**Clinical algorithm:**

**INTENTION OF THIS GUIDELINE**
Obtaining cultures in hospitalized patients is an important part of the diagnostic workup for suspected infection, however obtaining these tests is not always a benign intervention. Over-utilization of cultures for inappropriate clinical circumstances may lead to false positive results from contamination or patient colonization. This in turn can result in patient discomfort, thrombophlebitis and anemia from multiple blood draws, unnecessary antibiotic treatment, increased extraction of medical devices, prolonged length of stay, and patient discomfort. This guideline is meant to provide general guidance for the appropriate workup of fever in the hospitalized adult patient.

**Fever in Adult**
- Fever is considered a temp of ≥ 38.3°C (101°F) in non-surgical patients OR ≥ 38.6°C (101.5°F) <72 hours Post-Op
- Neutropenic fever is excluded from this guideline

**If initial cause is not clear, perform direct patient evaluation**
- Obtain a thorough history and gather information
- Cough with sputum production, respiratory symptoms, increasing oxygen requirements, known covid-19 infection
- Urinary symptoms: dysuria, frequency, urgency, flank/suprapubic pain (in the absence of these symptoms uti is unlikely) If the patient has had a foley catheter removed in the last 48 hours, irritative voiding symptoms are common and are not indicative of infection in the absence of other infectious signs
- Skin evaluation for wounds, rashes, exudates
- IV site examination for septic thrombophlebitis or cellulitis
- Signs/symptoms of DVT
- Change in bowel symptoms or new onset abdominal pain
- Headache with meningeal signs. Note that hospital onset meningitis is rare outside the post neurosurgical and immunocompromised patient populations.
- Recent procedure or surgical intervention
- Indwelling vascular access device

**Non-bacterial causes of fever suspected**
- VTE
- Drug fever
- Malignancy
- Autoimmune disease
- Neuronal insult
- Viral infection (covid-19, etc)

**Clinical Pathways Program**

**Guideline: FEVER, ADULT INPATIENT**

**Updated: October 2021**

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- Viral infection (covid-19, etc)

**Obtain the appropriate diagnostic workup**
Workup should be targeted at the suspected cause of the fever, rather than “pan culturing”

**RESPIRATORY:**
- Sputum culture: if OR reveals a new infiltrate and patient has productive cough
- Film array: In patients with fever, cough, upper respiratory symptoms, or pulmonary infiltrates
- Cough with sputum production, respiratory symptoms, increasing oxygen requirements, known covid-19 infection
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**Has the patient had previous blood cultures during this admission?**
- When are repeat blood cultures generally NOT helpful?
- If the patient has had recurrent fevers and negative blood cultures within 72 hours, repeat blood cultures are unlikely to be of benefit if no other clinical changes are present.
- If a patient has a known infection without source control, repeat blood cultures for fever alone are not necessary.
- Repeat blood cultures are rarely helpful in patients with cellulitis, uti/pyelo, or known viral infection.

**When can repeat blood cultures be helpful?**
- A clear change in clinical status or clinical deterioration with new bacterial infection suspected
- Enterococcus, MRSA, MSSA bacteremia to document clearance.
- Occult bacteremia without a clear source of infection, ID consult is recommended.
- Patients with fever and prosthetic heart valves, pacemaker, or ICD

**Blood cultures determined to be appropriate**
- Prefer 2 PERIPHERAL blood cultures
- Central line and midline blood cultures should be AVOIDED
- Central line cultures are acceptable only if multiple attempts have been made a peripheral collection without success

**URINARY:**
- Urine Culture Guideline
- If the patient has symptoms of urinary tract infection (dysuria, hematuria, flank/suprapubic pain) and urinalysis for evaluation.
- If the patient has had a foley catheter removed in the last 48 hours, irritative voiding symptoms are common and are not indicative of infection in the absence of other infectious signs.
- Do not send urine culture in the absence of symptoms.

**STOP**

**Urine Culture Guideline**
- If the patient has symptoms of urinary tract infection (dysuria, hematuria, flank/suprapubic pain) and urinalysis for evaluation.
- If the patient has had a foley catheter removed in the last 48 hours, irritative voiding symptoms are common and are not indicative of infection in the absence of other infectious signs.
- Do not send urine culture in the absence of symptoms.
Clinical guideline summary

CLINICAL GUIDELINE NAME: Adult Fever, Inpatient

PATIENT POPULATION AND DIAGNOSIS:

Fever is considered a temp of ≥ 38.3°C (101°F) in non-surgical patients OR 38.6 °C (101.5°F) <72 hours Post-Op. Neutropenic fever is excluded from this guideline

APPLICABLE TO: SHWM inpatient spaces.

BRIEF DESCRIPTION: Obtaining cultures in hospitalized patients is an important part of the diagnostic workup for suspected infection, however obtaining these tests is not always a benign intervention. Over utilization of cultures for inappropriate clinical circumstances may lead to false positive results from contamination or patient colonization. This in turn can result in patient discomfort, thrombophlebitis and anemia from multiple blood draws, unnecessary antibiotic treatment, unneeded extraction of medical devices, prolonged length of stay, and patient distress. This guideline is meant to provide general guidance for the appropriate workup of fever in the hospitalized adult patient.

OVERSIGHT TEAM LEADER(S): Stephanie Burdick, Cheryl Peavler, Russel Lampen

OWNING EXPERT IMPROVEMENT TEAM (EIT): CLABSI, CAUTI

MANAGING CLINICAL PRACTICE COUNCIL (CPC): Acute Health

CPC APPROVAL DATE: 10/26/21

OTHER TEAM(S) IMPACTED: All service lines and specialties, all inpatient providers

IMPLEMENTATION DATE: 02/11/22

LAST REVISED: 10/01/21

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References:
