



Good Health. Generation to Generation.

CARDIOLOGY RESIDENCY PROGRAM

I. OBJECTIVES

This 36-month training program is designed to develop clinical and laboratory skills in the diagnosis and treatment of cardiovascular disorders. The trainee will acquire expertise as a specialist and consultant in cardiovascular medicine. The program will strive to achieve the goals and objectives set forth in *Article II of the Basic Standards for Subspecialty Residency Training in Osteopathic Cardiology* as mandated by the AOA, ACOI and current COCATS.

ARTICLE II – DEFINITION AND PURPOSES

The subspecialty of Cardiology consists of the diagnosis, therapy, management, prevention and rehabilitation of adult patients with acute and chronic forms of cardiovascular disorders. The purpose of an osteopathic cardiology-training program is:

- A. To emphasize the interactions of the neuromusculoskeletal and cardiovascular systems and the application of osteopathic principles and practices as they relate to patients with cardiovascular disorders.
- B. To develop a broad exposure to acute and chronic cardiovascular diseases through accurate clinical bedside diagnosis, appropriate use of decisive testing, and integration of all data into a well communicated consultation with special awareness of the unique characteristics of each individual patient.
- C. To provide the resident with properly organized, progressive responsibility in the care of patients and allow the resident to develop clinical and laboratory/procedural skills in the diagnosis and treatment of patients.
- D. The trainee will attain an adequate number of procedures as outlines by COCATS guidelines.

II. ROTATIONAL OBJECTIVES FOR 36-MONTH GENERAL CARDIOLOGY RESIDENCY

A. 22 Months are designated for the following rotations at Garden City Osteopathic Hospital:

- 8 Months – Clinical Cardiology
Including active inpatient and emergency room management and consultation and 3 months of ICU/CCU.

- **4 Months -- Echocardiography**
Including performance and interpretation of 2 D-mode and Colorflow Doppler and Transesophageal Echo/Doppler.
- **4 Months – Stress Testing**
Including exercise and pharmacologic modalities (Dobutamine, Persantine) combined with echo and nuclear imaging.
- **4 Months – Cardiac Cath Lab**
Including RHC, LHC, and IABP, Angiography, Aortography, Hemodynamics.
- **2 Months “In-house” Electives**
- **2 Months Vacation/Conference**

B. 12 Months – Research and Specialized Areas of Training – Designated Out rotations

- **2 Months Electrophysiologic Studies**
Including pacemaker implantation, follow-up, ventricular stimulation studies, RF ablation and AICD's.
- **1 Month – Cardiac Surgery – Post Open Heart**
- **9 Months – Elective**
Electives will be arranged by the program director or with his approval to allow the trainee to pursue areas of special interest and broaden his/her experience.

IV. NARRATIVE DESCRIPTION OF THE PROGRAM

A. Rotations

- 1. Clinical Rotation:** The resident will participate in the diagnosis and care of patients admitted to the designated clinical service. This will include patients primarily in CCU and Step Down. The resident will see critical or emergent patients in the E.R. and participate in their diagnosis, stabilization, and care. The resident will work closely with the attending cardiologist in the review of clinical information laboratory, non-invasive, and cardiac cath data. This information will be integrated and applied to the clinical context of patient care. The resident will be required to perform consultations which will be reviewed by the attending physician. The resident will gain experience in all critical care areas which include insertion of Swan Ganz catheters and arterial lines. The resident will be responsible for formal lectures and informal teaching of students, interns, and residents as well as directing them in the care of patients on the Cardiology Clinical Rotation.
- 2. Cardiac Catheterization Laboratory Rotation:** The resident will be responsible

for taking a cardiovascular history and performing a cardiovascular physical on all Cardiac Catheterization patients prior to the procedure. A progress note will be written. All lab data will be reviewed prior to Cardiac Catheterization. The resident will also be available to obtain an informed consent from the patient and explain the procedure to the patient and to any family members and answer any questions regarding the procedure. The resident will be expected to perform any and all aspects of the Cardiac Catheterization procedure under direct supervision of the attending cardiologist. Following the procedure, the trainee may be asked to pull sheaths and aid in patient recovery as well as be required to round on patients at the end of the day to assure their stability. The resident will review all cardiac cath data, both films and hemodynamics with the attending cardiologist and assist in the preparation of reports.

B. Garden City Hospital Resident – Attending Conferences

1. **Journal Club – *Bimonthly*** – articles of special interest are selected or approved by the program director and are presented by the resident. Analysis of content, relevance and scientific and statistically validity are discussed.
2. **Echo Conference – *Bimonthly*** – Chapter review and discussion of the Echo Manual Presentation of instructive or interesting echocardiograms.
3. **Cath Conference – *Bimonthly*** – Chapter review and discussion of Grossman and Baim. Presentation of instructive or interesting cases.
4. **Braunwald – Reading Schedule**
5. **Cardiology Grand Rounds or Evening Lecture Series – Quarterly** – guest speaker with recognized special expertise in an area of cardiovascular medicine.
6. **E K G Conference**
7. **Mayo Clinic Cardiology Review**

V. REQUIREMENTS FOR APPOINTMENT

- A. The candidate for residency training in cardiology shall have graduated from a college of osteopathy approved by the American Osteopathic Association.
- B. The candidate shall be licensed to practice in the State of Michigan and registered with the *Federal and State Controlled Substance Bureau*.
- C. The candidate shall have satisfactorily completed at least two (2) years of approved American Osteopathic Association training in General Internal Medicine.
- D. ***Selection of Resident***

Applications and correspondence shall be directed to the Vice President Medical Education of GCH, and subsequently reviewed by the Program Director. The candidate will be interviewed by the Vice President Medical Education, the

Program Director and other associated cardiology section members, as appropriate. initial selection of the resident will be made by the Program Director in association with the cardiology division and the Vice President Medical Education.

