Starting page

Record ID

_____

During which data collection period did the patient undergo management?

- ◯ Period 1: 00:00 4th May 2026 - 23:59 17th May 2026
- ◯ Period 2: 00:00 18th May 2026 - 23:59 31st May 2026
- ◯ Period 3: 00:00 1st June 2026 - 23:59 14th June 2026
- ◯ Period 4: 00:00 15th June 2026 - 23:59 28th June 2026
- ◯ Period 5: 00:00 29th June 2026 - 23:59 12th July 2026
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- ◯ Period 14: 00:00 2nd November 2026 - 23:59 15st November 2026

Hospital type

- ◯ General / District Hospital
- ◯ Tertiary or Referral Centre
- ◯ Children's (Pediatric) Hospital
- ◯ University / Teaching Hospital
- ◯ Public (Government-funded) Hospital
- ◯ Private / Independent Hospital
- ◯ Other

Other hospital type

_____

Country

- ◯ Afghanistan
- ◯ Albania
- ◯ Algeria
- ◯ Andorra
- ◯ Angola
- ◯ Antigua and Barbuda
- ◯ Argentina
- ◯ Armenia
- ◯ Australia
- ◯ Austria
- ◯ Azerbaijan
- ◯ Bahamas
- ◯ Bahrain
- ◯ Bangladesh
- ◯ Barbados
- ◯ Belarus
- ◯ Belgium
- ◯ Belize
- ◯ Benin
- ◯ Bhutan
- ◯ Bolivia
- ◯ Bosnia and Herzegovina
- ◯ Botswana
- ◯ Brazil
- ◯ Brunei
- ◯ Bulgaria
- ◯ Burkina Faso
- ◯ Burundi
- ◯ Cabo Verde
- ◯ Cambodia
- ◯ Cameroon
- ◯ Canada
- ◯ Central African Republic
- ◯ Chad
- ◯ Chile
- ◯ China
- ◯ Colombia
- ◯ Comoros
- ◯ Congo (Republic of the)
- ◯ Congo (Democratic Republic of the)
- ◯ Costa Rica
- ◯ Croatia
- ◯ Cuba
- ◯ Cyprus
- ◯ Czechia
- ◯ Denmark
- ◯ Djibouti
- ◯ Dominica
- ◯ Dominican Republic
- ◯ Ecuador
- ◯ Egypt
- ◯ El Salvador
- ◯ Equatorial Guinea
- ◯ Eritrea
- ◯ Estonia
- ◯ Eswatini
- ◯ Ethiopia
- ◯ Fiji
- ◯ Finland
- ◯ France
- ◯ Gabon
- ◯ Gambia
- ◯ Georgia
- ◯ Germany
- ◯ Ghana
- ◯ Greece
- ◯ Grenada
- ◯ Guatemala
- ◯ Guinea
- ◯ Guinea-Bissau

◯ Guyana
◯ Haiti
◯ Honduras
◯ Hungary
◯ Iceland
◯ India
◯ Indonesia
◯ Iran
◯ Iraq
◯ Ireland
◯ Israel
◯ Italy
◯ Jamaica
◯ Japan
◯ Jordan
◯ Kazakhstan
◯ Kenya
◯ Kiribati
◯ Korea (North)
◯ Korea (South)
◯ Kuwait
◯ Kyrgyzstan
◯ Laos
◯ Latvia
◯ Lebanon
◯ Lesotho
◯ Liberia
◯ Libya
◯ Liechtenstein
◯ Lithuania
◯ Luxembourg
◯ Madagascar
◯ Malawi
◯ Malaysia
◯ Maldives
◯ Mali
◯ Malta
◯ Marshall Islands
◯ Mauritania
◯ Mauritius
◯ Mexico
◯ Micronesia
◯ Moldova
◯ Monaco
◯ Mongolia
◯ Montenegro
◯ Morocco
◯ Mozambique
◯ Myanmar
◯ Namibia
◯ Nauru
◯ Nepal
◯ Netherlands
◯ New Zealand
◯ Nicaragua
◯ Niger
◯ Nigeria
◯ North Macedonia
◯ Norway
◯ Oman
◯ Pakistan
◯ Palau
◯ Palestine
◯ Panama
◯ Papua New Guinea
◯ Paraguay
◯ Peru
◯ Philippines
◯ Poland
◯ Portugal
◯ Qatar

