

Disparities in Rectal Cancer: Moving from Descriptions to Solutions

Jason B. Liu, MD^{1,2} and Clifford Y. Ko, MD, MS, MSHS, FACS, FASCRS^{1,3}

¹American College of Surgeons, Chicago, IL; ²Department of Surgery, University of Chicago Hospitals, Chicago, IL;

³Department of Surgery, University of California Los Angeles David Geffen School of Medicine, VA Greater Los Angeles Healthcare System, Los Angeles, CA

Although healthcare disparities, particularly in surgery and cancer, have been abundantly described, potential solutions have been lacking. Aply presented by Lee and colleagues in this issue of the *Annals of Surgical Oncology*, disparities can occur anywhere along the patient care continuum.¹ Because of the numerous sources of healthcare disparities, a concerted effort is needed to successfully mitigate them.^{2,3}

Lee and colleagues highlight three interconnected sources of healthcare disparities within the context of cancer: obtaining healthcare access, provider-level factors, and patient-level factors. Using the National Cancer Data Base, the authors investigated whether the differences in receipt of neoadjuvant therapy and survival for adolescents and young adults (AYAs; aged 15–39 years) with clinical stage II–III rectal cancer were associated with race and ethnicity (non-Hispanic white, Hispanic, black, and others). They discovered that nonoperative management occurred most frequently in blacks (22.4 %) and Hispanics (21.6 %) compared with non-Hispanic whites (12.3 %; $p < 0.0001$). On multivariable analysis, insurance coverage rather than race/ethnicity was associated with undergoing surgery. Similarly, neoadjuvant therapy was omitted more frequently in blacks (37.9 %) and Hispanics (42.2 %) compared with non-Hispanic whites (27.9 %; $p < 0.05$).

On multivariable analysis, both insurance coverage and race/ethnicity were associated with receipt of neoadjuvant therapy. On multivariable survival analysis, lack of insurance [hazard ratio (HR) 1.71, 95 % confidence interval (CI) 1.08–2.70] and having government insurance (HR 1.86, 95 % CI 1.33–2.59) not race/ethnicity were most significantly associated with poorer survival. Taken together, the data argue that socioeconomic status, rather than sociodemographic status, account for the survival differences in this AYA population.

Disparities can occur before care is delivered, otherwise known as disparities in access. Workforce shortages in underserved areas, lack of health insurance coverage, and geography may affect disparities in access to some degree. As Lee and colleagues noted, difficulties in accessing care can lead to delays in treatment. Because AYAs with stage II and III rectal cancer are rare, their care certainly warrants the expertise of specialized treatment centers and physicians. Regionalization of specialized oncologic care remains an area of great debate in the United States and legislation mandating the centralization of care to certain hospitals has yet to be enacted.⁴ Other policies at state, national, and payer levels have influenced whether patients can obtain access to care, particularly through health insurance coverage. Expanding health care access was the primary motivation for the Patient Protection and Affordable Care Act. Indeed, the law's provision allowing young adults to stay on a parent's insurance plan until age 26 years resulted in an additional 2.3 million insured in 2010.⁵ The Children's Health Insurance Program (CHIP) also has been reauthorized twice, most recently by the Medicare and CHIP Reauthorization Act (MACRA) of 2015. MACRA extended funds for CHIP for two additional years totaling \$39.7 billion with no major structural program changes.⁶ Coverage is important, but whether

This is an editorial for the article available at doi:[10.1245/s10434-016-5626-0](https://doi.org/10.1245/s10434-016-5626-0)

© Society of Surgical Oncology 2016

First Received: 29 September 2016;
Published Online: 14 October 2016

J. B. Liu, MD
e-mail: jliu@facs.org

coverage meaningfully influences patient outcomes is of greater concern. These efforts, nevertheless, may represent a solution for this type of healthcare disparity.

Disparities can also occur after access is obtained. The physician's unconscious biases, communication skills, and degree of cultural competency can all influence whether a patient undergoes and completes treatment. This is vitally important in cancer where treatment is inherently multimodal and can last from months to years; vulnerable patients are at risk of being lost during the journey. Using patient navigators assigned specifically to certain at-risk populations could be a potential solution. Expanding participants in the multidisciplinary conference or creating separate multidisciplinary conferences focused on disparate groups could potentially ensure the equitable delivery of care. For instance, a multidisciplinary conference that includes social workers, occupational therapists, speech therapists, and geriatricians could be created to specifically address the needs of the elderly patient. These multidisciplinary conferences already occur to coordinate care of medically complex patients in other fields, such as in transplantation; could they not be a model to address disparities?

Data from national registries and other hospital-level processes could be used to evaluate physician-specific trends and outcomes. If a surgeon's poor outcomes seem to magnify disparities, then the surgeon could be approached. Flags or alerts within the electronic health record displaying a patient's particular risk factors for disparate care and what hospital resources are available to mitigate those issues might prove useful. For instance, alerts could display any combination of the patient's age group, insurance status, frequency of emergency room visits in the past 6 months, frequency of missed clinic visits in the past 6 months, zip code-level data on income or education, the patient's driving distance to clinic, or the patient's mode of transportation to clinic visits. Objective data can uncover and bring to light any unconscious biases held by physicians.

