## Standardizing outpatient Cardiac Rehabilitation practices in a large multistate Medical system: A practice Convergence Project

Ray W Squires

## Abstract

The United States healthcare system is evolving from fee-forservice reimbursement to paying for high-value care. This paper describes work to standardize 20 separate outpatient cardiac rehabilitation programs (CR) in a multistate medical system with the goal of providing consistent high-value CR services. The project is part of a medical system-wide practice convergence initiative to provide services common to more than one location at the same level of high quality and with the same level of individualized, yet standardized patient experience. The CR project began in August 2014 and the initial phase was completed in October 2018. Fifty-two staff members participated. Six areas of practice were selected: patient exercise session data management system (clinical database) standardization, patient assessment tools, the individual patient treatment plan (ITP), patient education procedures, policies and procedures, and staff competencies. Information technology work involved database interfaces, the ITP, and documentation of CR services in the electronic medical record with the goal of maximizing CR staff efficiency. Progress was made in standardization of several areas: patient exercise session data management system, patient assessments, the ITP, patient education and staff competencies. Standardization of emergency procedures and patient exercise prescription was accomplished. Variability in program facilities, staff expertise and local practice patterns underscored the complexity of standardization of all policies and procedures. A CR Committee was formed to continue work on unresolved issues and to incorporate innovations as the practice of CR evolves over time. The United States healthcare system is in the process of undergoing structural changes in reimbursement for services that will eventually aspect all providers, hospitals, and clinics. Historically, reimbursement has been provided for each episode of care in a "fee for service" model. This model rewards high volumes of care and

is not tied to patient outcomes. Under this model, the annual rate of increase in healthcare expenditures has outpaced the rate of inflation over the past several decades and is not sustainable. New models of reimbursement with the focus on paying for high-value care are currently under development and implementation. High-value care is defined as producing the best health outcomes at the lowest cost [1]. New types of reimbursement models include pay for performance, bundled payments, capitation (global budgets), and financial risk sharing. These factors have increased the incentive for providers and associated healthcare systems to improve patient outcomes, to increase the efficiency of practice patterns and to reduce costs. Cardiac rehabilitation (CR) is longitudinal care typically lasting 3-6 months for outpatients with diagnoses of acute myocardial infarction, coronary revascularization surgery, stable angina pectoris, heart valve repair or replacement, chronic heart failure, heart transplantation or peripheral artery disease [24]. Components of CR include medical evaluation, prescribed exercise, cardiovascular risk factor management, education and counseling. CR is provided by interdisciplinary teams that may include physicians, midlevel providers, exercise physiologists, registered nurses, therapists, dietitians, and other professionals as needed. There is abundant evidence that CR provides impressive benefits, such as improved symptoms and quality of life, and reduced mortality and re-hospitalizations at a reasonable cost [5-7]. None-the-less, it is incumbent upon CR programs and their healthcare systems to evaluate how CR services are provided and to improve efficiencies in order to ensure the best outcomes for patients and to remain economically viable. The purpose of this paper is to describe efforts to promote consistency and efficiency in all CR programs within a large, multistate medical system. These efforts were part of a medical system-wide initiative of "practice convergence" to be accomplished over the next decade. The Merriam-Webster dictionary definition of convergence is,

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Ray W Squires

Department of Cardiovascular Medicine, Mayo Clinic, Rochester, Minnesota, USA

"moving toward union or uniformity".

The Mayo Clinic is a non-profit medical practice and research group based in Rochester, Minnesota. Here are academic medical centers in three geographic locations: Rochester, Minnesota (34,000 employees), Jacksonville, Florida (6,000 employees) and Scottsdale, Arizona (6,000 employees). It operates six colleges of medicine and biomedical science. There are approximately 4,500 physicians and scientists as well as 2,400 residents, fellows and students at the three academic medical centers. In addition, over the past three decades Mayo Clinic has acquired and now operates approximately 70 hospitals or clinics in Minnesota, Iowa, and Wisconsin with an additional 17,000 employees. Over 1.3 million patients from all 50 states and 150 countries seek care at a Mayo Clinic facility each year. There are currently 20 outpatient CR programs in the system.

This paper has described the efforts of a large multistate medical system to improve standardization of processes, staff efficiency in providing care, and patient outcomes in 20 separate CR programs. The goal was to increase the value of care. During the process, it became apparent that considerable diversity in patient care processes existed among programs. Efforts at standardization, with emphasis on following evidence- and guideline-based practices, were begun and will continue. A unified patient exercise session data management system was implemented in all programs. Additional work is ongoing to develop an interface between the data management system and the newly implemented system-wide EMR. One important lesson from the project was that collaboration between programs with the sharing of knowledge, experience and best practices benefited all of the programs. The provision of high-value care will require a continued commitment to practice efficient and excellent outcomes.