◯ Romania
◯ Russia
◯ Rwanda
◯ Saint Kitts and Nevis
◯ Saint Lucia
◯ Saint Vincent and the Grenadines
◯ Samoa
◯ San Marino
◯ Sao Tome and Principe
◯ Saudi Arabia
◯ Senegal
◯ Serbia
◯ Seychelles
◯ Sierra Leone
◯ Singapore
◯ Slovakia
◯ Slovenia
◯ Solomon Islands
◯ Somalia
◯ South Africa
◯ South Sudan
◯ Spain
◯ Sri Lanka
◯ Sudan
◯ Suriname
◯ Sweden
◯ Switzerland
◯ Syria
◯ Tajikistan
◯ Tanzania
◯ Thailand
◯ Timor-Leste
◯ Togo
◯ Tonga
◯ Trinidad and Tobago
◯ Tunisia
◯ Turkey
◯ Turkmenistan
◯ Tuvalu
◯ Uganda
◯ Ukraine
◯ United Arab Emirates
◯ United Kingdom
◯ United States
◯ Uruguay
◯ Uzbekistan
◯ Vanuatu
◯ Vatican City
◯ Venezuela
◯ Vietnam
◯ Yemen
◯ Zambia
◯ Zimbabwe

Is this a pediatric patient?

◯ Yes
◯ No

Is this an adult patient?

◯ Yes
◯ No

On-site thoracic surgery

◯ Yes
◯ No

On-site paediatric surgery	◯ Yes ◯ No
On-site paediatric anaesthesia	◯ Yes ◯ No
On-site paediatric ICU	◯ Yes ◯ No

Patient Demographics & Baseline

Age in years	_____
Sex assigned at birth	◯ Male ◯ Female
Height in cm	_____
Weight in kg	_____
BMI	_____
Ethnicity	◯ White / Caucasian ◯ Black / African / Afro-Caribbean ◯ South Asian (e.g., Indian, Pakistani, Bangladeshi) ◯ East Asian (e.g., Chinese, Japanese, Korean) ◯ Southeast Asian (e.g., Filipino, Vietnamese, Thai) ◯ Middle Eastern / North African (MENA) ◯ Hispanic / Latino ◯ Indigenous / Native (e.g., Native American, Aboriginal, First Nations) ◯ Pacific Islander (e.g., Hawaiian, Samoan) ◯ Other
specify other ethnicity	_____
Smoking	◯ Yes ◯ No
Time	☐ current ☐ past
Vaping	◯ Yes ◯ No
Time	☐ current ☐ past
Cannabis use	◯ Yes ◯ No
Time	☐ current ☐ past
American Society of Anaesthesiologists (ASA) Grade	◯ Grade I ◯ Grade II ◯ Grade III ◯ Grade IV ◯ Grade V

Previous thoracic surgery	☐ None ☐ Open ☐ Minimally invasive
Comorbidities	☐ None ☐ COPD/ emphysema ☐ Asthma ☐ Cystic fibrosis (CF) ☐ Interstitial lung disease (ILD, including pulmonary fibrosis) ☐ Marfan syndrome ☐ Ehlers-Danlos syndrome (EDS) ☐ Birt-Hogg-Dubé syndrome (BHD) ☐ Lymphangioleiomyomatosis (LAM) ☐ Tuberous sclerosis complex (TSC) ☐ Alpha-1 antitrypsin deficiency ☐ Neurofibromatosis type 1 (NF1) ☐ Cutis laxa / other connective tissue disorder ☐ Other
other comorbidity specify	_____
Genetic testing for pneumothorax-associated syndromes performed?	◯ Yes ◯ No
specify briefly genetic results	_____

Index Presentation: First episode of spontaneous pneumothorax

Time of symptom onset
- ◯ 00:00 - 07:59
- ◯ 08:00 - 17:59
- ◯ 18:00 - 23:59

What was the patient doing when symptoms of pneumothorax started?
- ◯ At rest (e.g., sitting, lying, sleeping)
- ◯ Light activity (e.g., walking, daily activities)
- ◯ Moderate activity (e.g., cycling, light exercise)
- ◯ Vigorous activity (e.g., running, sports, heavy exertion)
- ◯ During/after coughing
- ◯ During/after physical strain (e.g., lifting, Valsalva)
- ◯ During air travel
- ◯ During diving
- ◯ Other

specify other activities

_____

Time from symptom onset to assessment
- ◯ < 6h
- ◯ 6-11h
- ◯ 12-23h
- ◯ 24-47h
- ◯ 48-71h
- ◯ > 72h

