



Fever of Unknown Origin (FUO)

FUO: Fever of >101°F and illness for >3 weeks and no known immunocompromised state that remains unexplained after history-taking, physical exam, and recommended investigations suggested by current guidelines



Recommended Investigations

Laboratory Studies

- ESR
- CRP
- WBC w/differential
- Platelet count
- Hemoglobin
- LDH
- AST/ALT
- ANA/RF serology
- Total protein
- SPEP
- HIV testing
- Ferritin
- BMP
- Creatinine
- Alkaline phosphatase
- PPD or IGRA
- Creatine kinase
- Urinalysis
- Blood/urine cultures

Imaging Studies

- Abdominal ultrasound
- Chest X-ray

Etiology

- Varies by host factors and geography
- ~40% unknown causes
 - ~25% **noninfectious inflammatory diseases**
 - ~20% infectious diseases
 - ~10% neoplasms
 - In LMICs, ~40% infectious diseases

Differential Diagnosis

More often an atypical presentation of a common disease

Infectious diseases

- Endocarditis
- Diverticulitis
- Vertebral osteomyelitis
- Tuberculosis

Noninfectious inflammatory diseases

- Large-vessel vasculitis
- Familial Mediterranean fever
- Polymyalgia rheumatica
- Sarcoidosis
- Adult-onset Still's disease

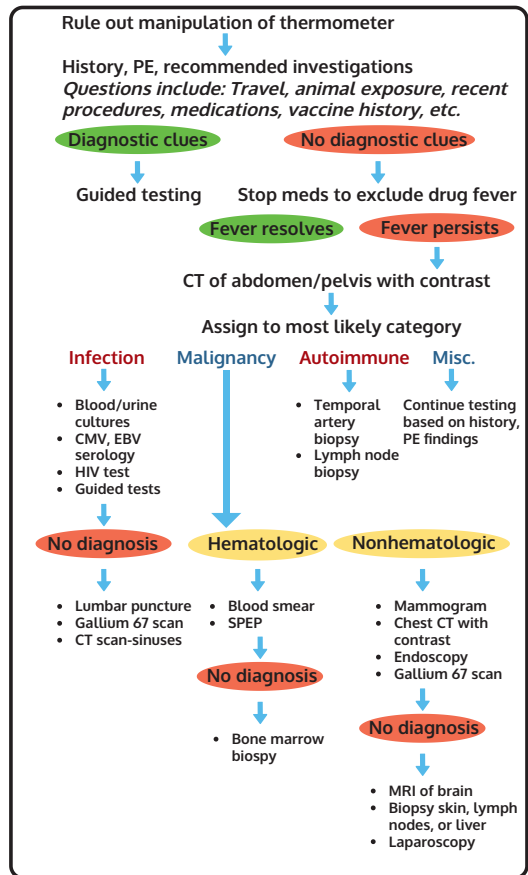
Neoplasms

- Lymphoma, leukemia, hepatoma
- Metastatic malignancy

Miscellaneous

- Factitious fever
- Drug-induced fever
- Exercise-induced hyperthermia

Diagnostic Approach



Treatment

- **Avoid empiric antimicrobial therapy or steroids unless patient unstable**
- Supportive care
- Treat syndromes or infections if diagnosed