Reducing Racial Disparities in Treatment for Early Stage Lung Cancer with a Multimodal Intervention

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Background

• Surgical resection (R) and stereotactic body radiotherapy (SBRT) in early stage lung cancer represent potentially curative treatments.

• Historically, controlling for age, comorbidities and other important factors, fewer black than white patients undergo curative surgery resulting in higher mortality.

• Accountability for Cancer Care through Undoing Racism and Equity (ACCURE) is an NIH sponsored multi-institutional trial designed to test a multimodal intervention to reduce racial disparities and increase treatment completion for all early stage breast and lung cancer.
Background

- The ACCURE multi-modal systems change consists of:
  - Real time registry with automated alerts for missed appointments and unmet milestones in expected care
  - Race-specific data feedback on treatment adherence
  - ACCURE nurse navigator trained in race-specific barriers with special training regarding trust, culturally appropriate communication, and Kleinman's explanatory model
  - Quarterly Health Equity Education Training (HEET) sessions for staff.
# Materials/Methods

- **Participants:** White and African American patients with Stage 1-2 lung cancer
- **Primary Outcome:** Lung Resection Surgery or SBRT within 4 months of diagnosis
- **5-year interrupted time-series with an embedded randomized controlled trial**

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<tr>
<th>Baseline</th>
<th>ACCURE</th>
<th>Control</th>
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- 5 Years of retrospective data for participating cancer center populations obtained as a baseline group
- Enrolled, consented RCT patients in the real time registry system randomized to: ACCURE Navigator vs. Usual Care
- Total cancer center population data during the ACCURE study to account for secular trends and possible spillover effect of the study intervention across the cancer center
## Results: Treatment Rates by Race

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<tbody>
<tr>
<td></td>
<td>R + SBRT</td>
<td>R</td>
<td>R + SBRT</td>
</tr>
<tr>
<td>Black</td>
<td>64%</td>
<td>55%</td>
<td>96%*</td>
</tr>
<tr>
<td>White</td>
<td>76%</td>
<td>61%</td>
<td>96%*</td>
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*p<0.05 compared to baseline

![Graph: Treatment Rates by Race](image1)

![Graph: Treatment Rates by Race](image2)
Results

• Overall treatment improved significantly in the enrolled ACCURE intervention group and control group compared to baseline.

• The statistically significant treatment disparity also resolved.

• The surgical approach was the vehicle of improvement within the ACCURE intervention cohort.

• SBRT explained improved care and resolution of disparities in the overall cancer center populations.

• In the randomized controlled trial, comparing ACCURE navigator vs. usual care, there was elimination of disparity with high rates of treatment completion in both arms without statistically significant difference.
Conclusions

• In this study, the ACCURE intervention increased overall rates of treatment completion and eliminated treatment differences for blacks and whites with early stage lung cancer.

• A spillover effect was observed for the total population of participating cancer centers.

• Health Systems can eliminate racial disparity with systems change through engagement with community organizations:

  http://greensborohealth.org
  http://rei.racialequityinstitute.org