

Supplementary Material 1. Search string databases

| Database | Language | Result | Date of search | Search string |
|------------------|----------|--------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cochrane library | English | 215 | 30/11/2023 | TI,AB,KW: (Lung Neoplasms OR Lung Cancer OR Lung Tumor OR Lung Carcinoma OR Pulmonary Carcinoma OR Pulmonary Neoplasm OR Pulmonary Cancer OR NSCLC) AND (Incentive Spirometry OR Breathing Exercises OR Respiratory Training) AND (Perioperative OR Preoperative OR postoperative OR surgery OR pulmonary surgical procedures OR thoracic surgery OR pulmonary resection OR lung resection OR pneumonectomy) |
| CIINAHL | English | 226 | 30/11/2023 | TX(Lung Neoplasms OR Lung Cancer OR Lung Tumor OR Lung Carcinoma OR Pulmonary Carcinoma OR Pulmonary Neoplasm OR Pulmonary Cancer OR NSCLC) AND TX (Incentive Spirometry OR Breathing Exercises OR Respiratory Training) AND TX (Perioperative OR Preoperative OR postoperative OR surgery OR pulmonary surgical procedures OR thoracic surgery OR pulmonary resection OR lung resection OR pneumonectomy) |
| Ovid | English | 343 | 30/11/2023 | ((Lung Neoplasms or Lung Cancer or Lung Tumor or Lung Carcinoma or Pulmonary Carcinoma or Pulmonary Neoplasm or Pulmonary Cancer or NSCLC) and (Incentive Spirometry or Breathing Exercises or Respiratory Training) and (Perioperative or Preoperative or postoperative or surgery or pulmonary surgical procedures or thoracic surgery or pulmonary resection or lung resection or pneumonectomy)).tw. |
| PubMed | English | 70 | 30/11/2023 | ((("Lung Neoplasms"[Mesh] OR Lung Neoplasms[Title/Abstract] OR Lung Cancer[Title/Abstract] OR Lung Tumor[Title/Abstract] OR Lung Carcinoma[Title/Abstract] OR Pulmonary Carcinoma[Title/Abstract] OR Pulmonary Neoplasm[Title/Abstract] OR Pulmonary Cancer[Title/Abstract] OR NSCLC[Title/Abstract]) AND (((Incentive Spirometry[Text Word] OR Breathing Exercises[Text Word] OR Respiratory Training[Text Word]))OR (breathing exercises[MeSH Terms]))) AND (Perioperative[Title/Abstract] OR Preoperative[Title/Abstract] OR postoperative[Title/Abstract] OR surgery[Title/Abstract] OR pulmonary surgical procedures[Title/Abstract] OR thoracic surgery[Title/Abstract] OR pulmonary resection[Title/Abstract] OR lung resection[Title/Abstract] |

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|-------------------------------------------|---------|-----|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | OR pneumonectomy[Title/Abstract]) |
| Web of Science | English | 201 | 30/11/2023 | TOPIC:(Lung Neoplasms OR Lung Cancer OR Lung Tumor OR Lung Carcinoma OR Pulmonary Carcinoma OR Pulmonary Neoplasm OR Pulmonary Cancer OR NSCLC) AND TOPIC: (Incentive Spirometry OR Breathing Exercises OR Respiratory Training) AND TOPIC: (Perioperative OR Preoperative OR postoperative OR surgery OR pulmonary surgical procedures OR thoracic surgery OR pulmonary resection OR lung resection OR pneumonectomy) |
| Chinese National Knowledge Infrastructure | Chinese | 475 | 30/11/2023 | (TI,AB,KW=Lung Neoplasms + Lung Cancer + Lung Tumor + Lung Carcinoma + Pulmonary Carcinoma + Pulmonary Neoplasm + Pulmonary Cancer + NSCLC) AND (TI,AB,KW= Incentive Spirometry + Breathing Exercises+ Respiratory Training) AND (TI,AB,KW=Perioperative + Preoperative + postoperative + surgery + pulmonary surgical procedures + thoracic surgery + pulmonary resection + lung resection + pneumonectomy) |
| Wanfang | Chinese | 514 | 30/11/2023 | TI,AB,KW: (Lung Neoplasms OR Lung Cancer OR Lung Tumor OR Lung Carcinoma OR Pulmonary Carcinoma OR Pulmonary Neoplasm OR Pulmonary Cancer OR NSCLC) AND (Incentive Spirometry OR Breathing Exercises OR Respiratory Training) AND (Perioperative OR Preoperative OR postoperative OR surgery OR pulmonary surgical procedures OR thoracic surgery OR pulmonary resection OR lung resection OR pneumonectomy) |
| Weipu | Chinese | 229 | 30/11/2023 | TI,KW: (Lung Neoplasms OR Lung Cancer OR Lung Tumor OR Lung Carcinoma OR Pulmonary Carcinoma OR Pulmonary Neoplasm OR Pulmonary Cancer OR NSCLC) AND (Incentive Spirometry OR Breathing Exercises OR Respiratory Training) AND (Perioperative OR Preoperative OR postoperative OR surgery OR pulmonary surgical procedures OR thoracic surgery OR pulmonary resection OR lung resection OR pneumonectomy) |