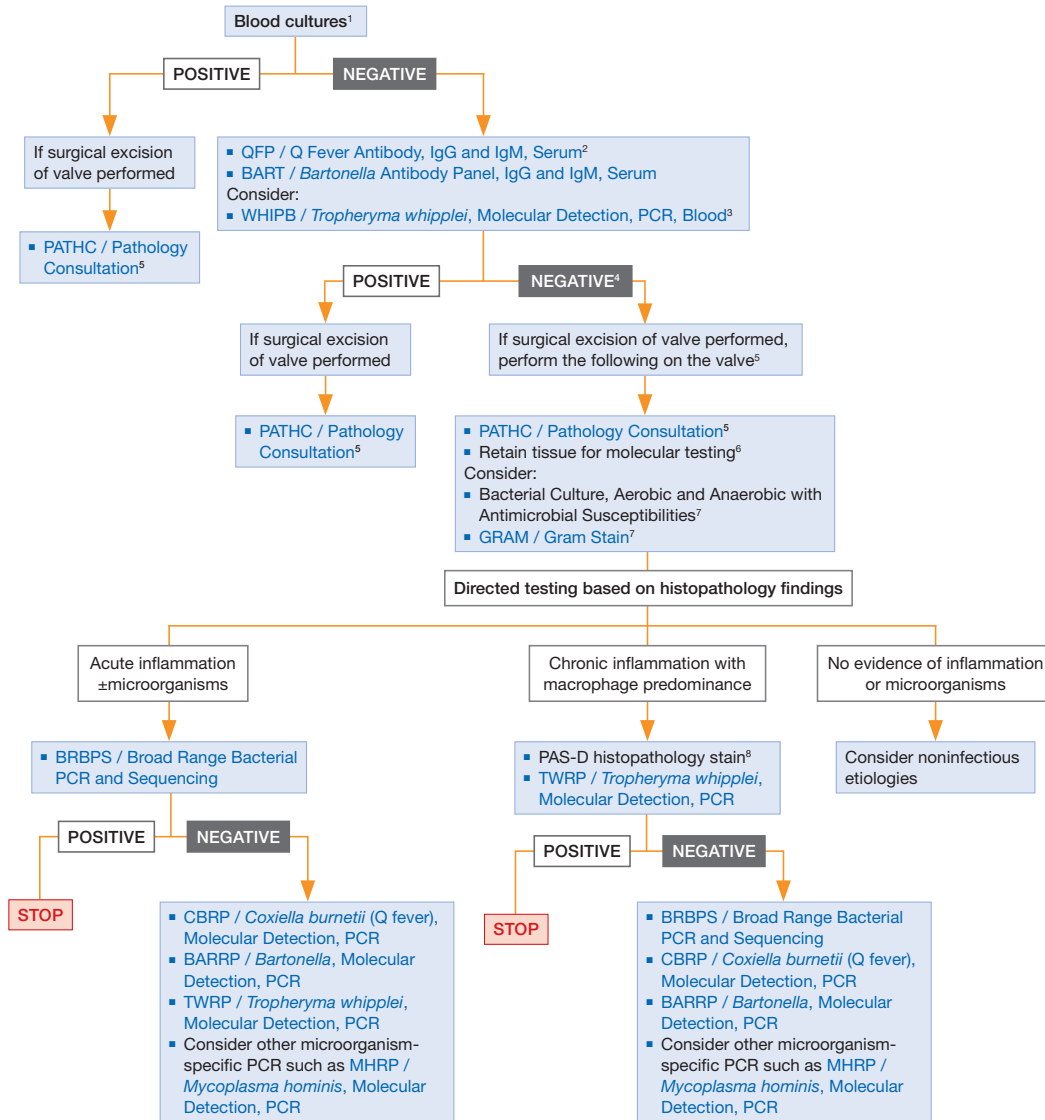


Infective Endocarditis: Diagnostic Testing for Identification of Microbiological Etiology



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

¹ 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.

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

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

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

⁵ If surgery is not performed, consider testing for noninfectious etiologies.

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

⁷ 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.

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