Bilirubin is a degradation product of hemoglobin. Total bilirubin in serum is composed of three fractions: Unconjugated bilirubin, conjugated (direct) bilirubin and δ-bilirubin. The determination of total and direct bilirubin is an important aid in diagnosis and monitoring of hyperbilirubinemia and hepatobiliary diseases. World Gastroenterology Organization recommends testing bilirubin from all patients with underlying chronic viral hepatitis and symptomatic COVID-19 infection. In addition, IFCC recommends monitoring bilirubin during COVID-19 drug treatment of patients with hepatotoxic medications, and in those with pre-existing liver disease.

Elevated bilirubin concentrations may refer to various types of liver or bile duct problems such as hepatitis, cholestasis, gallstones or gallbladder tumors. Occasionally, higher bilirubin levels may be caused by an increased rate of destruction of red blood cells (hemolysis). Jaundice is a condition characterized by hyperbilirubinemia and deposition of bile pigment in the skin, mucous membranes, and sclera, with a resulting yellow appearance of the patient. These disorders are usually classified as acquired or inherited disorders of bilirubin metabolism. In addition, high direct bilirubin level which is called conjugated/direct hyperbilirubinemia can also be caused by e.g. Dubin-Johnson syndrome, Rotor syndrome and certain medications.

Thermo Scientific™ Indiko™ and Indiko Plus clinical chemistry analyzers, together with the ready-to-use system reagents, calibrators, and controls, offer a complete system solution for quantitative analysis of total and direct bilirubin in human serum and plasma.

Key benefits of Thermo Scientific Indiko and Indiko Plus Bilirubin Total and Bilirubin Direct assays:

- Ready to use reagents – Easy to use
- Completes the Liver panel – Excellence for patient monitoring
- Convenient kit configuration – Optimized for Indiko analyzers
- Full system solution with two QC levels – Uncompromised performance
- Excellent on-board stability – Cost efficiency
- High level detection – Aid of diagnosis of hyperbilirubinemia and hepatobiliary diseases
- CE marked and fully IVDD compliant – Application performance guaranteed by the manufacturer
- Applications and claims fully validated in accordance with IVDD – No additional method adjustment required

<table>
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IFCC recommends monitoring bilirubin levels during COVID-19 drug treatment of patients with hepatotoxic medications, and in those with pre-existing liver disease among several other common in vitro diagnostics parameters.
The bilirubin total and bilirubin direct assays are indicated to be used in conjunction with clinical evaluation for aid to diagnosis and monitoring of hyperbilirubinemia and hepatobiliary diseases, due to various acquired or inherited disorders of bilirubin metabolism, and hemolysis, in patients.

References

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