

Descriptions of Available OHSU APPE Experiences

ADULT INTERNAL MEDICINE

Entry level experience

Expected on-site hours: M-F, 0700-1530

General Description:

Internal Medicine is a six week learning experience at Oregon Health & Science University. This clerkship is designed to allow the student to gain expertise in providing patient care to internal medicine patients using a consistent approach that reflects the philosophy of pharmaceutical care. There are five General Medicine teams (GM1-5), three Family Medicine teams, and a Hospitalist service. The Internal Medicine Pharmacists work regularly with all teams to provide optimal pharmaceutical care for their patients. However, the pharmacists typically round with the GM teams. Internal medicine patients are primarily located on 14C, 5A and 5C nursing units in the South Hospital. There are a total of 68 beds on these three units.

A typical APPE student day on service:

Students are generally assigned to work with one of the GM teams for the 6 week rotation. Pharmacy students work up their patients in the morning, then present patients to their preceptors before rounds with the GM team. After rounds, students debrief with their preceptor then have the afternoon for topic discussions, student sessions, patient care activities, or other learning opportunities identified. Independent learning, good communication and interpersonal skills are vital to success in this experience.

Student Coordinator: Sierra Binek, PharmD, BCPS

Contact: bineks@ohsu.edu

Other Preceptors: Linda Blake, PharmD, BCPS, Tammy Chan, PharmD, BCPS, Katie Foster, PharmD, BCPS, Ian Karall, PharmD, BCPS, BCIDP, Jackie Sharpe, PharmD, BCPS, Emily Skogrand, PharmD, BCPS

ADULT CARDIOLOGY

Entry level experience

Expected on-site: M-F (8 hour days while on heart failure service), M-W +F (10 hour days with Thursdays off (off day can change pending meetings/holidays and at other events) while on cardiology service)

General Description:

Adult Cardiology is a six week learning experience at Oregon Health & Science University Hospitals and Clinics. The student will spend two-thirds of the rotation (4 weeks) with general cardiology service and the other one-third (2 weeks) of the rotation with advanced heart failure service. With a unique schedule of cardiology pharmacists, the student will have the opportunity to interact with multiple preceptors. This clerkship is designed to introduce students to pharmacy practice in the acute care cardiology population. The clinical pharmacist is an active member of the interdisciplinary healthcare team, ensuring safe and effective medication use throughout all facets of the medication use process and transitions of care. Daily responsibilities include:

attending rounds, serving as a drug information resource, performing patient profile reviews, writing consult notes, order verification, assisting with medication reconciliation and the discharge process, educating patients and their family members, and participating in various organizational and departmental policy and quality improvement committee. The student will serve as a drug information source and round with the general cardiology and heart failure teams and will be exposed to a wide variety of cardiology related topics including coronary artery disease, acute coronary syndromes, arrhythmias, anticoagulation and advanced heart failure. The speed at which the student progresses will be dependent upon the student's abilities and timing of the learning experience during the year.

A typical APPE student day on service:

The student will observe preceptors in daily activities and learn to perform various activities throughout the rotation. The day consist of morning rounds with cardiology/heart failure team and afternoon is dedicated for topic discussions or 5-10 min journal clubs on the land mark cardiology trials. Student is responsible to work up patients and go over interventions prior to rounds with more detail discussions about patients in the afternoon. All documentation and patient care follow up must be completed on the day service was provided and communicated to the preceptor. The student is responsible to present a 10-15 min case presentation or one official Journal club to the cardiology pharmacists and the cardiology advance practitioner team.

Student Coordinator: Melika Jafari, PharmD, BCCP, BCPS

Contact: jafarim@ohsu.edu. Page: 15601

Other Preceptors:

Cardiology AM: Alana Willman PharmD, BCPS; Derick Gabel PharmD, BCPS; Jamie Seastrom-Price PharmD, BCPS; Kate Pape, PharmD, BCCCP

Heart Failure: Alyssa Rabon PharmD, BCPS; Cynthia Wong PharmD

Cardiology PM: Stephanie Kory PharmD; Jeffrey Wang PharmD, BCCCP

MED-SURG/EGS

Entry level experience

Expected on-site hours: M-F, 0700-1530

General Description:

Adult Medical Surgical rotation is a six-week learning experience at Oregon Health & Science University. This clerkship is designed to introduce students to pharmacy practice in the adult medical surgical population, focusing on the Emergency General Surgery team. There are 20 beds located on the 10A unit. The 10A pharmacist works regularly with the surgical services Red, Green, Blue, Gold, EGS) and the medicine teams (General Medicine, Family Medicine, and Hospitalist service). During rotation there is opportunity to do table-side rounds with the EGS interns, PAs/NPs, case management, RNs, and dieticians. Good communication and interpersonal skills are vital to success in this experience. The student must devise efficient strategies for accomplishing the required activities in a limited time frame.

A typical APPE student day on service:

0700-0900: Work up patient reviews, review pharmacy consultations

0900-0930: Present and discuss patients to preceptor

0930-1030: EGS Rounds

1030-1200: Medications Recs, Reviews, Consultations

1200-1230: Lunch

1230-1400: Complete notes, clinical questions for the day

1400-1500: Topic discussions, student sessions, or resident presentations

1500-1530: Wrap up day with preceptor

Student Coordinator: Amy Tzou, PharmD, BCPS, Nathan Johnson, PharmD, BCPS

Contact: tzou@ohsu.edu, johnatha@ohsu.edu,

Other Preceptors: Ka Wan Chiang, PharmD, Renita Patel, PharmD, Lisa Zich, PharmD

GENERAL/TRAUMA/ORTHO SURGERY

Entry level experience

Expected on-site hours: M-F, 0700-1530

General Description:

Adult General/Trauma/Orthopedic Surgery is a six week learning experience at Oregon Health & Science University Hospital. This clerkship is designed to introduce students to pharmacy practice in the adult surgical population. There are a total of 67 beds dedicated to inpatient general/trauma/orthopedic surgical services, housed on two separate units of South Hospital, 13A and 14A, and one unit in Kohler Pavilion, 9K. The 13A unit primarily houses patients admitted to the Trauma Surgery service. The 14A unit primarily houses patients admitted to the General Surgery services, which include Blue (upper abdominal), Green (lower abdominal) and Red (bariatric) surgery services. The 9K unit primarily houses patients admitted to the Orthopedic Surgery services. Students will be assigned to spend time on 1-2 of these units during their rotation based on interest and preceptor availability.

A typical APPE student day on service:

The student will generally round with the trauma team when on 13A. Rounding on 14A and 9K typically occurs in the form of multidisciplinary discharge rounds. Teams generally include an attending surgeon, nurse practitioner and surgery resident(s). Other disciplines present on rounds may include the case manager, inpatient nurse/charge nurse, register dietician, physical/occupational therapy. Daily responsibilities will include: being actively present on rounds, serving as a drug information resource, performing patient profile reviews, writing consult notes, assisting with medication reconciliation and patient education, and participating in topic discussions with preceptor(s). Other opportunities, such as shadowing in the OR Pharmacy, observing a surgery or rounding with the Acute Pain Service, may be available depending on coordination and student interest. Effective communication skills, time management, and ability to work in an interdisciplinary setting with various members of the patient care team are necessary to be successful on this experience.

Student Coordinator: Robert Osten, PharmD, BCPS

Contact: ostenr@ohsu.edu

Other Preceptors: Ka Wan Chiang, Renita Patel, Greg Roberti, Cody Sorenson, Tian Yaw, Lisa Zich

NEUROLOGY/NEUROSURGERY

Entry level experience

Expected on-site hours: M-F, 0700-1530

General Description:

Adult Neurology/Neurosurgery is a six week learning experience at Oregon Health & Science University Hospital. This clerkship is designed to introduce students to pharmacy practice in the adult general neurology, neurosurgical and stroke patient populations. The 30 inpatient beds on a single unit in the Kohler Pavilion, 10K, dedicated to this patient population.

A typical APPE student day on service:

The student will generally round with the Stroke and Neurology teams. Teams generally include an attending provider, medical resident(s) and student(s). Other disciplines the student may interact with include the case manager, inpatient nurse/charge nurse, register dietician, inpatient glycemic team, physical/occupational therapy and speech language pathologist. Daily responsibilities will include: being actively present on rounds, serving as a drug information resource, performing patient profile reviews, writing consult notes, assisting with medication reconciliation and patient education, and participating in topic discussions with preceptor(s). Other opportunities, such as shadowing in the OR Pharmacy, observing a surgery or rounding with the Acute Pain Service, may be available depending on coordination and student interest. Effective communication skills, time management, and ability to work in an interdisciplinary setting with various members of the patient care team are necessary to be successful on this experience.

Student Coordinator: Robert Osten, PharmD, BCPS

Contact: ostenr@ohsu.edu

Other Preceptors: Ka Wan Chiang, Renita Patel, Cody Sorenson, Lisa Zich

ADULT SOLID ORGAN TRANSPLANT-INPATIENT

Entry level experience

Expected on-site hours: M-F, 0700-1530

General Description:

Solid Organ Transplant is three to four week learning experience at Oregon Health & Science University Hospitals and Clinics. This rotation is designed to introduce students to pharmacy practice in the acute care and chronic setting of adult solid organ transplant. There are several solid organ transplant teaching teams (liver and kidney). Most kidney, liver, and kidney/pancreas transplant patients are located on 4A in the South Hospital. There are 20 beds on the 4A unit. Non-transplant teams include plastics & urology and pharmacists work regularly with them to identify and resolve medication-related problems for all patients.

Good communication and interpersonal skills are vital to success in this experience. The student must devise efficient strategies for accomplishing the required activities in a limited time frame.

A typical APPE student day on service:

Students will have exposure to a variety of inpatient transplant activities including medication reconciliation, patient review, daily rounds with transplant surgery and transplant nephrology, transplant medication counseling, and transition of care coordination.

Daily schedule:

7:00-8:00 am Pre-rounds – solo patient work up

8:00 - 9:00am Pre-rounds with preceptor patient review

Rounding time vary per service and attendings

2:00-3:00 pm Topic discussions, reviewing progress notes, patient updates, etc

Student Coordinator: Danielle Boschetto, PharmD, BCPS

Contact: boschett@ohsu.edu

Other Preceptors: Cynthia Wong, PharmD

ADVANCED HEART FAILURE/HEART TRANSPLANT-INPATIENT

Advanced level experience, students must complete inpatient general medicine rotation prior
Expected on-site hours: M-F, 0700-1530

General Description:

Advanced Heart Failure/Heart Transplant is a 6 week learning experience at Oregon Health & Science University. This rotation is unique in that the Advanced Heart Failure service covers patients in both the critical care (ICU) and acute care (cardiology floor) settings. The patient population includes stage C and D heart failure patients, patients with temporary mechanical circulatory support (ie impella, IABP, ECMO), patients being evaluated for transplant or permanent mechanical circulatory support (ie LVAD), patients immediately post-transplant or post-LVAD, and re-admitted transplant or LVAD patients with chronic complications. Students will gain knowledge of a variety of topics including cardiogenic shock, acute decompensated heart failure, anticoagulation for mechanical circulatory support, complications of mechanical circulatory support, heart transplant immunosuppression, and heart transplant complications. In addition to patient care responsibilities, the student will also have the opportunity to attend the weekly transplant evaluation committee meetings to gain an understanding of the pharmacist's role in this multidisciplinary team.

A typical APPE student day on service:

The day consists of morning rounds with advanced heart failure and CVICU team. The student is responsible for reviewing patients and discussing recommendations with the preceptor prior to rounds. Students will have exposure to a variety of inpatient transplant activities including medication reconciliation, evaluation for advanced therapies (transplant and LVAD), transition of care coordination, transplant medication education, and discharge medication counseling. Topic discussions, journal clubs, and other learning opportunities will be incorporated in the afternoons throughout the learning experience.

Student Coordinator: Alyssa Rabon, PharmD, BCPS

Contact: rabona@ohsu.edu

Other Preceptors: Cynthia Wong, PharmD

ADULT ONCOLOGY

Advanced level experience (Students will benefit most if they have completed inpatient medicine, cardiology, or critical care rotation prior to this rotation)

Students are expected to be on rotations Monday – Friday (exception includes holidays and other school-designated off days). Expected on-site hours are dependent on assigned rotation experience:

Adult Medical/Surgical Oncology: 0700 – 1530

Heme Malignancy: 0730 – 1600

Stem Cell Transplant: 0800 – 1630

Adult Oncology Clinics: 0800-1630

General Description:

Adult Medical/Surgical Oncology, Heme Malignancy and Stem Cell Transplant are each a six week learning experience at Oregon Health & Science University Hospitals. This clerkship is designed to introduce students to pharmacy practice as it relates to a specialized hematology/oncology inpatient population. Emphasis will be on the safe use of antineoplastic, analgesic, antiemetic, anti-infective, other supportive care medications, as well as other global issues of patient care.

Inpatient site: There are a total of sixty beds dedicated to the oncology service, housed on two separate units of Kohler Pavilion, 13K and 14K. The 13K unit primarily houses patients admitted to the adult medical oncology service (newly diagnosed solid tumor chemotherapy interventions, oncology related complication/supportive care), surgical oncology service (gynecology/oncology, solid tumor resections), and/or overflow patients from 14K or general medicine service. The 14K unit primarily houses patients with hematologic disorders or those scheduled to receive a bone marrow transplant.

The following outlines a list of inpatient rotation activities and responsibilities:

- Daily rounds with medical teams
- Patient review and discussion with preceptor
- Disease state and supportive care topic discussion
- Patient chemotherapy education or discharge medication education
- Beacon chemotherapy plan review

- Participation in PGY2 oncology weekly topic discussion series
- ONE patient case presentation
- ONE service project, which may include in-services to staff, new guideline review and summary as it pertains to oncology patients, medication utilization evaluation, drug information question, OHSU Pulse article submission, etc.

A typical APPE student day on service:

- Morning activities
 - Patient workup/review
 - Team rounding
- Afternoon activities
 - Patient discharge education
 - Beacon chemotherapy review
 - Patient discussion with preceptor
 - Topic discussion (time permitting)

Ambulatory site: The adult oncology clinic services are located at CHH2 building on the waterfront as well as at different CHO (community heme-onc) sites throughout the Portland area, although preceptors often work remotely. These areas serve adult solid tumors as well as hematology and stem cell transplant patients.

The following outlines a list of inpatient rotation activities and responsibilities:

- Patient review and discussion with preceptor
- Disease state and supportive care topic discussion
- Oral chemotherapy education for patients
- Beacon chemotherapy plan review
- Participation in PGY2 oncology weekly topic discussion series
- ONE patient case presentation
- ONE service project, which may include in-services to staff, new guideline review and summary as it pertains to oncology patients, medication utilization evaluation, drug information question, OHSU Pulse article submission, etc.

A typical APPE student day on service:

- Morning activities
 - Patient workup/review
- Afternoon activities
 - Patient phone calls for oral chemotherapy
 - Chemotherapy review
 - Patient discussion with preceptor
 - Topic discussion (time permitting)

Student Coordinators: Amber Diaz, PharmD; Jason Wing, PharmD

Contact: Amber Diaz, Jason Wing

Other Preceptors:

- Aaron Pham, PharmD, BCOP
- Amber Diaz, PharmD, BCOP
- Alison Palumbo, PharmD, MPH, BCOP
- Bestis Wasef, PharmD

- Caroline Carson, PharmD, BCOP
- Jack Rasmussen, PharmD
- Jason Wing, PharmD, BCOP
- Jessica Waletich Flemming, PharmD
- Jonathan Cohen, PharmD, BCOP
- Shannon Palmer, PharmD

PEDIATRIC ONCOLOGY

Advanced level experience (Students will benefit most if they have completed at least one hospital or inpatient clerkship prior to this rotation. Students will ideally have already completed a general pediatrics rotation or adult oncology rotation, but this is not required.)

Expected on-site hours: 08-1630, M-F

General Description:

This clerkship is a clinical experience in guiding the general drug and symptom management needs of pediatric hematology, oncology, and stem cell transplant patients in the inpatient setting. Special attention will be paid to dosing conventions and pharmacokinetic differences in pediatric patients as compared to adult patients. It will also provide a good background in patient assessment, laboratory assessment, and interacting with other health care professionals as you monitor and guide patient's therapies. Emphasis is on the safe use of antineoplastic, analgesic, antimicrobial, and antiemetic medications, as well as other global issues of patient care. Activities will include multidisciplinary rounds with the medical team, answering drug information requests from the team, patient monitoring and medication counseling, case presentations, and disease state and drug reviews. Students are expected to lead topic discussions with preceptors twice a week. A student session and journal club presentation are also completed during the rotation. Students may also participate in PGY2 pharmacy resident-led topic discussions if they pertain to oncologic diseases/supportive care measures that are relevant to pediatrics, as well as the pediatric oncology department grand rounds presentations if they are relevant to pharmacy practice.

A typical APPE student day on service:

0800-0900: Work up assigned patients prior to rounds.

0900-1200: Round with the medical team.

1200-1630: Finish patient work up, time for patient presentations to preceptors, topic discussions, meetings, etc.

Student Coordinator: Susie Jiing, PharmD

Contact: 503-494-6098

Other Preceptors: Lauren Damiani, PharmD; Jenn Boyer, PharmD, BCPS, BCPPS

GENERAL PEDIATRICS-INPATIENT

Entry level experience

Expected on-site hours: M-F, 0700-1530

General Description:

Pharmacy students will integrate their knowledge of therapeutics and pathophysiology to effectively provide pharmaceutical care in a general pediatric medicine inpatient pharmacy practice environment with the guidance of a preceptor. The learner's activities will include: evaluation, assessment and monitoring of pharmacotherapy of acute and chronic diseases in addition to providing drug information to patients and health care professionals. Special attention will be paid to dosing conventions and pharmacokinetic differences in pediatric patients as compared to adult patients. Expect topic discussions with preceptors twice weekly. A student session pearl and journal club presentation are also completed during the rotation. The learner will complete at least 8 hours per day, in addition to study and preparation time.

A typical APPE student day on service:

Pre-rounding and working up patients, rounds typically from 9-11 AM. Afternoons are dedicated to topic discussions, drug information questions, discharge teaching, etc.

Student Coordinator: Melissa Cwiklinski, PharmD, BCPPS

Contact: Melissa Cwiklinski, PharmD, BCPPS

Other Preceptors: Allahna Davis, Kim Schulz, Lily Chao

PEDIATRIC NEONATAL INTENSIVE CARE

Advanced level experience (Students must have completed general pediatrics prior to this rotation)

Expected on-site hours: M-F, 0630-1500

General Description:

The Neonatal Intensive Care Unit (NICU) rotation is a five week experience geared toward residents who have already completed a general pediatrics rotation. The OHSU NICU is a 42 bed level IIIb/IV facility. The NICU has clinical pharmacist service from 06:00 to 00:30 on weekdays. The resident is expected to be on site Monday through Friday during the time periods specified in the rotation calendar at a minimum. Patient rounding occurs daily beginning at 09:15 with two teams rounding simultaneously. The rounding teams include an attending physician, residents or nurse practitioners, and a pharmacist (possibly moving between teams) and can also include neonatology fellows, nutritionist, respiratory therapist and other specialists (cardiology, surgery, neurology etc...).

A typical APPE student day on service:

Morning: patients work-up, multidisciplinary rounds

Afternoon: sessions with preceptors, responses to requests, presentations, etc.

Student Coordinator: Thuy Nguyen, PharmD
Contact: email: nguythu@oshu.edu
Other Preceptors: Amy Dunlap, Molly McNaull

PEDIATRIC CRITICAL CARE

Advanced level experience (Students must have completed general pediatrics prior to this rotation)
Expected on-site hours: M-F, 0630-1500

General Description:

Advanced Pediatrics: Intensive Care is a six week learning experience at Oregon Health & Science University Hospitals and Clinics. The rotation is designed to introduce student to pharmacy practice in the specialized population of pediatric critical care patients and to build upon the knowledge of critical care obtained throughout pharmacy school.

There are a total of 20 ICU beds located on 8NPI of Doernbecher Pediatric Hospital. The PICU is a mixture of both cardiac and medical ICU patients.

The PICU and NICU share 2 extracorporeal membrane oxygenation beds located in the PICU.

A typical APPE student day on service:

Morning: patients work-up, multidisciplinary rounds

Afternoon: sessions with preceptors, responses to requests, presentations, etc.

Student Coordinator: Thuy Nguyen, PharmD
Contact: email: nguythu@ohsu.edu
Other Preceptors: Krista Weaver, Maggie Daseler

ADULT CRITICAL CARE (MEDICINE)

Advanced level experience (Students will benefit most if they have completed at least one hospital or inpatient clerkship prior to this rotation)
Expected on-site hours: M-F, 0700-1530

General Description:

The Medical intensive care unit takes care of a very broad range of critically ill patients. The disease states vary but include patients requiring mechanical ventilation and those with septic shock, liver dysfunction, gastrointestinal bleeds, renal dysfunction and overdoses.

A typical APPE student day on service:

Student will be assigned patients to review on daily basis. The student will typically meet with preceptor prior to rounds to discuss any interventions they may have. The pharmacist and student will round daily with the multi-disciplinary team to come up with a plan to care for the patient. The student will have biweekly topic discussions on ICU topics. The student may also perform a journal club and presentation depending on their preceptors preference. The student will also assist with medication reconciliation.

Student Coordinator: Heather Norvelle-Minamoto, PharmD, BCCCP

Contact: Jesse Bierman, PharmD, BCCCP

Other Preceptors: Asha Birmingham, Pharm.D. BCCCP, Patrick Halmer, Pharm.D., BCCCP, Elizabeth Levins, Pharm.D. BCCCP, Kerry Moore, Pharm.D. BCCCP, Heath Oetken Pharm.D., BCCCP, Jason Zimmerman Pharm.D., BCCCP, Sandi Rowe Pharm.D., BCPS, BCCCP

ADULT CRITICAL CARE (TRAUMA)

Advanced level experience (Students will benefit most if they have completed at least one hospital or inpatient clerkship prior to this rotation)

Expected on-site hours: M-F, 0700-1530

General Description:

The Trauma intensive care unit takes care of a broad range of critically ill patients. The patient population includes those with traumatic injuries, emergency general surgeries, transplant patients and oncologic resections.

A typical APPE student day on service:

Student will be assigned patients to review on daily basis. The student will typically meet with preceptor prior to rounds to discuss any interventions they may have. The pharmacist and student will round daily with the multi-disciplinary team to come up with a plan to care for the patient. The student will have biweekly topic discussions on ICU topics. The student may also perform a journal club and presentation depending on their preceptors preference. The student will also assist with medication reconciliation.

Student Coordinator: Heather Norvelle-Minamoto, PharmD, BCCCP

Contact: Cassie Barton Pharm.D., BCPS, BCCCP

Other Preceptors: Asha Birmingham, Pharm.D. BCCCP, Patrick Halmer, Pharm.D., BCCCP, Elizabeth Levins, Pharm.D. BCCCP, Kerry Moore, Pharm.D. BCCCP, Heath Oetken Pharm.D., BCCCP, Jason Zimmerman Pharm.D., BCCCP, Sandi Rowe Pharm.D., BCPS, BCCCP

ADULT CRITICAL CARE (CARDIOVASCULAR)

Advanced level experience (Students will benefit most if they have completed at least one hospital or inpatient clerkship prior to this rotation)

Expected on-site hours: M-F, 0700-1530

General Description:

The Cardiovascular intensive care unit takes care of a very broad range of critically ill patients. The patient population includes myocardial infarction, atrial fibrillation, heart failure and transplantation.

A typical APPE student day on service:

Student will be assigned patients to review on daily basis. The student will typically meet with preceptor prior to rounds to discuss any interventions they may have. The pharmacist and student will round daily with the multi-disciplinary team to come up with a plan to care for the patient. The student will have biweekly topic discussions on ICU topics. The student may also perform a journal club and presentation depending on their preceptors preference. The student will also assist with medication reconciliation.

