

## Appendix C: Sensitivity Analyses

We obtained raw (RCC-adjusted) cost measures and explored the extent to which risk-adjustment obscured cost-increasing quality failures (e.g., by adjusting for differences in preventable infections) and therefore distorted our results. As might be expected, the use of unadjusted cost measures changed the ranking of hospitals based on costs somewhat, although the change in “preferred” status (i.e. moving into or out of the top 25%) was much less and varied widely across markets. The agreement between lists of preferred hospitals based on quality versus this unadjusted cost measure, however, was not systematically better than before.(Table A-1)

**Table A-1**

	<b>Boston (N=47)</b>	<b>Miami (N=30)</b>	<b>Phoenix (N=27)</b>	<b>Seattle (N=20)</b>	<b>Syracuse (N=17)</b>
<b>Among preferred hospitals for overall medical/surgical quality (Strategy 1), % preferred under:</b>					
Strategy 2: Unadjusted Medical/Surgical Cost (based on raw cost measures)	9%	14%	17%	0%	25%

Most studies have found substantial variation in the coding of complications across hospitals and very weak hospital-level correlations between risk-adjusted complication measures and risk-adjusted mortality measures. We tested the sensitivity of our findings to the exclusion of complications. Without complications in our quality measure, we found that the quality ratings were very similar to those in the original Strategy 1. Table A-2 below summarizes the agreement between our original quality summary score (strategy 1 in the paper) and the quality summary score with complications excluded.

**Table A-2**

	<b>Boston (N=47)</b>	<b>Miami (N=30)</b>	<b>Phoenix (N=27)</b>	<b>Seattle (N=20)</b>	<b>Syracuse (N=17)</b>
<b>Among preferred hospitals for overall medical/surgical quality (Strategy 1), % preferred under:</b>					
Strategy 1a: overall medical/surgical quality with complications excluded	73%	71%	57%	100%	75%