaneous mechanical thrombolysis for deep vein thrombosis?

3. What are the evidence-based guidelines for use of the Trellis-8 device for percutaneous mechanical thrombolysis for deep vein thrombosis?

KEY MESSAGE

Evidence suggests that the Trellis-8 device may be an effective and safe method for percutaneous mechanical thrombolysis for deep vein thrombosis but further study is warranted.

METHODS

A limited literature search was conducted on key resources including PubMed, EMBASE (1980-) via Ovid; CINAHL via EBSCOhost, The Cochrane Library (2011, Issue 6), University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and abbreviated list of major international health technology agencies, as well as a focused Internet search. No filters were applied to limit the retrieval by study type. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2001 and June 16, 2011. Internet links were provided, where available.

The summary of findings was prepared from the abstracts of the relevant information. Please note that data contained in abstracts may not always be an accurate reflection of the data contained within the full article.

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RESULTS

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessments reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials, non-randomized studies, and evidence-based guidelines.

Two systematic reviews and meta-analyses and two non-randomized studies were identified regarding the clinical effectiveness and safety of the Trellis-8 device for percutaneous mechanical thrombolysis for deep vein thrombosis. No randomized controlled trials or evidence-based guidelines were identified. Additional articles of potential interest can be found in the appendix.

OVERALL SUMMARY OF FINDINGS

One systematic review\(^1\) found that percutaneous mechanical thrombectomy devices, such as Trellis-8, appear to be safe and feasible for the treatment of deep vein thrombosis (DVT), but the lack of major randomized controlled trials gives little evidence to support the routine use of these procedures over traditional catheter-directed thrombolysis (CDT). Similarly, a meta-analysis\(^2\) compared the clinical effectiveness of the Trellis-8 device with CDT for the treatment of DVT and found that the use of Trellis-8 was associated with a greater success rate and lower rate of bleeding, but the authors concluded further evaluation is needed.

Two non-randomized studies\(^3,4\) evaluated the performance of the Trellis-8 device for the treatment and management of DVT. One non-randomized study\(^3\) prospectively monitored the performance of Trellis-8 through a registry and found that low doses and short infusion times associated with this device also resulted in a lower risk of bleeding than with CDT. The second non-randomized study\(^4\) used retrospective analysis to evaluate the performance of the Trellis-8 device when combined with tissue plasminogen activator for the treatment of acute above-knee DVT in patients with multiple comorbidities. This study found that the Trellis-8 device was a safe and effective method for the treatment of DVT in these patients and warrants further study.

No guidelines were identified regarding the use the Trellis-8 device for percutaneous mechanical thrombolysis for DVT.
REFERENCES SUMMARIZED

Health technology assessments
No literature identified.

Systematic reviews and meta-analyses


Randomized controlled trials
No literature identified.

Non-randomized studies


Guidelines and recommendations
No literature identified.

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APPENDIX – FURTHER INFORMATION:

Case reports


Economic evaluations


Review articles


Additional references
