

# POSTOPERATIVE RESPIRATORY FAILURE PREDICTION IN ABDOMINAL SURGERY: OBSERVATIONAL STUDY

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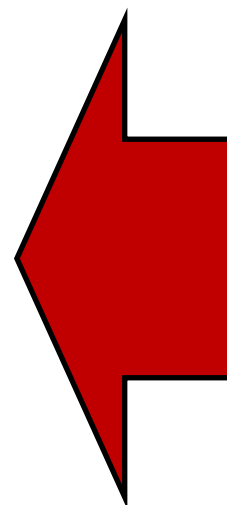


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## Introduction

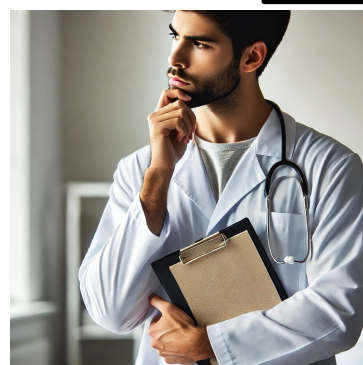
- Postoperative respiratory failure (PRF):
- strongly correlated with 30-day mortality
  - increases the risk of unfavorable long-term outcome
  - carries serious health consequences,
  - increases the financial costs of the healthcare system as a whole
  - worsens quality of life



**Strategies to minimize respiratory risk**

## Objective

The aim of the study was to identify risk factors for the development of postoperative respiratory failure in elective abdominal surgery

