Continuity Clinic Curriculum
UC Davis Internal Medicine Residency Program

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I. Educational Purpose

1. The Continuity Clinic (CC) prepares residents to care for patients longitudinally in an outpatient setting. This does not occur to any extent in any other area of resident education, and is a crucial skill for most general internists and subspecialists in their daily practice. Even for those who will practice primarily in the inpatient setting, understanding the realities and challenges of ambulatory practice after discharge of patients is an important element of quality care.

II. Principal Teaching Methods

1. Direct Supervised Patient Care Activities: Residents are assigned to work in their CC approximately ½ day per week (interns on their ambulatory block may have 2 half-days per week) and are supervised by general medicine faculty. Residents will have at least 108 clinic sessions over their 3 years of training. The faculty to learner ratio is ideally 1:3, and does not exceed 1:4. Each resident will initially evaluate the patient on their own and formulate an assessment and plan, then will present to a clinic attending. Clinic attendings will personally see all patients with the resident during the encounter. The attending and resident will develop a final treatment plan together and then all orders (medications, tests, consultations) will be entered into the Electronic Medical Record (EMR). Residents then document the encounter in an electronic note in the EMR. New patient visits may be dictated, and consultations should always be dictated. Attendings will co-sign all documentation. (Note: residents with CC at the Sacramento County Primary Care Center (PCC) will not use an EMR, as one has not been installed at that institution at this time).

2. Preclinic Case Discussions and Journal Club: Each Clinic session is preceded by a 30 minute Preclinic Conference. Cases and articles are sent out at least 1 week prior to this conference. Residents are expected to read and prepare their own answers prior to clinic, and the case is discussed as a group with a faculty facilitator. One session each month is devoted to a Journal Club, which is prepared by a senior resident on his/her ambulatory block.

3. Quality Improvement Projects: All residents will participate in ongoing quality improvement projects as established by the clinic Medical Director.

4. Independent Reading: Residents are expected to read independently about problems and questions that arise in the care of their CC patients.
5. **Didactic and Seminars:** Residents will also receive educational content relevant to their CC experience in both their ambulatory care block seminar series and the Monday afternoon Academic Conference Series.

III. **Educational Content:**

1. **Mix of Diseases:** General Internal Medicine: residents will encounter patients with a mix of acute and chronic medical conditions, including but not limited to diabetes, hypertension, coronary artery disease, COPD, asthma, GERD, osteoarthritis, hyperlipidemia, allergic rhinitis, acute musculoskeletal injuries (minor), low back pain, knee pain, hip pain, gout, sore throat, upper respiratory infections, pneumonia, constipation, diarrhea, abnormal uterine bleeding, hepatitis C, cirrhosis, anemia, headache, seizure disorders, chronic nonmalignant pain, depression, anxiety, and dementia.

2. **Patient Characteristics:** The majority of patients are ages 18 to 85, but occasionally patients over age 85 are seen. The patients come to our clinics for primary care needs, and residents will address their acute and chronic medical needs, as well as their preventive health needs. Patient panels consist of approximately 55% women, but always have at least 25% men or women.

3. **Learning Venues:** Most residents will have CC at the General Medicine Clinic in the UC Davis Ambulatory Care Center (ACC). A small number of residents will have their clinic at the Sacramento County Primary Care Center (PCC), particularly those expressing a desire prior to work with the medically indigent population. A small number of residents may have CC at the Sacramento VA Medical Center Internal Medicine Clinic. Preliminary interns have their CCs at the Kaiser Clinics.

4. **Types of Encounters:** Residents will see patients assigned to their patient panel. If they have open time slots, acute care patients of other providers may be added on a same-day basis to their schedule. Residents occasionally will see patients of other residents in the same FIRM if that resident does not have a timely follow-up slot available. Residents will perform consultations (usually pre-operative consults) on their own patients as requested by other providers in the UCDHS system. Residents will see new patients, follow-up patients, and acute care patients.

5. **Procedures:** Residents will perform office based procedures as indicated by the inpatient’s needs. These procedures are performed under the supervision of a clinic attending and may include:
   
   i. Arthrocentesis and joint injection
   
   ii. Skin biopsy
   
   iii. KOH and wet mount preparations
   
   iv. Destruction of skin lesions (liquid nitrogen)
   
   v. Toenail removal
   
   vi. Incision and drainage of abscess
IV. Educational Goals and Objectives

1. Overall: By completion of training, each resident will be able to:

   i. Deliver high quality, evidence based care for common chronic diseases (e.g. diabetes, hypertension, coronary heart disease, hyperlipidemia, osteoarthritis)
   ii. Evaluate acute health concerns in an ambulatory setting, including the appropriate triage of acutely ill patients to the emergency department or hospital
   iii. Deliver high quality preventive health care
   iv. Coordinate care with other health professionals, including specialists, inpatient care teams, nurses, and non-physicians such as physical therapists and dieticians.
   v. Work effectively within a team of health care professionals, including triage nurses, clinic nurses, medical assistants, pharmacy technicians, pharmacists, and administrative staff.
   vi. Use an electronic medical record to deliver high quality care for a panel of patients.
   vii. Develop longitudinal relationships with patients that are culturally competent and professional.
   viii. Evaluate patients’ medical concerns over the telephone, triage such problems for timely and situation-appropriate evaluation, and document telephone encounters appropriately.

