APPE Rotation Description

Diabetes Management and Education Clinic

GENERAL INTRODUCTION
The UC San Diego Health (UCSDH) Diabetes Management and Education Clinic is a multidisciplinary outpatient service that focuses on empowering UCSDH patients with pre-diabetes or diabetes to understand and self-manage their condition.

PRECEPTOR CONTACT INFORMATION

Tuesday Clinics
Renu Singh, PharmD, BCACP, APh, CDCES
Clinical Professor
Clinical Pharmacist Specialist; Certified Diabetes Care and Education Specialist
UC San Diego Skaggs School of Pharmacy and Pharmaceutical Sciences
rfsingh@health.ucsd.edu

INTRODUCTION TO THE ROTATION- 6 Week Rotation
Tuesdays: Clinic times- 9:00- 5:00 pm

Patients are referred to this practice from UCSDH providers. The patient population are adult men and women with type 2 diabetes or pre-diabetes. In addition, many of the patients have multiple co-existing chronic disease states, including HTN, hyperlipidemia, obesity, sleep apnea, HIV, fatty liver, osteoarthritis, chronic kidney disease, sleep apnea, heart disease, heart failure, COPD, asthma, hepatitis C, cancer, liver disease, organ transplant. Many patients will also have diabetes-related complications such as peripheral or autonomic neuropathy, retinopathy and/or nephropathy.

Patients may be from diverse socioeconomic backgrounds, various ethnic backgrounds (Hispanic, African American, Pacific Islander, Asian, Middle Eastern, Caucasian), may have disabilities (wheelchair bound, hearing impaired, blind, cognitive impairment), and may or may not have comprehensive health insurance. Some patients will have low literacy levels and some will require a foreign language or American Sign Language (ASL) interpreter. These factors will all need to be considered when interviewing and educating patients and developing patient-specific care plans for each patient.

The student will review each patient’s medical chart prior to each clinic session and present each patient to the preceptor, including age, duration of diabetes or pre-diabetes,
reason for referral, allergies/ADRs, current DM medications and associated medications adherence concerns, health maintenance related to diabetes, PMH, most recent A1c, BMI, serum creatinine and GFR, MACR, ASCVD risk score, last attended DMEC, pertinent information from the PCP, endocrinologist, or other specialists, and provide their assessment and plan. The student will interview each patient to complete a medication reconciliation, and assess the patient’s adherence, SMBGs/CGM results, nutrition and exercise history. The student will provide teaching on a variety of diabetes-related topics to patients with diabetes and their caregivers/families in an individual setting. In the individual setting, the student will tailor the session to the individual needs of each patient. The student will also identify patients who need additional health-related assistance (e.g. tobacco cessation, medication payment difficulty) and will work closely with the patient, preceptor and referring provider to address these issues. At the end of each individual or group teaching session, the student will document the patient encounter, in the appropriate format, within EPIC.

Students will also be given a Diabetes Quiz on the first day of the rotation, which he/she can work on in their own time. Each week, between 9-10 am, the preceptor will have the students discuss their responses to each question. The Diabetes Quiz discussion will be used to review key diabetes concepts. The quiz is not graded, but appropriate completion and participation is expected.

Students will have access to EPIC, which is UCSDH’s electronic medical record (EMR), and the UCSD Online Clinical Library, which includes Clinical Pharmacology Online, Micromedex, Natural Medicines Database and Up-To-Date.

**ORIENTATION TO THE ROTATION**

1. Prior to clinic starting, students are to have reviewed all patient medical records for that clinic day. Students can access the electronic medical record, EPIC, either from UCSDH computers or remotely. For instructions on how to do this, see Appendix 1. The clinic schedule may be found on EPIC on Tuesdays under:
   - SRC PHARM DIABETES EDU (review pts that are listed between 11-5 pm)
2. Students should arrive by 9 am with the preceptor for the first day of the rotation.
3. If the clinic is being conducted virtually the preceptor will provide the Zoom link to the student in advance. Students should refer to the Best Practices for Virtual Precepting and Learning document at the OEE Resources Tab on CANVAS. This includes dressing professionally, keeping the camera on during clinic time, and ensuring a private area to conduct patient interviews and review the EMR (due to HIPAA considerations).
4. Preceptor will orient the student to the layout of the clinic and introduce them to key staff members, if on site
5. Preceptor and student will discuss student’s personal goals as it relates to the rotation
6. The preceptor will review the rotation description, including goals and objectives, APPE activities, assignments, required readings, clinic procedures and hours, and expectations of rotation
7. Students should wear professional attire. If on-site, the students should wear a white lab coat. Their name badge must be worn at all times when on-site.
INCLUSION STATEMENT

