

**The Johns Hopkins**  
**General Internal Medicine Residency Program**  
**at the**  
**Johns Hopkins Bayview Medical Center**

**Program Description**

**2007-2008**

# TABLE OF CONTENTS

	<u>Pages</u>
GIM and Traditional Tracks Compared	2
General Internal Medicine Curriculum Content	5
PGY-1: Medicine-Psychiatry Month	5
PGY-1: Evidence-Based Medicine/Systems Based Practice Month	5
PGY-2 and PGY-3: Ambulatory Practice Months	9
PGY-3 MHSP Ambulatory Block	10
Quarterly Resident-Advisor Meetings	11
Special Courses and Conferences	11
Public Health & Serving the Underserved	11
Special Guests and Events	12
Ambulatory Care Training Settings	12
The Medical House Staff Practice (MHSP)	13
Elder House Call Program (EHCP)	14
Community-Based Practices	14
Focus on Medical Education	14
Faculty Development for Clinician Educators	14
Publications	15
General Internal Medicine Residency Program Faculty	19

# **The Johns Hopkins General Internal Medicine Residency Program at the Johns Hopkins Bayview Medical Center**

The General Internal Medicine Residency Program (GIMRP) at Johns Hopkins Bayview Medical Center provides a unique track for those interested in career pathways in primary care medicine, public health and health policy, medical education, geriatrics, hospitalist practice, or any medical subspecialties where a strong grounding in outpatient primary care medicine is advantageous. The GIMRP at Bayview, established in 1979, has the longest track record of any institution in training primary care general internists, and has graduated numerous individuals into the related fields mentioned above. The faculty of the Division of General Internal Medicine at Johns Hopkins Bayview includes some of the nation's leading experts in primary care medicine, medical education, faculty development, and mentoring. The opportunity to work closely with these faculty - - as teachers, advisors, and mentors - - is one of the distinguishing features of the program.

Both the Categorical and GIM programs provide equal and superb inpatient training as well as a variety of other rotations. In terms of camaraderie, and in the eyes of all faculty, GIM and Categorical residents are indistinguishable - - all are part of the Bayview family. The major difference between the two tracks is that GIM residents enjoy a more extensive and varied outpatient continuity experience and primary care curriculum, whereas Categorical residents focus on subspecialty clinical or research experiences. In addition to the 3-year hospital-based continuity clinic that all residents participate in, GIM residents have two other continuity experiences:

- Community-Based Practice (CBP) Resident Firms, a two-year continuity clinic at a community-based site where residents are precepted by Johns Hopkins teaching faculty and learn the art and science of ambulatory primary care medicine.
- Elder House Call Program -- a two-year continuity clinic where residents follow a panel of 6 to 8 frail, homebound elderly patients through home visits every third month, under the preceptorship of faculty from the Division of Geriatrics.

The section below further details some of the important similarities and differences between the Categorical and GIM tracks.

## **GIM and Traditional Tracks Compared**

### **What are the similarities between the GIM and Traditional Track residencies?**

- All residents receive intensive training in **Ward Medicine, ICU, CCU, and Emergency Medicine**. All residents have scheduled rotations in **Neurology, Hematology-Oncology, HIV Care, and Chemical Dependency**.
- **Two ambulatory rotations in the PGY-1 year for all** medicine residents, include **Med/Psych**, a month for focusing on interviewing skills, psychosocial medicine and physical diagnosis, and **Evidence-Based Medicine/Systems-Based Practice**, a

month for focusing on the retrieval, assessment, and presentation of evidence for effective medical practice, and on the principles of quality improvement in medical practice. In both months, emphasis is on the diagnosis and management of common ambulatory problems.

- **Ambulatory training in traditional medical subspecialties**, including cardiology, endocrinology, gastroenterology, geriatrics, hematology-oncology, pulmonary medicine, nephrology, and rheumatology, is an essential feature of the PGY-2 and PGY-3 curricula for both GIM residents and categorical track residents. Categorical residents spend 3 months training in these outpatient clinics at Johns Hopkins Bayview Medical Center; this is part of the every third-month Ambulatory Rotations for GIM Residents.
- All residents spend one half day each week in a **hospital-based primary care practice** precepted by GIM faculty (Medical House Staff Practice). Residents care for their own panel of patients and follow them over three years of residency. In the third year, all residents spend **one month in the Medical House Staff Practice full time**, providing acute care and intercurrent care for patients in the practice, and precepting PGY-1 residents in a “New Patient” clinic.
- All residents participate in the **General Medicine Consultation (GMC) Service and Curriculum**. Every resident spends two weeks in each of the PGY-2 and PGY-3 years providing general medical and preoperative consultations on non-medicine services, under the supervision of faculty general internists. Weekly GMC teaching rounds include presentation of interesting and challenging cases. There is also a monthly didactic GMC Conference, and a syllabus of reference materials which complement clinical experiences during GMC Rotations.

**What are the differences between the GIM and Traditional Track residencies?** In addition to the above curricula, GIM residents receive more intensive ambulatory training designed to prepare them to practice in primary care settings and in managed care networks.

- **Every 3 months** during the PGY-2 and PGY-3 years, GIM residents spend a month in an **ambulatory practice rotation**. During each week of the rotation, 3 half-day sessions are spent in a **community-based practice (CBP)**. Three residents, who form a “firm” or small group practice with core GIM faculty preceptor(s), follow a shared panel of patients in the CBP. One half-day per week is spent in a unique continuity clinic called Elder House Call Program, making scheduled visits to homebound patients under the supervision of faculty in the Geriatric Division. The other half-day sessions are divided between ambulatory training in the medical subspecialties (listed above), **as well as training in non-internal medicine specialties relevant to primary care (dermatology, gynecology, ENT, ophthalmology, and orthopedics)**.
- Each GIM resident is assigned a **GIM faculty advisor**. They meet quarterly to discuss the resident’s experience in the program, formulate individualized learning plans, identify additional potential advisors and mentors, and to plan for post-residency careers.

- Traditional track residents have more elective time to pursue subspecialty interests than do GIM residents, who gain broader exposure in outpatient subspecialty medicine during their 8 ambulatory months in the PGY-2 and PGY-3 years. GIM residents get, on average, 3 to 3 ½ months of elective time over the three years of residency.

