Revision Total Hip Arthroplasty – Reducing Hospital Cost through Fixed Implant Pricing

Kristopher D. Collins, MD, Kevin Chen, MA, Jacob Ziegler, MD, Ran Schwarzkopf, MD, Joseph Bosco, MD, Richard Iorio, MD

Introduction: Prevalence of Total Hip Arthroplasty (THA) is increasing and a subsequent dramatic increase in the number of revision THA is expected to follow. Institutions with large revision THA volume will be forced to decrease the cost of revision THA in order to remain economically viable. A large component of the cost of revision THA is the cost of the implants. The purpose of this study was to evaluate the pricing of revision THA implants, and compare implant price with the total hospital cost. Furthermore, to evaluate whether an improvement in implant cost is possible with direct to hospital or fixed implant pricing models.

Methods: From our institutional database all THA revisions done from 9/1/2013 to 8/31/2014 were identified. The cost of the implants was analyzed as a percentage of the total cost of the hospitalization. A direct to hospital pricing model with standardized revision component pricing and a fixed implant pricing model were then used to determine possible implant cost savings.

Results: Of 155 hip revisions analyzed the cost of implants amounted to 36% of the total hospital cost. The average implant cost for full component hip revision was $13,329 which was 43% of the total hospital cost. The direct to hospital cost model would reduce the cost of an all component revision to $4,395. This amounts to a cost savings of $8,934 per case and $276,954 for the year. The direct to hospital model would reduce the implant cost to 14% of the total direct hospital cost. Fixed implant pricing of $5000 would save $8,329 per case and $258,199 per year. The fixed revision hip implant pricing model would reduce the implant cost to 16% of the total direct hospital cost.

Conclusions: Both fixed implant pricing and the direct to hospital pricing models allow for a dramatic decrease in implant costs. Exploring new implant pricing models is essential in our evolving national health care environment.