Each rotation is a place to expand knowledge and experiences safely, while being respected and valued. We support the values of UC San Diego to “create a diverse, equitable, and inclusive campus in which students, faculty, and staff can thrive.” It is our intent that students from all diverse backgrounds and perspectives be well served by this rotation, that students’ learning needs be addressed, and that the diversity that students bring to this rotation be viewed as a resource, strength and benefit. It is our intent to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, religion, and culture. We ask that everyone engage in interactions with patients, caregivers and other members of the healthcare team with similar respect and courtesy.

All people have the right to be addressed and referred to in accordance with their personal identity. We encourage everyone to share the name that they prefer to be called and, if they choose, to identify pronouns with which they would like to be addressed. We will do our best to address and refer to all students accordingly and support colleagues in doing so as well. We hope you will join us in creating a learning experience that upholds these values to further enhance our learning as a community.

Clinic Schedule

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<tr>
<th>Preceptor</th>
<th>Days</th>
<th>Location/Address</th>
<th>Student Hours</th>
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<tbody>
<tr>
<td>Renu Singh</td>
<td>Tuesdays</td>
<td>Via Zoom or on site (approx once a month)</td>
<td>9:00-5:00pm</td>
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<td>9:00-5:00pm</td>
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Course Domains, Objectives, and Activities

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<tr>
<th>Domain 1: Patient Care Provider</th>
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<tr>
<td>Objective 1.1:</td>
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<tr>
<td>Apply the Pharmacist Patient Care Process (PPCP).</td>
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<tr>
<td>1.1.1 Demonstrate appropriate depth and breadth of pharmacotherapeutics and disease-related knowledge for common conditions in the</td>
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<tr>
<td>Ambulatory Care Population</td>
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1.1.2 Collect information to identify a patient’s medication-related problems and health-related needs.
- Review the EMR prior to each clinic session to collect pertinent and complete information on each patient as it relates to diabetes, as outlined in Appendix 2.
- Perform a systematic patient interview to obtain a history to identify, anticipate and support decisions regarding drug therapy.
- Perform a medication reconciliation.
- Determine a patient’s medication adherence.

1.1.3 Analyze information to determine the effects of medication-related problems, and prioritize health-related needs.
- Assess a patient’s signs and symptoms to determine whether a patient can be treated within the scope of practice or requires a referral.
- Interpret laboratory test results, including A1C, GFR, MACR.
- Interpret SMBG and CGM results.
- Evaluate each patient’s existing diabetes drug therapy regimen.

1.1.4 Establish patient-centered goals and create a care plan for a patient in collaboration with the patient, caregiver(s), and other health care professionals that is evidence-based and cost-effective.
- Determine patient-specific goals.
- Create a care plan with the patient.
- Recommend appropriate diabetes medication adjustments/changes, to improve glycemic control and outcomes.
- Recommend appropriate lab tests and referrals.
- Select appropriate parameters to monitor to determine therapeutic and adverse effects related to the treatment plan.

1.1.5 Implement a care plan in collaboration with the patient, caregivers, and other health care professionals.
- Document the encounter in the EMR.
1.1.6 Follow-up and monitor a care plan.  
- Contact a patient after a clinic visit to assess response to therapy, or achievement of goals established at the previous visit.  
- Recommend modification or adjustments to an existing medication therapy regimen based on patient response.

