HEPATITIS C: GENOTYPES

WHAT IS A GENOTYPE?

A genotype is a complete set of genes that make-up a cell, organism, or individual. For hepatitis C, several genotypes have been identified. Ascertaining the specific hepatitis C genotype helps determine treatment recommendations options for patients.

THE DIFFERENT GENOTYPES

Currently, six major hepatitis C genotypes (GT1-6) and a large number of subtypes have been identified. In the case of Genotype 1, two different subtypes – 1a and 1b – have been identified. While different genotypes and subtypes share basic biological and pathogenic features, they differ in terms of response to treatment and epidemiology.

Genotype 1 is the most common type of hepatitis C genotype worldwide, with a higher prevalence of 1b in Europe and 1a in the U.S. It has also historically been considered difficult to treat.

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WORLDWIDE SPREAD OF GENOTYPES

Six major genotypes have been identified and vary in their prevalence throughout the world.

- **Genotype 1**, with subtypes 1a and 1b, is the most prevalent genotype worldwide, with a higher prevalence of 1a in the U.S. and 1b in Europe.
- **Genotype 2** is the predominant genotype in West Africa and can be found throughout the world.
- **Genotype 3** is endemic to South-East Asia and variably distributed in different countries.
- **Genotype 4** is principally found in the Middle East, Egypt, and Central Africa.
- **Genotype 5** is almost exclusively found in South Africa.
- **Genotype 6** is distributed throughout Asia.

IDENTIFYING HEPATITIS C GENOTYPES

A blood test is required to determine the particular hepatitis C virus genotype the patient may have. This only needs to be completed once, as the genotype does not change.

Accurately identifying specific hepatitis C virus genotypes and subtypes is helpful in defining the epidemiology of hepatitis C and in making recommendations regarding treatment.