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**ASSESSMENT OF THE IRON STATUS OF PATIENTS WITH
CHRONIC RENAL FAILURE**

A PROJECT REPORT PRESENTED BY

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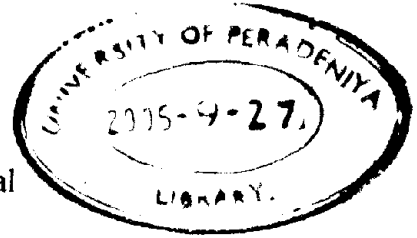
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Chronic renal failure (CRF) is defined as a progressive decline in renal function for at least of three months duration. In CRF a loss of both glomerular and tubular functions are known to occur. In advanced CRF, the glomerular filtration rate usually decreases below 20 ml. min^{-1} .

Anaemia, an early cardinal feature of CRF is known to be due to significantly reduced erythropoietin synthesis. An adequate supply of iron, drawn from iron stores in ferritin, which is replenished by dietary iron is required for the function of erythropoietin for the production of haemoglobin. Hence, careful assessment of the iron status is of utmost importance in CRF patients prior to recombinant human erythropoietin (r-Hu-Epo) therapy when it is to be instituted. Correction of anaemia in CRF is attempted by iron supplementation as a common clinical practice. However, it is extremely important to know whether CRF patients suffer from iron deficiency. A serum ferritin level of less than $100 \mu\text{g.l}^{-1}$, transferrin saturation of less than 20% and percentage of hypochromic red blood cells of more than 10% indicate reduced iron stores, reduced iron supply to the tissues and reduced incorporation of iron into erythrocyte, haemoglobin, and can be used as markers to identify iron deficiency in CRF patients.