Physician education on communication skills and cultural competency also could help to alleviate disparities. For instance, fertility and body image concerns may be particularly important for the AYA population.^{7,8} Educating physicians about fertility preservation options or educating surgeons on how to approach AYAs about life with an ostomy after rectal cancer surgery are viable solutions. These patient-physician communication skills should be instilled during medical school, reinforced during residency training, and maintained during our professional careers. It is not enough to simply explain what an ostomy is. Much more important is how a physician explains the impact of an ostomy on a patient's future. Physician extenders or other healthcare professionals also

could fulfill this role; an ostomy nurse is invaluable in aiding a patient's adjustment to and coping with a new ostomy. Whatever the means, physicians must understand the perspectives of the patient to ensure patient-physician concordance.

These solutions all presuppose an adequate understanding of the disparate patient populations. Certainly, we understand age, language, nationality, socioeconomic status, degree of education, and other objective representations of disparities. For example, being an AYA is in its own right a disparity. AYAs have specific needs, as Lee and colleagues have mentioned, that are currently not being met, such as a lack of available treatment options and insufficient cancer education.⁹ Additional research funds targeting the AYA population will help to address those unknown treatment options. Patient awareness and education campaigns through social media venues might address these deficiencies, such as via Facebook[®] groups, PatientsLikeMe[®], or other online communities.^{10,11} However, other less tangible patient-level factors might include health behaviors, expectations of treatment, perceptions of disease, decision-making processes, lifestyle, and engagement in care. Significant research has been accomplished within the arenas of qualitative and survey research to capture the patient voice in this respect, and we must now utilize that information.¹² Could patient-reported outcome measures be used for quality improvement purposes and help close the disparities gap?

The study by Lee and colleagues showcases three dimensions of disparities: access, provider factors, and patient factors. A better understanding of how AYAs cope with cancer diagnosis and treatment, how they and their families make treatment decisions, how providers mediate the decision-making process, and how AYAs obtain access to care is certainly warranted. While these causes are being uncovered, we must move towards solving healthcare disparities using the tools we currently have available. Otherwise, we will continue to describe them.

DISCLOSURES The authors have no disclosures, financial or otherwise, to report.

FUNDING JBL is supported by a research fellowship from the Department of Surgery, University of Chicago Hospitals and the American College of Surgeons Clinical Scholar in Residence Program.

REFERENCES

1. Lee D, Teng A, Pedersen R, et al. Race-based socioeconomic and treatment disparities in adolescents and young adults (AYAs) with stage II–III rectal cancer. *Annu Surg Oncol*. 2016;34(4):714.
2. Haider AH, Dankwa-Mullan I, Maragh-Bass AC, et al. Setting a national agenda for surgical disparities research: Recommendations

- from the National Institutes of Health and American College of Surgeons Summit. *JAMA Surg.* 2016;151:554–563.
3. Horwitz RI. Equity in cancer care and outcomes of treatment: a different type of cancer moonshot. *JAMA.* 2016;315:1231–1232.
 4. Galandiuk S. Standardization or centralization: can one have one without the other? circumferential resection margins and rectal cancer. *Ann Surg.* 2015;262:899–900.
 5. Obama B. United States Health Care Reform: progress to date and next steps. *JAMA.* 2016;316:525–532.
 6. Children's Health Coverage: The Role of Medicaid and CHIP and Issues for the Future. The Henry J. Kaiser Family Foundation. <http://kff.org/health-reform/issue-brief/childrens-health-coverage-the-role-of-medicaid-and-chip-and-issues-for-the-future/> (2016). Accessed 7 Sept 2016.
 7. Nicholas DB, Swan SR, Gerstle TJ, Allan T, Griffiths AM. Struggles, strengths, and strategies: an ethnographic study exploring the experiences of adolescents living with an ostomy. *Health Qual Life Outcomes.* 2008;6:114.
 8. Flink DM, Sheeder J, Kondapalli LA. A review of the oncology patient's challenges for utilizing fertility preservation services. *J Adolesc Young Adult Oncol.* 2016. doi:10.1089/jayao.2015.0065.
 9. Merten JW, Parker A, Williams A, King JL, Largo-Wight E, Osmani M. Cancer risk factor knowledge among young adults. *J Cancer Educ.* 2016. doi:10.1007/s13187-016-1093-3.
 10. 2016. <https://www.patientslikeme.com/>. Accessed 9 Sept 2016.
 11. MyLifeLine.org. <http://acs.mylifeline.org/getstarted> (2016). Accessed 9 Sept 2016.
 12. Pezold ML, Pusic AL, Cohen WA, et al. Defining a research agenda for patient-reported outcomes in surgery: using a Delphi survey of stakeholders. *JAMA Surg.* 2016. doi:10.1001/jamasurg.2016.1640.