Example output of baseline model:

**Example output of our framework:** 



# **Multimodal Input**

Question: Please select one of the following labels that best describes the lesion: bone, abdomen, mediastinum, liver, lung, kidney, soft tissue, pelvis

#### **Diagnosis**

**Answer: soft tissue** 

# Multimodal Medical Input



Question: Please select one of the following labels that best describes the lesion: bone, abdomen, mediastinum, liver, lung, kidney, soft tissue, pelvis

**Modality: Image** 

General **Practitioner** 



Referral to Specialist

Type: CT



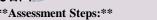
Medical Assistant

### Meeting/Debate



#### **Diagnostic Opinion**





- Initial Assessment: The image provided is a cross-sectional view of the thoracic region, showing structures such as lungs and mediastinum.
- Diagnostic Studies (e.g., imaging): This appears to be an axial CT scan slice through the chest at the level of the heart and great vessels. \*\*Possible Answers:\*\*

- Reasoning: The lesion in question seems located centrally within the thorax between the two lung fields, which corresponds with the anatomical location of the mediastinum on this type of imaging study.
- 2. Lung:
  - Reasoning: ...



## **Diagnostic Opinion**



Assessment Steps\*\*:

- Initial Assessment: The image provided is a cross-sectional CT scan of the thorax, focusing on the lungs. - Diagnostic Studies (e.g., imaging): This appears to be an axial slice from a
- chest computed tomography (CT) scan with contrast enhancement. - Additional Considerations: No other specific information or clinical
- context has been given. \*Possible Answers\*\*:
- 1. Lung

Reasoning: The lesion in question is located within one of the lung fields as  $\underline{\text{seen}}$  in this transverse section of the thoracic cavity.

Reasoning: ...



## **Diagnostic Opinion**



**Director of Review** 

- Assessment Steps\*\*:
- Initial Assessment: The image provided is a cross-sectional CT scan of the chest, showing both lungs and part of the mediastinum.
- Diagnostic Studies (e.g., imaging): This appears to be an axial slice from a computed tomography (CT) scan focusing on the thoracic region. Based on this analysis:
- \*\*Possible Answers\*\*:
- 1. \*\* Mediastinum \*\*:
- Reasoning: The lesion in question seems located centrally within the chest cavity between the two lung fields, which corresponds with the anatomical location of the mediastinum where structures such as lymph nodes are commonly found.
- 2. \*\*Lung\*\*:
  - Reasoning: ...

# Specialist Team









## **Summary of Search** Results

1. Pulmonary Embolism (PE): This article discusses PE, a condition where a blood clot (thrombus) blocks blood flow in the lung arteries. It highlights the complications arising from ...

2. Major Aortopulmonary Collateral Arteries (MAPCAs): This article focuses on MAPCAs, which are congenital blood vessels connecting the aorta to the pulmonary vascular system...

3.Lung Metastases Imaging: This overview highlights the frequency of pulmonary metastasis, which occurs in 20-54% of extrathoracic malignancies...



# **Summary Report**

- \*\*Possible Answers\*\*:
- Answer 1: The image provided is a crosssectional CT scan of the chest, showing both lungs and part of the mediastinum. The...
- Answer 2: ...
- Answer 3: ...
- Answer 4: ...
- \*\*Agreements\*\*:
- The majority of the participants agreed that the lesion in question is located within the mediastinum.
- \*\*Disagreements\*\*:
- Some participants suggested that the lesion could be located within the lung tissue itself, while others thought it might be a soft tissue lesion.
- \*\*Conclusions\*\*:
- Based on the analysis, the most appropriate label describing the lesion present in the sample falls under 'mediastinum'. It suggests potential involvement of lymphatic or other mediastinal structures, warranting further investigation through clinical correlation and potentially additional imaging studies.



#### **Diagnosis**

Final Answer: mediastinum



Summary Report



