

Patients' Willingness to Contribute to Cost of Novel Implants in Total Joint Arthroplasty

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Background: As health care organizations prepare to adapt more accountable financial models of care, it is increasingly important to assess how patients value new technologies, as reflected in willingness to contribute to the cost of using newer implants. This study assess whether patients' willingness to contribute to the cost of joint arthroplasty implants is associated with reported implant performance and with patient sociodemographic characteristics.

Methods: A questionnaire was administered to patients at a rheumatology practice. It captured demographics, educational level, and health insurance. We described features of a 'standard' implant including longevity of 15-years and risk of complications at 3%. We elicited whether participants would be willing to contribute to the cost of three 'novel implants: 1) longevity of 25-years with 3% risk of complications; 2) longevity of 25-years with 5% risk of complications; 3) standard longevity (15-years) with a lower 1% risk.

Results: Study included 152-patients, average age 56.3years. 43% of subjects were willing to pay added co-pay to increase longevity of an implant to 25-years with no change in complications. Willingness to pay for increased longevity decreased to 26% if longevity was accompanied by increased (5%) risk. 28% were willing to pay for an implant with standard (15-year) longevity and a decreased (1%) risk. Men were more willing to pay for novel implants, and older patients were less willing, especially for added longevity. Patients with higher education were willing to add co-pay for increased longevity and for decreased risk. Patients with private insurance compared to Medicare and Medicaid were willing to add co-pay for increased longevity.

Conclusion: This study demonstrated that 26%-43% of patients are willing to share costs of a novel prosthesis. Willingness to pay was associated with the proposed implant benefits (increased longevity, decreased complications) and with patient characteristics. These findings help clarify the extent that patients are willing to bridge gaps between the cost of novel implants and the reimbursement offered by payers.

