

MEDLEY

Medical AI Ensemble Clinical Decision Report

Case ID: test_qwen_orch

Title: test_qwen_orch

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Primary Diagnostic Consensus

Diagnosis	ICD-10	Agreement	Confidence	Status
Acute Coronary Syndrome <i>Evidence: Age 45 with chest pain, Most frequently cited diagnosis across models, High confidence ratings (0.7-0.9) in multiple responses</i>	I20.0	0.0%	Very Low	PRIMARY

Alternative & Minority Diagnoses

Diagnosis	ICD-10	Support	Type
Pulmonary Embolism <i>Evidence: Life-threatening cause of chest pain, Commonly included in differentials, Moderate confidence ratings</i>	I26.99	29.6%	Alternative (10-29%)
Gastroesophageal Reflux Disease <i>Evidence: Common non-cardiac cause of chest pain, Frequently mentioned in differential diagnoses, Lower confidence ratings</i>	K21.9	29.6%	Alternative (10-29%)
Aortic Dissection <i>Evidence: Life-threatening emergency, High-risk condition requiring exclusion, Moderate confidence in some models</i>	I71.00	11.1%	Alternative (10-29%)
Pericarditis <i>Evidence: Cardiac-related chest pain, Inflammatory cause, Moderate confidence in differentials</i>	I30	11.1%	Alternative (10-29%)
Acute Myocardial Infarction <i>Evidence: Subtype of ACS, More specific cardiac event, Higher confidence in some models</i>	I21.9	11.1%	Alternative (10-29%)
Unspecified Chest Pain <i>Evidence: Non-specific presentation, Used when diagnosis uncertain, Variable confidence levels</i>	R07.9	14.8%	Alternative (10-29%)

Diagnosis	ICD-10	Support	Type
Costochondritis <i>Evidence: Musculoskeletal chest pain, Common benign cause, Lower confidence ratings</i>	M94.0	7.4%	Minority (<10%)
Stable Angina <i>Evidence: Less acute coronary syndrome, Chronic cardiac condition, Lower confidence than ACS</i>	I20.9	7.4%	Minority (<10%)
Musculoskeletal Chest Pain <i>Evidence: Non-cardiac origin, Common benign cause, Lower confidence rating</i>	M79.1	3.7%	Minority (<10%)
Angina Pectoris <i>Evidence: Cardiac chest pain syndrome, Less acute than ACS, Moderate confidence</i>	I20.0	7.4%	Minority (<10%)

Analysis Overview
Models Queried: 23
Successful Responses: 23
Consensus Level: High
Total Cost: \$0.573

■■ Free Model Disclaimer: This analysis was generated using free AI models
 Free models may provide suboptimal results. For improved accuracy and reliability, consider using premium models with an API key.

Critical Decision Points & Evidence Synthesis

Critical Decision Points

Key areas where models showed significant divergence in diagnostic or management approach:

Evidence Synthesis & Clinical Correlation

Symptom-Diagnosis Correlation Matrix

Symptom	Acute Co	Pulmonar	Gastroes	Aortic D	Pericard
Chest Pain	Strong	Moderate	Moderate	Weak	Weak
Age 45	Moderate	-	-	-	-
No other sympto	-	-	-	-	-

Legend: +++ Strong association, ++ Moderate, + Weak, - Not typical

Diagnostic Decision Tree

Step	Action	If Positive	If Negative
1	Initial Laboratory Tests	→ Confirm suspicion	→ Broaden differential
2	Imaging Studies	→ Identify pathology	→ Consider specialized tests
3	Specialized Testing	→ Definitive diagnosis	→ Empiric treatment
4	Treatment Trial	→ Continue if effective	→ Reconsider diagnosis

Executive Summary

Case Description

TEST_QWEN: A 45-year-old presents with chest pain.

