

THE AGA KHAN UNIVERSITY HOSPITAL CLINICAL LABORATORIES

UPDATE Fractional Excretion of Calcium (FeCa)

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INTRODUCTION:

Primary hyperparathyroidism (PHPT) is a disease characterized by hypercalcemia attributable to autonomous overproduction of parathyroid hormone (PTH). Whenever the diagnosis of PHPT is suspected, it should be distinguished from uncommon disorder of benign familial hypercalcemic hypocalciuria (FHH) which is caused by a systemic under-expression of the calcium sensing receptor gene. Both disorders demonstrate persistent hypercalcemia in the presence of inappropriately normal or elevated PTH concentrations. The difference in both disorders is that there is reduced calcium excretion in the urine in FFH while it is usually increased in patients with PHPT. Fractional Excretion of Calcium (FeCa) has been suggested as a measure for differentiating patients with FHH from those with PHPT.

PRINCIPLE:

Urine and serum Calcium is analyzed by End point method using Arsenazo III dye. Urine and serum Creatinine is analyzed by Jaffe Kinetic Methodology.

SPECIMEN COLLECTION:

- 24-hour urine specimen.
- 3-5 cc blood specimen in Gel tube is required.

SCHEDULE:

- Test will be performed daily with next day reporting.

PLEASE FILE FOR QUICK REFERENCE