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Clinical chemistry of companion avian species: a review.

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Source

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Abstract

Birds have evolved alternate physiologic strategies to contend with dehydration, starvation, malnutrition, and reproduction. Basic anatomic and functional differences between birds and mammals impact clinical chemistry values and their evaluation. Interpretation of the results of standard biochemical analyses, including BUN, alanine aminotransferase, aspartate aminotransferase, creatine kinase, gamma glutamyltransferase, bilirubin, ammonia, alkaline phosphatase, cholesterol, bile acids, glucose, albumin, globulins, calcium, phosphorus, prealbumin (transferrin), fibrinogen, iron, and ferritin, is reviewed and discussed in relation to these physiological differences. The use and interpretation of alternative analytes appropriate for avian species, such as uric acid, biliverdin, glutamate dehydrogenase, and galactose clearance, also are reviewed. Normal avian urine and appropriate use of urinalysis, an integral part of laboratory diagnosis in mammalian species that frequently is omitted from avian diagnostic protocols, is discussed.

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