

# MEDLEY Clinical Decision Report

Case tmpsenem40u: Medical Case from tmpsenem40u.txt

## Case Overview

Presentation:	A 28-year-old male of Mediterranean descent presents with: - Recurrent episodes of fever lasting 1-3 days - Severe abdominal pain during episodes - Chest pain with breathing difficulties - Joint pain affecting knees and ankles - Family history: Father and paternal uncle have similar symptoms - Ep...
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## Diagnostic Landscape

PRIMARY DIAGNOSIS	Familial Mediterranean Fever	20% Agreement
Minority Opinion	Familial Mediterranean Fever	By Mistral 7B, Mistral 7B
Minority Opinion	Inflammatory Bowel Disease	By Mistral 7B

## Management Strategies

### Critical Decision Points

- Low consensus indicates complex presentation - consider specialist consultation
- Multiple minority diagnoses suggest atypical presentation
- Geographic variation in diagnoses - consider regional disease patterns

Models: 8	Responded: 5	Unique Diagnoses: 8	Consensus: None
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# Model Diversity & Bias Analysis

## Model Response Patterns

Model	Origin	Release	Primary Diagnosis	Confidence
Mistral 7B	France	2023-09	Familial Mediterranean Feve...	Varied
Gemma 2 9B	USA	2024-06	Explanation	Varied
Llama 3.2 3B	USA	2024-09	Unknown	Varied
Qwen 2.5 32B	China	2024-11	Unknown	Varied
Gemini 2.0 Flash	USA	2024-12	Unknown	Varied

## Identified Bias Sources

Geographic	France vs USA	Divergent diagnoses based on regional training
Geographic	France vs China	Divergent diagnoses based on regional training
Temporal	Release dates vary	Model release dates span from 2023-09 to 2024-12, potentially affecting knowle
Training Data	Multilingual web data	Broad knowledge but variable quality
Training Data	Curated datasets	Standard medical training data

## Unique Model Perspectives

Model	Unique Diagnosis	Reasoning
Mistral 7B	Inflammatory Bowel Disease	nosis." }, { "name": , "confidence": 0.1, "icd_code": "K50.9", "reasoning": "...
Mistral 7B	Systemic Lupus Erythematosus	tial_diagnoses": [ { "name": , "confidence": 0.2, "icd_code": "M32.0", "reaso...
Gemma 2 9B	Explanation	
Gemma 2 9B	Severity	This field categorizes the urgency of the diagnosis. "Urgent" means immediat...
Gemma 2 9B	Code	The ICD-10 code for each diagnosis.

## Diagnostic Categories

- **Autoimmune/Inflammatory:** Inflammatory Bowel Disease, Systemic Lupus Erythematosus
- **Infectious:** Familial Mediterranean Fever
- **Other:** Explanation, Severity, Code

# Detailed Model Responses

## Mistral 7B (France)

- |    |                                    |  |
|----|------------------------------------|--|
| 1. | Familial Mediterranean Fever (FMF) | primary_diagnosis": { "name": , "confidence": 0.8, "icd_code": "M30.0", "reasoning": "Recurrent episodes of fever, abdominal pain, chest pain, joint pain, and elevate           |
| 2. | FMF                                | name": "Familial Mediterranean Fever ()", "confidence": 0.8, "icd_code": "M30.0", "reasoning": "Recurrent episodes of fever, abdominal pain, chest pain, joint pain, and elevate |
| 3. | Inflammatory Bowel Disease (IBD)   | nosis." }, { "name": , "confidence": 0.1, "icd_code": "K50.9", "reasoning": "Recurrent abdominal pain, but the fever, joint pain, and  |

## Gemma 2 9B (USA)

- |    |             |  |
|----|-------------|--|
| 1. | Explanation |  |
| 2. | Severity    | This field categorizes the urgency of the diagnosis. "Urgent" means immediate attention is required, "High" means prompt attention is needed, and "Low" means the issue can likely wait. |
| 3. | Code        | The ICD-10 code for each diagnosis.  |

## Llama 3.2 3B (USA)

- |    |         |   |
|----|---------|---|
| 1. | Unknown | Similar gastrointestinal symptoms, such as abdominal pain and fever, can occur in both reactive arthritis and Crohn's disease.                                      |
| 2. | Unknown | Similar gastrointestinal symptoms, such as abdominal pain and fever, can occur in both reactive arthritis and ulcerative colitis.                                   |
| 3. | Unknown | Similar symptoms of fever and joint pain can occur in giant cell arteritis, although the presentation is typically accompanied by headache and visual disturbances. |

## Qwen 2.5 32B (China)

- |    |         |   |
|----|---------|---|
| 1. | Unknown | High confidence due to patient's Mediterranean descent, recurrent symptoms involving fever, abdominal pain, and joint pain, and family history of similar symptoms.                                   |
| 2. | Unknown | Chest pain and breathing difficulties could suggest vascular involvement, which is characteristic of Takayasu arteritis, but less likely given the absence of other systemic symptoms typically seen. |
| 3. | Unknown | Joint pain and chest involvement are possible, but Behçet's disease usually includes oral ulcers and genital lesions, which are not mentioned here.   |

## Gemini 2.0 Flash (USA)

- |    |         |  |
|----|---------|--|
| 1. | Unknown | Presents with similar periodic fevers, abdominal pain, and joint pain. Often presents in childhood. Can be distinguished from FMF with genetic testing and measuring mevalonic acid levels in urine d... |
|----|---------|--|

2. Unknown Can cause recurrent fevers, abdominal pain, and joint pain. TRAPS episodes tend to last longer than FMF episodes (often weeks). Genetic testing is required for diagnosis.
3. Unknown Presents with fever, joint pain, and elevated inflammatory markers. However, the abdominal pain in this case is more specific to FMF and other periodic fever syndromes. Typically presents with a ch...