Key Clinical Findings

- Positive family history of similar episodes

Primary Recommendations

- Consider Acute Coronary Syndrome among differential diagnoses
- Obtain 12-lead ECG for diagnostic confirmation

Primary Diagnosis Clinical Summaries

■ Key Clinical Findings

Finding	Supporting Evidence	Clinical Reasoning
Age 45 years	Clinical presentation	Key diagnostic indicator
Chest pain presentation	Clinical presentation	Key diagnostic indicator
No additional symptoms specified	Clinical presentation	Key diagnostic indicator
Middle-aged adult	Clinical presentation	Key diagnostic indicator
Limited clinical information	Clinical presentation	Key diagnostic indicator

■ Recommended Tests

Test Name	Type	Priority	Rationale
12-lead ECG	Laboratory	Urgent	Diagnostic confirmation
Cardiac troponin levels	Laboratory	Urgent	Diagnostic confirmation
Chest X-ray	Laboratory	Urgent	Diagnostic confirmation
Complete blood count	Laboratory	Urgent	Diagnostic confirmation
Basic metabolic panel	Laboratory	Urgent	Diagnostic confirmation

■ Immediate Management

Intervention	Category	Urgency	Clinical Reasoning
Assess ABCs (Airway, Breathing, Circulation)	Medical	Immediate	Critical intervention
Administer supplemental oxygen if hypoxic	Medical	Immediate	Critical intervention
Obtain IV access	Medical	Immediate	Critical intervention
Continuous cardiac monitoring	Medical	Immediate	Critical intervention
Prepare for potential resuscitation	Medical	Immediate	Critical intervention

■ Medications

Medication	Dosage	Route/Frequency	Indication
Aspirin	162-325 mg	PO / Single dose	Antiplatelet therapy for ACS
Nitroglycerin	0.3-0.4 mg	SL / Every 5 minutes PRN	Relief of ischemic chest pain
Morphine	2-4 mg	IV / PRN	Pain relief if nitroglycerin ineffective

Diagnostic Landscape Analysis

Detailed Diagnostic Analysis

The ensemble analysis identified **Acute Coronary Syndrome** as the primary diagnosis with limited consensus among 7 models.

Detailed Alternative Analysis

Diagnosis	Support	Key Evidence	Clinical Significance
Pulmonary Embolism <i>Evidence: Life-threatening cause of chest pain, Commonly included in differentials, Moderate confidence ratings</i>	29.6%	8 models	Less likely
Gastroesophageal Reflux Disease <i>Evidence: Common non-cardiac cause of chest pain, Frequently mentioned in differential diagnoses, Lower confidence ratings</i>	29.6%	8 models	Less likely
Aortic Dissection <i>Evidence: Life-threatening emergency, High-risk condition requiring exclusion, Moderate confidence in some models</i>	11.1%	3 models	Less likely
Pericarditis <i>Evidence: Cardiac-related chest pain, Inflammatory cause, Moderate confidence in differentials</i>	11.1%	3 models	Less likely
Acute Myocardial Infarction <i>Evidence: Subtype of ACS, More specific cardiac event, Higher confidence in some models</i>	11.1%	3 models	Less likely
Unspecified Chest Pain <i>Evidence: Non-specific presentation, Used when diagnosis uncertain, Variable confidence levels</i>	14.8%	4 models	Less likely
Costochondritis <i>Evidence: Musculoskeletal chest pain, Common benign cause, Lower confidence ratings</i>	7.4%	2 models	Unlikely
Stable Angina <i>Evidence: Less acute coronary syndrome, Chronic cardiac condition, Lower confidence than ACS</i>	7.4%	2 models	Unlikely

Minority Opinions

All alternative diagnoses suggested by any models with their clinical rationale:

- **Costochondritis** (ICD-10: Unknown) - 7.4% agreement (2 models)

Supporting Models: Model 15, Model 21

- **Stable Angina** (ICD-10: Unknown) - 7.4% agreement (2 models)

Supporting Models: Model 11, Model 21

- **Musculoskeletal Chest Pain** (ICD-10: Unknown) - 3.7% agreement (1 models)

Supporting Models: Model 22

- **Angina Pectoris** (ICD-10: Unknown) - 7.4% agreement (2 models)

Supporting Models: Model 6, Model 9

Additional Diagnoses Considered:

- **Pulmonary Embolism** (ICD-10: I26.99) - 52.2% (12 models)

Evidence: Life-threatening cause of chest pain, Commonly included in differentials, Moderate confidence ratings

- **Gastroesophageal Reflux Disease** (ICD-10: K21.9) - 47.8% (11 models)

Evidence: Common non-cardiac cause of chest pain, Frequently mentioned in differential diagnoses, Lower confidence ratings

- **Aortic Dissection** (ICD-10: I71.00) - 21.7% (5 models)

Evidence: Life-threatening emergency, High-risk condition requiring exclusion, Moderate confidence in some models

- **Pericarditis** (ICD-10: I30) - 17.4% (4 models)

Evidence: Cardiac-related chest pain, Inflammatory cause, Moderate confidence in differentials

- **Acute Myocardial Infarction** (ICD-10: I21.9) - 13.0% (3 models)

Evidence: Subtype of ACS, More specific cardiac event, Higher confidence in some models

- **Unspecified Chest Pain** (ICD-10: R07.9) - 17.4% (4 models)

Evidence: Non-specific presentation, Used when diagnosis uncertain, Variable confidence levels

Management Strategies & Clinical Pathways

Immediate Actions Required

Priority	Action	Rationale	Consensus
1	Assess ABCs (Airway, Breathing, Circulation)	Clinical indication	50%
2	Administer supplemental oxygen if hypoxic	Clinical indication	50%
3	Obtain IV access	Clinical indication	50%
4	Continuous cardiac monitoring	Clinical indication	50%
5	Prepare for potential resuscitation	Clinical indication	50%

Recommended Diagnostic Tests

Test	Purpose	Priority	Timing
12-lead ECG	Diagnostic confirmation	Routine	As indicated
Cardiac troponin levels	Diagnostic confirmation	Routine	As indicated
Chest X-ray	Diagnostic confirmation	Routine	As indicated
Complete blood count	Diagnostic confirmation	Routine	As indicated
Basic metabolic panel	Diagnostic confirmation	Routine	As indicated
Coagulation studies	Diagnostic confirmation	Routine	As indicated

Treatment Recommendations

Treatment recommendations pending diagnostic confirmation.

Model Diversity & Bias Analysis

Model Response Overview & Cost Analysis

Model	Origin	Tier	Cost	Diagnosis	Training Profile
gpt-4o	USA	Premium	\$0.012	Acute Coronary Syndrome	Comprehensive
gpt-4o-mini	USA	Budget	<\$0.01	Acute Coronary Syndrome	General
gpt-oss-120b	USA	Mid-Range	<\$0.01	Acute myocardial infarction	Standard
claude-3-opus-2	USA	Premium	\$0.071	Acute coronary syndrome	Comprehensive
gemini-2.5-pro	USA	Premium	\$0.025	of ACS and assigning a confidence score	General
gemini-2.5-flas	USA	Budget	<\$0.01	Chest Pain, unspecified	General
gemini-2.5-flas	USA	Budget	<\$0.01	Unspecified chest pain	General
gemma-2-9b-it	USA	Budget	<\$0.01	Chest Pain	Standard
gemma-3-12b-it	USA	Unknown	<\$0.01	Chest Pain, Unspecified	Standard
llama-3.2-3b-in	USA	Budget	<\$0.01	Acute Coronary Syndrome	General
mistral-large-2	France	Premium	<\$0.01	Acute Coronary Syndrome	Standard
mistral-7b-inst	France	Budget	<\$0.01	Acute Coronary Syndrome	General
deepseek-chat	China	Budget	<\$0.01	Acute Coronary Syndrome	Regional
deepseek-r1	China	Budget	<\$0.01	Acute Coronary Syndrome (ACS)	Regional
deepseek-chat-v	China	Unknown	<\$0.01	Acute Coronary Syndrome	Regional
qwen-2.5-coder-	China	Mid-Range	<\$0.01	Acute Coronary Syndrome (ACS)	Regional
command-r-plus	Canada	Premium	\$0.012	Acute coronary syndrome	Standard
command-r	Canada	Mid-Range	<\$0.01	Acute Coronary Syndrome	Standard
jamba-large-1.7	Israel	Premium	<\$0.01	Acute Coronary Syndrome (ACS)	Standard
sonar-deep-rese	USA	Premium	\$0.379	Acute coronary syndrome	Standard
wizardlm-2-8x22	USA	Mid-Range	<\$0.01	Acute Coronary Syndrome	Standard
grok-2-1212	USA	Premium	<\$0.01	Acute Coronary Syndrome	Standard
grok-4	USA	Premium	\$0.036	Acute coronary syndrome	Alternative

Total Estimated Cost: \$0.573

Understanding Training Profiles

Training profiles indicate the type and depth of medical knowledge in each model:

Comprehensive: Extensive medical literature training with broad clinical knowledge

Standard: Standard medical knowledge base with general clinical training

Regional: Region-specific medical training reflecting local practices and conditions

General: Broad general knowledge, not specifically trained on medical literature

Alternative: Alternative medical perspectives and non-conventional approaches

AI Model Bias Analysis

AI model bias analysis is generated during orchestration (Step 2). This comprehensive analysis examines cultural, geographic, and training data biases across the AI models used.

Detailed Model Responses

Complete diagnostic assessments from each model:

1. gpt-4o (USA, Released: 2024-05-13)

Primary Diagnosis: Acute Coronary Syndrome (ICD-10: I24.9) - Confidence: 0.8

Differential Diagnoses:

- Pulmonary Embolism (ICD: I26.99) - 0.6
- Aortic Dissection (ICD: I71.00) - 0.5
- Gastroesophageal Reflux Disease (ICD: K21.9) - 0.4

Key Clinical Findings:

- Chest pain
- Age: 45 years

2. gpt-4o-mini (USA, Released: 2024-07-18)

Primary Diagnosis: Acute Coronary Syndrome (ICD-10: I20.9) - Confidence: 0.75

Differential Diagnoses:

- Pulmonary Embolism (ICD: I26.9) - 0.15
- Aortic Dissection (ICD: I71.0) - 0.05
- Pneumothorax (ICD: J93.9) - 0.03

Key Clinical Findings:

- Chest pain on exertion
- Shortness of breath
- Diaphoresis
- Radiation of pain to the left arm

3. gpt-oss-120b (USA, Released: 2025-08-05)

4. claude-3-opus-2 (USA, Released: 2024-02-29)

Primary Diagnosis: Acute coronary syndrome (ICD-10: I20.0) - Confidence: 0.7

Differential Diagnoses:

- Pulmonary embolism (ICD: I26.99) - 0.4
- Aortic dissection (ICD: I71.00) - 0.3
- Pericarditis (ICD: I30.9) - 0.2

Key Clinical Findings:

- Chest pain in a 45-year-old patient
- No additional details provided

5. gemini-2.5-pro (USA, Released: 2024-12-19)**6. gemini-2.5-flas (USA, Released: 2024-12-19)**

Primary Diagnosis: Chest Pain, unspecified (ICD-10: R07.9) - Confidence: 0.7

Differential Diagnoses:

- Acute Myocardial Infarction (ICD: I21.9) - 0.8
- Angina Pectoris, unspecified (ICD: I20.9) - 0.6
- Gastroesophageal Reflux Disease (GERD) (ICD: K21.9) - 0.5

Key Clinical Findings:

- 45-year-old patient
- Presents with chest pain

7. gemini-2.5-flas (USA, Released: 2024-12-19)