**Domain 2: Communication and Education**

**Objective 2.1:** Use appropriate education and communication strategies for a diverse patient population.

| 2.1.1 Advocate for patient access to medications to optimize patient outcomes. | 2.1.2 Perform patient-centered medication education.  
- Provide patients and their caregivers with appropriate medication education regarding diabetes medications (oral and injectable), insulin administration (vial/syringe and pens, insulin mixing), glucagon administration, glucose meters and testing supplies, CGM systems, storage of meds and supplies, disposal of sharps.  
- Provide patients and their caregivers with appropriate diabetes education, including pathophysiology of diabetes, diabetes risk factors, diagnosing diabetes and pre-diabetes, diabetes and pre-diabetes glycemic goals, healthy eating, benefits and types of physical activity, reducing diabetes complications, healthy coping  
- Use diverse methods for delivering patient-centered education (e.g. telephone encounters, tele-health video, use of white board or electronic white board)  
- Apply techniques to assess patient understanding in a diverse patient population, such as the Teach-Back method.  
- Demonstrate communication techniques for patient specific needs, including |
techniques and language in response to cultural and patient-specific needs and individual social determinants of health.

motivational interviewing, counseling/education, and use of an interpreter.
- Communicate in an empathetic, non-judgmental manner to motivate and provide relevant lifestyle coaching to patients
- Effectively provide written and/or verbal education to patients regarding diabetes-related topics or medications.

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<th>Domain 3: Interprofessional Team Member</th>
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<td><strong>Objective 3.1:</strong></td>
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<tr>
<td>Collaborate as a member of an interprofessional team.</td>
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<tr>
<td>3.1.1 Actively contribute as a member of an interprofessional healthcare team.</td>
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<tr>
<td>• Provide recommendations in the Assessment and Plan sections of the documented chart note in EPIC to communicate recommendations to the referring provider and/or members of the patient’s health care team.</td>
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<tr>
<td>• Establish professional rapport with the pharmacy preceptor, resident, IPPE students, and other healthcare professionals assisting in the care of each patient</td>
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<th>Domain 4: Population Health Promoter</th>
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<td><strong>Objective 4.1:</strong></td>
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<td>Promote population health.</td>
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<td>4.1.1 Identify patients at risk for prevalent diseases in a population.</td>
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<tr>
<td>• Perform an ASCVD risk assessment on each patient</td>
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<tr>
<td>4.1.2 Minimize adverse drug events and medication errors.</td>
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<tr>
<td>• Review each patients’ diabetes medications to assess for appropriate dosing based on current kidney/liver function.</td>
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<tr>
<td>• Provide patient education on preventing adverse drug reactions during individual and/or group sessions</td>
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<tr>
<td>4.1.3 Maximize the appropriate use of medications in a population.</td>
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<tr>
<td>• Use the latest national diabetes guideline algorithms to recommend appropriate diabetes medication(s) for each patient</td>
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<tr>
<td>• Apply formulary principles when recommending diabetes medications or</td>
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4.1.4 Ensure that patients have been immunized against vaccine-preventable diseases.

- Recommend appropriate health maintenance vaccines that are due pertaining to diabetes.

### Domain 5: Information Master

**Objective 5.1:**
Apply evidence-based literature in practice.

#### 5.1.1
Educate patients and professional colleagues regarding the appropriate use of medications.

- Respond appropriately to medication-related questions from the preceptor, resident, or patients
- Counsel patients/caregivers about medication related issues

#### 5.1.2
Use evidence-based information to advance patient care.

- Retrieve, interpret and apply medical literature to formulate decisions for optimal patient medication regimens.
- Defend/justify recommendations using published evidence in support of a clinical situation.

### Goal 6: Practice Manager

**Objective 6.1:**
Apply Systems Management for Medication Use.

#### 6.1.1
Participate in institutional systems and programs to assure appropriate drug use.

- Complete chart notes accurately and completely in the EMR for patients seen in clinic, or through telehealth or telephone encounters

### Domain 7: Ethics and Professional Behavior

**Objective 7.1:**
Apply ethical and professional behavior

#### 7.1.1
Demonstrate ethical and professional behavior in all practice activities.

- Adhere to patient privacy standards in verbal and written communications.
- Demonstrate an attitude that is respectful of diverse individuals, groups, cultures and communities.
Wear appropriate attire; have appropriate demeanor, and conduct.

Adhere to attendance requirements, including punctuality.

EVALUATION

A. Grading will be Pass/Fail.

B. Three evaluations using the standardized Pharmacy Evaluation Form are required for this course:
   1. Mid-point Formative Evaluation: An online self-evaluation completed by the student and discussed with the preceptor. The preceptor will provide written and verbal comments and sign off.
   2. Preceptor & Site Evaluation: An online evaluation completed by the student at the end of the rotation.
   3. Summative Evaluation: An online evaluation completed by the preceptor at the end of the rotation and discussed with the student.
   4. Students may be evaluated at any other time at the discretion of the preceptor. Preceptors may evaluate students more frequently, so that the student is informed of areas requiring improvement early in the rotation. The primary preceptor may obtain feedback from all team members as well as any patient comments.

