

Neurology and Therapeutics

March 27-29, 2017 Madrid, Spain

Budget implications for the UK NHS of implementing mechanical thrombectomy for the treatment of acute ischemic stroke patients: Calculation with the solitaire™ revascularization device

Pablo Guijarro¹, Kyriakos Lobotesis², Roland Veltkamp³, Isobel Carpenter⁴ and Lindsay M Claxton⁴¹Medtronic Ibérica, Spain²Imperial College Healthcare NHS Trust, UK³Division of Brain Sciences, Imperial College, UK⁴University of York, UK

Objective: The aim of this study was to evaluate the cost savings of thrombectomy with a stent retriever (Solitaire™ Revascularization Device) in treating acute ischemic stroke patients from the UK healthcare provider perspective.

Methods: Results from the SWIFT PRIME study were used to develop a Markov model estimating lifetime costs and effects of the addition of stent-retriever thrombectomy to tissue-type plasminogen activator (IV t-PA) treatment. Clinical effectiveness (measured by modified Rankin Scale score) and safety data were taken from the trial. Resource use was obtained from published data. Total costs were divided into acute, long-term and other costs (such as treatment, adverse event and recurrent stroke costs).

Results: Solitaire™ + IV-tPA offer significant cost savings by helping more patients achieve functional independence (mRS 0-2). The higher treatment costs were offset by long-term cost savings. Solitaire™ intervention costs are negligible relative to the costs of managing functionally dependent patients at the hospital setting and lower than the cost of longer hospital lengths of stay for patients with functional dependence (mRS 3+). On an average one patient would save the NHS £47,000 over 5 years which represents potential savings of millions on an annual basis.

Conclusions: Stent-retriever thrombectomy as an adjunct therapy to IV t-PA for acute ischemic stroke patients with large vessel occlusion is cost-saving option compared to IV-tPA alone.

Biography

Pablo Guijarro completed his BSc in Pharmacy from Complutense University, Spain and MSc in Health Economics from University of York, UK. He is Manager of Healthcare Economics, Policy & Reimbursement at Medtronic Neurovascular for the EMEA region. He has published papers in reputed international journals and has been invited as Lecturer at many congresses.

pablo.guijarro.masi@medtronic.com

Notes: