

# Using ultrasound to determine the position of the gap between ribs during surgery

<b>Submission date</b> 12/03/2019	<b>Recruitment status</b> No longer recruiting	<input checked="" type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 06/04/2019	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 26/05/2020	<b>Condition category</b> Surgery	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

Incorrect intercostal space positioning can cause inconvenience to surgeons, increasing surgery time and even increasing risk. The accuracy of the surgeon's manual positioning depends on the doctor's rich clinical experience and is also influenced by factors such as the patient's gender and body mass index. Determining the intercostal gap by ultrasound guidance is more intuitive. The focus of this double-blind randomized study was to assess the temporal accuracy of ultrasound in the positioning of the intercostal space and compare it to manual positioning.

### Who can participate?

Anesthesiologists and surgeons.

### What does the study involve?

The temporal accuracy of ultrasound in the positioning of the intercostal space and compare it to manual positioning.

### What are the possible benefits and risks of participating?

There are no benefits or risks of participating.

### Where is the study run from?

Henan Provincial People's Hospital.

### When is the study starting and how long is it expected to run for?

December 2018 to October 2019.

### Who is funding the study?

Wei Zhang, who works at Henan Provincial People's Hospital.

### Who is the main contact?

Chenxi Li  
l15713895229@163.com

## Study website

N/A

## Contact information

### Type(s)

Scientific

### Contact name

Mrs Chenxi Li

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## Additional identifiers

### EudraCT/CTIS number

Nil known

### IRAS number

### ClinicalTrials.gov number

Nil known

### Secondary identifying numbers

2100043

## Study information

### Scientific Title

The accuracy and efficiency of positioning of the intercostal space under ultrasound guidance compared with manual positioning: an observational study

### Study objectives

Compared with manual positioning, the ultrasound-guided rib gap is more accurate and faster.

### Ethics approval required

Old ethics approval format

**Ethics approval(s)**

Not provided at time of registration.

**Study design**

Observational

**Primary study design**

Observational

**Secondary study design**

N/A

**Study setting(s)**

Hospital

**Study type(s)**

Other

**Participant information sheet**

Not available in web format, please use the contact details below to request a participant information sheet

**Health condition(s) or problem(s) studied**

Locating the intercostal space during surgery

**Interventions**

The anesthesiologist and the surgeon participated in the experiment. The surgeon uses the technique to locate the intercostal space and the anesthesiologist uses ultrasound to locate the intercostal space and record the time. After the operation started, after the thoracoscope entered the chest cavity, it is judged whether the positioning of the rib gap was correct by direct vision. There is no follow-up.

**Intervention Type**

Other

**Primary outcome measure**

The accuracy of manual positioning and ultrasonic positioning of the rib gap is measured using the number of people positioned correctly divided by the total number of people.

**Secondary outcome measures**

Total time of manual positioning and ultrasonic positioning of the intercostal space.

**Overall study start date**

01/12/2018

**Completion date**

01/10/2019

**Eligibility**

**Key inclusion criteria**

1. Undergoing thoracoscopic lung surgery
2. Aged 18 years or older

**Participant type(s)**

Patient

**Age group**

All

**Lower age limit**

18 Years

**Sex**

Both

**Target number of participants**

70

**Key exclusion criteria**

1. Undergoing thoracoscopic single-hole operation
2. Subcutaneous emphysema
3. Rib fractures

**Date of first enrolment**

01/06/2019

**Date of final enrolment**

01/10/2019

**Locations****Countries of recruitment**

China

**Study participating centre**

Henan Provincial People's Hospital

China

450000

**Sponsor information****Organisation**

Henan Provincial People's Hospital

### Sponsor details

Jinshui District, Zhengzhou City, Henan Province, China  
Zhengzhou  
China  
450000  
15713895229  
l15713895229@163.com

### Sponsor type

Hospital/treatment centre

### ROR

<https://ror.org/03f72zw41>

## Funder(s)

### Funder type

Hospital/treatment centre

### Funder Name

Henan Provincial People's Hospital

## Results and Publications

### Publication and dissemination plan

Planned publication in a high-impact peer-reviewed journal.

### Intention to publish date

31/08/2020

### Individual participant data (IPD) sharing plan

The datasets generated and/or analysed during the current study during this study will be included in the subsequent results publication.

### IPD sharing plan summary

Other

### Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>	results	23/05/2020	26/05/2020	Yes	No