## **GENERAL INTERNAL MEDICINE CURRICULUM CONTENT**

### **PGY-1: Medicine-Psychiatry Month**

The Medicine-Psychiatry (Med-Psych) rotation was developed to improve PGY-1 internal medicine residents' interviewing and communication skills, skills in organizing ambulatory-care encounters, and skills in recognizing and managing the psychosocial problems prevalent in medical patients. It is a one-month protected block rotation with no competing inpatient or night call responsibilities. Three to five PGY-1 residents take this rotation together each block from July to October.

#### **Interviewing skills training focuses on:**

- 1) Organizing the office visit and gathering medical and psychosocial data;
- 2) Developing a therapeutic relationship;
- 3) Performing patient education and improving patient adherence to medical recommendations;
- 4) Short term counseling skills;
- 5) Motivational interviewing;
- 6) Cross-cultural competence;
- 7) Breaking bad news;
- 8) Obtaining advance directives;
- 9) Taking a sexual history;
- 10) Obtaining informed consent.

**These skills are then applied to learning how to recognize and manage the following psychosocial issues:**

- 1) Psychosocial distress, caused by responses to life crises, and to physical illness;
- 2) Non-adherence to medical regimens;
- 3) Substance abuse (alcoholism);
- 4) Harmful health habits (smoking);
- 5) Lifestyle change (obesity);
- 6) End-of-Life care (bad news, care choices in terminal stage).

**A series of didactic sessions are given, focusing on the diagnosis and treatment of the following psychiatric disorders:**

- 1) Anxiety disorders;
- 2) Depressive disorders;
- 3) Somatization and somatoform disorders;
- 4) Organic mental syndromes (dementia, delirium).

Two half-days per week are spent in the *Medical House Staff Practice* (continuity practice): the intern's usual afternoon session and a Wednesday morning new-patient

evaluation session. On four mornings during the block there are practical conferences on *Generic Aspects of Ambulatory Care* (i.e., flow of a visit, documentation, preventive care, patient education).

### **Physical Examination Instruction:**

An average of three half-days per week are spent in a special Physical Diagnosis Curriculum, learning the fine points of key parts of the physical exam from expert clinicians who integrate state-of-the-art teaching tools in their bedside instruction. For example, the cardiovascular examination is taught using an electronic teaching stethoscope which allows up to five residents to simultaneously listen to a patient's heart sounds along with a cardiologist. The accuracy of the physical examination skills is enhanced as residents learn to use a hand-held cardiac ultrasound, a device that is only slightly bigger than a notebook.

The physical examination skills include those specific to the following:

- 1) Cardiovascular system;
- 2) Thyroid;
- 3) Liver and spleen;
- 4) Cranial and peripheral nerves;
- 5) Female pelvis

Additional psychosocial content areas, chosen by the resident, are explored in the context of a **self-directed learning project**.

### **The following learning processes are emphasized throughout the rotation:**

- 1) Self-assessment at the beginning and end of the rotation and during sessions;
- 2) Identification of personal learning objectives before each session;
- 3) Enhancement of knowledge through syllabus readings;
- 4) Observation of faculty preceptors modeling skills, and of hospital and community resources (e.g. Alcoholics Anonymous);
- 5) Practice of skills through role-play with peers, faculty preceptors and simulated patients;
- 6) Application of new skills and knowledge during continuity care sessions and during time spent doing liaison psychiatric consultations;
- 7) Obtaining verbal feedback from each other, simulated patients and faculty preceptors;
- 8) Reviewing videotapes of skill practice sessions and ambulatory care visits.
- 9) Reflecting individually and with each other on challenging situations, and identifying assumptions.

### **PGY-1: Evidence-Based Medicine/System Based Practice Month (EBM/SBP)**

A second ambulatory medicine rotation in the PGY-1 year focuses on the basic sciences and skills of ambulatory medicine, using an evidence-based approach. Educational methods include small group sessions, self-directed learning, and independent learning projects. Four to five PGY-1 residents each month take this rotation from January to April.

## **EBM/SBP Content**

The content consists of the following topic areas: core principles of EBM, medical informatics, common clinical problems, issues in doctor-patient communication, skills for ambulatory practice, critical appraisal of published research, teaching and presentation skills, and principles of quality improvement. More intensive experience in the Medical House Staff Practice will also occur during this month.

Other than two half-days per week in the Medical House Staff Practice, the rest of the week is spent in small group sessions with one of 30 faculty members who teach in the curriculum. Ample time is left free for self-directed learning, reading, and to prepare for an end of month presentation and journal club.

### **Core Principles of EBM**

In order to be able to practice evidence-based medicine, several skills must be learned and refined. They include:

- 1) Asking pertinent, answerable questions
- 2) Finding the best evidence
- 3) Critically appraising the data
- 4) Extracting the clinical message
- 5) Applying this information to an individual patient.

Additional important topics such as absolute risk reduction (ARR), relative risk reduction (RRR), and number needed to treat (NNT) are covered in a group of interactive, problem-based teaching sessions.

### **Medical Informatics**

Physicians live in a world of information, and its efficient management is mandatory in order to remain an informed clinician. The informatics curriculum has three major goals:

- 1) Residents become familiar with different sources of medical information and ways to manage them.
- 2) Residents learn how to search medical databases that are available through JHBMC and Johns Hopkins University School of Medicine.
- 3) Residents become familiar with hardware and software now available to physicians and are given Welch Library cards and unlimited access to the Internet.

### **Common Clinical Problems**

Since ambulatory medicine has special attributes, this course attempts to display them through the examples of common clinical problems. The problems were selected from the National Ambulatory Medical Care Survey of the most common problems presenting to primary care doctors, including:

- High blood pressure
- Diabetes
- HIV care
- CHF
- Osteoporosis
- Low back pain
- Pre-operative evaluation
- Common cold
- COPD
- Cardiac testing
- Pneumonia
- Smoking cessation
- Asthma
- Osteoarthritis

These sessions focus on a multi-disciplinary and evidence-based approach to each problem.

### **Issues in Doctor-Patient Communication**

Building on skills learned in Medicine-Psychiatry, several sessions address more advanced skills. Among them will be:

- 1) HIV counseling
- 2) Assessing decision-making capacity and helping to set up advance directives.

### **Skills for Ambulatory Practice**

Skill development that began in the PGY-1 Medicine-Psychiatry Month is reinforced. Specific issues include:

- 1) Review of documentation for ambulatory-patient visits, self-audits and discussion with faculty.
- 2) Prevention and health promotion.
- 3) Issues in cost-effective, efficient, and safe patient care.

