



<b>Title</b>	<b>An Economic Analysis of Drug-Eluting Coronary Stents: A Québec Perspective</b>
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<b>Reference</b>	Technology brief prepared for AÉTMIS (AÉTMIS 04-04). Internet access to full text. ISBN 2-550-42953-2 (French edition ISBN 2-550-42933-8)

## Aim

To quantify the benefits and costs associated with using drug eluting stents (DES), rather than bare metal stents (BMS), in treating stenosis of the coronary arteries.

## Conclusions and results

The analysis indicates that universal adoption of DES would significantly reduce the rate of repeat revascularization interventions in Québec. However, the analysis also reveals that universal use of DES would require significant additional healthcare funding, even after considering the savings from a lower restenosis rate. Based on current intervention rates, and the estimated reduction in re-intervention rates, the universal application of DES technology would cost an additional \$35.2 million, with no lives saved or myocardial infarctions avoided. If only 20% of patients (high risk) were given DES, the cost increase would be \$4.7 million.

## Recommendations

Because of the relatively low rates of restenosis currently observed in Québec (a baseline 9-month rate with BMS of 12.8%), the most cost-effective strategy at this time would involve limited use of DES for carefully selected, high-risk patients. If DES is adopted for some percentage of the population, access to this technology must be equal for equally deserving patients (similar selection criteria) at all centers performing PCI. The details and evaluation of all DES interventions should be recorded in a provincial registry (with AÉTMIS or the Réseau québécois de cardiologie tertiaire as guarantors of the registry).

## Method

The study reviewed all randomized clinical trials comparing DES to BMS, and all Québec medico-administrative databases describing local current practice patterns. The economic analysis was conducted from the perspective of the Québec Ministry of Health and Social Services. A major strength of this report is that it used objective data to construct a realistic, transparent, economic model to

provide cost estimates.

## Further research/reviews required

To collect data systematically on health outcomes of patients treated with DES and BMS and to reassess (6 to 12-month intervals) the recommendations in this report in view of the new data.