

**Kaiser Permanente, Sacramento Inpatient Medicine Rotation
UC Davis Internal Medicine Residency Program**

Faculty Representative: Tim Grennan, MD

Program Director Reviewer: Craig Keenan, MD

Revision Date: February 1, 2008

Introduction

Kaiser Permanente is a well established, sixty year old, managed care organization. As the leading managed care organization in the nation it is a vertically integrated, comprehensive program that serves eight million members in the United States.

The Northern California Region of Kaiser Permanente is the oldest and largest of the numerous regions with slightly over three million members. In the Sacramento area there are approximately 600,000 members.

Since 2003, several reports have reconfirmed Kaiser Permanente to be a leader in the delivery of health care:

- **California Cooperative Healthcare Reporting Initiative (CCHRI)**
For the seventh straight year, Kaiser Permanente Northern California dominated the CCHRI's California Health Plan Report Card, ranking in the top 10 percent of plans nationally in key measures of clinical quality.
- **California State Office of the Patient Advocate (OPA)**
The highest overall ratings of any HMO statewide went to Kaiser Permanente Northern California in five categories of care and service in the OPA's 2003 Quality of Care Report Card.
- **National Committee for Quality Assurance (NCQA)**
In its State of Health Care Quality report, the NCQA ranked Kaiser Permanente the top health plan in California.
- **California Public Employees Retirement System (CalPERS)**
The CalPERS Quality Report stated that Kaiser Permanente had the highest rating among HMOs in member satisfaction. CalPERS serves more than 1.3 million members and nearly 2,500 employers.
- **University of California (UC)**
In a random survey of UC employees, Kaiser Permanente was the clear front-runner in member satisfaction, placing first in five of six measures. The UC system has about 160,000 employees and 35,000 retirees.

- **A leading consumer organization**, in a national survey of its readers about their HMOs, ranked Kaiser Permanente Northern California eighth in the nation for overall satisfaction and first in the nation among California HMOs, along with Kaiser Permanente Southern California. The next highest rated California plan was ranked 36th in this survey. The organization recommended Kaiser Permanente as its health plan of choice.
- In 2006, the **New York Times** reported: "...according to economists and medical experts, Kaiser is a leader in the drive both to increase the quality of care and to spend health dollars more wisely, using technology and incentives tailored to those goals. 'Quality health care in America will never be cheap, but Kaiser probably does it better than anywhere else,' said Uwe E. Reinhardt, an economist at Princeton who specializes in health issues."

Educational Purpose

Kaiser Permanente Medical Center, Sacramento, is an integral part of the University of California, Davis, graduate medical education structure. Our internal medicine rotations have been a unique component of the UC Davis Internal Medicine Residency for over two and a half decades. As indicated above, Kaiser Permanente is the nation's largest and most successful managed care organization.

Kaiser Permanente's mission is to provide high quality health care to its members as well as provide service to the community. This is done in a non-profit, vertically integrated, staff model, pre-paid health plan that is a federally qualified HMO. Part of our mission is also to conduct research in the areas of epidemiology and health care delivery through the Division of Research, as well as clinical research conducted at a number of sites. For the last sixty years, one of the most important parts of our mission has been to provide opportunities for graduate medical education.

Our part of the residency program is broad based with ample inpatient and outpatient experiences. A highly successful model of primary care internal medicine and all aspects of medicine subspecialty care form the core of the post graduate medical education experience.

The purpose of our program is to offer residents learning opportunities that will enable them to be successful physicians in a dynamic and changing health care environment. As the premier managed care program in the nation, Kaiser Permanente is uniquely positioned to reflect this fast-paced environment. Locally, the patient population that we serve (approximately 600,000 members) provides housestaff with multiple learning opportunities in a well-established community program.

Within this broad based, dynamic, environment we are working diligently to focus on the ACGME core competencies: *patient care, medical knowledge, practice based learning*

and improvement, interpersonal and communication skills, professionalism, and systems-based practice.