### **Critical Appraisal of Published Research**

A goal of this curriculum is to encourage residents to use *evidence* from patients, colleagues, the literature, and themselves to guide their activities in diagnosis, prognosis, and treatment. By the end of the curriculum, each resident should be a “learned skeptic,” and should opt for practice based on the best evidence wherever possible.

Each resident prepares and presents an evidence-based evaluation of a medical treatment, practice or guideline at a housestaff noon conference scheduled at the end of the month, and also leads and participates in several journal clubs.

### **Teaching and Presentation Skills**

Interns will have the opportunity to improve their teaching and presentation skills during this rotation. A session dealing with effective ways to provide feedback should help interns in other components of their residency training. Interns will also receive guidance and specific feedback about the journal club and end-of-month presentations. All interns will also learn to use Microsoft PowerPoint and to deliver presentations more effectively.

## Principles of Quality Improvement/Health Care Systems

Interns learn the principles and explore the application of quality improvement initiatives to the practice of medicine. A series of four sessions focus on this critical component of systems-based practice, emphasizing a multi-disciplinary and evidence-based approach to continuously improving healthcare delivery and outcomes. A series of sessions focuses on the overall structure of the U.S. healthcare system and financing structures.

## Clinical Practice

In the Medical House Staff Practice (MHSP), residents attend 2 sessions per week: their own afternoon session and a morning session focusing on new patients during both the Med-Psych and Evidence-Based Medicine and Practice rotations. During the morning session, the residents work closely with the PGY-3 Ambulatory Block resident, who supervises their patient care and moderates practical one-hour sessions on outpatient prescribing issues, diabetic education, nutrition, and telephone medicine.

## PGY-2 and PGY-3: Ambulatory Practice Months

The foundation for longitudinal ambulatory practice training in the GIM Residency Program is the **Community-Based Practice (CBP) Firm**. Each GIM resident joins a CBP Firm for their PGY-2 and PGY-3 years, and returns to their practice at this site every 3 months, for a total of 8 months. At each site, three residents (one each month at each site) manage a patient panel of approximately 500 patients with faculty preceptors. During each month they hone skills in providing longitudinal primary care, acute care, and telephone medicine. The CBP sites for the Ambulatory Firms and the characteristics of the patients at these practices are described below (see “Ambulatory Care Training Settings”).

Additional longitudinal ambulatory practice experiences scheduled during the CBP/Ambulatory Rotations include continued participation in the **Medical House Staff Practice (MHSP)**, a hospital-based continuity practice, and participation in the **Elder House Call Program (EHCP)**.

Every GIM and traditional track resident cares for a panel of primary care patients in the MHSP. Clinic sessions are held weekly, and physicians are available to consult with their patients by phone at other times. Over 3 years, residents work closely with a faculty preceptor to provide primary care and acute care for patients with complex medical and social and behavioral problems. GIM residents also work closely with a preceptor from the Division of Geriatrics to provide home care for frail elderly or otherwise homebound patients in the Elder House Call Program. Each GIM resident cares for a panel of patients at home, and spends one-half day each week visiting them during ambulatory months.

Ambulatory training in **medicine subspecialty areas** is accomplished through the **BASIC (Bayview Ambulatory Subspecialty Interdisciplinary Curriculum)** rotations. For GIM residents, BASIC training is included in the eight CBP/Ambulatory months over the second and third years of training. Currently, BASIC includes ambulatory training in

Cardiology, Endocrinology, Gastroenterology, Rheumatology, Pulmonary, Allergy/Immunology, and Hematology. (Note: All residents have a 2-week oncology rotation that occurs separately from the CBP/BASIC blocks.) There are also clinical experiences in primary care-relevant non-Internal medicine specialties, including dermatology, ENT, Ophthalmology, Podiatry, and Gynecology.

### Friday Ambulatory Curriculum

Weekly **small group learning sessions during ambulatory rotations** complement the residents' practical experiences and comprise the **Ambulatory Curriculum**. Planned curricula given during these weekly one-half-day small group didactic sessions include:

- selected core topics in primary care medicine and non-internal medicine specialty topics designed to support clinical experiences in these areas (e.g., Musculoskeletal Medicine, Dermatology, ENT, podiatry, ophthalmology, gastroenterology).
- scheduled time for self-directed learning via a web-based ambulatory care curriculum covering over 30 separate topics.
- seminars designed to enhance knowledge and skills in practice management, informatics, and promote better understanding of health insurance and the broader health care system.
- a series of sessions emphasizing **Community Oriented Primary Care (COPC)**.
- a twice-monthly **Ambulatory Morning Report** and a monthly **Geriatrics Ambulatory Morning Report**.

### Sample CBP/Ambulatory Month Schedule

	Monday	Tuesday	Wednesday	Thursday	Friday
<b>AM</b>	Derm Clinic	Derm Clinic	Elder House Call	CBP Clinic	Ambulatory Curriculum
<b>PM</b>	CBP Clinic	GI Clinic	Derm Clinic	MHSP Clinic	CBP Clinic

### PGY-3 MHSP Ambulatory Block (“Block Doc”)

Every senior resident spends approximately one month as the cross-covering and coordinating resident physician for the Medical House Staff Practice.

This rotation provides senior residents the opportunity to manage intercurrent illnesses in patients from their colleagues' panels, and to recognize the similarities and differences to continuity practice. Patient logs are kept and are reviewed with the attending for the rotation. In addition, this resident teaches PGY-1 residents about generic skills of ambulatory practice and supervises their care of new patients each Wednesday morning.

## **Quarterly Resident-Advisor Meetings**

Drs. Barker, Carrese, Kern, Knight, Kravet, Levine, Wolfe and Wright meet quarterly with the GIM residents they are paired with to review accomplishments to date, discuss specific learning needs and plans, and review post-residency career plans. Research and scholarly projects are also planned and reviewed. Each GIM intern and resident also meets regularly with one of the residency program directors (Drs. Colleen Christmas, Roy Ziegelstein, Jennifer Hayashi, or Neda Ratanawongsa).

