

cytopenias. It is difficult to tease out whether autoimmune cytopenias lead to worse prognosis in CLL because of various complicating factors. However, it is clear that these can lead to significant morbidity, both due to the process itself and due to therapies required for management.

AIHA usually presents as an isolated anemia with an elevated reticulocyte count and features of hemolysis including elevated bilirubin and LDH and low haptoglobin. Detection of a warm IgG antibody on the surface of RBCs with a Coombs test can help solidify the diagnosis, although Coombs-negative cases can occur. Immediate therapy is almost always necessary and consists of transfusion and immunosuppression. Glucocorticoids are often used for initial therapy, although in most cases, additional treatment is needed due to either poor response or recurrence with taper of glucocorticoid dosing. Rituximab can be successful, and therapy directed toward the underlying CLL is often effective in more resistant cases. Transfusion of blood in cases of robust AIHA must be initiated with caution as transfusion reactions can be seen due to poorly matched blood, but should be pursued in those with severe, symptomatic anemia. Death from uncontrolled AIHA can occur in the absence of appropriate supportive care ([Chap. 100](#)).

ITP can be more difficult to diagnose as it may be difficult to differentiate from progression of disease due to the lack of laboratory tests that identify platelet destruction from this mechanism. Signs that point toward ITP include isolated thrombocytopenia and rapid decline in platelet levels in the absence of an alternative etiology. A bone marrow biopsy showing normal or increased megakaryocytes can be used to confirm the diagnosis but is often not necessary. In CLL, treatment for ITP is usually instituted when platelet levels drop to 20,000–30,000 or if evidence of bleeding complications or need for invasive procedures develops. Like AIHA, initial therapy consists of glucocorticoids and IVIg, with rituximab also being an effective method to induce long-term remissions. Also, the thrombopoietin receptor agonists romiplostim and eltrombopag are effective in secondary ITP. In many cases, ITP can be successfully treated without treating the underlying CLL. In cases in which anemia or thrombocytopenia appears, it is important to investigate the