Based on a program developed through the Harvard-Macy Institute, the Northern California, Kaiser Permanente GME program is developing a year long, self-directed program entitled *Leadership for Young Physicians: A Primer*. There are ten modules being developed that introduce the literature of leadership to residents through out all of the Northern California, Kaiser Permanente GME programs as well as the UC Davis internal medicine residency.

Below is the website:

<http://residency.kp.org/ncal/leadership/>

(The login is "residentlead", the password is "kaiserlead").

Principal Teaching Methods

The principal teaching method is based on the relationship that exists among the patient, the resident, and the attending physician.

On the inpatient service, residents admit and care for patients that have been hospitalized through the emergency department, from primary care clinics, subspecialty clinics, and in transfer from other institutions. A resident and one intern are responsible for all aspects of care for their patients. Each team has an academic attending chosen from the hospital based service. In-house internal medicine staff, who are University of California, Davis, Volunteer Clinical Faculty (VCF), provide supervision twenty four hours a day, seven days a week. ICU and CCU attending staff, also UCD VCF, are readily available at all times.

Bedside teaching rounds, didactic sessions, morning report, and conferences form the core of the interaction between the housestaff and staff and serve as the principal teaching model. Conferences include bioethics conferences, local staff conferences, intern lecture series, ICU conferences, ICU/radiology conference, imaging conference (both radiology and nuclear medicine), subspecialty conferences, and award winning regional teleconferences.

University of California, Davis, Internal Medicine Grand Rounds are broadcast through the Kaiser Permanente teleconferencing center portal in Oakland to Kaiser Permanente, Sacramento and South Sacramento and to the Veteran's Administration Hospital, Sacramento. This is an interactive teleconference that allows residents to attend the most important UCD weekly conference while still on site for their Kaiser and VA rotations.

The Chief Resident is an integral part of this dynamic integration of rounds, conferences, and didactic sessions. The Chief Resident is in charge of morning report as well as a leader for bedside teaching rounds. His or her role along with the medical staff includes focusing on evidence based medical knowledge regarding established and evolving

biomedical, clinical, epidemiological and behavioral sciences. The application of this knowledge to patient care then occurs at the bedside and in the clinic.

In the outpatient setting, interns are assigned to a seasoned staff physician and work closely with this physician developing skills that are necessary to become a complete physician. This is a unique opportunity for the interns to develop a very close and personal experience for the individual housestaff and a remarkable chance for the attending to conduct ongoing evaluation. Patient interactions, journal clubs, and conferences serve to enhance the outpatient graduate medical education experience.

In both the inpatient and outpatient settings, emphasis on disease etiology, pathogenesis, clinical presentation, and natural history are stressed in the patient, resident, and staff interactions. Equally important, socioeconomic, ethical, behavioral, and cultural aspects of the effect of the disease process on the patient and family dynamics are addressed. Genetic aspects of disease as well as preventive interventions regarding patient and family are noted. The focus is on patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.

Throughout each rotation, residents gain emotional intelligence skills through team dynamics. This facilitates communication, such as interviewing and history taking, and the development of the therapeutic physician-patient relationship. Professionalism, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population is modeled by both inpatient and outpatient staff physicians. Resource utilization, ethical, and humanistic aspects of medical care form a central part of the interaction between resident and staff physicians.

Educational Content

Our core inpatient rotation consists of four academic (housestaff-managed) services, consisting of one floor rounding team (a junior or senior resident and two interns along with one to three students) and two ICU teams (essentially acting as one team), and one night float resident. In the ICU a team consists of one resident, one intern, and one to two medical students. Teams perform two weeks of ICU duty, one week of floor duty, and each resident performs one week of night duty (that resident's intern is assigned to the floor team on the week that resident in on night float). (Attachment A).

The housestaff are responsible for all aspects of patient management, in coordination with the staff hospital based physician (HBS) who has final responsibility for the care of a specific patient. This HBS physician also serves as the teaching attending. This HBS/teaching attending will make daily rounds with the service generally between 10 a.m. to 11:30 a.m. One HBS MD is assigned to the floor rounding teams. A board certified intensivist serves as the attending for the two teams working in the ICU. While working on nights, there are always two staff HBS physicians in house supervising resident staff. In addition to the academic services, there is a private service cared for by the full-time staff physicians.