## **Special Courses and Conferences**

Each year, several GIM residents have attended the regional or national conferences of the Society of General Internal Medicine (SGIM), to present clinical vignettes or research, and to learn about the academic activities encompassed by general internal medicine and about career possibilities. Attendance at the meetings, together with associate membership in SGIM (sponsored by the training program), fosters a sense of professional identity as general internists. Residents are encouraged to submit material for presentation at both regional and national meetings.

GIM and other Housestaff have enjoyed a wide variety of GIM-oriented electives; including rotations at the deferral Agency for Healthcare Research and Quality; overseas clinical or research electives in the developing world; block rotations on Johns Hopkins Bayview's Community Care-a-Van (a mobile health clinic catering to local underserved populations); a new and intensive on-line curriculum on Sexually Transmitted Infections through the Bloomberg School of Public Health; and many others.

## **Public Health & Serving the Underserved**

From its inception, the GIM residency program was founded on a commitment to train physicians to provide high quality care to underserved populations. The diverse clinical experiences – including the inpatient ward service, the Comprehensive Care Practice, the chemical dependency rotation, and Elder House Call – enable residents to care for underserved populations in the neighborhoods around JHBMC.

Residents may also pursue elective rotations in developing countries. For example, recent graduates have worked in India and Uganda to provide prevention education and services to populations at risk for, or with, HIV/AIDS. The residency program can facilitate these electives abroad through our own faculty and our colleagues throughout the Johns Hopkins School of Medicine and Johns Hopkins Bloomberg School of Public Health. The program has also helped provide financial support for these electives, which have nurtured residents' interests in careers in public health and serving the underserved. These residents have also enriched the education of other residents and faculty by sharing their experiences back home.

Beyond clinical training, our program offers several opportunities to study or improve health care delivery using a public health approach.

Through a grant from the Robert Wood Johnson Foundation, Drs. Belinda Chen and Nicholas Fiebach created a unique longitudinal curriculum for residents in Community-Oriented Primary Care (COPC). This approach to primary care integrates clinical medicine, epidemiology, social sciences, and health service research in a complementary fashion to

develop programs to meet the health needs of a community. The curriculum is integrated into the Med-Psych, EBM/SBP, and Friday Ambulatory Curriculum.

Finally, the GIM faculty will mentor residents who interested in scholarly projects related to public health or care for underserved populations.

### **Special Guests and Events**

The Division of General Internal Medicine invites visiting professors to JHBMC to participate in the Grand Rounds Conference series or to engage with Housestaff and faculty in other venues. GIM residents have also planned evening dinner discussions on topics of special interest to the group, selecting one or more guests to lead each discussion. A special Evening for Art and Medicine, held yearly at the house of a faculty member, showcases the creative talents of an invited guest and other house staff and faculty. Finally, noon or evening conferences are organized which feature a panel of guests who represent the wonderful diversity of career and additional training options in the field of GIM.

### **AMBULATORY CARE TRAINING SETTINGS**

A strength of the Johns Hopkins GIM Residency Program at JHBMC is that each resident develops continuity practices in three different settings, each of which provides distinct educational opportunities, practice populations, and methods of practice management. The three settings are described below.

### **AMBULATORY PRACTICE SITES**

<b>Site</b>	<b>Practice Type</b>	<b>Practice Size</b>	<b>Typical Patient Profile</b>	<b>Location</b>
<b>Johns Hopkins Bayview Medical House Staff Practice (MHSP)</b>	Hospital-based house staff group practice.	About 2500 patients. 37-38 resident doctors 10 preceptors	Middle-aged to elderly Poor Medicare>Medicaid >3 <sup>rd</sup> party>self pay	Ambulatory Care Center at JHBMC
<b>Elder House Call Program</b>	Home Care	130 patients 1 geriatrician 10-12 residents	Homebound elderly. Lower to middle income	Based at hospital, but all visits in patients' homes
<b>Johns Hopkins at Greater Dundalk (GD)</b>	Community based	9,000 patients 5 internists 1 nurse practitioner	All ages Middle income HMO and fee-for-service	2.5 miles southeast of JHBMC
<b>Johns Hopkins at Riverside (RS)</b>	Community-based	12,000 patients 4 internists	All ages including elderly	20 miles north of JHBMC
<b>Johns Hopkins at White Marsh (WM)</b>	Community-based	61,000 patients 10 internists 2 physician assistant 1 nurse practitioner	All ages Middle income	5 miles north of JHBMC
<b>Comprehensive Care Practice</b>	Community-based	5 internists 1 nurse practitioner 1 nurse educator	All ages All income levels Some focus on patients with HIV and chemical dependency issues	On JHBMC campus

All sites: 1) are staffed by full- or part-time faculty general internists; 2) provide first contact, comprehensive, longitudinal, and preventive medical care; 3) emphasize continuity of provider; and 4) have medical record systems that emphasize longitudinal care and facilitate confidential record review/audit (problem lists, medication lists, flow sheets, etc.). All sites admit patients to Johns Hopkins Bayview Medical Center.

### **The Medical House Staff Practice (MHSP)**

In its location in the Bayview Medical Offices, a modern ambulatory care center, the MHSP has 10 exam rooms. One exam room is equipped for videotaping. A reading/conference room has a core library of references useful in general internal medicine, and computers with extensive medical software and educational tools. Interns are oriented to the MHSP and begin to build their patient panels in the context of the Med-Psych month early in the year – described above.

About 1,600 patients are followed in MHSP. The average patient makes about 3 visits per year. About 20% of the patients seen per year are referred as new continuity-care patients from the medical wards, from other services, or from the Emergency Department. Another 10% per year are self-referred. The majority of MHSP patients have been followed in MHSP in previous years and continue to return for care. Many live and work locally and can be classified in low to lower middle income level groups. The majority of these patients are covered by Medicare or Medical Assistance. Some are uninsured. Most have one or more chronic conditions, and many have a history of one or more hospitalizations.

MHSP sessions begin with a focused learning activity, usually in the form of (1) a written case with several questions presented by a resident and based on a recent patient encounter (“Clinical Pearls”), and (2) a “Management Gem” that addresses a practical system issue related to MHSP. Medical Assistants are assigned to each resident to facilitate patient care during and between MHSP sessions.

The clinic is supervised by core senior faculty general internists (Drs. Randy Barker, David Kern, Laura Hanyok, Darius Rastegar, David Martin and Leah Wolfe). General Internal Medicine Fellows, Geriatrics Fellows and Chief Residents also attend in the MHSP, so that for every session there are two attendings including one of the senior preceptors. Faculty preceptors are chosen because of their knowledge of ambulatory medicine, their teaching ability, and their enthusiasm.

