



Title	A Randomized Controlled Trial to Evaluate the Clinical and Cost Effectiveness of Hickman Line Insertions in Adult Cancer Patients by Nurses
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Aim

To examine the clinical and cost effectiveness of image-guided Hickman line insertions versus blind Hickman line insertions undertaken by nurses in adult cancer patients.

quality of current service provision to inform NHS decision making in this area.

Conclusions and results

No statistically significant difference was found between the mean cost per patient in the two arms of the trial. The only statistically significant difference in clinical outcomes was the frequency of catheter-tip misplacement, which was higher in the blind arm of the trial. At very low costs, the image-guided approach dominates the blind approach as fewer costs and greater benefits are incurred. It is evident that nurses previously inexperienced in the procedure can be trained to insert Hickman lines successfully both at the bedside and under image guidance within a 3-month period.

Recommendations

This report indicates that nurse insertion of Hickman lines in most adult cancer patients is both safe and effective. However, image-guided insertion may be preferred in a select group of patients. The results reveal that skills and expertise can be transferred from trainer to trainee through a relatively short, but intensive, training course. It is also evident that patients support nurse insertion. Further research is suggested.

Methods

A cost-effectiveness analysis alongside a randomized controlled trial of two interventions:

1. Blind insertion of a Hickman line, and
2. Image-guided insertion of a Hickman line.

Further research/reviews required

Further research is suggested to compare the safety and efficacy of nurse versus doctor insertions in particular subgroups of patients and also to assess the quantity and