



**FIGURE 162-4** Diagnostic approach to urinary tract infection (UTI). STD, sexually transmitted disease; CAUTI, catheter-associated UTI; ASB, asymptomatic bacteriuria; CA-ASB, catheter-associated ASB.

disease. Either nitrite or leukocyte esterase positivity can be interpreted as a positive result. Blood in the urine also may suggest a diagnosis of UTI. A dipstick test negative for both nitrite and leukocyte esterase in the same type of patient should prompt consideration of other explanations for the patient's symptoms and collection of urine for culture. A negative dipstick test is not sufficiently sensitive to rule out bacteriuria in pregnant women, in whom it is important to detect all episodes of bacteriuria. Performance characteristics of the dipstick test

differ in men (highly specific) and in noncatheterized nursing home residents (highly sensitive).

Urine microscopy reveals pyuria in nearly all cases of cystitis and hematuria in ~30% of cases. In current practice, most hospital laboratories use an automated system rather than manual examination for urine microscopy. A machine aspirates a sample of the urine and then classifies the particles in the urine by size, shape, contrast, light scatter, volume, and other properties. These automated systems can be overwhelmed by high