of renal denervation on major cardiovascular events compared to OMT. Future economic evaluations should be based on realistic assumptions of cost and effectiveness.

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# VP102 The Determinants Of Diffusion Of New Technologies Across Life Cycle

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# **INTRODUCTION:**

The proliferation and uneven diffusion of new medical technologies in recent years has been raising concerns on affordability and equity of care, and inspiring the publication of scientific articles on the determinants of their uptake and adoption (1). Indeed, the knowledge of the determinants spurring the adoption and diffusion of innovative medical technologies is relevant for policymakers because it helps them implementing evidence-based health policies aimed at influencing the use of new technologies, thus reducing inequities in uptake rates across areas and populations.

The aims of this study were (i) to identify the empirical literature investigating the determinants of adoption and diffusion of innovative non-pharmaceutical health technologies, and (ii) to discuss the existence of consensus on the direction and significance of the factors that influence their adoption in each phase of technologies life cycle (that is, early adoption, adoption, diffusion).

#### **METHODS:**

We performed a systematic literature review of quantitative empirical literature.

### **RESULTS:**

We identified a total of thirty-three studies, published between 1977 and 2014. We concluded that early adoption of innovative technologies is positively affected by physician characteristics (for example, experience with new technology by the practitioner or by other physicians in the same hospital) and by the fee-for-service reimbursement scheme. The probability of adoption is mainly driven by provider characteristics (for example, size, importance of being perceived as technology leaders, previous adoption of similar or substitute technologies, strong medical staff involvement in decisions of acquisition), by physician experience with the technology and by the new technology expected impact on hospitals and physicians revenues. Socio-economic determinants (for example, health expenditure), hospitals and physicians reimbursement schemes, market structure (for example, number of providers, number of substitute procedures), provider features (for example, size, quality of care, reputation), and physician characteristics (for example, experience with technology, innovator status of the team) significantly increased the extent of diffusion.

# **CONCLUSIONS:**

Our results can be used as a guide by policymakers who wish to make evidence-based decisions.

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1. Greenhalgh T, Robert G, Bate P, Kyriakidou O, Macfarlane F: *Diffusion of innovations in health service organisations: A systematic literature review*. Oxford Blackwells; 2005.