Specific responsibilities for patient care that pertain to the housestaff in medicine include:

1. Residents will only admit patients to the academic service (i.e., the housestaff managed service).
2. Patients admitted to the private or non-academic service are cared for solely by the HBS (hospital based service) and not by medicine residents.
3. Medicine residents have no responsibility for private or non-academic patients except in “code” situations.
4. Medicine residents are to write all orders on all academic patients with two exceptions:
 - a. Chemotherapy orders
The oncologist is to write orders for chemotherapy but with the understanding that they are to review these orders with the housestaff and to ensure that this exercise becomes a “teachable” moment such that the housestaff can learn why certain drugs were chosen and what the potential side effects, drug interactions, etc. might be.
 - b. Dialysis orders
The nephrologist is to write orders for dialysis but with the understanding that they are to review these orders with the housestaff and to ensure that this exercise becomes a “teachable” moment such that the housestaff can learn why certain dialysis procedures were recommended.

As the teaching attending serves as a mentor, his or her role is to teach through bedside rounds, didactic sessions, morning report, and to encourage evidence based literature searches. Practice based learning and improvement is stressed by the attending. This involves investigation and evaluation of their own patient care, appraisal and assimilation of the scientific evidence with resultant improvements in patient care.

Inpatient encounters are focused in the setting of the Morse Ave. facility, a 350 bed community hospital that also serves as a tertiary care facility for Kaiser Permanente east of the San Francisco Bay Area. The catchment area for this facility is large, extending from Bakersfield, CA, to the Oregon border and east of the Bay Area into Nevada.

The mix of diseases is extremely broad. As the service population that Kaiser Permanente draws from is nearly 600,000 members in the Sacramento area, the teaching cases that we can offer the residents are extremely varied. In terms of patient characteristics, our population is a mixture of occupational, cultural, ethnic, age, gender orientation, religious, and demographic diversity that mirrors the Sacramento community. Teaching cases from across the eight million member Kaiser Permanente national system are frequently used in the regional teleconferences.

From a standpoint of outpatient experiences, which are included during the ambulatory blocks, the residents see patients in many office settings. Some unique settings, such as the acclaimed drug and alcohol program, located on Watt Ave., and a number of chronic

care facilities, used as teaching sites by our geriatricians, are also available to the residents when they are on the consult or outpatient rotations. Unique encounters involving occupational medicine shop visits in various industries exist. California state government activities, through our government relations program, form a unique opportunity to see have government and medicine interface. As part of the self-directed outpatient elective, a large number of non-internal medicine experiences (from allergy to ophthalmology) are available at a number of the above outpatient facilities.

Three to four residents will rotate through the outpatient/consult rotation each block. The rotation is divided into two components, depending on the residents level of training. During the second year of residency, the focus is on key areas of primary care internal medicine, including allergy, psychosocial medicine, geriatrics, endocrinology, rheumatology, HIV medicine, and gynecology. The third year rotation offers more experience in subspecialty internal medicine and non-internal medicine subspecialties. These include hematology, oncology, cardiology, nuclear medicine, psychiatry, gastroenterology, and nephrology.

Residents are provided with structured schedules for their outpatient rotations. During both rotations, there will be three to five half days a month of elective time to participate in non-internal medicine subspecialty clinics such as ophthalmology, genetics, otorhinolaryngology, and podiatry.

As far as procedures and services, Kaiser Permanente has a full range of standard ancillary services. Radiology, including specialized imaging such as PET scans, lab, phlebotomy, cardiac cath, respiratory therapy, nursing services, physical therapy, social work, pharmacy, and nutritional services are available. Certain specialized services, such as cardiac surgery, bone marrow transplantation and radiation therapy, are available through contractual arrangements with medical entities located within the Sacramento area.

