This study compares the office based qualitative BTA Stat and laboratory based quantitative BTA Trak and NMP22 test in screening and monitoring patients at risk for bladder cancer. 239 patients submitted a single voided urine sample that was tested using BTA Stat, BTA Trak and NMP22 test. Of the 239 patients, 162 were screening (incident) and 77 were known cancers (prevalent). In the incident group, 89 (37%) presented with microscopic hematuria and 62 (26%) presented with gross hematuria. BTA Stat test was read as positive or negative. The BTA Trak was considered positive at values >14U/mL and NMP22 at a value of >10U/mL. Of the 239 patients, there were 4 incident cancers and 20 prevalent cancers. The overall sensitivity and specificity of these 3 tests were as follows: BTA Stat (79%, 79%), BTA Trak (79%, 59%) and NMP22 (88%, 79%). In incident cases the sensitivity and specificity of the 3 tests were as follows: BTA Stat (85%, 75%), BTA Trak (85%, 54%) and NMP22 (85%, 61%). In the prevalent cases the sensitivity and specificity of the 3 tests were as follows: BTA Stat (85%, 75%), BTA Trak (85%, 54%) and NMP22 (85%, 61%). The office based BTA Stat test has equivalent sensitivity and specificity as the two quantitative laboratory tests. Of the two laboratory based tests NMP22 appears to be clinically superior to BTA Trak due to its high specificity (P <0.001).