Symptoms
- ☐ chest pain
- ☐ dyspnoea
- ☐ cough
- ☐ other

specify other symptom

_____

Signs
- ☐ tachypnoea
- ☐ hypoxia
- ☐ hypotension
- ☐ reduced breath sounds
- ☐ subcutaneous emphysema
- ☐ other

specify other sign

_____

Side
- ◯ right
- ◯ left
- ◯ bilateral

Was oxygen administered?
- ◯ Yes
- ◯ No

Oxygen litres/min

_____

Diagnostic Imaging

Chest radiography	◯ Yes ◯ No
Time from onset to chest radiography	◯ < 6h ◯ 6-11h ◯ 12-23h ◯ 24-47h ◯ 48-71h ◯ >72h
Chest CT	◯ Yes ◯ No
indication for chest CT	_____
time from onset to CT	◯ < 6h ◯ 6-11h ◯ 12-23h ◯ 24-47h ◯ 48-71h ◯ days
n days	_____
Chest ultrasound	◯ Yes ◯ No
indication for chest ultrasound	_____
Pneumothorax size recorded	◯ Yes ◯ No
method for pneumothorax size estimation	◯ British Thoracic Society (BTS) method ◯ American College of Chest Physicians (ACCP) method ◯ Collins method ◯ Other
specify other method	_____
Size measurement source:	◯ radiologist report ◯ clinician estimate

Initial Management

Primary caretaker specialty	◯ Paediatric surgeon ◯ Adult general surgeon ◯ Adult thoracic surgeon ◯ Other
specify other specialty	_____
Initial strategy	◯ Observation ◯ Needle aspiration ◯ Chest drain ◯ Ambulatory device ◯ Immediate surgery
needle aspiration success	◯ Yes ◯ No
escalation required	◯ drain ◯ surgery ◯ other
other escalation specify	_____
Chest drain size in Fr	_____
Chest drain type	◯ pigtail ◯ conventional tube (no pigtail)
Chest drain insertion site	◯ Anterior (2nd ICS midclavicular) ◯ Axillary (4th ICS mid-axillary) ◯ Axillary (5th ICS mid-axillary) ◯ Axillary (6th ICS mid-axillary) ◯ Other
Other insertion site, specify	_____
Suction applied	◯ Yes ◯ No
Pressure of suction in cmH_2O	_____
In which setting was the drain inserted	◯ Emergency department ◯ Operating room (theatre) ◯ Outpatient clinic ◯ Intensive care unit ◯ Ward / bedside ◯ Interventional radiology suite

What type of anesthesia or sedation was used for drain insertion?	◯ None ◯ Local anesthesia only ◯ Local anesthesia with procedural sedation ◯ Procedural sedation only ◯ General anesthesia
Time from chest drain insertion to removal	◯ 12h ◯ 24h ◯ 48h ◯ 72h ◯ days
n days of in situ drain	_____
How was the chest drain removal decided?	◯ Trial period performed (clamping or off suction) ◯ Based on lung re-expansion on imaging ◯ Based on absence of air leak
how long was the trial period?	◯ < 6h ◯ 6-11h ◯ 12-23 ◯ >24h
type of imaging	◯ chest radiography ◯ chest ultrasound
ambulatory device type	◯ Heimlich valve ◯ digital system ◯ other
specify other ambulatory device	_____
how long was the ambulatory device in place?	◯ 12h ◯ 24h ◯ 48h ◯ 72h ◯ days
n days of in situ ambulatory device	_____
Antibiotics administered	◯ Yes ◯ No
indication (prophylaxis, infection, other)	_____

In-Hospital Course during index admission

Complications during index admission	☐ None ☐ Infection ☐ Bleeding/haemothorax ☐ Re-expansion pulmonary oedema ☐ Device displacement ☐ Anaesthesia/sedation event
Persistent air leak >48-72h	◯ Yes ◯ No
for how long in hours	_____
Escalation of care	◯ Yes ◯ No
type of care escalation	☐ referral to surgery ☐ second drain ☐ suction change ☐ ambulatory device
ICU admission during index episode	◯ Yes ◯ No
Need for blood transfusion	◯ Yes ◯ No

