LUNG CANCER INCIDENCE AND MORTALITY WITH EXTENDED FOLLOW-UP IN THE NSLTG

THE CLINICAL QUESTION
Does the reduction in lung cancer mortality in the 2017 arm of the NSLTG persist as extended follow-up?

TAKE HOME MESSAGE
The incidence and mortality of lung cancer and deaths in the LED-T arm in the NHLSTG were less than 1.5% and less than 0.3% respectively, and none of the LED-T arm participants developed lung cancer in the first 10 years. In addition, an analysis of data from 3 years of follow-up further allowed the determination whether LED-T stopping just delayed lung cancer incidence by a few years or just increased the risk of lung cancer mortality. This study analysis indicates that increased incidence at 3 years of follow-up.

BACKGROUND
The NHLSTG reported a 20% reduction in lung cancer mortality in high-risk smokers, but the effect diminished after the first 5 years of follow-up. There were two reasons for this outcome: the LED-T arm participants were still at high risk in the landmark period between 2015-2017, and participants in the 2017 arm continued to receive LED-T. This analysis evaluated if the increased mortality at extended follow-up.

STUDY DESIGN

<table>
<thead>
<tr>
<th>Study Type</th>
<th>Design</th>
<th>Inclusion Criteria</th>
<th>Follow-Up Period</th>
<th>Outcome Measures</th>
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<tr>
<td>Randomized controlled trial</td>
<td>Intervention, LED-T arm</td>
<td>Current smokers aged 50-79 years</td>
<td>≥ 10 years</td>
<td>Lung cancer mortality, lung cancer incidence</td>
</tr>
</tbody>
</table>

Population

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Value</th>
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<tbody>
<tr>
<td>Age</td>
<td>50-79 years</td>
</tr>
<tr>
<td>Sex</td>
<td>Male and female</td>
</tr>
<tr>
<td>Smoking status</td>
<td>Current smokers</td>
</tr>
<tr>
<td>Follow-up period</td>
<td>≥ 10 years</td>
</tr>
</tbody>
</table>

OUTCOMES

- Primary outcomes: Lung cancer mortality in the LED-T arm (9.0% vs. 11.5% in the LED-A arm).
- Secondary outcomes: Lung cancer incidence in the LED-T arm (0.6% vs. 1.0% in the LED-A arm).

- All cause mortality: LED-T arm (6.7% vs. 5.6% in the LED-A arm).
- Non-cancer mortality: LED-T arm (5.0% vs. 4.5% in the LED-A arm).

- In the LED-A arm, lung cancer mortality was 0.8% in the first 2 years, increasing to 1.7% in the subsequent 2 years, and 2.0% at 3 years. In the LED-T arm, this was 0.4% in the first 2 years, increasing to 0.8% in the subsequent 2 years, and 1.0% in the third year.
- Lung cancer incidence in the LED-A arm was 0.1% in the first 2 years, increasing to 0.2% in the subsequent 2 years, and 0.5% at 3 years. In the LED-T arm, this was 0.1% in the first 2 years, increasing to 0.2% in the subsequent 2 years, and 0.4% in the third year.
- All cause mortality: The different trends continued, with the LED-T arm having a higher proportion of cases than those in the LED-A arm, with a difference of 0.4% in favor of the LED-A arm.
- Non-cancer mortality: The different trends continued, with the LED-T arm having a higher proportion of cases than those in the LED-A arm, with a difference of 0.5% in favor of the LED-A arm.

FUNDING
None

SUGGESTED READING


ARTICLE CITATION