2. Continuity Clinic Specific Competency Objectives

   These competencies are progressive, i.e. PGY2 should be added to PGY1 competencies.

   i. **PGY1 YEAR** – by the end of the PGY1 Year, interns are expected to have the following competencies:

      I. Patient Care
         a. Take a complete history, perform a complete physical exam, and develop a preliminary management plan within the 1 hour time allotment for new patients
         b. Perform a problem-specific history and physical on follow-up patients with common acute and chronic diseases, and develop a preliminary management plan, within the 30 minute time allotment for follow-up patients
         c. Document a clinic or telephone note appropriately in the EMR
         d. Review and update the problem list at each encounter
         e. Review and update the medication list, and give appropriate refills, at each encounter
         f. Demonstrate integrity, respect, compassion and empathy for patients and their families, including respect for personal preferences and patient rights.
         g. Perform a Pap smear and breast exam

      II. Medical Knowledge
         a. Know the indications and contraindications for general preventive health measures, including colon cancer screening, breast cancer screening, cervical cancer screening, Pneumovax vaccine, influenza vaccine, and tetanus vaccine
b. Know the indications for, and goals of treatment for hyperlipidemia screening and treatment

c. Know the appropriate health care maintenance for patients with diabetes, including eye screening, neuropathy screening (monofilament), lipid screening, nephropathy screening (urinary microalbumin to creatinine ratio), HgA1c monitoring and goals, and immunizations.

d. Know the JNC guidelines for management and treatment of hypertension

e. Know the care guidelines for patients with atherosclerosis.

f. Exhibit self-motivation to learn

g. Come prepared for weekly PreClinic Conference.

h. Know differential diagnoses for common acute complaints seen in general internal medicine clinics.

III. **Practice Based Learning and Improvement**

a. Participate in quality improvement projects in clinic and use their panel-specific data to guide the improvement in the care of their own patients (using system resources).

b. Use the EMR decision support tools to improve delivery of healthcare to their patients (e.g. HM alerts in EMR).

c. Identify areas of weakness for self-directed learning and for seeking help when needed.

d. Admit to errors and rapidly seek assistance in remedying them.

e. Deliver care that reflects learning from previous experiences.

IV. **Professionalism**

a. Answer pages from all clinic personnel in a timely manner

b. Check their EMR inbox daily

c. Address messages and abnormal test results in an appropriate timeline.

d. Return patient calls in a timely manner (within 24 hours of initial call)

e. Treat all clinic staff with respect

f. Assess and use informed consent

g. Maintain patient confidentiality

h. Arrange patient coverage for all issues (i.e. transfer care to a colleague) before leaving on vacation.

V. **Interpersonal and Communication Skills**

a. Organize a clinic visit during which the resident gets a list of all of the complaints up front, and then negotiates an agenda with the patient, appropriately prioritizing potentially dangerous conditions for evaluation.

b. Develop therapeutic doctor-patient relationships with patients from a variety of socio-cultural backgrounds in a culturally sensitive manner.

c. Effectively communicate treatment plans to patients and families

d. Use telephone interpreting services to communicate with their patients whenever appropriate.

e. Type in instructions into the Patient Instructions section of the EMR whenever necessary.

f. Provide patient centered counseling on medical problems, and specifically counsel patients about lifestyle behaviors.

g. Be able to clearly and concisely present patients to attendings in clinic.
VI. **Systems Based Practice**
   a. Understand essential elements of the following insurance types: HMO, MediCal, MediCal Managed Care, and Medicare
   b. Consider cost of medications in prescribing for common ambulatory conditions.
   c. Communicate with other PCPs when they have seen that physician’s patient in clinic.
   d. Work with the pharmacy technicians and ambulatory pharmacists to provide timely refills to all of their patients.

ii. **PGY2 Year**: In addition to the PGY1 competencies, by the end of their PGY2 year, residents will be able to do the following:

   I. **Patient Care**
      a. Perform a simple joint injection
      b. Send prescriptions electronically to pharmacies using their own license and DEA number (via the EMR).
      c. Implement chronic pain medication contracts for patients taking controlled substances.

