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Nota di contenuto	Intro -- Clinical Biochemistry: Lecture Notes -- Contents -- Preface -- List of abbreviations -- How to use your textbook -- About the companion website -- 1 Requesting and interpreting tests -- Introduction -- Collection of specimens -- The use of clinical biochemistry tests -- Point of care testing (POCT) (Table 1.5) -- Interpretation of clinical biochemistry tests -- Sources of variation in test results -- Analytical sources of variation -- Blunders -- Biological causes of variation -- How do results vary in health? -- How do results vary in disease? -- The assessment of diagnostic tests -- Audit in clinical biochemistry -- The audit process -- FURTHER READING -- Appendix 1.1: Screening for rare diseases -- 2 Disturbances of water, sodium and potassium balance -- Introduction -- Water and sodium balance -- Internal distribution of water and sodium -- Osmolality and tonicity -- Colloid osmotic pressure (oncotic pressure -- Regulation of external water balance -- Regulation of external sodium balance -- Disorders of water and sodium homeostasis -- Hyponatraemia -- Hypernatraemia -- Other chemical investigations in fluid balance disorders -- Blood specimens -- Urine specimens -- Potassium balance -- Abnormalities of plasma potassium concentration -- Hypokalaemia -- Hyperkalaemia -- Other investigations in disordered K ⁺ metabolism -- Fluid and electrolyte

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-- Metabolic alkalosis.

Interpretation of results of acid-base assessment -- Plasma [H⁺] is
increased -- Plasma [H⁺] is decreased -- Plasma [H⁺] is normal --
Mixed acid-base disturbances -- Other investigations in acid-base
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Plasma urea -- Tests of tubular function -- Urine osmolality and renal
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potassium -- Sodium excretion -- Potassium excretion -- Acute kidney
injury -- Chronic kidney disease -- Proteinuria -- Overflow proteinuria
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Glomerulonephritis -- Orthostatic proteinuria -- Tubular proteinuria --
Renal stones -- Hypercalciuria -- Oxalate, cystine and xanthine
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secretion -- Diabetes mellitus -- Diagnosis -- Blood and plasma
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Screening for trisomy 21 -- Neural tube defects -- 12 Cardiovascular disorders -- The diagnosis of myocardial infarction -- Biochemical tests in myocardial infarction and ischaemia -- Time-course of changes -- Optimal times for blood sampling -- Creatine kinase -- The diagnosis of heart failure -- The diagnosis of thromboembolic disease -- Cardiovascular risk factors -- Lipids -- Enzymes involved in lipid transport -- Metabolism of plasma lipoproteins -- Chylomicron metabolism.

VLDL and IDL metabolism.

Sommario/riassunto

Concise yet comprehensive, Clinical Biochemistry Lecture Notes contains all the essential information for students and foundation doctors to understand the biochemical basis of disease and principles of biochemical diagnostics. It presents scientific principles in a clinical setting, with a range of case studies integrated into the text to clearly demonstrate how knowledge should be applied to real-life situations. Key features include: The fundamental science underpinning common biochemical disorders and their investigation in clinical practice Accessible flow charts of biochemical processes and the reasoning behind specific tests, making look-up and understanding easy A brand new companion website at www.lecturenoteseries.com/clinicalbiochemistry with self-assessment and downloadable summary slides for revision Clinical Biochemistry Lecture Notes is an ideal overview and revision guide for medical students, foundation doctors, general practitioners, and nurses. It also provides a core text for scientific and medical staff pursuing a career in clinical biochemistry.