The preceptors are not scheduled to see patients and are fully available during each MHSP session for educational, consultative, and administrative support. Visit notes are dictated and reviewed by the faculty preceptor, with written or verbal feedback provided as necessary. Real time and videotape observation of housestaff by faculty preceptors, and a system of chart self audits, are part of the MHSP training experience.

The MHSP has a dedicated Social Worker, Ms. Joan Zelinka, who is available to see patients as needed, and who actively participates in the education of housestaff on numerous financial and psychosocial aspects of primary care.

Information derived from the computerized appointment system provides each resident with a regularly updated roster of all patients in his/her panel. Junior and senior

residents take night and weekend call for the MHSP. Intercurrent and urgent care is provided by the PGY-3 “Block Doctor” when the patient’s primary resident provider is unavailable.

### **Elder House Call Program**

PGY-2 and PGY-3 GIM residents provide longitudinal, comprehensive, primary care to patients in the Elder House Call Program. The aim of this is to help frail homebound patients avoid unnecessary hospitalization.

The patient population consists of frail (20% annual mortality) mostly elderly, homebound persons who wish to remain at home and whose families are devoted to helping them. About 140 patients are in the program. Patient ages range from 21 to 95, with the mean about 75. They are referred from JHBMC, local physicians, families, social services agencies, and other hospitals in the area.

The Home Visiting Team includes a geriatrics faculty member, a first year geriatrics fellow, PGY-2 and PGY-3 general internal medicine residents (who provide continuity), and a patient care coordinator. In addition, the program frequently utilizes the services provided by Johns Hopkins Home Care such as skilled nursing, personal care, physical therapy, occupational therapy, speech therapy, social work, and hospice care.

A faculty geriatrician or a geriatrics fellow supervises each house staff member. Initial orientation and the first several house calls are done jointly by a house officer and a member of the faculty or a fellow. The attending and fellow review resident visits after their completion. The attending or fellow is available to the resident for phone consultation during the time of each visit and when addressing patient issues during non-CBP blocks.

### **Community-Based Practices: Resident Firms**

PGY-2 and PGY-3 GIM residents develop a third longitudinal, comprehensive, primary care practice at one of the community-based sites (see Table). All sites are within a 30-minute drive from the hospital. These practices provide residents with some educational opportunities not available in their other practices due to differences in patient populations and practice site:

*Patient Mix* – In several of the sites, the patients tend to be younger, and of higher socioeconomic status than the MHSP and Home Care Patients. The Comprehensive Care Practice provides a continuity clinic for residents interested in providing primary care to underserved populations with a focus on patients with HIV and chemical dependency issues.

*Health Problems* – In many of the CBP sites, patients tend to have fewer active and complex medical problems. More time can be spent on preventive care, risk factor reduction, and behavioral counseling. There is a greater expectation that the primary care physician should manage common or minor dermatologic, musculoskeletal, podiatric, ophthalmologic, and otolaryngologic problems, do routine gynecologic care, and perform minor surgical procedures.

*Practice Management* – Most of the practices serve a predominantly, but not exclusively, managed care population of patients. Emphasis is placed on cost-effectiveness, efficiency, patient flow, and patient satisfaction.

*Faculty* – Preceptors at each of the sites are community-based GIM faculty who trained in the JHU/JHBMC Faculty Development Program. Residents work one-on-one with an assigned preceptor, whose own patient schedule is reduced for that session.

## **FOCUS ON MEDICAL EDUCATION**

The Division of General Internal Medicine at Johns Hopkins Bayview Medical Center has a long record of innovation and accomplishments in clinical teaching, medical education, and curriculum development. The GIM Residency Program benefits directly from these efforts, some of which are highlighted below.

### **Faculty Development and Fellowships for Clinician-Educators**

The Johns Hopkins Faculty Development Program for Clinician Educators was developed and is based here. It includes two separate, year-long courses for clinical teachers: **Teaching Skills** and **Curriculum Development**. Almost all of the GIM full-time faculty and the Community-Based Practice preceptors have participated in the Teaching Skills Course, and many have also completed the Curriculum Development Course.

The Division of General Internal Medicine at JHBMC also co-sponsors (with the Division of General Internal Medicine at Johns Hopkins Hospital) a **two-to-three year GIM Fellowship in Medical Education**. This fellowship trains internists to be excellent teachers and facilitators, developers and administrators of educational programs, and scholars in the field of medical education. Two Medical Education Fellows are based in the GIM Division at JHBMC, and interact with residents in the GIM Residency Program in a variety of roles. For housestaff interested in exploring GIM and other fellowship pathways, there are ample opportunities to interact with leaders and current participants in the Johns Hopkins-based fellowships.

### **Publications**

Four important reference books were produced by faculty in the Department of Medicine and Division of General Internal Medicine:

*Principles of Ambulatory Medicine* (Nicholas Fiebach, David Kern, Patricia Thomas, Roy Ziegelstein editors; L. Randol Barker, Philip D. Zieve consulting editors) is the most widely used textbook of ambulatory internal medicine. It is in its seventh edition (2007). Many of the faculty at Johns Hopkins Bayview Medical Center are contributors.

*Curriculum Development for Medical Education: A Six-Step Approach* (David Kern, Patricia Thomas, Donna Howard, Eric Bass, editors) was published in 1998. It describes a widely known approach to medical education that was developed here.

Kammerer and Gross' Medical Consultation: The Internist on Surgical, Obstetric, and Psychiatric Services (Richard Gross, Gregory Kaputo, editors) is a well-known textbook on general medical consultation. The lead editor, Dr. Gross, is one of the community-based faculty in the GIM Division, and several other faculty in the Department of Medicine are contributors.

Practical Gynecology: A Guide for the Primary Care Physician (Janice Ryden, Paul D. Blumenthal, editors) was published in 2002 by the American College of Physicians and will soon be published in second edition. Dr. Ryden is one of the GIM community faculty.

