Mission Statement

Preventive cardiology, cardiac rehabilitation, and hypertension have become three increasingly important areas in modern cardiology. It is now well recognized that prevention can have a profound impact on the development of atherosclerotic cardiovascular disease. This, in turn, has a major effect on general healthcare in the United States since disease related to atherosclerosis ranks as the number one cause of morbidity and mortality in the U.S. The appropriate diagnosis and treatment of hypertension leads to substantial decreases in the rate of stroke, renal failure, and heart failure. The rehabilitation of patients with pre-existing cardiovascular disease influences their ability to return to a productive, high quality life and also fosters healthy lifestyles that aid in the prevention/recurrence of cardiovascular illness.

The directive of the Hypertension/Preventive Cardiology/Cardiac Rehabilitation program is to promote and teach heart-healthy habits, effectively manage cardiac risk factors, and rehabilitate patients following myocardial infarction, coronary bypass surgery, coronary angioplasty, and heart transplantation. To accomplish these goals we have developed programs in Phase I, Phase II, and Phase III Cardiac Rehabilitation. Preventive cardiology principles are interwoven in the fabric of the Rehabilitation Program.

Statement of Educational Goals

The curriculum is designed to promote six broad goals based on the six ACGME core competencies:

(1) Medical Knowledge: exposure to a broad range of outpatient cardiovascular problems through direct patient contact in the rehabilitation program as well as in a consultative role to referring physicians in the hypertension and preventive cardiology program. Numerous formal and informal didactic teaching sessions are used as well.

(2) Patient Care: accurate history and physical examination in the clinics including selection of diagnostic testing based on the patient’s clinical presentation. A therapeutic program, if appropriate, will be constructed for each patient with particular emphasis with the patient’s ability to adhere to a particular regimen of both pharmacologic and non-pharmacologic therapy.

(3) Professionalism: effective, mutually satisfying communication with patients, families and other physicians and allied health care personnel. Additionally, effective and prompt communication with the referring physician regarding the overall treatment strategy is an important part of the resident’s role.
(4) Interpersonal and Communications Skills: The majority of patients seen in the preventive cardiology and hypertension clinics are asymptomatic. For this reason, particular emphasis is placed on interpersonal and communications skills as the physician must educate the patient and their family in the importance of treatment of their disease and modification of their risk factors. Such education is essential in yielding adherence to the prescribed medical regimen. Communication of the treatment plan to the referring physician is also important in arranging continuity of care. In the rehabilitation program, the resident will be responsible for encouraging and educating the patients through their time participating in the program.

(5) Practice Based Learning: Using information technology, the web, literature sources and other available resources to practice evidence based medicine based on sound medical principles, guidelines, and best practices. These sources will be used to individualize treatment plans for each patient’s condition.

(6) Systems Based Learning: the resident will have to coordinate the timing of diagnostic testing for the individual patient and will be encouraged to interact with other commonly called sub-specialists (nephrologists, vascular surgeons, endocrinologists, radiologists) to learn about optimal treatment strategies and how to interpret the results of the diagnostic tests accurately.

General Statement of Educational Objectives for Fellows

The goal in Preventive Cardiology/Cardiac Rehabilitation is to provide fellows a focused experience in this area of cardiology. The rotation will emphasize the management of advanced hypertension as well as the importance of prevention and rehabilitation to the overall care of the cardiac patient. Exposure to Phase I Cardiac Rehabilitation comes in the in-hospital setting as fellows rotate through the CCU, Clinical Consultation Service, and Cardiac Catheterization Laboratory. Preventive cardiology is a primary focus of the ambulatory experience for the fellow. The specific curriculum in Preventive Cardiology/Cardiac Rehabilitation is accomplished through exposure to Dr. John Bisognano’s hypertension clinic and the evaluation and treatment of lipid disorders in Dr. Thomas Pearson’s out-patient clinic.

The specific learning objectives, designed for the fellow, provide an in depth working knowledge of two main areas - cardiac risk factor reduction and rehabilitative therapy. Within these areas the fellow is expected to expand his knowledge base on a number of specific topics and develop competence in formulating a treatment regimen for individual patients. At the completion of the Hypertension/Preventive Cardiology/Cardiac Rehabilitation rotation, the fellow will be able to:

Hypertension

1. Understand the general approach to the evaluation and treatment of the patient with primary and refractory hypertension
2. List the common etiologies and diagnostic evaluations for various forms of secondary hypertension.
3. Safely prescribe anti-hypertensive agents with particular attention to drug interactions, side-effects, and specific indications for particular drug classes

Preventive Cardiology

1. Describe the pathophysiologic mechanisms of atherosclerosis and the role of coronary risk factors, especially lipid disorders, in each mechanism.
2. Understand the epidemiology of coronary artery disease and cerebrovascular disease, including their occurrence, risk factors, and prognosis.
3. Discuss the evidence base from randomized clinical trials, which demonstrate the efficacy of risk factor intervention, especially control of serum lipids.
4. Appreciate the role of diet, exercise, and other nonpharmacological approaches in treating lipid disorders.
5. State the various pharmacologic agents which modify serum lipids and lipoproteins, their modes of action, and indications/contraindications.