With a recent long term investment of \$3 billion, Kaiser Permanente's information system is one of the most sophisticated medical information management and delivery systems in the world. Demographic data, prior diagnoses, allergies, immunization history, hospitalizations, scheduling, names of primary and subspecialty physicians who care for the patient, labs, radiology, pharmacy, and pathology information are available on our computerized system. As a region wide system, this is important, for example, when a patient from Santa Clara is returning from a Lake Tahoe ski trip and is admitted to the Morse Ave. facility for chest pain (Attachment B).

With the vast resources of the Kaiser Permanente organization, including patient, staff, and information technology, there is a strong emphasis on systems-based practice. An awareness of and responsiveness to the larger community and system of health care is stressed. The focus is on the ability to effectively call on the resources of our system to provide care that appropriate and provides optimal value to the individual and to the larger community.

Educational Goals and Objectives

Educationally, our goal is to provide high quality community hospital and outpatient based experiences for residents in their postdoctoral training in internal medicine. Our patients, with their diversity and numbers, are critical to meeting this goal.

One of our core values is excellence in medical education. This commitment dates back to the beginning of Kaiser Permanente. We share this value with our three free standing internal medicine residency programs in Northern California. Oakland's program dates back to the early 1950s and there are medicine residencies in San Francisco and Santa Clara. The Oakland, San Francisco, and Santa Clara facilities have other non-medicine residencies as well, some loosely affiliated with UCSF and Stanford. All regional Kaiser Permanente graduate medical education programs share their experiences through various forums, such as the Program Directors of Internal Medicine Committee (which also works closely with the southern California Kaiser Permanente medicine training programs) and the Directors of Graduate Medical Education Committee.

Kaiser Permanente, Sacramento, has a unique relationship with the University of California, Davis offering residents a unique opportunity to learn in the setting of the nation's premier managed care program. No other university based program in the nation has such a coordinated program.

We believe that physicians are best equipped to make decisions with their patients as to the extent and type of care. There is no role for insurance administrators, non-medical gatekeepers, or other functionaries to make medical decisions. Although all members of the health care team, representing nursing, pharmacy, nutritional services, mental health services, etc., have input in patient care decisions, physicians have the ultimate authority. The contract that the The Permanente Medical Group has with Kaiser Foundation Health Plan and Hospitals stipulates a division of labor that correctly identifies the physician as the individual making medical decisions for an individual patient. One of our goals is to impart this aspect of professionalism to the residents at the University of California, Davis.

In terms of specific competencies, the inpatient medicine rotation at Kaiser Permanente can be broken down by year and competency thus:

Patient Care:

Junior or Senior Resident:

- Able to obtain accurate history and physical
- Perform procedures accurately and safely
- Perform appropriate medical records review
- Demonstrates sound clinical judgment
- Plan and execute appropriate diagnostic workup

- Synthesize clinical data with scientific, evidence based medicine to yield appropriate patient care plan

Intern:

- Able to obtain accurate history and physical with improved competence as intern year unfolds
- Perform appropriate level procedures accurately and safely
- Perform appropriate medical records review
- Able to develop a diagnostic and treatment plan on his/her patients

Medical Knowledge:

Junior or Senior Resident:

- Able to develop and expand knowledge base in internal medicine
- Curious about and willing to develop skills in understanding disease mechanisms
- Able to do a focused literature search on patient centered topic
- Able to critically evaluate the medical literature re: evidence based decisions
- Appropriately able to use/reference major textbooks in internal medicine and medicine subspecialties
- Able to develop plan of study for national tests

Intern:

- Able to utilize medicine texts to build a foundation for knowledge base in internal medicine
- Able to perform appropriate literature search that is patient/problem oriented
- Able to develop an analytical approach to acquiring knowledge

Practice Based Learning:

Junior or Senior Resident:

- Able to give and receive feedback re: performance
- Critiques own performance
- Open to constructive criticism
- Learns from mistakes
- Able to utilize QA process for self improvement as well as system improvement

- Able to present a case in morning report or M+M conference, etc., such that others are able to learn from errors in management
- Uses information sources effectively to support patient care decisions and for patient education as well as self-education and the education of colleagues