In addition, members of the Division of General Internal Medicine and GIM residents have authored many articles on medical education and residency training:

1. Barker LR. Educational strategies in ambulatory care. J Med Educ 1978;53:851-853.
2. Barker LR, Parran T, Kern DE, Cole KA. Chemical dependency education in an internal medicine residency program. Substance Abuse 1989;10:16-18.
3. Barker LR, Starfield B, Gross RJ, Kern DE, Levine DM, Fishelman P. Recognition of information and coordination of ambulatory care by medical residents. Med Care 1989;27:558-562.
4. Kern DE, Grayson M, Barker LR, Roca RP, Cole KA, Roter DL, Golden AS. Residency training in interviewing skills in the psychosocial domain of medical domain of medical practice. J Gen Intern Med 1989;4:421-431 .
5. Barker LR. Curriculum for ambulatory care training in medical residency: rational, attitudes, and generic proficiencies. J Gen Intern Med 1990;5(suppl):S3-S14.
6. Finucane TE, Carrese JA\*. Racial bias in presentation of cases. J Gen Intern Med 1990;5:120-21.
7. Kern DE, Harris W, Boekeloo B, Barker LR, Hogeland P. Use of an outpatient medical record audit to achieve educational objectives: changes in residents' performance over six years. J Gen Intern Med 1990; 5:218-224.
8. Lipkin M Jr., Levinson W, Barker L, Kern D, Burke W, Nobel J, Wartman S, Delbanco PT. Primary care internal medicine: a challenging career choice for the 1990's. Ann Intern Med 1990;112:371-378.
9. Roter DL, Cole KA, Kern DE, Barker LR, Grayson M. An evaluation of residency training in interviewing skills in the psychosocial domain of medical practice. J Gen Intern Med 1990;5:347-354.
10. Williamson PR. Support groups: an important aspect of physician education. J Gen Intern Med 1991;6:179-180.
11. Henrich JB, Rahn DW, Fiebach NH. Integrating general medicine and rheumatology training in the outpatient setting: A practice model. J Gen Intern Med 1992;7:434-436.
12. Williamson PR, Smith RC, Kern DE, Lipkin M, Barker LR, Hoppe RB. The medical interview and psychosocial aspects of medicine: block curricula for residents. J Gen Intern Med 1992;7:235-242.
13. Roter DL, Hall JA, Kern DE, Barker LR, Cole KA, Roca RP. A randomized trial to improve physicians' interviewing skills and reduce patients' emotional stress. Arch Intern Med 1995;155:1877-1884.
14. Wright S. Examining what residents look for in their role models. Acad Med 1996;71:290-292.
15. Barker LR. Arrangements that allow general practice trainees to provide longitudinal care for patients. Euro J Gen Pract 1997;3:69.

16. Beasley BW, Wright SM, Cofrancesco Jr. J, Babbott SF, Thomas PA, Bass EB. Promotion criteria for clinician-educators in the United States and Canada: a survey of promotion committee chairpersons. JAMA 1997;278:723-728.
17. Wright S, Wong A, Newill C. The impact of role models on medical students. J Gen Intern Med 1997;12:53-56.
18. Carrese JA, Wright SM. Time to teach about ethical issues encountered in managed care. Acad Med 1998;73(11):12-13.
19. Wright SM, Kern DE, Kolodner K, Howard DM, Brancati FL. Attributes of excellent attending physician role models: a multi-center case-control study. New Engl J Med 1998;339:1986-1993.
20. Barker LR. CME for European GPs in doctor-patient relationship and psychosocial issues. J Cont Educ Health Prof 1998; 18(1):39-46.
21. Barker LR. Recent trans-European Initiatives in general practice. Arch Fam Med 1999;8:379-381.
22. Beasley BW, Kern DE, Howard DM, Kolodner K. A job satisfaction measure for internal medicine residency program directors. Acad Med 1999;74:263-270.
23. Jablonover R, Blackman D, Bass E, Morrison G, Goroll A. Evaluation of a national curriculum reform effort for the medicine core clerkship. J Gen Intern Med 1999;14 (Suppl 2):140.
24. Naiman DJ\*, Barker LR. Adherence to the JNC VI guidelines for the treatment of hypertension I the resident clinic. MMJ 1999;48:307-11.
25. Stornelli D\*, Ziegelstein R, Lowitt N. Bayview ambulatory subspecialty interdisciplinary curriculum (BASIC): Evaluation of a new ambulatory curriculum. J Gen Intern Med 1999;14(Suppl 2):156.
26. Wright S, Kern DE, Bass EB. Innovations in education and clinical practice (editorial). J Gen Intern Med 1999;14:775-776.
27. Carrese JA, Marshall PA. Teaching anthropology in the medical curriculum. Amer J Med Sci 2000;319:297-305.
28. Houston T, Clark JM, Kern D, Alguire P, Boulware D, Bowen J, Branch W, Ferenchick G, Kahn R, Horwitz R. Faculty development in ambulatory teaching: results from a national conference. J Gen Intern Med 2000;15(suppl):34.\
29. Wright SM, Durbin P\*, Barker LR. When should learning about hospitalized patients end? Providing housestaff with post-discharge follow-up information. Acad Med 2000;75:380-383.
30. Wright SM, Kouroukis C. Capturing zebras: what to do with a reportable case. CMAJ 2000;163(4):429-31.
31. Yao DC, Wright SM. National survey of internal medicine residency program directors regarding problem residents. JAMA 2000;284:1099-1104.
32. Beasley BW, Kern DE, Kolodner K, Howard DM. Job turnover and its correlates among residency program directors in internal medicine: a three year cohort study. Acad Med 2001;76:1127-35.
33. Branch, Jr. WT, Kern DE, Gracey K, Haidet P, Weissman P, Mitchell G, Inui T, Novak TL. Teaching the human dimensions of care at the patient's bedside: a perspective. JAMA 2001;286:1067-1074.
34. Fiebach N, Wong J. The residents clinic: where do we stand? (editorial). J Gen Intern Med 2001;16:787-89.
35. Holmboe ES, Fiebach NH, Galaty CA, Huot S. Effectiveness of a focused educational intervention on resident evaluations from faculty: a randomized, controlled trial. J Gen Intern Med 2001;16:427-434.
36. Houston T, Connors R, Cutler N, Nidiry M. An ambulatory primary care musculoskeletal clinic for residents. JGIM 2001;16(Suppl 1):86.
37. Kern DE, Wright SM, Carrese JA, Lipkin Jr. M, Novack DH, Kalet A, Frankel R. Personal growth in medical faculty: a qualitative study. Western J of Med 2001;175:92-98.
38. Kravet S, Wright S, Carrese J. Teaching resource and information management using an innovative case-based conference. J Gen Intern Med 2001;16:399-403.

