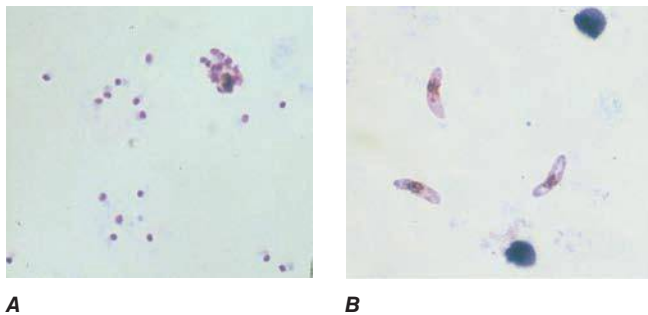


**FIGURE 248-5** Thin blood films of *Plasmodium vivax*. **A.** Young trophozoites. **B.** Old trophozoites. **C.** Mature schizonts. **D.** Female gametocytes. **E.** Male gametocytes. (Reproduced from *Bench Aids for the Diagnosis of Malaria Infections*, 2nd ed, with the permission of the World Health Organization.)

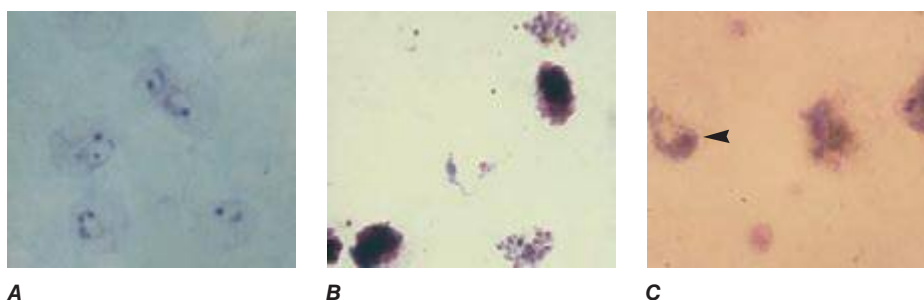
malaria as the cause of illness. Low-density parasitemia is common in other conditions causing fever.

Rapid, simple, sensitive, and specific antibody-based diagnostic stick or card tests that detect *P. falciparum*-specific, histidine-rich protein 2 (PfHRP2), lactate dehydrogenase, or aldolase antigens in finger-prick blood samples are now being used widely in control programs (Table 248-5). Some of these rapid diagnostic tests carry a second antibody, which allows falciparum malaria to be distinguished from the less dangerous malarias. PfHRP2-based tests may remain positive for several weeks after acute infection. This feature is a disadvantage in high-transmission areas where infections are frequent, but it is of value in the diagnosis of severe malaria in patients who have taken antimalarial drugs and cleared peripheral parasitemia (but in whom the PfHRP2 test remains strongly positive). Rapid diagnostic tests are replacing microscopy in many areas because of their simplicity and speed. Their disadvantage is that they do not quantify parasitemia.

The relationship between parasitemia and prognosis is complex; in general, patients with  $>10^5$  parasites/ $\mu\text{L}$  are at increased risk of dying, but nonimmune patients may die with much lower counts, and partially immune persons may tolerate parasitemia levels many times higher with only minor symptoms. In severe malaria, a poor prognosis is indicated by a predominance of more mature *P. falciparum*



**FIGURE 248-6** Thick blood films of *Plasmodium falciparum*. **A.** Trophozoites. **B.** Gametocytes. (Reproduced from *Bench Aids for the Diagnosis of Malaria Infections*, 2nd ed, with the permission of the World Health Organization.)



**FIGURE 248-7** Thick blood films of *Plasmodium vivax*. **A.** Trophozoites. **B.** Schizonts. **C.** Gametocytes. (Reproduced from *Bench Aids for the Diagnosis of Malaria Infections*, 2nd ed, with the permission of the World Health Organization.)