CLL SOCIETY

TEST BEFORE TREAT

What Are the Three Most Important Tests to Have After Receiving a Diagnosis of CLL or SLL?



FISH
(Fluorescence In Situ Hybridization)



TP53
(Tumor Protein 53)



IGHV
(Immunoglobulin Heavy-chain Variable region)

Why Is It Important to Have These Three Tests Performed?

- Some common cancer treatments (such as traditional chemoimmunotherapy) may not work on certain types of CLL or SLL, so the results of these tests are very important to help guide treatment decisions.
- Results of these tests can help predict how aggressive the disease might behave in the future and what the prognosis (or outlook) might be.

When Should These Tests Be Performed?

FISH

This test is usually performed upon diagnosis and always before each and every time a new treatment is started. This test should be performed again prior to the start of each new treatment because the results of this test can change over the course of the disease.

TP53

This test is usually performed at diagnosis and always before each and every time a new treatment is started. This test should be performed again prior to the start of each new treatment because the results of this test can change over the course of the disease.

IGHV

This test is usually performed upon diagnosis or before the first treatment is started. This test result almost never changes over time, so retesting is generally not recommended.

What Are These Tests Looking for and How Can They Inform Treatment Decisions?

FISH Testing

- Looks for several different chromosomal abnormalities (also called mutations) including:
  - Deletion 17p (Del 17p)
  - Deletion 11q (Del 11q)
  - Deletion 13q (Del 13q)
  - Trisomy 12
- Those with the presence of deletion 17p should NOT be treated with traditional chemoimmunotherapy.

TP53 Gene Mutation

- Identifies whether TP53 is mutated or unmutated.
  - If the TP53 gene is mutated, traditional chemoimmunotherapy will NOT be effective and should never be considered as a possible treatment option.

IGHV Gene Mutation

- Identifies whether IGHV is mutated or unmutated.
  - If the IGHV gene is unmutated, traditional chemoimmunotherapy will be MUCH LESS effective and generally should not be considered as a possible treatment option.

(Traditional chemoimmunotherapy refers to the combined use of fludarabine, cyclophosphamide, and rituximab–also called FCR, or the combination of bendamustine and rituximab-also called BR).

KEY POINTS:

Critical testing should be performed as follows:

- FISH, TP53, and IGHV at diagnosis or before the first treatment is started.
- FISH and TP53 should be tested again each and every time a new treatment is started.

CHEMOIMMUNOTHERAPY SHOULD NOT BE CONSIDERED for those who are:

- Deletion 17p
- TP53 mutated
- IGHV unmutated