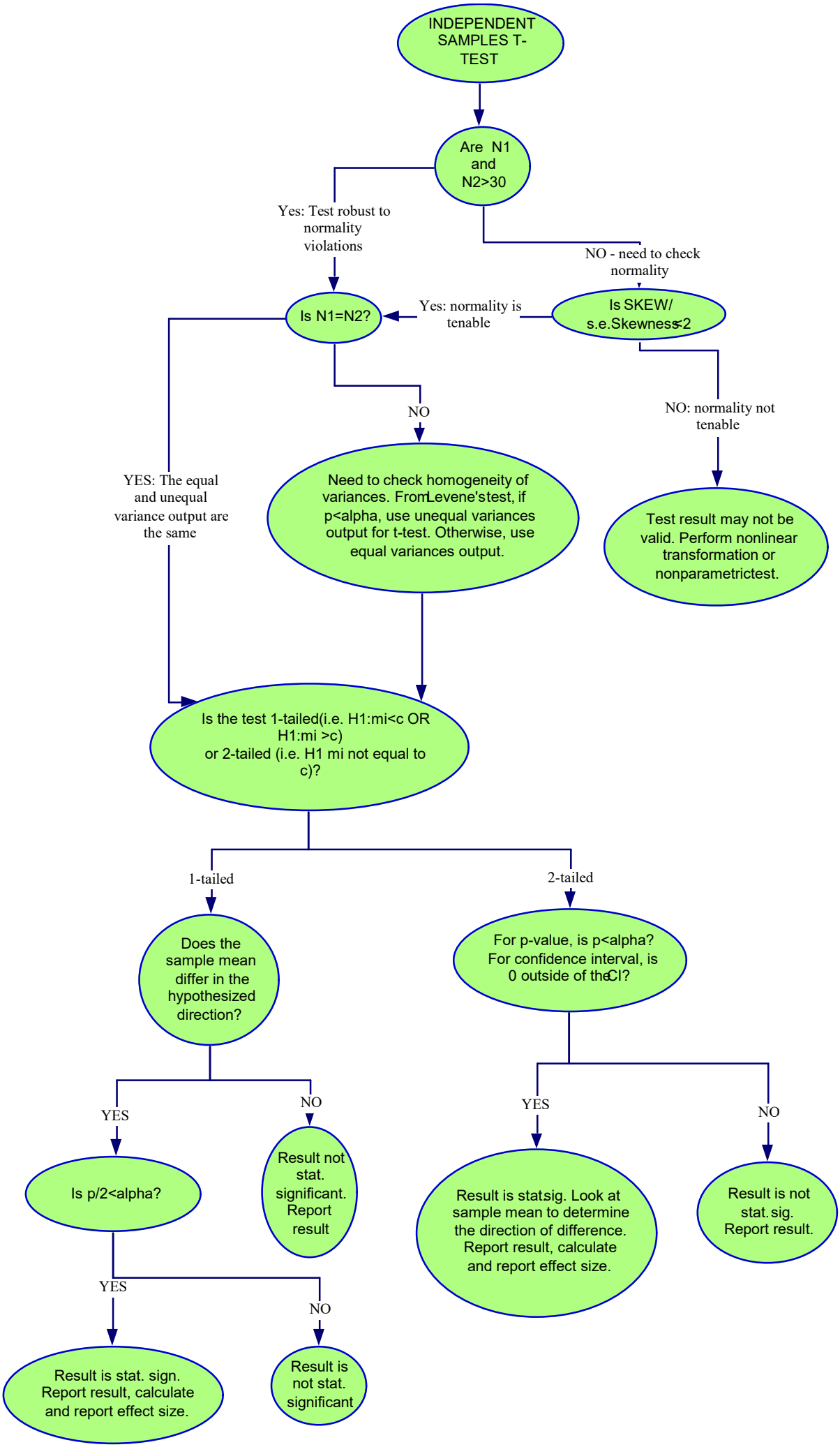
INDEPENDENT SAMPLES T-TEST
Are N1 and N2>30
Yes: Test robust to normality violations
NO - need to check normality
Is N1=N2?
Yes: normality is tenable
Is SKEW/ s.e.Skewness<2
NO
NO: normality not tenable
YES: The equal and unequal variance output are the same
Need to check homogeneity of variances. From Levene's test, if p<alpha, use unequal variances output for t-test. Otherwise, use equal variances output.
Test result may not be valid. Perform nonlinear transformation or nonparametric test.
Is the test 1-tailed(i.e. H1:mi<c OR H1:mi >c) or 2-tailed (i.e. H1 mi not equal to c)?
1-tailed
2-tailed
Does the sample mean differ in the hypothesized direction?
For p-value, is p<alpha? For confidence interval, is 0 outside of the CI?
YES
NO
Is p/2<alpha?
Result not stat. significant. Report result
YES
NO
Result is stat sig. Look at sample mean to determine the direction of difference. Report result, calculate and report effect size.
Result is not stat. sig. Report result.
YES
NO
Result is stat. sign. Report result, calculate and report effect size.
Result is not stat. significant