

Saying Goodbye to Dad

Family used analytical hierarchy process on end-of-life care

MY DAD'S health was on the decline for many years. But last spring, his heart's condition deteriorated rapidly after a fall. At first, he just needed some help balancing as he walked around the house. Within a week, he needed help getting into and out of bed. By the following week, he could barely get up on his own. Because my Mom was the only one home with him, the burden of lifting and moving a grown man was devastating to her back problems. Plus, there was the possibility she'd drop him.

My two brothers and I went back home to help Dad and provide input on his care options. At first, a nurse's aide came to the house. We also considered hospice care, but Dad was not ready to give up (a requirement of hospice care).

As we explored all of our options, differing opinions of family members created friction. My older brother, who had watched his father-in-law die of cancer in the hospital, emphatically felt that Dad should spend his last days at home among familiar surroundings. Mom, who had the ongoing burden of caregiving, wanted him in a place where he could be tended to by professionals strong enough and able-bodied enough to do the job. My younger brother and I had mixed emotions, but primarily we wanted whatever would extend dad's life. Dad wanted whatever was best for Mom. Our biggest wish—for Dad to live forever—was unfortunately not an option.

As a former college professor and consultant who teaches the analytic hierarchy process (AHP), I suggested AHP to help us evaluate the choices and agree on the best solution. In short, AHP is a method to derive ratio scales from paired comparisons. It took less than five minutes to explain that

instead of trying to directly select the best care option, we should identify and prioritize the criteria we use to determine "best."

We brainstormed ideas, structured them into a hierarchy, gave our opinions and voted pair-wise, taking the geometric average of our votes when we could not reach consensus. Criteria (and weights) included, "easy on Mom" (0.256), "Dad is free from pain" (0.409), "can interact with family and friends" (0.196) and others.

Pairing took some time to complete because of the emotions involved. We also were frequently interrupted by visitors and phone calls from well-wishers. AHP allowed us to pick up exactly where we left off without rehashing agreed-upon decisions. We didn't argue with each other because we did not have to reach consensus and could individually vote based on our opinions.

Averaged results were entered in the AHP matrix. Using natural language (such as moderately or extremely) instead of numbers helped keep this on a human level and not a mathematical exercise. We could even address judgment inconsistency ($a > b, b > c, c > a$). Our inconsistency ratio was 0.08, an acceptable level.

Coping as a family

After the decision criteria were prioritized, we looked at all the healthcare options: nurse or nurse's aide in the home, hospice in home, nursing home, hospital, hospice and hospital in hospice, a new but seldom mentioned option. Based on brochures, websites, interviews and our experiences during the previous few weeks, we evaluated each care option in terms of how it met the decision criteria.

The institutional options were highly

rated in terms of "easy on Mom," and "Dad is free from pain." Home options were highly rated for "can interact with family and friends" and "comfortable surroundings."

We spent less than two hours on the AHP model. The AHP model prioritized healthcare options by synthesizing the best care option based on the prioritized criteria. The leading option was hospital in hospice with a priority of 0.283 and an acceptable inconsistency ratio of 0.07.

Dad was admitted to the hospital in the hospice, and we spent the last few days of his life emotionally enjoying one another instead of constantly running around and taking care of his physical needs. Dad died in his hospice bed with Mom and I at his bedside. He was lucid until the day before he finally inhaled and never exhaled.

Later, Mom raved to their rabbi about how I helped the family through this difficult time. He was astounded because decision making can cause incredible friction within grieving families. Decisions often take days or weeks and can alienate some family members.

The AHP process gave my family the strength and solidarity to stand up to the healthcare system, which often gave us disparate and conflicting advice. No matter who spoke, we presented one face and one decision that we expected to be honored. **QP**



GLENN MAZUR is the executive director of the Quality Function Deployment (QFD) Institute and president of Japan Business Consultants Ltd., both in Ann Arbor, MI. A senior member of ASQ and the Japanese Society for Quality Control, he holds an MBA from the University of Michigan in Ann Arbor. He is one of two certified QFD Red Belts in the United States and is a certified QFD Architect by the QFD Institute in Germany. He is the convener of technical committee (TC) 69, subcommittee 8, ISO working group 2 responsible for writing the international QFD standard, and a member of TC 176 responsible for the ISO 9000 series.