Quality of Cancer Care from 2016 to 2017 in Delaware, Using Select CP3R Measures

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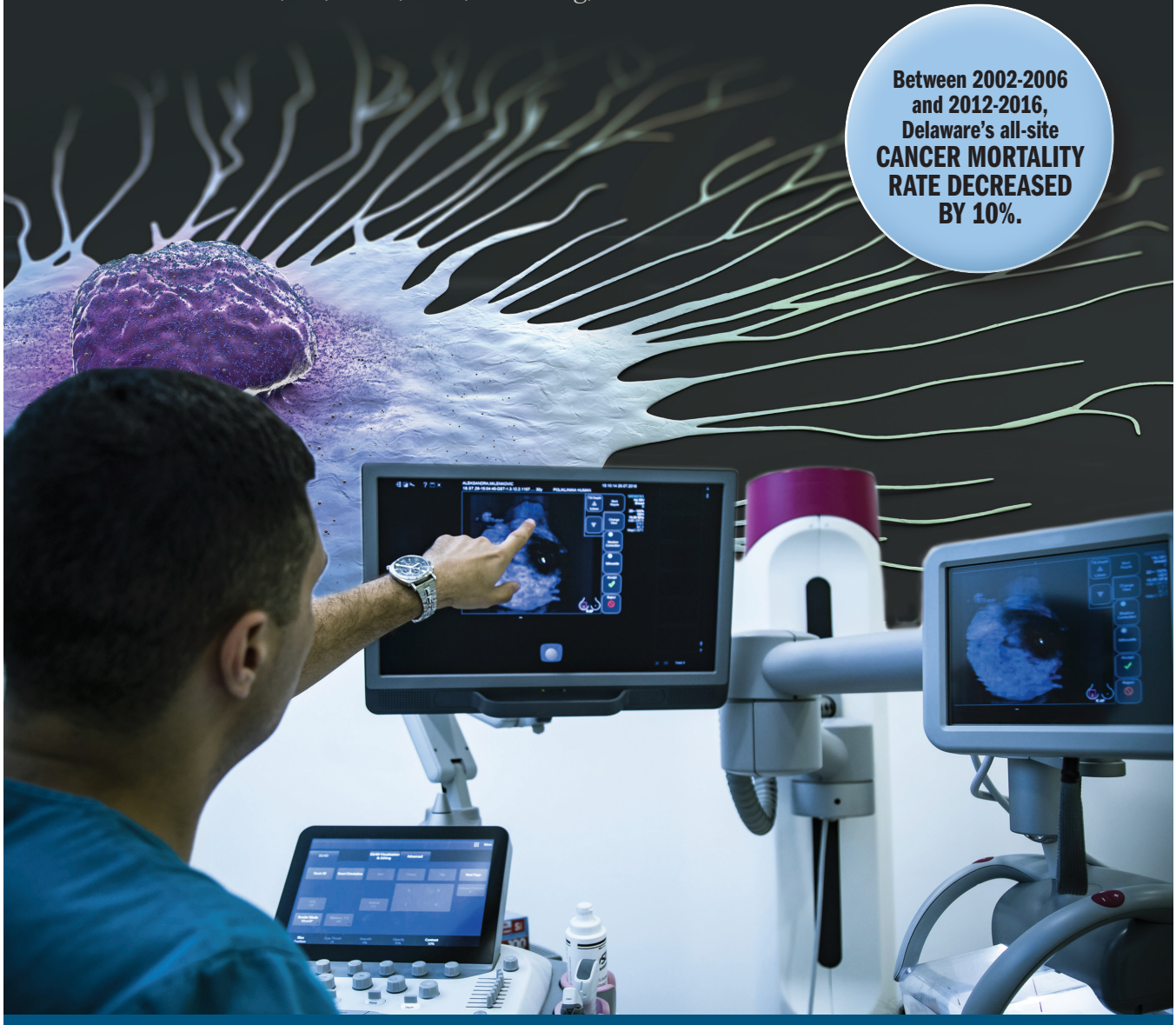

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Abstract

Introduction: The Delaware Cancer Registry (DCR) staff and Delaware Cancer Registry Advisory Committee (DCRAC) members work together to provide cancer surveillance and to evaluate quality of cancer care in Delaware.

Background: DCRAC members use quality of care measures from the American College of Surgeons Commission on Cancer (CoC)'s Cancer Program Practice Profile Report (CP3R) to evaluate the quality of cancer care in Delaware. Similar assessments of cancer care in Delaware using CP3R metrics have been conducted in the past. Four metrics were selected for review in this assessment.

