



Research Article

Cost-effectiveness of bioimpedance-guided fluid management in patients undergoing haemodialysis: the BISTRO RCT

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Plain language summary

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Plain language summary

'Bioimpedance' is a measure of how difficult it is for an electric current to pass through a biological object. Bioimpedance is used in devices that assess fluid status (over- or under-hydration) because it is very sensitive to the amount of water in tissue.

Bioimpedance can be used in addition to clinical judgement when deciding how much water should be removed from someone with kidney failure during a dialysis treatment session. This is the first study to examine whether using this treatment represents a cost-effective use of National Health Service resources.

We carried out an economic evaluation within a large randomised controlled trial in patients with kidney disease undergoing haemodialysis. We calculated the additional costs and quality-adjusted life-years (a measure that combines quality and quantity of life) using established methods.

Over 2 years, our study showed that taking into account bioimpedance measurements about target weight resulted in slightly lower costs and marginally more quality-adjusted life-years, although there is uncertainty around these findings.