39. Wright SM, Carrese JA. Ethical Issues in the managed care setting: A new curriculum for primary care physicians. Medical Teacher 2001;23:71-75.
40. Wright SM, Carrese JA. Which values do attending physicians try to pass on to house officers? Med Ed 2001;35:941-45.
41. Wright SM, Tseng WT\*, Kolodner K. Physician opinion about electronic publications. Am J Med 2001;110:373-377.
42. Rastegar DA, Claiborne CV\*, Fleisher AS, Matsumoto AK. A patient with primary HIV infection who presented with acute rhabdomyolysis. Clin Infect Dis 2001;32:502-04
43. Yao DC, Wright SM. The challenge of problem residents. J Gen Intern Med 2001;16:486-492.
44. Carrese JA, Mullaney JL, Faden RR, Finucane TF. Planning for death but not serious future illness: qualitative study of housebound elderly patients. BMJ 2002;325:125-27.
45. Rastegar DA, Wolfe L\*. Experience, expertise or specialty? Uses and misuses of a reference. J Fam Pract 2002;51:168.
46. Ryden J, Fiebach N, Fiebach M, McCauley J. A multicomponent multimedia curriculum in gynecology for internal medicine residents. JGIM 2002;17(Suppl 1):100-101.
47. Hebert RS, Levine RB, Smith CG, Wright SM. A systematic review of resident research curricula. Acad Med 2003;78:61-68.
48. Rapko DA\*, Rastegar DA. Intentional clonidine patch ingestion by three adults in a detoxification unit. Arch Intern Med 2003;163:367-368.
49. Rastegar DA, Fingerhood MI, Jasinski DR. Highly active antiretroviral therapy outcomes in a primary care clinic. AIDS Care 2003;15:231-237.
50. Torre DM, Wright SM, Wilson RF, Diener-West M, Bass EB. What do academic primary care physicians want in an electronic journal. JGIM 2003;18:209-212.
51. Wright SM, Carrese JA. Excellence in role modeling: in sight and perspectives from the pros. CMAJ. 2002;167:638-643.
52. Wright SM, Ziegelstein RC. March Madness - The NRMP and the NCAA. Teach and Learn Med. 2003;15:113-115.
53. Torre DM, Wright SM. A review of the clinical and educational uses of handheld computers. South J Med. (In Press)
54. Beasley B, Simon SD, **Wright SM**. A time to be promoted. The prospective study of promotion in Academia. JGIM **2006**;21:123-129.
55. Caccamese S, Eubank K, Hebert R, **Wright S**. Conference attendance and performance on the In-Training Examination in Internal Medicine. Med Teacher **2004**;26:640-644.
56. Clark JM, Houston TK, Kolodner K, Branch Jr. WT, **Levine RB, Kern DE**. Teaching the teachers: national survey of faculty development in departments of medicine of U.S. teaching hospitals. J Gen Intern Med **2004**; 19:205-214.
57. **Cole KA, Barker LR**, Kolodner K, **Williamson PR, Wright SM, Kern DE**. Faculty development in teaching skills: an intensive longitudinal model. Acad Med **2004**; 79:469-480.
58. **Houston TK, Clarke JM, Levine RB, Ferenchick GS**, et al. Outcomes of a National Faculty Development Program in Teaching Skills. JGIM **2004**;19:1220-1227.
59. **Houston TK, Connors RL, Cutler N, Nidiry MA**. A primary care musculoskeletal clinic for residents: success and sustainability. J Gen Intern Med **2004**;19:524-529.
60. **Houston TK, Ferenchick GS, Clarke JM, Bowen JL, Branch WT, Alguire P, Esham RH, Clayton CP, Kern DE**. Faculty development needs: comparing community-based and hospital-based internal medicine teachers. J Gen Intern Med **2004**;19:375-379.
61. **Kern D, Branch W**, et al. Teaching the Psychosocial Aspects of Care in the Clinical Setting: Practical Recommendations. Acad Med **2005**;80:8-20.
62. **Kravet S, Howell E, Wright S**. Morbidity and Mortality Conference, Grand Rounds, and the ACBME's Core Competencies. JGIM **2006**;21:1192-1194.
63. **Levine RB, Haidet P, Kern DE**, et al. Personal Growth During Internship: A Qualitative Analysis of Intern's Responses to Key Questions. J Gen Intern Med **2006**;21:564-569. **Levine RB, Hebert RS, Wright SM**. Resident Research and Scholarly Activity in Internal Medicine Residency Training Programs. JGIM **2005**;20:155-159.

