

In the United Kingdom, totally implantable venous access systems (TIVAS) are not routinely used" Wu et al (2016).

Abstract:

BACKGROUND: In the United Kingdom, totally implantable venous access systems (TIVAS) are not routinely used. Compared with Hickman catheters, these devices are more expensive and complex to insert. However, it is unclear whether the higher costs may be offset by perceived greater health benefits. This pilot trial aimed to generate relevant data to inform the design of a larger definitive randomised controlled trial.

METHODS: This was a phase II prospective, randomised, open trial from two UK oncology centres. The primary end point was overall complication rate. Secondary end points included individual complication rates, time to first complication and quality of life. Analysis was by intention to treat. An economic evaluation was also carried out.

RESULTS: A total of 100 patients were randomised in a 3 : 1 ratio to receive a Hickman or a TIVAS. Overall, 54% of patients in the Hickman arm suffered one or more complications compared with 38% in the TIVAS arm (one-sided $P=0.068$). In the Hickman arm, 28% of the devices were removed prematurely due to a complication compared with 4% in the TIVAS arm. Quality of life based on the device-specific questionnaire was greater in the TIVAS arm for 13 of the 16 questions. The economic evaluation showed that Hickman arm was associated with greater mean cost per patient £1803 (95% CI 462, 3215), but similar quality-adjusted life years -0.01 (95% CI -0.15, 0.15) than the TIVAS arm. However, there is much uncertainty associated with the results.

CONCLUSIONS: Compared with Hickman catheters, TIVAS may be the cost-effective option. A larger multicentre trial is needed to confirm these preliminary findings.

Reference:

Wu, O., Boyd, K., Paul, J., McCartney, E., Ritchie, M., Mellon, D., Kelly, L., Dixon-Hughes, J. and Moss, J. (2016) Hickman catheter and implantable port devices for the delivery of chemotherapy: a phase II randomised controlled trial and economic evaluation. *British Journal of Cancer*. 114(9), p.979-85.

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