   II. **Medical Knowledge**
      b. Know the benefits and side effects of oral diabetes and lipid-lowering therapies.
      c. Select appropriate antihypertensive and CHF medications based upon evidence-based guidelines.
      d. Discuss the potential benefits and risks of prostate cancer screening with their patients.
      e. Create an Asthma Action plan with their patients.
      f. Independently present up-to-date scientific evidence to support clinical hypotheses.
      g. Demonstrate basic knowledge of statistical principles when reviewing scientific literature.

   III. **Practice Based Learning and Improvement**
      a. Participate in developing the annual clinic quality improvement project.

   IV. **Professionalism**
      a. Demonstrate intellectual curiosity, by looking up clinical questions both in clinic and between sessions.

   V. **Interpersonal and Communication Skills**
      a. Conduct a discussion of advance directives with a patient.
      b. Successfully negotiate most “difficult” patient encounters (e.g. irate patients or substance abuse issues).
      c. Maintain successful inpatient-outpatient provider communication to ensure continuity of care for clinic patients.
VI. Systems Based Practice
   a. Work with staff to assess, coordinate and improve multispecialty care across inpatient and outpatient settings.
   b. Identify or access resources for ambulatory patients, including home health care agencies, support groups, medication assistance programs, physical therapy programs.
   c. Guide patients through the complex healthcare environment
   d. Demonstrate dedication to high quality patient care.

iii. PGY3 Year: In addition to continuing the PGY1 and 2 competencies, by the end of their PGY3 year, residents will be able to do the following:

   I. Patient Care
      a. Perform an appropriate history and physical exam and develop an appropriate management plan with minimal supervision for patients in ambulatory settings with most acute and chronic medical problems.
      b. Demonstrate appropriate clinical reasoning in ambiguous situations.
      c. Use patient education as a form of intervention and partnering.

   II. Medical Knowledge
      a. Regularly display self-initiative in filling knowledge gaps on conditions encountered in clinic.
      b. Demonstrate knowledge of study design on validity or applicability to practice.

   III. Practice Based Learning and Improvement
      a. Understand core quality improvement measures and what pay-for-performance entails

   IV. Interpersonal and Communication Skills
      a. Successfully negotiate all “difficult” patient encounters.
      b. Perform motivational interviewing techniques (i.e. Action Planning) with their patients, when appropriate.

   V. Systems Based Practice
      a. Understand the principles of E&M Coding of clinic encounters for billing purposes.
      b. Assume leadership role in management of complex care plans for their patients.
      c. Complete end-of-residency patient care notes (and clean-up of their patient care list) to facilitate transfer of care to the next resident.
V. Ancillary Educational Materials
1. Residents may access many electronic journals and textbooks through the Clinical Resources Center, which also includes an institutional license of UpToDate. These can be used from any internet connected computer including from home.
2. There are many reference Dermatology, Ophthalmology, and Orthopedics textbooks for office practice available in the clinics.

VI. Methods of Evaluation
1. Residents will be evaluated by their FIRM attending (UCD) or other main clinic attending (VA, Kaiser, PCC) semi-annually using a global evaluation form in E-Value. These are based on the ACGME core competencies.
2. Residents will be evaluated by their FIRM attending (UCD) for completion of quality improvement projects in the clinic.
3. Residents will perform mini-CEXs in the clinic.
4. Residents on Ambulatory Block will videotape once per year in their 2nd and 3rd years and present a portion of the encounter at the Ambulatory Seminar. A competency based evaluation will be filled out by the supervising faculty member for the seminar for each of these video encounters, and will be placed in the residents’ portfolio.
5. Residents will meet with their FIRM attending 1-2 times per year to complete a Chart Stimulated Recall Exercise.
6. Nurses in the clinic complete 360 evaluations on each resident twice per year, which will be placed in the portfolio.
7. Patients are asked by clinic staff to complete evaluations of their doctor after each clinic visit. These 360 evaluations will be included in the portfolio.
8. Residents will evaluate the clinic on a semi-annual basis by completing an evaluation form in E-Value. They will also evaluate their main clinic attendings on an annual basis.

VII. Supervision
1. At UC Davis ACC: Residents are assigned to a FIRM consisting of approximately 12 residents, which is overseen by a FIRM Attending. That attending will typically work with the resident on their usual clinic days.
2. Residents are expected to contact their FIRM attending for any questions regarding patient care at any time. If the FIRM attending is not available, they will contact the physician covering for that attending, or the Medical Director or Assistant Medical Director of the Clinic.
3. Residents at the PCC, VA, or Kaiser clinics have assigned attendings with whom they work on a regular basis. Residents are expected to call that attending or the covering physician for that attending for any questions that may arise.

VIII. Structure
1. Residents have CC ½ day per week on a Tuesday, Wednesday, Thursday, or Friday. They typically will work one of those days, but may be “flexed” to another day during the week based upon call schedules. At UCD, flexing is usually done on a Tues-Thurs or Weds-Fri pairing in order for residents to work preferentially with their FIRM attending (firm attendings work Tues and Thurs OR Weds and Fri).