Methods: Cases with diagnosis dates in 2016 and 2017 were selected from the DCR database according to CP3R measure specifications. DCR staff conducted research in the Delaware Health Information Network (DHIN) for cases that were missing complete treatment information. The DCR calculated performance on four measures covering three sites: breast, lung, and rectum. All analyses were performed using SEER*Stat and SAS version 9.4.

Results: Overall, DCR cases met the standards for all but one of the CoC quality of care measures evaluated. DCR cases did not meet the HT (breast) standard of care measure for 2016 and 2017 diagnosis year data.

Conclusion: The DCRAC will continue to monitor the DCR's performance and will work with the DCR annually to evaluate the DCR's performance according to CP3R measures, using the most current information. An updated report will be posted on the DCR webpage and trends in percentage of DCR cases meeting standard of care measures will be presented to DCRAC. In next steps, Delaware leadership will continue to assess and communicate with providers to better understand the quality of cancer care and to support efforts to meet the standard in the future. The DCRAC will collaborate with Delaware hospital cancer programs to maintain adherence to quality of care standards.

INTRODUCTION

The Delaware Cancer Registry (DCR) is a state central population-based cancer registry. It provides data for cancer surveillance and control initiatives to the Division of Public Health (DPH) as well as to local, state, national, and international partners. The registry collaborates with various leaders and stakeholders across Delaware. One entity is the Delaware Cancer Registry Advisory Committee (DCRAC), a committee within the Delaware Cancer Consortium (DCC).

The DCRAC membership includes oncologists, certified tumor registrars and health care planners and policymakers. The committee provides guidance and support to the DCR toward the goal of improving cancer registry operations, including timeliness, completeness, the quality of cancer data collection, and on the best use of cancer registry data for cancer surveillance and control initiatives, program planning, and cancer research. Its mission is to sustain the quality of Delaware's cancer data.

BACKGROUND

DCRAC has promoted rapid cancer reporting across Delaware hospitals and medical facilities over the past several years. DCRAC members elected to assess the quality of cancer care in Delaware by evaluating the state's 2016 and 2017 DCR data. DCRAC members used quality of care measures from the American College of Surgeons Commission on Cancer (CoC)'s Cancer Program Practice Profile Report (CP3R).[1] The measures highlight strengths and areas for improvement in cancer care among Delaware facilities and providers as defined by the CoC's recommendations. Similar assessments of cancer care in Delaware using CP3R metrics were conducted in the past.

CP3Rs estimate performance rates with 23 quality measures, from 10 primary sites including breast, colon, rectum, lung, cervix, gastric, ovary, endometrium, bladder, and kidney. In this study, DCR data were evaluated using four CP3R measures. These measures addressed quality of care across three cancer sites. The four metrics chosen were: HT and nBx (breast); LNoSurg (lung); and RECRTCT (rectum). HT is a measure of accountability and specifies use of Tamoxifen or third-generation aromatase inhibitors for women with AJCC T1cN0M0 or Stage IB-Stage III hormone-receptor-positive breast cancer. nBx is a quality improvement measure to assess that biopsy of the primary site is performed to establish diagnosis of breast cancer.[2] LNoSurg is a quality improvement measure to assess treatment for cN2, M0 lung cases.[3] Lastly, RECRTCT is a quality improvement measure to assess the administration of preoperative or postoperative chemotherapy and radiation based on staging.[4]

TABLE 1: Delaware Cancer Registry (DCR) Performance According to the American College of Surgeons Commission on Cancer (CoC)'s Cancer Program Practice Profile Report (CP3R) Standard of Care Measures, 2016 and 2017 cases.

SITE	SELECT MEASURES	COC STANDARD / %	DCR 2016 CASES MEETING COC STANDARD	DCR 2017 CASES MEETING COC STANDARD
Breast	HT - Tamoxifen or third-generation aromatase inhibitor is recommended or administered within 1 year (365 days) of diagnosis for women with AJCC T1cN0M0, or stage IB-III hormone-receptor-positive breast cancer	4.4 / 90%	88.0%	80.5%
Breast	nBX - Image or palpation-guided needle biopsy to the primary site is performed to establish diagnosis of breast cancer	4.5 / 80%	84.4%	87.8%
Lung	LNoSurg - Surgery is not the first course of treatment for cN2, M0 lung cases	4.5 / 85%	95.6%	92.3%
Rectum	RECRTCT - Preoperative chemo and radiation are administered for clinical AJCC T3N0, T4N0, or Stage III; or postoperative chemo and radiation are administered within 180 days of diagnosis for clinical AJCC T1-2N0 with pathologic AJCC T3N0, T4N0, or Stage III; or treatment is recommended; for patients under the age of 80 receiving resection for rectal cancer.	4.5 / 85%	100.0%	92.9%