64. **Levine RB, Mechaber HF.** Opting In: Part-time Careers in Academic Medicine. *Am J of Med* **2006**;119:450-453.
65. Price EB, Gozu A, **Kern DE**, Powe NR, et al. The Role of Cultural Diversity Climate in Recruitment, Promotion, and Retention of Faculty in Academic Medicine. *JGIM* **2005** ;20 :656-571.
66. Ramulu VG, **Levine RB**, Hebert RS, **Wright SM**. Development of a case report review instrument. *Int J Clin Pract* **2005** ;59 :457-461.
67. **Rastegar DA, Wright SM.** Feedback on assessment of risk and risk reduction. *Med Educ* **2004**;38:545-576.
68. **Rastegar DA, Wright SM.** What Interns Talk About. *Med Teacher* **2005**;27(2):177-179.
69. Reed DA, **Kern DE, Levine RB, Wright SM.** Costs and Funding for Published Medical Education Research. *JAMA* **2005**;294:1052-1057.
70. Reed DA, Price EG, Windish DM, Wright SM, et al. Challenges in Systematic Reviews of Educational Intervention Studies. *Annals of Int Med.* **2005**;142:1080-1089.
71. Rivera JA, **Levine RB, Wright SM.** Brief report: completing a scholarly project during residency training. perspectives of residents who have been successful. *J Gen Intern Med.* **2005**;20:366-369.
72. Sisson SD, Hughes MT, **Levine D, Brancati FL.** Effect of an internet-based curriculum on postgraduate education: a multicenter intervention. *J Gen Intern Med* **2004**;19:505-509.
73. Suchman AL, Williamson PR, Litzelman DK, Frankel RM, Mossbarger DL, et al. Toward an informal curriculum that teaches professionalism: transforming the social environment of a medical school. *J Gen Intern Med* **2004**;19:501-504.
74. **Thomas PA, Kern DE.** Internet resources for curriculum development in medical education: an annotated bibliography. *J Gen Intern Med* **2004**;19:599-605.
75. **Thomas P, Wright S, Kern D.** Educational Research at Johns Hopkins University School of Medicine: A Grassroots Development. *Acad Med* **2004**;79:975-980.
76. **Windish DM, Knight AM, Wright SM.** Clinician-teachers' self-assessments versus learners' perceptions. *J Gen Intern Med* **2004**;19:554-557.
77. **Wright SM, Beasley BW.** Motivating factors for academic physicians within departments of medicine. *Mayo Clin Proc* **2004**;79(9):1145-1150.
78. **Wright SM, Hellmann DB, Ziegelstein RC.** 52 precepts that medical trainees and physicians should consider regularly. *Amer J Med* **2005**;118:435-438
79. **Wright SM, Levine RB, Beasley B.** Personal Growth and its correlates during residency training. *Med Ed* **2006**;40:737-745.
80. **Ziegelstein RC, Fiebach NH.** "The Mirror" and "The Village": a new method for teaching practice-based learning and improvement and systems-based practice. *Acad Med* **2004**; 79:83-88.
81. **Ratanawongsa N, Teherani A, Hauer KE.** "Third-Year Medical Students' Experiences with Dying Patients during the Internal Medicine Clerkship: A Qualitative Study of the Informal Curriculum." *Academic Medicine* 2005 Jul; 80(7): 641-7.
82. **Ratanawongsa N, Kern DE, Barker LR.** "Promoting Humanistic Care in the Housestaff Continuity Clinic." *Medical Education* 2005 Nov; 39(11): 1165-6.
83. **Ratanawongsa N, Bolen S, Howell EE, Kern DE, Sisson SD, Larriviere D.** "Residents' Perceptions of Professionalism in Training and Practice: Barriers, Promoters, and Duty Hour Requirements." *J Gen Intern Med* 2006 Jul; 21(7): 758-763.
84. **Ratanawongsa N, Wright, SM, Carrese JA.** "Well-Being During Residency: A Time for Temporary Imbalance?" *Medical Education* 2007 Mar; 41(3):273-80.
85. **Ratanawongsa N, Howell EE, Wright SM.** "What Motivates Physicians Throughout Their Careers in Medicine?" *Comprehensive Therapy* 2006 Fall; 32(4).

\*GIM Resident

## General Internal Medicine Residency Program Faculty

FACULTY MEMBER	TITLE	PROFESSIONAL INTERESTS
<b>L. Randol Barker, M.D., Sc.M.</b> (410) 550-0509 <a href="mailto:rbarker@jhmi.edu">rbarker@jhmi.edu</a>	Professor of Medicine	Psychosocial medicine Skills of ambulatory practice Hypertension
<b>Joseph Carrese, M.D.</b> (410) 550-22476 <a href="mailto:jcarrese@jhmi.edu">jcarrese@jhmi.edu</a>	Associate Professor of Medicine	Medical ethics Cross cultural issues Stress in residency training
<b>Karan Cole, Sc.D.</b> (410) 550-0524 <a href="mailto:kcole@jhmi.edu">kcole@jhmi.edu</a>	Assistant Professor of Medicine	Personal/Professional development of residents Self-directed learning Alternative therapies
<b>Michael Fingerhood, M.D.</b> (410) 550-1134 <a href="mailto:mifinger@jhmi.edu">mifinger@jhmi.edu</a>	Associate Professor of Medicine	Chemical dependency HIV infection
<b>Laura Hanyok</b> (410) 550-2618 <a href="mailto:Lhanyok2@jhmi.edu">Lhanyok2@jhmi.edu</a>	Clinical Associate	Teaching in the ambulatory setting Primary Care Women's Health Managing obesity
<b>Heather Jones</b> (410) 550-0530 <a href="mailto:Hjones23@jhmi.edu">Hjones23@jhmi.edu</a>	Clinical Associate	General Internal Medicine Women's Health Obesity Systems quality improvement
<b>David E. Kern, M.D., M.P.H.</b> (410) 550-1828 <a href="mailto:dkern@jhmi.edu">dkern@jhmi.edu</a>	Professor of Medicine Director, Division of General Internal Medicine	Medical education Management of primary care practices Psychosocial and preventive medicine
<b>Steven J. Kravet, M.D.</b> (410) 550-0577 <a href="mailto:skravet@jhmi.edu">skravet@jhmi.edu</a>	Assistant Professor of Medicine	Hospital administration Information management Chemical dependency
<b>Rachel Levine, M.D.</b> 410-550-0509 <a href="mailto:rlevine@jhmi.edu">rlevine@jhmi.edu</a>	Assistant Professor of Medicine	Medical Education Physician well-being Personal and professional growth of physicians in training
<b>Darius Rastegar, M.D.</b> (410)550-2999 <a href="mailto:drastega@jhmi.edu">drastega@jhmi.edu</a>	Assistant Professor of Medicine	Chemical dependency HIV infection
<b>Neda Ratanawongsa, M.D., M.P.H</b> (410) 550-1862 <a href="mailto:neda@jhmi.edu">neda@jhmi.edu</a>	Assistant Professor of Medicine Assistant Program Director, Internal Medicine Residency Program	Physician well-being Patient-provider communication Qualitative research Health services research
<b>Leah Wolfe, M.D.</b> (410)550-0512 <a href="mailto:lewolfe@jhmi.edu">lewolfe@jhmi.edu</a>	Assistant Professor of Medicine	Medical education Physician-patient communication Health care for the underserved Women's health
<b>Scott Wright, M.D.</b> (410) 550-0817 <a href="mailto:swright@jhmi.edu">swright@jhmi.edu</a>	Associate Professor of Medicine	Evidence-based medicine Role modeling in medicine Personal growth of physicians

**For further information on the GIM track, please contact:**

Colleen Christmas, MD  
Program Director, Internal Medicine  
Johns Hopkins Bayview Medical Center  
Assistant Professor of Medicine  
Division of Geriatric Medicine and Gerontology  
Johns Hopkins University  
Baltimore, MD  
410 550 4453  
[cchristm@jhmi.edu](mailto:cchristm@jhmi.edu)