Surgery during index admission

Did the patient undergo surgical intervention for pneumothorax during the index admission?	◯ Yes ◯ No
Operating surgeon specialty	◯ Paediatric surgeon ◯ Adult general surgeon ◯ Adult thoracic surgeon ◯ Other
specify other specialty	_____
Indication for surgery	☐ Persistent air leak >48-72h ☐ Large bullae/blebs on imaging ☐ Occupational/fitness requirement (e.g., pilot, diver) ☐ Patient preference ☐ Other
specify other indications	_____
Interval from spontaneous pneumothorax presentation to surgery in days	_____
Surgical approach	◯ Uniportal VATS ◯ Multiportal VATS ◯ Open thoracotomy ◯ Robotic-assisted thoracic surgery (RATS) ◯ Hybrid (VATS + mini-thoracotomy) ◯ Other
specify other surgical approach	_____
Anaesthesia	◯ General with single-lung ventilation ◯ General with two-lung ventilation ◯ Regional + sedation ◯ Other
specify other anaesthesia	_____
Was bullectomy or wedge resection performed?	◯ Yes ◯ No
Was mechanical pleurodesis performed?	◯ Yes ◯ No
specify method of mechanical pleurodesis	☐ gauze ☐ scratch ☐ abrasion pad
Was chemical pleurodesis performed?	◯ Yes ◯ No

Specify which agent was used for chemical pleurodesis	_____
Operative time in minutes	_____
Estimated blood loss in mL	_____
Intraoperative complications	◯ Yes ◯ No
Major intraoperative complications	◯ Yes ◯ No
Specify major introperative complications	_____
Minor intraoperative complications	◯ Yes ◯ No
Specify minor introperative complications	_____
Conversion to thoracotomy	◯ Yes ◯ No
Reason for conversion	_____
Post-op chest drain	◯ Yes ◯ No
Type of drain	◯ Pigtail ◯ Small-bore chest drain (≤14F) ◯ Large-bore chest drain (>14F)
Suction applied	◯ Yes ◯ No
Post-op chest drain pressure in cmH_2O	_____
Time from post-op chest drain insertion to removal	◯ 12h ◯ 24h ◯ 48h ◯ 72h ◯ days
n days of post-op in situ drain	_____
Post-op analgesia	☐ epidural ☐ paravertebral ☐ systemic

ICU admission post-op	◯ Yes ◯ No
Reason for ICU admission post-op	_____
30-day overall Clavien-Dindo complication grade	☐ No complications ☐ Grade I ☐ Grade II ☐ Grade III ☐ Grade IV ☐ Grade V (Death)
Cause of death	_____
Type of complications	☐ No complications ☐ Wound infection ☐ Empyema ☐ Bleeding ☐ Haemothorax ☐ Prolonged air leak (>48h) ☐ Pneumonia
30-day unplanned reoperation	◯ Yes ◯ No
Reason for 30-day unplanned reoperation	_____

30-day Follow-up after index presentation

30-day follow-up reached	◯ Yes ◯ No
Select the 30-day follow up period corresponding to this patient	◯ Period 1: 00:00 18th May 2026 - 23:59 16th June 2026 ◯ Period 2: 00:00 1st June 2026 - 23:59 30th June 2026 ◯ Period 3: 00:00 15th June 2026 - 23:59 14th July 2026 ◯ Period 4: 00:00 29th June 2026 - 23:59 28th July 2026 ◯ Period 5: 00:00 13th July 2026 - 23:59 11th August 2026 ◯ Period 6: 00:00 27th July 2026 - 23:59 25th August 2026 ◯ Period 7: 00:00 10th August 2026 - 23:59 8th September 2026 ◯ Period 8: 00:00 24th August 2026 - 23:59 22nd September 2026 ◯ Period 9: 00:00 7th September 2026 - 23:59 6th October 2026 ◯ Period 10: 00:00 21st September 2026 - 23:59 20th October 2026 ◯ Period 11: 00:00 5th October 2026 - 23:59 3rd November 2026 ◯ Period 12: 00:00 19th October 2026 - 23:59 17th November 2026 ◯ Period 13: 00:00 2nd November 2026 - 23:59 1st December 2026 ◯ Period 14: 00:00 16th November 2026 - 23:59 15th December 2026
30-day method of follow-up	◯ clinic visit ◯ phone ◯ email
Length of hospital stay during index episode in days	_____
Status at discharge	◯ resolved ◯ ongoing leak ◯ transferred ◯ died
30-day recurrence	◯ Yes ◯ No
Recurrence side	◯ ipsilateral ◯ contralateral
30-day recurrence management	◯ Observation ◯ Needle aspiration ◯ Chest drain ◯ Ambulatory device ◯ Immediate surgery
30-day readmission	◯ Yes ◯ No

