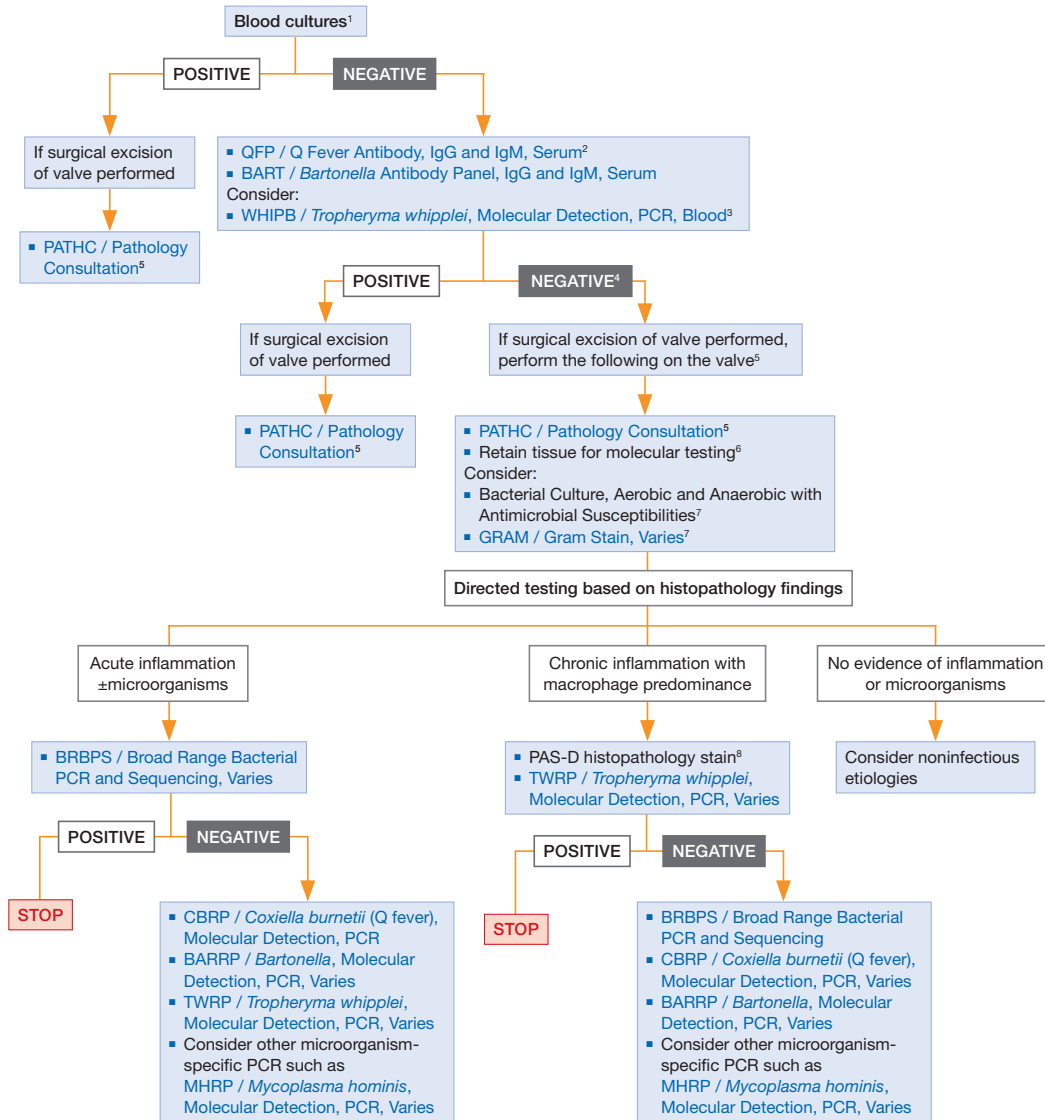


## Infective Endocarditis: Diagnostic Testing for Identification of Microbiological Etiology



This algorithm is intended for use in patients with clinical and/or echocardiographic findings suggestive of infective endocarditis, based on the modified Duke criteria.

<sup>1</sup> Per American Heart Association, European Society of Cardiology, and British Society for Antimicrobial Chemotherapy guidelines, 2 (or more) blood cultures should be positive for a typical microorganism consistent with infective endocarditis (ie, viridans group streptococci, *Streptococcus gallolyticus*, HACEK group bacteria, *Staphylococcus aureus*, community-acquired *Enterococcus* species in the absence of a primary focus) to define a positive result.

<sup>2</sup> *C burnetii* anti-phase I IgG antibody titer  $\geq 1:800$  is considered indicative of *C burnetii* endocarditis.

<sup>3</sup> The sensitivity of *T whipplei* PCR from blood in endocarditis is unknown; a negative result should not be used to rule out *T whipplei* endocarditis.

<sup>4</sup> Histologic examination is used to evaluate for infectious and noninfectious etiologies and correlate with microbiology test results.

<sup>5</sup> If surgery is not performed, consider testing for noninfectious etiologies.

<sup>6</sup> Ideally, a representative sample of valvular tissue should be collected specifically for molecular testing in the operating room in a sterile fashion.

<sup>7</sup> If sufficient valvular tissue is available after sampling for histopathological and molecular (microorganism-specific and broad range) testing, consider culture and Gram stain. Due to the low sensitivity and specificity of culture, molecular testing should be prioritized over culture.

<sup>8</sup> PAS-D, periodic acid Schiff with diastase. Macrophages infected with *T whipplei* will stain PAS positive following diastase digestion. Specialty stains are ordered as appropriate by the reviewing pathologist.