Four hundred and thirty six pupils in two primary schools in Kibwezi, Kenya aged between seven and sixteen years and positive for S. mansoni were treated as follows: 320 pupils with a single dose of praziquantel at 40 mg/kg body weight and 116 controls with a placebo. Immediate and delayed side effects of praziquantel were observed. The main side-effects were abdominal pain (36.3%), headache (35.3%) and nausea (13.1%). There was correlation between frequencies of these side-effects and intensity of infection measured as eggs per gram of faeces. Other side-effects included dizziness (9.7%), fever (7.8%), urticaria and bloody diarrhoea. Overall, the side-effects of praziquantel were mild and transient, and did not require any intervention. For ethical reasons, all pupils who served as controls were treated with praziquantel after the study.