Cardiac Rehabilitation

1. Identify the substantial benefits of cardiac rehabilitation based on reports in the scientific literature which include:
   - Improvement in exercise tolerance, symptoms, and blood lipid levels.
   - Improvement in psychosocial well-being and functional independence.
   - Improvement of body weight, blood glucose levels, and blood pressure control.
   - Reduction of stress, anxiety, and depression.
   - Reduction/cessation in cigarette smoking.
   - Reduction in mortality and morbidity.
2. List the vital components of a comprehensive cardiac rehabilitation program utilizing a multifactorial process including exercise training, education and counseling regarding risk reduction and lifestyle changes, and use of behavioral interventions.
3. Identify the roles of the staff utilized in a multidisciplinary cardiac rehabilitation team including, but not limited to, physicians, nurses, psychologist, exercise physiologist, and clinical dietitian.
4. Safely prescribe and design and exercise prescription based on recent exercise tolerance test results for patients participating in cardiac rehabilitation.

The faculty member directly responsible for fellow education is John Bisognano, MD, Ph.D. The educational goals of the Cardiac Rehabilitation portion of the rotation are achieved by the fellow working directly with patients enrolled in the Phase II and Phase III Cardiac Rehabilitation Program. The fellow works in conjunction with the Medical Director, Nurse Manager/Nurse Practitioner, Psychologist, Dietitian, and Exercise Physiologist.
General Statement of Expectations of Fellows

Fellows will attend Hypertension Clinic per Dr. Bisognano’s schedule. Patients are referred to this clinic for severe, refractory, or secondary hypertension.

The fellow on the rotation may also attend the Preventive Cardiology Clinic supervised by Thomas Pearson, MD, Ph.D. Dr. Pearson, an internationally recognized expert in Preventive Medicine, is Chair of the Department of Community and Preventive Medicine at the University of Rochester.

The fellow on the rotation may pursue experience in the Cardiac Rehabilitation Program, which is conducted during the working hours of 8:00 a.m. to 4:30 p.m. Monday - Friday. Activities of the Program including the following:

- New patient evaluations: The fellow may have exposure to new patients enrolled in Phase II Cardiac Rehabilitation. Assessment includes the patient’s appropriateness for rehabilitation, develop an exercise prescription for the patient, and identify modifiable cardiac risk factors.
- Continuity experience: This may include monitoring of patient progress through the different stages of the program.
- Dietary counseling: Nutritional counseling is available to patients via a dietitian at Cardiac Rehab.
- Smoking cessation: Dr. Geoffrey Wiliams, MD, Ph.D is a Strong Health internist who specializes in tobacco addiction and offers his expertise to patients who have been unsuccessful with previous smoking cessation attempts via group sessions and clinic visits.

Additional Activities: The fellow will be expected to complete online learning modules on Lipid disorders, Convergence of Diabetes in Cardiovascular Disease and Essentials of Cardiovascular Care in Older Adults, if not already completed. The online links are provided by the CVD fellow program office.

Research Opportunities

Fellows are encouraged to take advantage of the clinical research opportunities afforded by the patient population in the Cardiac Rehabilitation Programs, and to participate in ongoing research projects in Preventive Cardiology.

Recommended Reading:
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<tr>
<td><strong>Medical Staff</strong></td>
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<tr>
<td>John D. Bisognano, MD, Ph.D</td>
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<td>Thomas A. Pearson, M.D.</td>
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<td>Ronald G. Schwartz, M.S., M.D.</td>
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<td>Cardiac Rehabilitation</td>
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<td>Tracy Cherry, RD, CDE, CDN</td>
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<td>Clinical Dietitian</td>
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<td>Cardiac Rehabilitation</td>
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Credentials of the Medical Staff

John D. Bisognano, MD, Ph.D  
Massachusetts Institute of Technology, S.B.  
State University of New York at Binghamton, M.A., Ph.D.  
State University of New York at Syracuse, M.D.  
Internal Medicine Residency, University of Michigan  
Hypertension Fellowship, University of Michigan  
Cardiovascular Diseases Fellowship, University of Colorado

Thomas A. Pearson, M.D., M.P.H., Ph.D.  
The Johns Hopkins University, B.A.  
The Johns Hopkins University School of Medicine, M.D.  
The Johns Hopkins University School of Hygiene and Public Health, M.P.H.  
The Johns Hopkins University School of Hygiene and Public Health, Ph.D.  
Preventive Medicine Residency, Johns Hopkins University School of Hygiene and Public Health  
Pathology Fellowship, Johns Hopkins University School of Medicine  
Internal Medicine Residency, Johns Hopkins Hospital  
Internal Medicine and Cardiology Fellowship, Johns Hopkins Hospital

Ronald G. Schwartz, M.D.  
University of Rochester, B.A. with Distinction in Biology  
Columbia University, College of Physicians & Surgeons, Institute of Human Nutrition, M.S.  
University of Rochester, M.D. with Distinction in Research  
Internal Medicine Residency, Hennepin County Medical Center  
Cardiovascular Disease Fellowship, Yale University  
Nuclear Medicine Residency, Yale University

Geoffrey Williams, M.D., Ph.D.  
Wayne State University, B.S. Chemistry  
Wayne State University, M.D.  
University of Rochester, Ph.D., Health Psychology  
Internal Medicine Residency, Univeristy of Rochester Medical Center  
Behavioral Medicine Fellowship and Academic General Internal Medicine, University of Rochester Medical Center  
Post Doctoral Fellowship in Tobacco Dependence Treatment, National Cancer Institute

Laurie A. Kopin, R.N., M.S., A.N.P.  
Nazareth College of Rochester, B.S. Nursing  
University of Rochester School of Nursing, M.S. Administration  
University of Rochester School of Nursing, Post M.S., Primary Care Nurse Practitioner
George Ronald Beck, R.N., M.S., A.N.P.
University of Miami, B.Ed.
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University of Rochester School of Nursing, M.S. Primary Care Nurse Practitioner

Tracy Cherry, RD, CDE, CDN
Rochester Institute of Technology, B.S. Dietetics/Nutrition Care