Disparities in Lung Cancer Treatment

Triage for Appropriate Treatment Panel

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American Cancer Society
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Disclosures

- None
Objectives

- **Disseminate** current disparities for patients with NSCLC
- **Explain** how disparities impact patients with NSCLC
- **Inspire** hope and ideas to continue optimize survival and patient-centered outcomes for patients with NSCLC
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Disparity

dis·par·i·ty

noun

a great difference.
"economic disparities between different regions of the country"

synonyms: discrepancy, inconsistency, imbalance; More
ARTICLE


Survival and Race

5-year survival has improved from 12.2% to 18.7% overall

Whites 20.4%
Blacks 17.2% *
Hispanics 19.2%
Asian/Pacific Islanders 22.2%
American Indian/Alaska Native 15.9% *

Jemal et al. JNCI 2017
Survival and Insurance Status

C Lung (women)

Ellis et al. JAMA Onc 2017
Survival and Early Stage (Age > 60)

Dalwadi et al. Clin Lung Ca 2017
>75, Black, Hispanic, Middle and Lowest SES groups
No Therapeutic treatment was the most common treatment group
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The influence of Disparities on patients with NSCLC

- Disparities can influence access to:
  - Tobacco cessation programs
  - Lung cancer screening programs
  - Tertiary and quaternary treatment centers
  - Clinical trials, molecular testing
  - Multimodality treatment options

- Perceptions and Stigma

www.cdc.gov/tobacco/disparities
https://www.uspreventiveservicestaskforce.org
David et al. J Tho Onc 2017
Vyfhuis et al. Lung Cancer 2017
Enewold and Thomas PLoS One 2017
Trends for Stage IV

Untreated Advanced Stage NSCLC

- Chemotherapy, Radiation, and Surgery: 3%
- Chemotherapy and Surgery: 3%
- Chemoradiation: 27%
- Surgery: 12%
- Chemo: 14%
- Radiation: 18%
- No Treatment: 21%
- Unknown: 1%
- SurgRad: 1%

David et al. J Tho Onc 2017
Untreated Advanced Stage NSCLC

- **Risk Factors**
  - Increasing age
  - Nonwhite race
  - Insurance status
  - Low Income
  - Low Education
  - Comorbidity Score
  - Treatment in a community cancer program

*David et al. J Thor Onc 2017*
Untreated Advanced Stage NSCLC

- Propensity matching to control for key factors impacting selection bias
- Matched patients have significantly worse survival if they receive no therapeutic treatment

David et al. J Thor Onc 2017
Younger age, white race, higher income, and primary physician specialty other than family practice predicted higher likelihood of referrals to medical oncologists.

Seeing the three types of cancer specialists predicted higher likelihood of guideline based treatment.
EGFR testing varies significantly by age, race, insurance and comorbidity level. Patients in low income groups and smokers were less likely to receive Erlotinib.
Perception and Stigma

- Most people admit that their initial thoughts about lung cancer are negative
  - Shame - 67%
  - Stigma - 74%
  - Hopelessness - 75%

- “Typical lung cancer patient”
- “Lung cancer is a self-inflicted illness”
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What can we do?

- **Practitioner Awareness**
  - Lung Cancer Facts not Myths
  - Patient perspectives
  - Stigma
  - Make it a relatable disease

- **Tools to minimize disparities**
  - Educational tools/Decision Aids
  - Quantitative screening tools to guide treatment
  - Patient facilitated support groups / Social Media
  - Telehealth
Major Themes from participants:
1. Not aware of the purpose of lung cancer screening
2. Wanted to know about the benefits and harms
3. Believed physicians need to communicate more effectively
4. Found decision aids helpful and influential for decision-making about screening
5. Wanted the discussion to be personalized and tailored
Fill in the information below to find out whether you are in the group where screening is recommended by the US Preventive Services Task Force. The calculator will also indicate how much you stand to benefit from getting screened. This will help you better determine whether your potential benefit from screening outweighs the harms.

* INDICATES REQUIRED FIELDS

1. How old are you?*
   68

2. What is your current smoking status?*
   - Smoker
   - Former Smoker
   - Never Smoker

3. For how many years total have you smoked cigarettes?*
   30
Given your age and smoking history, you are **not eligible** for screening according to the US Preventive Services Task Force criteria.

*However, the chance of you developing lung cancer in the next 6 years is 2.0%, which is above the threshold where we believe the benefits of screening are large enough to consider CT screening as an option. You should consider talking to your doctor about whether lung cancer screening might still be a good choice for you.*
Practitioner Tools

**Surgical Selection Score**

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<td>Histology</td>
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- Logistic regression model that predicts selection for surgical treatment and survival
- An integer value can be calculated for each patient
- Can be used to identify patients who would benefit from referral to a surgeon

*David et al. Ann Thor Surg 2017*
Support Groups
- Practitioners can learn!
- Patient facilitated

Social Media
- #LCSM twitter chat
- LVNG With Lung Cancer on Facebook
Practitioner Tools

▪ Participate
▪ Educate
▪ Make lung cancer a topic of conversation, not taboo
▪ Remind patients that anyone with lungs can develop lung cancer
Telehealth

- A helpful tool to reduce disparities
- Improves access to clinical trials and multidisciplinary care
- Rural populations
- Educational webinars case conferences

Conclusions

- Lung cancer survival remains low, but it is **improving**
- Treatments are becoming easier for patients to tolerate
- Practitioners need to be aware of lung cancer disparities and educate patients
- Decisions to forgo therapeutic intent treatments should be made only after referral to specialty providers
- The “face of lung cancer” should be personal and relatable
- Encourage patients to talk about lung cancer to stop the stigma