

## **Hyper-uricaemia and Cardiovascular Deaths Reduction with Low Dose colchicine in pre-dialysis microalbuminuric Diabetes Nephropathy Patients.**

**Purpose:** Hyper-uricaemia is an independent predictor of coronary cardiovascular events. The significance of colchicine treatment in gout and pre-dialysis micro-albuminuric patients with early diabetes nephropathy had not been evaluated in the Irish population. Hyper-uricaemia is common in gout. The cardiovascular deaths from hyper-uricaemic gout are above the adjusted cardiovascular deaths for the presence of pre-existing cardiovascular risk factors and stable coronary artery disease in Ireland. The cardiovascular diseases are mediated in-vivo by endothelial dysfunctions which are characterised with hyper-uricaemia, activated neutrophil in endothelial wall, reduction of nitric oxide production and vascular vasoconstriction.

**Methods:** A Literature review of cardiovascular events reductions with low dose colchicine in hyper-uricaemic gout in pre-dialysis diabetes nephropathy patients by searching electronic Clinical Cardiovascular Research Journals.

**Results:** The Low Dose Colchicine for Secondary Prevention of Cardiovascular Disease (The LoDoCo Trial) 92 patients with diabetes mellitus (282 treatment group) and 69 patients with diabetes mellitus (250 control group) were randomised to colchicine 0.5mg and placebo respectively. The 161 patients showed freedom from acute myocardial infarction and cardiovascular deaths HR 95% CI 0.26 [0.08, 0.82] RR 1.14; ARR 0.08 (8%); NNT=13

**Conclusion:** Low dose colchicine 0.5mg is effective for the reduction of uric acids, cardiovascular risk, cardiovascular events and cardiovascular death. This novel cardiovascular research initiative when deployed in ethnic Irish population will hopefully improve clinical cardiovascular outcomes of patients with hyper-uricaemia.