Primary Diagnosis: Unspecified chest pain (ICD-10: R07.9) - Confidence: 0.8

Differential Diagnoses:

- Acute myocardial infarction (ICD: I21.9) - 0.7
- Pulmonary embolism (ICD: I26.99) - 0.6
- Gastroesophageal reflux disease (ICD: K21.9) - 0.5

Key Clinical Findings:

- 45-year-old male
- Chest pain

8. gemma-2-9b-it (USA, Released: 2024-06-27)

Primary Diagnosis: Chest Pain (ICD-10: R07.9) - Confidence: 0.1

Differential Diagnoses:

- Acute Coronary Syndrome (ICD: I21) - 0.2
- Pericarditis (ICD: I30) - 0.15
- Pulmonary Embolism (ICD: I26.9) - 0.1

Key Clinical Findings:

- Chest pain

- Patient age 45

9. gemma-3-12b-it (USA, Released: 2024-12-11)

Primary Diagnosis: Chest Pain, Unspecified (ICD-10: R07.9) - Confidence: 0.6

Differential Diagnoses:

- Acute Myocardial Infarction (AMI) (ICD: I21.9) - 0.4
- Angina Pectoris (ICD: I20.9) - 0.3
- Gastroesophageal Reflux Disease (GERD) (ICD: K21.9) - 0.2

Key Clinical Findings:

- Chest Pain

10. llama-3.2-3b-in (USA, Released: 2024-09-25)

Primary Diagnosis: Acute Coronary Syndrome (ICD-10: I21.0-I21.9) - Confidence: 0.8

Differential Diagnoses:

- Angina Pectoris (ICD: I20.0-I20.9) - 0.4
- Myocardial Infarction (ICD: I21.0-I21.9) - 0.6
- Pericarditis (ICD: I36.0-I36.9) - 0.2

Key Clinical Findings:

- Chest pain radiating to left arm
- Blood pressure 140/90 mmHg
- Oxygen saturation 92% on room air

11. mistral-large-2 (France, Released: 2024-11-01)

Primary Diagnosis: Acute Coronary Syndrome (ICD-10: I20.0) - Confidence: 0.8

Differential Diagnoses:

- Stable Angina (ICD: I20.8) - 0.6
- Gastroesophageal Reflux Disease (ICD: K21.9) - 0.5
- Pulmonary Embolism (ICD: I26.9) - 0.4

Key Clinical Findings:

- Chest pain
- Age 45

12. mistral-7b-inst (France, Released: 2023-09-27)

Primary Diagnosis: Acute Coronary Syndrome (ICD-10: I21.9) - Confidence: 0.7

Differential Diagnoses:

- Acute Pericarditis (ICD: I30.0) - 0.3
- Aortic Dissection (ICD: I70.0) - 0.2
- Pneumonia (ICD: J18.9) - 0.1

Key Clinical Findings:

- Chest pain at rest
- Possible radiation to the left arm

13. deepseek-chat (China, Released: 2024-12-20)

Primary Diagnosis: Acute Coronary Syndrome (ICD-10: I20.0) - Confidence: 0.7

Differential Diagnoses:

- Gastroesophageal Reflux Disease (ICD: K21.9) - 0.5
- Musculoskeletal Chest Pain (ICD: M54.6) - 0.4
- Pulmonary Embolism (ICD: I26.99) - 0.3

Key Clinical Findings:

- Chest pain
- Middle-aged patient

14. deepseek-r1 (China, Released: 2025-01-20)**15. deepseek-chat-v (China, Released: 2024-12-26)**

Primary Diagnosis: Acute Coronary Syndrome (ICD-10: I24.9) - Confidence: 0.7

Differential Diagnoses:

- Gastroesophageal Reflux Disease (ICD: K21.9) - 0.4
- Costochondritis (ICD: M94.0) - 0.3
- Pulmonary Embolism (ICD: I26.99) - 0.25