Intern:

- Is able to give and receive feedback re: performance
- Critiques own performance
- Open to constructive criticism
- Learns from mistakes
- Able to present a case in morning report

Interpersonal and Communication Skills:

Junior or Senior Resident:

- Active listener
- Communicates clearly both verbally and in writing
- Develops good relationships with members of his or her team and with staff members of other disciplines (i.e., nursing, pharmacy, social work, etc.)
- Develops good rapport with patients and families
- Presents cases in a structured, clear, well thought out format
- Maintains timely, legible medical records
- Able to develop leadership skills such that he or she can effectively lead a ward team
- Is able to help colleagues when in need

Intern:

- Active listener
- Communicates clearly both verbally and in writing
- Develops good rapport with patients and families
- Presents cases in a structured, clear, well thought out format
- Maintains timely, legible medical records

Professionalism:

Junior or Senior Resident:

- Demonstrates professional integrity, respect and compassion in dealing with patients, families, colleagues and ancillary support staff

- Demonstrates scientific and academic integrity
- Maintains principles of confidentiality
- Appropriately handles issues of informed consent
- Identifies and deals with issues of peer performance in a constructive manner
- Is responsible for the care of her or his patients
- Acknowledges his or her mistakes and learns from them

Interns:

- Demonstrates professional integrity, respect and compassion in dealing with patients, families, colleagues and ancillary support staff
- Maintains principles of confidentiality
- Appropriately handles issues of informed consent
- Is responsible for the care of her or his patients
- Acknowledges his or her mistakes and learns from them

Systems Based Practice:

Junior or Senior Resident:

- Able to care for patients in an efficient manner through the use of the strengths and advantages of one of the world's most sophisticated healthcare delivery systems
- Able to navigate the Kaiser Permanente electronic medical record, "Health Connect," in such way to enhance communication among and between physicians within the Kaiser Permanente system as well as colleagues from UCD who are rotating through Kaiser Permanente
- Able to identify educational sources through the Kaiser Permanente Clinical Library that apply to patient care as well as self-directed educational efforts
- Able to teach more junior colleagues how to navigate in "Health Connect"

Interns:

- Able to care for patients in an efficient manner through the use of the strengths and advantages of one of the world's most sophisticated healthcare delivery systems
- Able to navigate the Kaiser Permanente electronic medical record, "Health Connect"
- Able to identify educational sources through the Kaiser Permanente Clinical Library that apply to patient care as well as self-directed educational efforts

Ancillary Education Materials

In terms of pathologic material, the spectrum of diseases is extremely broad. With the above mentioned catchment area, demographics, diversity of membership and size (approximately 600,000 patients) covered at the Sacramento/Roseville site the opportunities to learn from patient encounters are significant. As a surrogate marker for pathologic material and interesting cases, our pathology department has the largest caseload of anatomic pathology of any institution in northern California.

With information technology expanding rapidly, Kaiser Permanente has set a goal and committed funds to lead in this critical developing field.

Computer terminals in physician offices, exam rooms, the medical library, and in resident call rooms, provide access to a wide variety of electronic databases.

The Kaiser Clinical Library has a vast array of resources. A number of Kaiser Permanente web sites can lead the residents into a wealth of medical information (attachment C). Such sites as MDCConsult, Stat Reference, and Ovid provide the residents with online instant access to dozens of textbooks and thousands of journals. Resources available through the National Library of Medicine are available on-line as well.

Also available are dozens of linked web sites both within and as well as outside of Kaiser Permanente that can facilitate learning (attachment D).

Hundreds of Adult Primary Care clinical references, essentially summaries of key disease related issues, are available in dozens of different fields (attachment E). These list definitions, key points, and important patient intervention parameters with a host of cross-referenced (linked) material that can be immediately downloaded and given to patients during their office visit. These clinical references are reviewed and updated frequently by the respective region-wide chiefs of service physicians.