Reason for 30-day readmission	_____
30-day mortality	◯ Yes ◯ No
Reason for 30-day mortality	_____
After how many days from the index episode did the patient return to school/work?	_____
After how many days from the index episode did the patient return to sport/activities?	_____
After how many days from the index episode was the patient allowed to fly?	_____

1-Year Follow-Up after index presentation

1-year follow-up reached
- ◯ Yes
- ◯ No

Select the 1-year follow-up period for this patient
- ◯ Period 1: 00:00 4th May 2027 - 23:59 17th May 2027
- ◯ Period 2: 00:00 18th May 2027 - 23:59 31st May 2027
- ◯ Period 3: 00:00 1st June 2027 - 23:59 14th June 2027
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Method of 1-year follow up
- ◯ clinic visit
- ◯ phone
- ◯ email

1-year recurrence
- ◯ Yes
- ◯ No

1-year recurrence side
- ◯ ipsilateral
- ◯ contralateral
- ◯ ipsilateral and contralateral

1-year recurrence management
- ◯ Observation
- ◯ Needle aspiration
- ◯ Chest drain
- ◯ Ambulatory device
- ◯ Immediate surgery

Total number of recurrences within 1 year

_____

Surgery during 1-year follow up

Did the patient undergo surgical intervention for pneumothorax during the 1 year follow up after index presentation?	◯ Yes ◯ No
Operating surgeon specialty	◯ Paediatric surgeon ◯ Adult general surgeon ◯ Adult thoracic surgeon ◯ Other
specify other specialty	_____
Indication for surgery	☐ Large bullae/blebs on imaging ☐ Occupational/fitness requirement (e.g., pilot, diver) ☐ Ipsilater recurrence ☐ Contralateral recurrence ☐ Patient preference ☐ Other
specify other indications	_____
How many months after index episode ipsilateral pneumothorax	_____
How many months after index episode contralateral pneumothorax	_____
Surgical approach	◯ Uniportal VATS ◯ Multiportal VATS ◯ Open thoracotomy ◯ Robotic-assisted thoracic surgery (RATS) ◯ Hybrid (VATS + mini-thoracotomy) ◯ Other
specify other surgical approach	_____
Anaesthesia	◯ General with single-lung ventilation ◯ General with two-lung ventilation ◯ Regional + sedation ◯ Other
specify other anaesthesia	_____
Was bullectomy or wedge resection performed?	◯ Yes ◯ No
Was mechanical pleurodesis performed?	◯ Yes ◯ No
specify method of mechanical pleurodesis	☐ gauze ☐ scratch ☐ abrasion pad

Was chemical pleurodesis performed?	◯ Yes ◯ No
Operative time in minutes	_____
Estimated blood loss in mL	_____
Intraoperative complications	◯ Yes ◯ No
Major intraoperative complications	◯ Yes ◯ No
Specify major introperative complications	_____
Minor intraoperative complications	◯ Yes ◯ No
Specify minor introperative complications	_____
Conversion to thoracotomy	◯ Yes ◯ No
Reason for conversion	_____
Post-op chest drain	◯ Yes ◯ No
Type of drain	◯ Pigtail ◯ Small-bore chest drain (≤14F) ◯ Large-bore chest drain (>14F)
Suction applied	◯ Yes ◯ No
Post-op chest drain pressure in cmH_2O	_____
Time from post-op chest drain insertion to removal	◯ 12h ◯ 24h ◯ 48h ◯ 72h ◯ days
n days of post-op in situ drain	_____
Post-op analgesia	☐ epidural ☐ paravertebral ☐ systemic

ICU admission post-op	◯ Yes ◯ No
Reason for ICU admission post-op	_____
30-day overall Clavien-Dindo complication grade	☐ No complications ☐ Grade I ☐ Grade II ☐ Grade III ☐ Grade IV ☐ Grade V (Death)
Cause of death	_____
Type of post-op complications	☐ No complications ☐ Wound infection ☐ Empyema ☐ Bleeding ☐ Haemothorax ☐ Prolonged air leak (>48h) ☐ Pneumonia
30-day unplanned reoperation	◯ Yes ◯ No
Reason for 30-day unplanned reoperation	_____