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Invited Commentary

Is there value in cancer center accreditation?

When Dr. Ernest Amory Codman began recording patient outcomes in the 1910s, his "End Result Idea" became the basis for the Hospital Standardization movement (the precursor to The Joint Commission) of the American College of Surgeons (ACS), one of the first standard-setting bodies for hospitals. Today, many accreditation agencies exist, ranging in structure from The Joint Commission's broad hospital-wide healthcare quality and patient safety standards to the ACS's disease-specific quality programs. The overarching accreditation goals are generally similar: to establish and maintain standards of care, evaluate hospital performance, and encourage process improvement.[1] Accreditation from external bodies has the potential to be powerful, with accredited centers excelling in publicly reported outcomes.[2] However, substantial resources and institutional support are necessary to obtain and maintain accreditation.[3] Contemporary research focused on evaluating the efficacy of accreditation agencies has yielded mixed results.[4,5]

There are two main accreditation agencies specific to cancer care in the United States (US): the Commission on Cancer (CoC) and the National Cancer Institute (NCI). In this issue of the *American Journal of Surgery*, Fong et al. evaluated cancer-specific and overall survival in surgically treated pancreatic adenocarcinoma patients at NCI-Designated, CoC-accredited, or unaccredited centers identified from the Surveillance, Epidemiology, and End Results Program (SEER)-Medicare database between 1996 and 2013. They found that survival was improved in patients treated at NCI-Designated centers, but no survival differences were identified between CoC-accredited and non-accredited programs. The authors concluded that NCI-Designation, alone, is associated with improved long-term oncologic outcomes.[6]

This study evaluates important questions regarding the value of different types of cancer center accreditation programs and broadens our understanding of the impact of cancer center accreditation on patient outcomes. However, the broad conclusion of the authors that the "implications of this finding may be substantial, with global implications on accreditation of centers providing specialized care," should be cautiously interpreted for several reasons. First, this study included 5000 patients, all over 65, with only one specific type of cancer (pancreatic), treated over a 17-year period. Reported institutional procedure volumes are lower than would be expected, and the proportion of patients treated at accredited hospitals does not align with previous reports.[7–9] The methods for data collection specifically used by SEER, the limitations of including only Medicare enrollees, and the prolonged study period over which many changes were made in cancer care and accreditation standards may, in part, explain these differences. Given these limitations, Fong et al.'s finding that NCI-Designation, but not CoC-accreditation, is associated with improved pancreatic cancer survival should not be more widely applied to patients with other demographics and cancer types.

Second, the accreditation standards and goals of the NCI and CoC differ. NCI-Designated Cancer Centers meet rigorous standards for research focused on preventing, diagnosing, and treating cancer.[10] There are currently 71 NCI-Designated centers in the US, most of which have strong clinical trial programs and are affiliated with academic medical centers. These programs likely have other benefits (e.g., specialized providers, academic affiliates, educational missions) that support cutting edge, highly specialized care.[11] Conversely, the CoC, founded by the ACS and over 50 cancer-related organizations, focuses on continuous quality improvement through process measures and benchmarked data reporting.[12] Over 1500 centers are accredited by the CoC, including a broader representation of different types of hospitals caring for cancer patients nationally. Additionally, though the authors make the statement that the CoC's accreditation standards "[lack] meaningful effect," this study did not evaluate adherence with either NCI or CoC standards, or whether adherence to these standards was associated with survival. It has been previously demonstrated that NCI-Designated centers outperform CoC-accredited and unaccredited centers on process measures, but have worse performance on outcome measures.[11] Based on these differences between NCI designation and CoC accreditation, directly comparing survival outcomes of NCI-Designated and CoC-accredited centers may not be a like-for-like comparison. In fact, accreditation by both bodies may be additive, but dual-accredited centers were excluded from this analysis.

The authors identified important racial disparities regarding patients treated at the different types of centers examined in this study. This is a crucial area for further study, but it should also be mentioned that limiting care to only NCI-Designated centers (a possible policy implication of this study) may actually worsen disparities. CoC-accredited centers provide over 70% of US cancer care, including 75% of pancreatic cancer care.[9] Following enactment of the Affordable Care Act, 95% of federal exchange networks had access to at least one CoC-accredited center, while only 41% had access to an NCI-Designated center.[13] Additionally, non-accredited centers may be the only option for some patients, particularly in rural areas, and non-accredited community cancer centers have reported comparable pancreatic cancer outcomes.[14] Although Fong et al. conclude that NCI-Designated centers are superior to CoC-accredited or non-accredited centers, it may not be practical for all patients to seek care at NCI-Designated centers.

Overall, Fong et al., have demonstrated improved survival in

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elderly pancreatic cancer patients treated at NCI-Designated centers and have identified important disparities between different types of cancer centers. However, their statements regarding the overall value of NCI-Designation over CoC-accreditation should be interpreted with caution. We encourage further research to determine whether different accreditation bodies are effective in providing the highest quality of care in the tradition of Dr. Codman.

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Declaration of competing interest

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