Improving End-of-Life Care for Patients with Noncancer Illnesses: The Time is Now

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End-of-life care is not easy to provide, in part because of the complex emotions in patients, families, and the health care workers involved,\(^1\) and in part challenged by the lack of standardized processes or best practices that are commonly considered as the benchmark of care delivery.\(^2\) Recently, attempts have been made to address the latter challenge, although mostly concerning cancer patients.\(^3\) Nonmalignant chronic illnesses are becoming more prevalent, and although there has been significant progress in improving the therapeutic options, comparatively speaking less knowledge has been discovered and/or disseminated to improve the end-of-life care in patients with these illnesses.

In this issue of the *Journal*, Woo et al.\(^4\) report the results of a continuous quality improvement (CQI) initiative targeted at improving outcomes in noncancer patients in the long-term care setting. The authors adopted the commonly accepted model for improvement\(^5\) with a broad aim statement (to improve the quality of care of patients with end-stage chronic diseases). The sample size was small (80 before interventions and 89 afterward), although the numbers are acceptable based on CQI standards. The changes made were a combination of educational programs and process redesign, such as distributing preprinted physician order forms. The measurements involved a myriad of objective outcomes (such as length of stay, frequency of investigations and transfers to acute care hospitals, and mortality) and subjective outcomes (such as pain scores, severity of cough and constipation, and caregiver satisfaction). The authors concluded that improvements in the measured outcomes are surrogate markers of overall improved end-of-life care.\(^4\)

I wish to congratulate the authors for taking on a challenging topic that is clinically important but difficult to study. In particular, the authors are wise in framing their article as a CQI initiative. To put it simply, end-of-life studies do not lend themselves to randomized controlled trials. In terms of methodology within the CQI design, the standard expectations are well described in the literature.\(^6\) There are a few details that are worth discussing.

Sustainability is an issue. It is nice to see that process changes were built into the system of care delivery. The authors chose 3 months as the duration for washout of their interventions mainly because of limited funding support. It would be helpful if a longer time frame were chosen instead to look at sustainability of the interventions.

The magnitude of changes per improvement cycle is rather huge. Most CQI projects involve making small changes, reflecting on the impact, and relatively quickly building on the momentum gained from the cumulative changes, the so-called rapid plan-do-study-act (PDSA) cycling technique.\(^7\) In this case, the authors completed only 3 cycles, each comprising several large-scaled changes simultaneously. Good change management strategies would suggest breaking down the changes into smaller pieces and studying the impact more frequently before implementing the next PDSA cycle.

It is unfortunate that the authors do not have access to CQI analysts to help them present their findings in the form of run charts and control charts.\(^8\) When data points are analyzed over the impact of time, we can better delineate if the outcomes are the result of special cause variation as opposed to common cause variation or random chance. Future work should engage teams with expertise on CQI data analysis.

And then there is the question of generalizability. The study was conducted in Hong Kong, China, which clearly came with its unique ethnic and cultural expectations as far as end-of-life care is concerned. Although the latter definitely plays a huge role in determining care delivery and therefore cannot be overlooked, I would suggest that the work completed by Woo et al.\(^4\) represents a significant contribution to the literature on how end-of-life care can be improved. In other words, although the content and context of end-of-life care may be geographically specific, the overall principles and process of quality improvement can be a useful prototype for other end-of-life programs to consider.

Improving the end-of-life care for patients with nonmalignant chronic illnesses is long overdue. We hope to see more efforts and resources devoted to establishing best practices and how these can be translated into clinical care delivery. Continual quality improvement can provide a helpful framework in guiding this clinically relevant and important work. The time to act is now.
REFERENCES


