

# Underutilization of EHR Clinical Decision Support Tool for Lung Cancer Screening

# Authors

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There are no disclosures to report.

# Purpose

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- Lung cancer is the leading cause of cancer-related death in the U.S., and less than 15% of eligible individuals have received the recommended lung cancer screening (LCS).
- As part of a larger quality improvement project to improve LCS rates, the authors sought to examine the efficacy of the LCS Best Practice Alert (BPA), which is a clinical decision support tool within our EHR.
- We then compared the LCS BPA to other alerts, including Abdominal Aortic Aneurysm (AAA) screening and Diabetic Nephropathy (DN) screening, to evaluate for areas of improvement.

# Methods/Materials

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- Using our institution's analytics platform, tableau, the authors queried the number of BPA alerts per day, the encounters in which the BPA fired, the provider type that most commonly saw the BPA, and the percent of signed screening orders after the BPA fired.

# Results

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- All three BPAs were most commonly seen by a registered nurse and most commonly fired during a communication encounter.
- The DN BPA fired 2,583 times per day, the AAA BPA fired 1,208.2 times per day, and the LCS BPA fired 321.8 times per day.
- Almost 100% of the acknowledgements for each BPA were null, meaning the provider did not take action or override the BPA.
- For the DN BPA, 1.94% of encounters during which the BPA fired led to an order for a urine microalbumin level. For the LCS BPA, 0.81% of encounters led to an order for a LCS consult. For the AAA BPA, 0.03% of encounters led to an order for an ultrasound of the abdominal aorta.

# Conclusions

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- These three BPAs fire frequently but rarely result in screening orders.
  - Notably, BPAs fire most commonly for registered nurses, who are not authorized to order the screenings without a supervising provider.
- The BPAs also fire most commonly during communication encounters as opposed to office visits, during which the provider could discuss the screening with the patient.
- Critically, all three alerts are non-interruptive.
  - Although non-interruptive alerts are often preferred by users, they are rarely acted on.
- Additional research is needed to determine if changing the BPA alert patterns and criteria would increase rates of life-saving screenings or further contribute to alert fatigue.