

ABSTRACT

Serum Calcium and 24 hr urine calcium levels are being frequently used by the physicians for the diagnosis of many related diseases as Hyperthyroidism, peptic ulcer, multiple myeloma, nephritis, rickets anti pancreatics and in calcium balance test. Almost all these determinations in Government and private clinical laboratories of Pakistan are being measured by imported commercial kits. In present work methodology in a very simplified form is introduced to clinical chemist to prepare reagents for the determination of serum and urine calcium. Method is based on the reaction that calcium forms a coloured complex in alkaline solution, due to lactone formation in the Phthalein part of the color reagents i.e. O-Cresol phthalein complexone. 8- hydroxyquinoline in the CPC reagent specifies this test for calcium only and eliminates the magnesium interference. Procedures require only 20 minutes to obtain results. In this way about 175 blood samples and 50 urine samples were tested. Quality control samples were also run during determination. The results were reasonably comparable with the commercial kits. Therefore in house reagent can be successfully used for the determination of Calcium.