

EFFECT OF A VALUE IMPROVEMENT PROGRAM ON ICU RESOURCE UTILIZATION.
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We have instituted and evaluated the effect of a multidisciplinary team-based effort to reduce the frequency of unnecessary tests, procedures, and drug utilization in our adult medical and surgical intensive care units. Comprehensive data, including patient demographics, diagnoses, outcome, APACHE II and TISS scores, frequency of 120 laboratory tests and procedures, and total dosage of 87 drugs, was collected for 650 consecutive admissions over a 6 month period to serve as control data. Detailed costing information was provided by an independent hospital finance committee.

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We then identified several cost saving opportunities which included excessive numbers of blood gas and serum electrolyte determinations, unnecessary x-rays and procedures, and use of unnecessary or unusually costly drugs. Policies targeted to reduce utilization in these areas were then developed and instituted and complete data collected for the subsequent 6 months.

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Patients studied pre and post policy intervention were similar with respect to age, diagnoses, length of stay, APACHE score (19.4 ± 8.3 vs 19.6 ± 8.3) mortality (14.8% vs 14.6%), or morbidity. Frequency of several common laboratory tests including blood gas and serum electrolyte analysis was reduced by up to 40%, and substantial reductions were achieved in utilization of several commonly ordered drugs and procedures. Total reductions in non-labour costs alone amounted to some 15% and returned the costs of the program implementation three-fold. We conclude that a comprehensive team-based management program as described can significantly improve resource utilization.

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3. Key words: 1. value 2. cost 3. intensive care

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