URINARY & KIDNEY DISEASES/DISORDERS—Economic Outcomes

ASSESSING PROVIDER TIME FOR ANAEMIA MANAGEMENT OF DIALYSIS PATIENTS USING TIME & MOTION METHODS: A MULTI-CENTRE OBSERVATIONAL STUDY IN EUROPE

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OBJECTIVES: Estimate the provider time allocated to the management of anaemia with rHuEPO in dialysis centres throughout Europe. METHOD: The same time and motion protocol was used in nine dialysis centres in five European countries (Netherlands, Germany, France, Spain and Italy). Structured interviews with key personnel were used to obtain an overview of all rHuEPO related activities performed by physician, nurse, health auxiliaries, lab and pharmacy personnel. Strict start and end points were defined for frequent activities (n/week > 1). Time devoted to these activities was measured by a trained centre nurse with a chronometer. Time devoted to less frequent activities (n/week < 1) was estimated from interviews. Nurse and physician time analysis by dialysis centre is reported. To compare time measured across the different centres, activities were regrouped into three main tasks for nurses (rHuEPO administration; blood sampling; other rHuEPO management) and two for physicians (anaemia monitoring and drug & blood prescription). RESULTS: Average time for rHuEPO management per session by nurse and physician combined was 3 min 52 sec (Min: 1 min 47 sec; Max: 6 min 34 sec). The observed time differences were explained by the differences in tasks to be accomplished by nurses such as getting drug and lab prescriptions, lab results, supplies, billing the drug, getting the drug from pharmacy. Estimated average time per year for rHuEPO management of 50 dialysis patients with 3 rHuEPO sessions per week is therefore 503 hours ((3.87 min × 50 × 3 × 52)/60). Switching to one session per week with darbepoetin alfa (AranespTM) will gain an estimated 350 hours per year for nurse and physician combined. CONCLUSION: With fewer injections needed with AranespTM for anaemia management in dialyses centres, substantial time gain per year may occur in each centre.

COSTS OF CHRONIC KIDNEY DISEASE (CKD): COST AND COMORBIDITY

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OBJECTIVES: We examined the incremental cost of CKD over a 66-month period, and the contribution of CKD-related comorbidity to the cost of care. METHODS: Using electronic medical record data at a large HMO, we calculated inpatient, outpatient, pharmacy and total costs for 13,796 cases and 13,796 matched (age and gender) controls. Cases were patients whose glomerular filtration rates (GFR, ml/min/1.72m2) were <90 on two consecutive measurements (at least 90 days apart) in 1996. Cases were divided into stages 2, 3 and 4 based on new guidelines from the National Kidney Foundation. Patients were followed until death, initiation of renal replacement therapy (RRT), or July 1, 2001. CKD-related comorbidities were identified (diabetes, congestive heart failure, coronary artery disease, anaemia and hypertension) based on ICD9 codes. RESULTS: Patients with CKD were 1.9 to 2.5 times more likely (depending on stage) than controls to have been treated with prescription drugs, had more outpatient visits (1.3 to 1.9 times more than controls, across stages), and had 1.8 to 3.1 more inpatient stays than did controls. CKD-related comorbidities almost double the total cost of care for both cases and controls, and cases with no CKD-related comorbidities are about twice as expensive to manage as controls with no CKD-related comorbidities. CONCLUSION: We found that CKD doubles costs to the health care system, and that comorbidities related to CKD contribute more to the cost of managing these patients than does CKD alone. Future research in this area could be usefully directed toward analyzing the clinical and economic consequences of better managing patients with CKD.

BRANDED VS GENERIC CYCLOSPORINE IN DE-NOVO KIDNEY TRANSPLANTATION—WHERE ARE THE COST SAVINGS?

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OBJECTIVE: Cyclosporine introduction for immunosuppressive therapy in the early 1980s has improved graft survival fundamentally. In the last few years generic cyclosporines, suggesting similar pharmacokinetics to branded cyclosporines, were introduced in several markets. The economic implication with respect to graft survival rates using branded or generic cyclosporine is described in the following for Germany. METHODS: The Collaborative Transplant Study recently (2001) presented a survey of all actively forwarded one-year-graft-survival data for kidney transplantation, using either branded or generic cyclosporine in de-novo transplantations between 1998 and 2000. With 16,800 patients in the branded and nearly 400 in the generic arm the 10% increase in graft loss in the generic arm was not statistically significant but clinically relevant. The cost analysis of kidney graft loss