Step 1: Episodes of care

Aetna claims are divided into episodes of care (EoC) using Ingenix’s Symmetry Episode Grouper Software.

Aexcel utilizes episodes occurring in the most recent three years, managed by the 12 Aexcel specialties in each Aexcel market.

Step 2: Outliers

The highest and lowest cost episodes of care are considered outliers and are removed from the process.

Step 3: Attribution

Patient episodes are attributed to physicians. Surgical episodes are attributed to the surgeon with the highest allowed charges. If the episode is non-surgical, the physician with the highest number of visits receives the attribution of the case.

Step 4: Expected cost per episode (case-mix adjusted)

The episodes of care for individual patients are severity adjusted for age, co-morbidities and complications. Additional variables are added to the case mix (benefit product, year of service, pharmacy rider, gender), in the efficiency measurement. A case-mix adjusted expected cost per episode for each specialty, market, and commonly managed type of episode (for example, orthopedic episodes in Tampa for evaluation and treatment of femoral fractures) is calculated based on actual observed costs in that market. The expected amount is then assigned to each episode of care in the same specialty, market and episode type.

For specialists who meet the case volume and clinical performance standards for Aexcel network designation, a measure of the efficiency of their care is developed and compared to their peers. Aetna uses Symmetry Episode Treatment Groups. A physician whose efficiency score is equal to or better than the mean efficiency score for his/her market and specialty are considered efficient. Physicians who are efficient, and statistically so, using a 90 percent confidence interval, are used as the “starting point” group for designation within Aetna’s Performance Network.
Step 5: Physician total episode cost

Each physician's total episode cost is calculated. Physician #1 total cost example:

\[
\text{EoC #2 Cost} + \text{EoC #3 Cost} + \text{EoC #4 Cost} = \text{Physician #1 Total Cost}
\]

Step 6: Physician expected episode cost

Each physician's total expected episode cost is calculated. Physician #1 example:

\[
\frac{\text{EoC #2 Expected Cost} + \text{EoC #3 Expected Cost} + \text{EoC #4 Expected Cost}}{3} = \text{Physician #1 Expected Cost}
\]

Step 7: Physician composite index

The physician's cost for each episode and the expected cost for each episode are used to create a composite index. The composite index represents the individual physician's severity-adjusted comparison of costs to same-specialty, same-geographic area peers treating the same or similar conditions.

\[
\frac{\text{Physician #1 Total Cost}}{\text{Physician #1 Expected Cost}} = \text{Physician #1 Composite Index}
\]

Step 8: Efficiency and statistical significance

Each physician's composite index is compared to the peer average. A statistical analysis for confidence intervals (CI), shown by arrows below, is then applied to the composite index to determine if the physician's composite index is significantly different from the peer average. This is an important step to adjust for the effect of low number of episodes. In the example below, Physician #1 is Efficient and Statistically Significant, Physician #2 is Efficient but not Statistically Significant, and Physician #3 is Not Efficient and Statistically Significant:

A summary and detailed reports can be run for each physician so physicians can see how their use of resources compares to their peers.