C. Students must have submitted a completed Mid-point Formative evaluation in addition to evaluations of their sites/preceptors in order to receive their grade.

Required Readings (more recent versions may be available)


2. AACE Comprehensive Type 2 Diabetes Management Algorithm 2019: Executive Summary
   Available at: https://www.aace.com/disease-state-resources/diabetes/guidelines


Others: as provided by preceptor

Other Student Resources
1. Diabetes Self-Management Clinic website:
2. Key Diabetes journals: Diabetes Care, The Diabetes Educator
3. Key Diabetes websites:
   i. American Diabetes Association (ADA)
      1. Diabetes.org
   ii. American Association of Diabetes Educators (AADE)
      1. Diabeteseducator.org
   iii. National Certification Board for Diabetes Educators (NCBDE)
      1. ncbde.org
To Access UCSD Health EPIC Remotely from your Own Laptop
(Note: Be aware of HIPAA rules at all times when accessing charts remotely)

1. For PCs,
- Go to the following link: cwp.ucsd.edu
- You will see the following page:

![Clinical Web Portal](https://example.com)

Announcement:
Want to Register for 2FA? Click here
If you use Google Chrome to access applications from the Clinical Web Portal (CWP) at cwp.ucsd.edu, click here.

2FA Instructions & Help:
If you're not already signed up for two-factor authentication via Duo Security, login to bigger the quick and easy sign-up process.
More information on two-factor authentication, Duo Security, and the enrollment process is available here.
If you have a smartphone get a jump on the enrollment and download the Duo Mobile app from your app store before starting.

Configuring Non UCSD Health Devices:
- Download the latest Citrix Receiver Client
- Download for Mac OSX
- Download for all other Platforms and Devices
Estimated Download time: 3 minutes
Estimated Install time: 2 minutes

Need more help? Please dial 3-HELP (34357) or (619) 543-7474 if dialing from outside

- Under **Configuring Non UCSD Health Devices**, select the first option and follow instructions. Keep selecting Next, when asked. If asked to enter an account, ignore. If you get stuck, call the UCSDH IT HELP desk at 858-657-7367

2. For a Mac: you need to use the following link below (note that the Mac OSX link in the figure above at cwp.ucsd.edu, is outdated. Don't use that)

- Follow instructions. Keep selecting Next, when asked. If asked to enter an account, ignore. If it does not work, call the UCSDH IT HELP desk at 858-657-7367
## Diabetes Management and Education Clinic

### Patient Summary for Presentation to Preceptor

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<th>Last A1c / Last BMI</th>
<th>Creat / Microalbumin creat ratio</th>
<th>Diabetes meds and dose / start dates (if recent)</th>
<th>Referral reason; PMH; DMEC, PCP or Endo note from last visits; date of last dilated eye exam and foot exam</th>
<th>Other pertinent meds (HTN, HLD, PN, depression, etc)</th>
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<td><strong>Example:</strong> Elliot Brown; 43 yo AA man with T2DM for 6 years</td>
<td>2/7/15 A1c 13.7 (previously 8.7 on 9/1/14) 3/30/15 BMI 29.4 (increase from BMI 28.1 on 9/1/14)</td>
<td>2/7/15 sCr 0.71</td>
<td>Microalbumin creat ratio: 2/7/15 &lt; 1.2</td>
<td>Referral Reason: Poorly controlled DM; <strong>PMH:</strong> HTN (last BP 152/92), HLD (2/7/15 TChol 200, LDL 148, TG 218, HDL 40), HIV, PN, sleep apnea (on CPAP), spinal stenosis  <strong>Notes from last PCP visit</strong> (2/7/15): h/o non-adherence with meds, stressful home situation  <strong>Foot exam:</strong> 2/7/15: has PN  <strong>Eye exam:</strong> Due (none on file)</td>
<td>-Lisinopril 40mg daily  -atorvastatin 10mg po daily  -Neurontin 300mg BID  -ibuprofen 800mg TID prn</td>
<td>- check why metformin dose is so low  -check med adherence  -needs referral for eye exam  -repeat A1c due</td>
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