Coil price

Patients with aneurysmal subarachnoid hemorrhage who require coiling had higher charges than patients who could be treated by clipping. The benefits of apparent decrease in length of stay in the endovascular group were offset by higher procedure price and cost of consumables. There was no significant difference in clinical outcome at 6 months.

Zubair Tahir et al., from the Department of Neurosurgery, Aga Khan University Hospital, Karachi Pakistan proposed a risk scoring system to give guidelines regarding the choice of treatment considering size of aneurysm and resource allocation [1].

Simple cost-saving policies can lead to substantial reductions in costs of neurointerventional procedures while maintaining high levels of quality and growth of services [2].

The coil prices used for intracranial aneurysm embolization has continued to rise despite an increase in competition in the marketplace. Coils on the US market range in list price from $500 to $3000. The purpose of a study from Gandhoke et al., from the Department of Neurological Surgery University of Pittsburgh, Pennsylvania was to investigate potential cost savings with the use of a price capitation model.

The authors built a clinical decision analytical tree and compared their institution's current expenditure on endovascular coils to the costs if a capped-price model were implemented. They retrospectively reviewed coil and cost data for 148 patients who underwent coil embolization from January 2015 through September 2016. Data on the length and number of coils used in all patients were collected and analyzed. The probabilities of a treated aneurysm being ≤/> 10 mm in maximum dimension, the total number of coils used for a case being ≤/> 5, and the total length of coils used for a case being ≤/> 50 cm were calculated, as was the mean cost of the currently used coils for all possible combinations of events with these probabilities. Using the same probabilities, the authors calculated the expected value of the capped-price strategy in comparison with the current one. They also conducted multiple 1-way sensitivity analyses by applying plausible ranges to the probabilities and cost variables. The robustness of the results was confirmed by applying individual distributions to all studied variables and conducting probabilistic sensitivity analysis.

Ninety-five (64%) of 148 patients presented with a rupture, and 53 (36%) were treated on an elective basis. The mean aneurysm size was 6.7 mm. A total of 1061 coils were used from a total of 4 different providers. Companies A (72%) and B (16%) accounted for the major share of coil consumption. The mean number of coils per case was 7.3. The mean cost per case (for all coils) was $10,434. The median total length of coils used, for all coils, was 42 cm. The calculated probability of treating an aneurysm less than 10 mm in maximum dimension was 0.83, for using 5 coils or fewer per case it was 0.42, and for coil length of 50 cm or less it was 0.89. The expected cost per case with the capped policy was calculated to be $4000, a cost savings of $6564 in comparison with using the price of Company A. Multiple 1-way sensitivity analyses revealed that the capped policy was cost saving if its cost was less than $10,500. In probabilistic sensitivity analyses, the lowest cost difference between current and capped policies was $2750.

In comparison with the cost of coils from the authors' current provider, their decision model and probabilistic sensitivity analysis predicted a minimum $407,000 to a maximum $1,799,976 cost savings in 148 cases by adapting the capped-price policy for coils [3].

[1)](#)

Zubair Tahir M, Enam SA, Pervez Ali R, Bhatti A, ul Haq T. Cost-effectiveness of clipping vs coiling of intracranial aneurysms after subarachnoid hemorrhage in a developing country–a prospective study. Surg Neurol. 2009 Oct;72(4):355-60; discussion 360-1. doi: 10.1016/j.surneu.2008.11.003. Epub 2009 Jul 17. PubMed PMID: 19616277.
[2)]

Kashlan ON, Wilson TJ, Chaudhary N, Gemmete JJ, Stetler WR Jr, Dunnick NR, Thompson BG, Pandey AS. Reducing costs while maintaining quality in endovascular neurosurgical procedures. J Neurosurg. 2014 Nov;121(5):1071-6. doi: 10.3171/2014.7.JNS14236. Epub 2014 Aug 29. PubMed PMID: 25170667.
[3)]

Gandhoke GS, Pandya YK, Jadhav AP, Jovin T, Friedlander RM, Smith KJ, Jankowitz BT. Cost of coils for intracranial aneurysms: clinical decision analysis for implementation of a capitation model. J Neurosurg. 2018 Jun;128(6):1792-1798. doi: 10.3171/2017.3.JNS163149. Epub 2017 Aug 25. PubMed PMID: 28841115.

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