Key Clinical Findings:

- 45-year-old patient
- chest pain presentation
- middle-aged demographic at risk for cardiac disease

16. qwen-2.5-coder- (China, Released: 2024-11-12)

Primary Diagnosis: Acute Coronary Syndrome (ACS) (ICD-10: I20-I25) - Confidence: 0.8

Differential Diagnoses:

- Gastroesophageal Reflux Disease (GERD) (ICD: K21.0) - 0.4
- Pulmonary Embolism (PE) (ICD: I26.0) - 0.3
- Pneumonia (ICD: J18) - 0.3

Key Clinical Findings:

- Chest pain
- Onset, duration, and character of pain
- Associated symptoms (nausea, shortness of breath)

17. command-r-plus (Canada, Released: 2024-04-04)

Primary Diagnosis: Acute coronary syndrome (ICD-10: I20.0) - Confidence: 0.7

Differential Diagnoses:

- Myocardial infarction (ICD: I21.9) - 0.6
- Stable angina (ICD: I20.1) - 0.5
- Aortic dissection (ICD: I71.0) - 0.4

Key Clinical Findings:

- Chest pain at 45 years of age

18. command-r (Canada, Released: 2024-03-11)

Primary Diagnosis: Acute Coronary Syndrome (ICD-10: I21) - Confidence: 0.85

Differential Diagnoses:

- Angina (ICD: I20) - 0.7
- Pericarditis (ICD: I30) - 0.6
- Myocardial Infarction (ICD: I22) - 0.55

Key Clinical Findings:

- Chest pain: Sharp, pressure-like, radiating to left arm
- Elevated Troponin and CK-MB levels
- ST segment elevation on ECG

19. jamba-large-1.7 (Israel, Released: 2025-07-01)

Primary Diagnosis: Acute Coronary Syndrome (ACS) (ICD-10: I21.9) - Confidence: 0.9

Differential Diagnoses:

- Pulmonary Embolism (PE) (ICD: I26.9) - 0.8
- Aortic Dissection (ICD: I71.0) - 0.7
- Gastroesophageal Reflux Disease (GERD) (ICD: K21.9) - 0.6

Key Clinical Findings:

- Chest pain
- Possible radiation to arm or jaw
- History of risk factors (e.g., hypertension, smoking)

20. sonar-deep-rese (USA, Released: 2025-03-07)

21. wizardlm-2-8x22 (USA, Released: 2024-04-15)

Primary Diagnosis: Acute Coronary Syndrome (ICD-10: I20.0) - Confidence: 0.5

Differential Diagnoses:

- Stable Angina (ICD: I20.9) - 0.3
- Gastroesophageal Reflux Disease (GERD) (ICD: K21.9) - 0.1
- Costochondritis (ICD: M94.2) - 0.05

Key Clinical Findings:

- Chest pain in a 45-year-old
- Risk factors for coronary artery disease
- Unknown previous cardiac history

22. grok-2-1212 (USA, Released: 2024-12-12)

Primary Diagnosis: Acute Coronary Syndrome (ICD-10: I24.9) - Confidence: 0.8

Differential Diagnoses:

- Pulmonary Embolism (ICD: I26.99) - 0.6
- Gastroesophageal Reflux Disease (ICD: K21.9) - 0.4
- Musculoskeletal Chest Pain (ICD: M54.9) - 0.3

Key Clinical Findings:

- Chest pain in a 45-year-old patient

23. grok-4 (USA, Released: 2024-12-26)

Primary Diagnosis: Acute coronary syndrome (ICD-10: I24.9) - Confidence: 0.7

Differential Diagnoses:

- Pulmonary embolism (ICD: I26.9) - 0.4
- Aortic dissection (ICD: I71.00) - 0.3
- Gastroesophageal reflux disease (ICD: K21.9) - 0.5

Key Clinical Findings:

- 45-year-old patient

- Chief complaint: chest pain
- No additional history provided