**SUMMARY**

In a large retrospective cohort study using the South Korean National Health Insurance Database, Oh and colleagues found that previously opioid-naive patients who were still taking opioids 6 months postoperatively after lung cancer surgery had a 40% (HR=1.40; 95% CI 1.29 to 1.52; p<0.001) greater risk of 2-year all-cause mortality. The authors divided patients into potent and less potent opioid users based on the specific drugs they were taking at 6 months, with codeine, dihydrocodeine, and tramadol being less potent opioids and fentanyl, morphine, oxycodone, hydromorphone, and methadone being potent opioids. Users of potent opioids had a 92% (HR=1.92; 95% CI 1.67 to 2.21; p<0.001) greater risk of 2-year all-cause mortality, while users of less potent opioids had a 22% (HR=1.22; 95% CI 1.10 to 1.36; p<0.001) greater risk. Characteristics associated with new long-term opioid use included older age, male sex, wider surgical extent, open thoracotomy, increased Charlson Comorbidity Index score, neoadjuvant or adjuvant chemotherapy, preoperative anxiety disorder, and insomnia disorder.

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**Acknowledgements** We would like to acknowledge Jim Snively, artist, of Pittsburgh, Pennsylvania, USA, for creation of this infographic.

**Contributors** Both authors contributed equally to concept and design of infographic.

**Funding** The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

**Competing interests** None declared.

**Patient consent for publication** Not applicable.

**Ethics approval** Not applicable.

**Provenance and peer review** Commissioned; internally peer reviewed.

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To cite Schwenk ES, Gupta RK. Reg Anesth Pain Med 2022;47:684.

Received 25 August 2022
Accepted 26 August 2022
Published Online First 12 September 2022

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**REFERENCE**


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<th>Long-term Effects of Opioid Use After Lung Cancer Surgery</th>
<th>Infographic</th>
<th>Mortality associated with long-term opioid use after lung cancer surgery: an infographic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Based on a South Korean National Health Insurance Database Analysis</strong></td>
<td><strong>40%</strong></td>
<td><strong>22%</strong></td>
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<td><strong>Long-Term Opioid Users:</strong></td>
<td><strong>6.7%</strong></td>
<td><strong>92%</strong></td>
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<td>- of 2-year all-cause mortality compared with those not still taking opioids</td>
<td><strong>95% confidence interval</strong></td>
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<td>- 8.9% of patients who were opioid-naive became long-term opioid users 6 months postoperatively after lung cancer surgery</td>
<td>0.87 to 0.99</td>
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<td>- 12.1% of patients who were previously taking opioids were still taking opioids 6 months postoperatively after lung cancer surgery</td>
<td><strong>1.40</strong></td>
<td><strong>1.92</strong></td>
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<td>- Charlson score associated with this group: Older age, male sex, wider surgical extent, open thoracotomy, increased Charlson Comorbidity Index score, neoadjuvant or adjuvant chemotherapy, preoperative anxiety disorder, and insomnia disorder</td>
<td><strong>95% CI 1.29 to 1.52</strong></td>
<td><strong>95% CI 1.67 to 2.21</strong></td>
</tr>
</tbody>
</table>

**Patients Taking No Opioids (non-users):** - no increased risk

**Potent Opioid Users:**
- fentanyl, morphine, oxycodone, hydromorphone, methadone

**Less Potent Opioid Users:**
- codeine, dihydrocodeine, tramadol

**2-year all-cause mortality compared with non-users:**
- 1.61 to 2.21 (p<0.001)
- 1.76 to 2.45 (p<0.001)