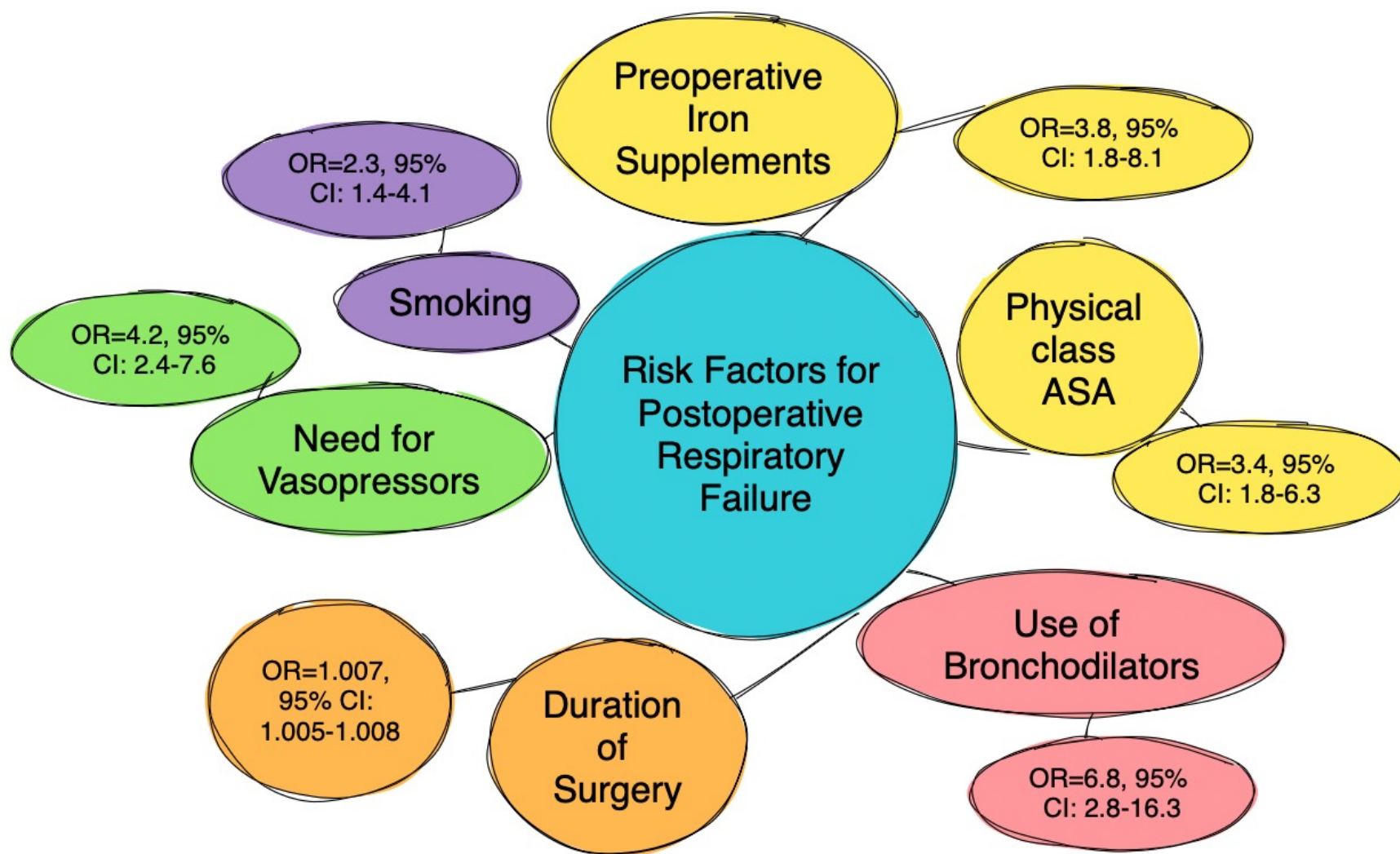


who is at risk?

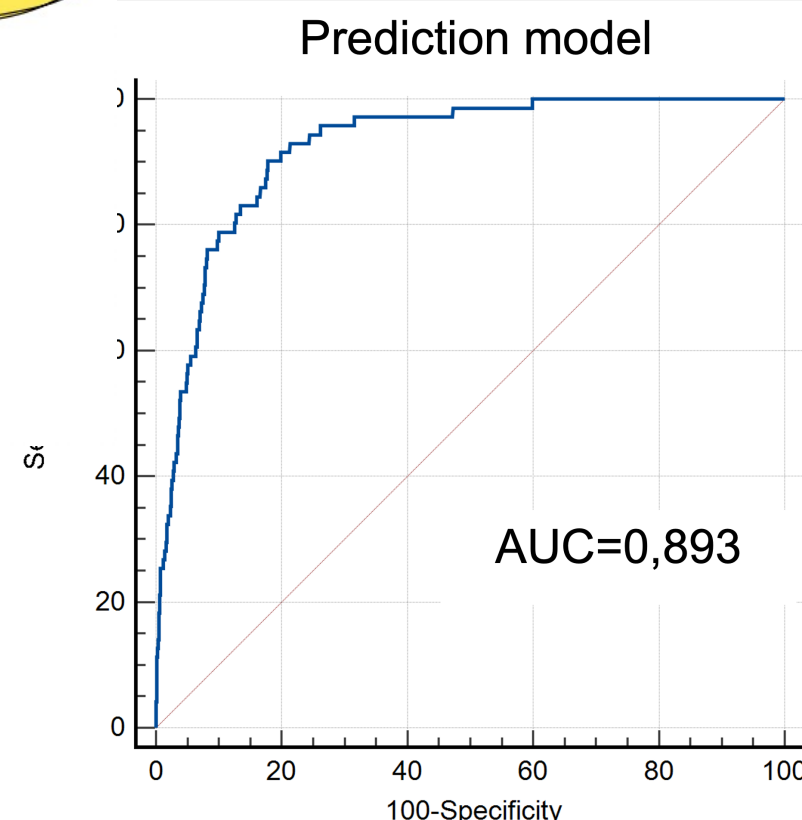
## Material and methods

The analysis included data from 8285 patients undergoing abdominal surgery with initial physical status of classes 1-3 according to the ASA classification.

## Results



Postoperative respiratory failure was observed in 0.61% of cases.



The logistic regression analysis carried out allowed us to identify risk factors and develop a forecasting model (Hosmer-Lemeshow test: Chi-squared =5.8555, DF=8, P = 0.6634)

## Conclusion

The smoking history, duration of surgery, preoperative use of bronchodilators, preoperative iron supplements, physical class according to the ASA classification and intraoperative need for vasopressors are factors associated with the development of postoperative respiratory failure. The resulting model allows for reliable stratification of patients at high risk of respiratory failure based on preoperative and intraoperative factors.