

# Mortality associated with long-term opioid use after lung cancer surgery: an infographic

Eric S Schwenk ,<sup>1</sup> Rajnish K Gupta <sup>2</sup>

## SUMMARY

In a large retrospective cohort study using the South Korean National Health Insurance Database, Oh and colleagues<sup>1</sup> found that previously opioid-naïve 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.

<sup>1</sup>Department of Anesthesiology, Sidney Kimmel Medical College at Thomas Jefferson University, Philadelphia, Pennsylvania, USA

<sup>2</sup>Department of Anesthesiology, Vanderbilt University Medical Center, Nashville, Tennessee, USA

**Correspondence to** Dr Eric S Schwenk, Department of Anesthesiology, Sidney Kimmel Medical College at Thomas Jefferson University, Philadelphia, Pennsylvania, USA; Eric.Schwenk@jefferson.edu

**Twitter** Eric S Schwenk @ESchwenkMD and Rajnish K Gupta @dr\_rajgupta

**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.

© American Society of Regional Anesthesia & Pain Medicine 2022. No commercial re-use. See rights and permissions. Published by BMJ.



**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



► <http://dx.doi.org/10.1136/rapm-2022-103769>

*Reg Anesth Pain Med* 2022;47:684.

doi:10.1136/rapm-2022-103966

## ORCID iDs

Eric S Schwenk <http://orcid.org/0000-0003-3464-4149>

Rajnish K Gupta <http://orcid.org/0000-0003-3401-4737>

## REFERENCE

- 1 TK O, Kim HG, Song IA. New, long-term opioid use after lung cancer surgery is associated with reduced 2-year survival: a retrospective population-based cohort study in South Korea. *Reg Anesth Pain Med* 2022. doi:10.1136/rapm-2022-103769

