

# FREQUENT HEMOGLOBIN (HGB) MONITORING (12X/MONTH) CAN INFORM CLINICAL AND ORGANISATIONAL DECISION MAKING

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As part of a prospective, case controlled study of per hemodialysis treatment measurement of hgb (critline) it was possible to examine the routine factors that influence out-patient renal anemia management (n=49). A written unit wide protocol of EPO management was followed based on the monthly lab hgb. The staff was blinded to the critline hgb results. 43 % of patients had predictable, orderly declining or stable slopes of Hb change, with minor reductions in EPO dose. The factors that impinged on management could be divided into Organisation and Patient related issues. Organisational issues: 1) missing data rate of 4% including laboratory results and clinical events. 2) There were 4 episodes of 'therapeutic inertia', where little changes to EPO dose occurred despite a downward trends in Hb.. 3) 9 episodes of 'therapeutic overenthusiasm'.. These responses were not protocol driven. 4) In 4 cases the thrice-weekly hgb gave more useful information than the monthly blood hgb.(fig1) Pt factors 1) 16% of pts had resistance to epo (> 300iu/Kg/wk).. High ferritin values suggested undiagnosed clinical acute phase responses in 3 patients. 2) 23% of patients were hospitalised over the three month data collection period and two transfused with blood. These data indicate the routine activities that confounds the management of renal anemia, even when appropriate protocols are in place.. Facility protocol is a necessary but not sufficient tool. More frequent hgb measurements have the potential to more quickly establish responses to epo dose changes and confirm trends earlier. This will allow more rapid and confident titration to stable doses. Some unstable/resistant patients are likely to remain beyond such titration. The focus on compliance with changes in epo payment policies and guidelines potentially frustrates the long-term titration to stable doses that is required. Protocol management is ineffective unless the context and logistics are carefully designed and clinicians comfortable enough not to over-ride decision support. This ongoing study will assess the effect of a computer algorithm on anemia management assessed by the q treatment critline hgb.

Figure 1. Representative Patient with differences in Critline and Lab Hemoglobin over the 3 month Baseline

