

Cardiac Rehabilitation Referral Optimization

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Abstract

Background and Purpose: Cardiovascular disease (CVD) is the leading cause of morbidity and mortality worldwide accounting for \$351 billion+ of US healthcare costs. Cardiac Rehabilitation (CR) improves patients' functional capacity, symptoms, and reduces disability and mortality by 20-30%. However, only 20-30% of individuals eligible for CR take part because of barriers such as provider knowledge, distance, and co-pay costs.

The purpose of this 12-week Quality Improvement (QI) project was to implement and evaluate an evidence-based CR referral algorithm.

Methods: This project used a pre/post survey design in a northeast urban hospital with cardiac nurse practitioners. The project assessed the effect of an educational intervention and development of a CR algorithm to optimize referrals. The measurement tools used were a CR provider knowledge questionnaire, the % of inappropriate referrals received, and the Systems Usability Scale assessing the developed CR referral algorithm.

Results: There were 16 NP's in the pre-test and 14 in the posttest. The outcomes indicated NP knowledge of CR improved a statistically significant 29%, CR referral appropriateness clinically improved 36.7% and NP providers had a 64% favorable approval of the CR referral algorithm.

Conclusion: CR can improve functional capacity and symptoms, reduce disability, and optimize a person's quality of life. This project showed a CR referral algorithm and provider education reduced barriers to CR referral and decreased the rate of inappropriate CR referrals.

Implications: Adapting a logic-based algorithm into electronic medical record can recognize and reinforce appropriate CR referral and in turn reduce the lost time and the subsequent cost of inappropriate referrals.

Keywords: barriers, referral, solutions, algorithm, cost