

Do we know what our patients really want?

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Introduction: Standard gamble is a choice based technique for elicitation of health status utilities. This technique, which implies the patients' capability to make rational decisions under uncertainty of health status, has rarely been used in children. In this pilot study we analyzed a small number of adolescents to determine their preferences for two specific postoperative medical outcomes: pain and vomiting. Nausea and vomiting are the most frequent postoperative complications, an important determinant being the usage of opioids. The major focus of families and caregivers is on postoperative pain control. However, we frequently overlook the impact of nausea and vomiting in the post-operative quality of care.

Methods: After IRB approval and informed consent, adolescents who underwent anterior cruciate ligament repair, and received postoperative morphine via a PCA device, were recruited. We elicited values for two common postoperative health status using standard gamble technique. This technique assessed how great a risk of vomiting, if any, patients were willing to accept to be pain free. The standard gamble was scaled from 0 to 100 (0= no willingness to risk vomiting; 100= total willingness to risk vomiting). As internal control, before proceeding with the questionnaire, patients were asked 3 basic mathematical questions to ensure a certain degree of understanding of probabilities. The children who experienced pain in the postoperative period were offered a virtual drug that could entirely control pain but had a certain potential to cause vomiting. They were asked what risk of vomiting they were willing to take in order to be pain free. The following parameters were also recorded: sex, age, mean VAS score, maximum VAS score. The statistical analysis consisted in a multivariate analysis. We assessed the existence of a possible correlation between the willingness to take a risk of vomiting and the patients median and maximum VAS scores and age.

Results: 13 adolescents between 12 and 18 years of age were enrolled. There were 5 girls and 8 boys. The median age was 15 years (range 12 to 18 years). The maximum VAS score during the first 24 hours after the operation was 7 (range 2 to 9). The median VAS score was 4 (range 1 to 8). The average risk the patients were willing to take in order to ensure a VAS less than 3 was 30% (range 5 to 50%). There was no correlation between risk taking options and median VAS score ($r= 0.026$) (Figure 1) or sex ($r=0.3664$).

Discussion: This pilot study seems to suggest that adolescents are willing to tolerate pain in the postoperative period rather than the discomfort of vomiting. A VAS score of 4-5 appeared to them a more desirable health status than vomiting. This decision is not related to the severity of their pain or their sex.

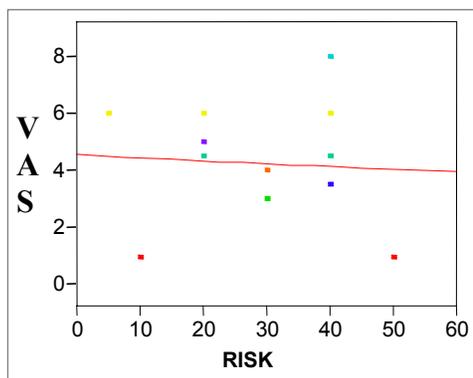


Figure 1