Recommendation for appointment shall be made by the above to the Board of Trustees, GCH, via the Internal Medicine Department, House-staff Training Committee and Medical Staff Executive Committee.

Appointment of the resident shall be confirmed and be made by the Board of Trustees of GCH.

Candidates for residency training shall be notified of appointment or failure of appointment by the Vice President Medical Education, GCH.

The selected resident(s) shall be notified that appointment is on a one (1) year basis, subject to renewal annually for the term of the residency, based upon evaluation and progress. The resident shall be informed that his/her work will be evaluated periodically and shall include personal and written reviews with the Program Director quarterly for the purpose of determining mutual satisfaction and/or continuation in the program.

VI. REQUIREMENT OF THE RESIDENT AND GENERAL INFORMATION

The resident shall spend his full time in training in Cardiology including assignment to other departments in the pursuit of a broadening specialty education.

The resident shall not participate in any professional or business related activities outside of the hospital during the term of the residency.

The resident shall not act as a consultant either in the hospital or outside the hospital during the training program without the approval of the Program Director.

The resident shall maintain a log of other work in which he/she participates, shall compile a monthly summary of work done, and submit it to the Program Director for signature and verification, and the Vice President Medical Education. The monthly summary shall include all cases attended, examinations performed, procedures attended, professional paper written, research projects, postgraduate training, and other records as may be assigned from time to time.

The resident shall prepare a major scientific paper at least once or as required by the American Osteopathic Association for a cardiology residency, upon a subject mutually agreeable to the resident and to the Program Director. Preparation of scientific papers of a lesser nature are to be encouraged also. Manuscripts submitted for publication shall have the expressed permission of the Program Director and credit given properly to the resident and chief.

Mutually agreeable arrangements shall be made for the resident to obtain adequate training in basic science subjects, either at the hospital, or elsewhere, depending upon the circumstances.

The resident shall make rounds at least once daily and shall keep well informed at all times

regarding the status of patients on the cardiology service, as assigned.

The residency program shall include the evaluation and correlation of neuromusculoskeletal dysfunction as it applies to the diagnosis and therapeutics of systemic disease and its application to the osteopathic concept within the practice of cardiology.

The resident shall receive an appropriate certificate from GCH confirming the fulfillment of the residency requirements. The certificate shall include the duration of the training program, or any part thereof, by setting forth the beginning date, and the date of completion or the date of termination.

VII. EXAMINATION / EVALUATION

Using the attached evaluation form, usual and customary criteria for patterns of care, and other records ordinarily generated in a hospital, the response to the training will be evaluated every three (3) months by the Program Director and associated trainers. The resident will be afforded the opportunity to complete the GCH Resident Evaluation of Rotation form, if desired.

E.N. Papisifakis, D.O., F.A.C.C., F.A.C.O.I.
Program Director
Cardiology Services

Date

4/16/09

REFERENCE SOURCES BIBLIOGRAPHY

BOOKS:

1. Handbook of Cardiac Pacing – *1st Edition*
2. Stress Testing: Principles and Practice – *5th Edition*
3. Chou's Electrocardiography in Clinical Practice: Adult and Pediatric – *6th Edition*
4. Understanding Electrocardiography – *8th Edition*
5. Essentials of Bedside Cardiology (Contemporary Cardiology) – *2nd Edition*
6. Drugs for the Heart – *6th Edition*
7. Nuclear Cardiac Imaging: Principles and Applications – *3rd Edition*
8. Braunwald's Heart Disease: A Textbook of Cardiovascular Medicine – *8th Edition*
9. The Echo Manual – *3rd Edition*
10. Electrophysiological Disorders of the Heart – *1st Edition*
11. Grossman's Cardiac Catheterization, Angiography, and Intervention – *7th Edition*
12. The Cardiac Catheterization Handbook – *4th Edition*
13. Feigenbaum's Echocardiography – *6th Edition*
14. Hemodynamic Rounds – *2nd Edition*

Journals:

1. NEJM
2. JACC
3. Circulation
4. British Medical Journal
5. Each resident is provided with a collection of selected journal articles to be included in the core curriculum.

INTERNET BASED TEACHING RESOURCES:

1. **Cardiosource**
2. **ACC – SAP (Self Assessment Program)**
 - General Cardiology
 - EKG
 - Arrhythmia
 - Valvular
3. **i SCIENCE**
 - All sessions of ACC - 2009

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