Clinical Practice Guidelines are more detailed summaries of key findings in specific diseases that are evidence based, balanced, and well referenced. These serve as guidelines for primary care management and subspecialty referral and can also be found in the Clinical Library.

Continuing education, lab and drug information, health education services, various manuals and directories, news about Kaiser Permanente research, regional order sheets, and patient care case management guidelines are listed on the Kaiser Clinical Library web site as well.

Methods of Evaluation

Frequent verbal feedback and ongoing staff interaction form the basis of resident evaluations. Residents are encouraged to practice self-evaluation as well. Standard University of California, Davis, electronic evaluations are completed at the end of each

rotation. Evaluations are based on the resident's skills in history, physical examination, procedures, participation in conferences, medical records, resource utilization, patient and staff interactions, attitude, ethical practices, and humanistic qualities.

Problems are subsequently reviewed in the University of California, Davis, Department of Internal Medicine Clinical Competency Committee on a monthly basis. More frequent and immediate evaluation issues are discussed with the Chief Resident, the Kaiser Permanente program directors, and the Vice Chair, program director at the University of California, Davis.

In terms of program evaluation, the program directors and the Chief Resident seek frequent feedback from residents and staff. Exit interviews are held at the end of each block with the outgoing inpatient rotation interns and residents as well as the consult residents. Formal, standard UCD rotation evaluations are completed by each housestaff at the end of each block. Program directors, the Chief Residents, and the Clinical Competency Committee review these evaluations.

With regards to strengths and weaknesses, our weaknesses tend to reflect the ever-increasing pace of the practice of medicine. Staffing constraints can be limiting. More patient responsibilities and less time to teach and mentor residents have the potential to be problematic. Space and other facility limitations may hinder our potential to provide the residents with an optimum environment. However, in the last three years, we have been able to establish a secure internal medicine work area/lounge that is for the exclusive use by our housestaff. Call rooms have recently been refurbished and updated. Although the tempo of patient care, administrative demands, and facility limitations, could possibly be an issue, we still maintain a strong culture for learning.

Our strengths are a reflection of the capabilities as the nation's premier pre-paid health plan. Information technology is fast becoming an important positive aspect of our program. With the \$3 billion investment in Kaiser Permanente Health Connect, our organization has the most sophisticated medical information and delivery system in the world. The size and excellence of physicians in The Permanente Medical Group, who serve as volunteer clinical faculty, is a definite asset. However, our most important strength is our patients.

Supervision

A resident and one intern are responsible for all aspects of care for their patients. Each team has an academic attending chosen from the hospital based service. In-house internal medicine staff, who are University of California, Davis, Volunteer Clinical Faculty (VCF), provide supervision twenty four hours a day, seven days a week. ICU and CCU attending staff, also UCD VCF, are readily available at all times.

Resident Schedule

The housestaff are responsible for all aspects of patient management, in coordination with the staff hospital based physician (HBS) who has final responsibility for the care of

a specific patient. This HBS physician also serves as the teaching attending. This HBS/teaching attending will make daily rounds with the service generally between 10 a.m. to 11:30 a.m. One HBS MD is assigned to the floor rounding teams. A board certified intensivist serves as the attending for the two teams working in the ICU. While working on nights, there are always two staff HBS physicians in house supervising resident staff.

The students and residents generally pre-round from 7:30-9:30, then round with their attending as above. Morning Report is from 11:30-12:30. Housestaff are expected to attend the UCD Monday afternoon didactic lectures as well as their half day continuity clinic.

Duty Hours

The Kaiser Permanente inpatient rotation is designed to ensure that there are no duty hours violations. The team size and structure are such that it is very unlikely that residents' number of patients would surpass established caps. Also, every house officer has one day off a week. The residents do not admit patients on Sunday or Monday. The HBS and ICU attendings monitor census on the housestaff teams on a daily basis ensuring that the work load is not excessive and the residents are not at risk to violate duty hours established by the ACGME. Our HBS private service ensures excellence in patient care and can assimilate patients being admitted at anytime thus not relying on the housestaff service for service demands but freeing them to focus on educational opportunities.