Sources: *Delaware Cancer Registry, American College of Surgeons CoC Quality of Care Measures, Revised January 30, 2018. www.facs.org/quality-programs/cancer/ncdb/qualitymeasures*

METHODS

Cases with diagnosis dates in 2016 and 2017 were selected from the DCR database. Additional selection criteria were applied to create subsets according to each of the CP3R measure specifications. DCR staff conducted research in the Delaware Health Information Network (DHIN) for cases that were missing complete treatment information, and data were added to the DCR database when found in the DHIN, to accurately record each patient's care. DCR staff analyzed the final data with DHIN updates included, and categorized cases as either meeting the standard or not meeting the standard. All analyses were performed using SEER*Stat and SAS version 9.4.

RESULTS

Table 1 displays the percentages of DCR cases meeting selected CoC quality of care measures and the description of each measure.[5] Overall, DCR cases met the standards for all except one measure. DCR cases did not meet the HT (breast) standard of care measure for both 2016 and 2017 diagnosis year data. In Delaware, the HT standard measured at 88% in 2016 and decreased to 80.5% in 2017, creating a 2% and 9% deficiency from the CP3R standard of 90%, respectively.

There was an increase in percentages that met the standard for the CoC measure nBx (breast) across the study reporting period, measuring 84.4% in 2016 and increasing to 92.3% in 2017. For CoC measures LNoSurg (lung) and RECRTCT (rectum), the percentages met the standard for both years, but also decreased between 2016 and 2017.

CONCLUSION

The success of the CoC's CP3R demonstrates that improvements in data quality and patient care are possible when the entire cancer committee supports system level enhancements to ensure complete and precise documentation. This is evident in the current mortality statistics. Between 2002-2006 and 2012-2016, Delaware's all-site cancer mortality rate decreased by 10%. Further, the American

Cancer Society predicts that Delaware will decrease its United States national cancer mortality ranking from 15th for the 2012-2016 time period to 18th in the 2013-2017 time period.

Many possible factors can influence the care of a patient. Some of these, like the desires of the patient, other patient comorbidities, the stage of disease at diagnosis, and recommendations from the patient's physician, will affect the percentage of cases that meet the measures outlined by CoC. In addition, while the DCR data meet all quality criteria established by the CDC-NPCR program, NAACCR, and CINA, data-field coding errors and missing data could introduce errors into the results. While DHIN was used to supplement data, there may still be missing information.

The DCRAC will continue to monitor the DCR's performance and will work with the DCR to evaluate its annual performance according to CP3R measures. The Division of Public Health's Bureau of Chronic Disease will post an updated report to the DCR webpage and will present to the DCRAC trends in the percentage of DCR cases that meet standard of care measures. Delaware leadership will continue to assess and communicate with providers to better understand the quality of cancer care and to support efforts to meet the standard in the future. The DCRAC will collaborate with Delaware hospital cancer programs to maintain adherence to quality of care standards.

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Delaware Cancer Registry Advisory Committee Members: Nicholas Petrelli, MD (Chair); David Bercaw, MD, FAAFP; Rachel Gardner, BSN, RN; Stephanie Howe- Guarino, MD, MSHP, FAAP; Robert Hall-McBride, CTR; James Monihan, MD; Rishi Sawhney, MD; John Shevock, FACHE, FACMPE; James Spellman, MD, FASC, FSSO.

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REFERENCES

1. American College of Surgeons CoC Quality of Care Measures, Revised January 30, 2018. https://www.facs.org/quality-programs/cancer/ncdb/qualitymeasurescocweb
2. American College of Surgeons CoC Quality of Care Measures, Revised January 30, 2018. https://www.facs.org/-/media/files/quality-programs/cancer/ncdb/measure-specs-breast.ashx
3. American College of Surgeons CoC Quality of Care Measures, Revised January 30, 2018. https://www.facs.org/-/media/files/quality-programs/cancer/ncdb/measure-specs-nscl.ashx
4. American College of Surgeons CoC Quality of Care Measures, Revised January 30, 2018. https://www.facs.org/-/media/files/quality-programs/cancer/ncdb/measure-specs-rectal.ashx
5. American College of Surgeons CoC Quality of Care Measures, Revised January 30, 2018. https://www.facs.org/quality-programs/cancer/ncdb/qualitymeasures