Student Coordinator: Heather Norvelle-Minamoto, PharmD, BCCCP

Contact: Rachel Beardshear Pharm.D., BCCCP

Other Preceptors: Asha Birmingham, Pharm.D. BCCCP, Patrick Halmer, Pharm.D., BCCCP, Elizabeth Levins, Pharm.D. BCCCP, Kerry Moore, Pharm.D. BCCCP, Heath Oetken Pharm.D., BCCCP, Jason Zimmerman Pharm.D., BCCCP, Sandi Rowe Pharm.D., BCPS, BCCCP

ADULT CRITICAL CARE (NEURO)

Advanced level experience (Students will benefit most if they have completed at least one hospital or inpatient clerkship prior to this rotation)

Expected on-site hours: M-F, 0700-1530

General Description:

The Neurocritical care intensive care unit takes care of a very broad range of critically ill patients. The patient population includes strokes, intracranial hemorrhage, subarachnoid hemorrhage, brain tumors and status epilepticus.

A typical APPE student day on service:

Student will be assigned patients to review on daily basis. The student will typically meet with preceptor prior to rounds to discuss any interventions they may have. The pharmacist and student will round daily with the multi-

disciplinary team to come up with a plan to care for the patient. The student will have biweekly topic discussions on ICU topics. The student may also perform a journal club and presentation depending on their preceptors preference. The student will also assist with medication reconciliation.

Student Coordinator: Heather Norvelle-Minamoto, PharmD, BCCCP

Contact: Heather Norvelle-Minamoto, PharmD, BCCCP

Other Preceptors: Asha Birmingham, Pharm.D. BCCCP, Patrick Halmer, Pharm.D., BCCCP, Elizabeth Levins, Pharm.D. BCCCP, Kerry Moore, Pharm.D. BCCCP, Heath Oetken Pharm.D., BCCCP, Jason Zimmerman Pharm.D., BCCCP, Sandi Rowe Pharm.D., BCPS, BCCCP

EMERGENCY DEPARTMENT (DAY & OVERNIGHT)

Advanced level experience (Students will benefit most if they have completed at least one hospital or inpatient clerkship prior to this rotation)

Expected on-site: M-F, varied hours (likely 1100-1930)

General Description:

The Emergency Department (ED) rotation is a six week learning experience. There are a total of 59 adult and pediatric beds in the Emergency Department. Although there are no formal patient rounds, students are expected to interact with providers, nurse practitioners, residents, nurses, and paramedics directly to improve patient care. During the rotation, the student will actively participate in traumas/codes, patient education, medication reconciliation, and drug consults, amongst other daily ED activities. Students who complete this rotation should be aware of the direct patient care component, which may include graphic trauma and code situations. Completion of a hospital clinical rotation is preferred prior to this rotation, due to the high-paced environment. The student will participate in biweekly topic discussions, which will include disease states such as sepsis, STEMI, stroke, cardiac arrest, pneumonia, respiratory distress, and toxicology. All students are required to present a journal club and a formal patient case by the end of the rotation. This rotation will be most beneficial to students who are interested in completing a residency, due to the focus on critical care disease states.

A typical APPE student day on service:

- Review all ED observational patient's CST
- Complete as many ED observational and bordering patient's medication reconciliation
- Follow up on all ED patients kinetic reviews
- Attend and participate in all ED codes, traumas, stroke, MI, and medical emergencies
- Prepare and participate in weekly topic discussions
- Prepare and present one journal club and case presentation during the rotation
- Follow up on all pharmacy DI requests from providers, pharmacists, and nursing staff
- Assist in medication procurement and preparation
- Assist the ED pharmacists in medication related needs

Student Coordinator: John Fossitt, PharmD

Contact: fossitt@ohsu.edu

Other Preceptors: Roger Clark

ADULT INFECTIOUS DISEASES (INPATIENT & OPAT)

Advanced level experience (Students will benefit most if they have completed at least one hospital or inpatient clerkship prior to this rotation)

Expected hours: M-F, varied hours

General Description:

The Antimicrobial Management Team and Infectious Disease rotation is a six week learning experience at Oregon Health & Science University Hospitals and Clinics. This clerkship is designed to introduce students to the concept of antimicrobial management in a large teaching hospital. The student will round with the ID Consult team covering patients at OHSU and the VA. The team includes an attending physician, an ID fellow, medicine residents, and medical students. Students will be responsible for following 2-3 patients on the ID consult service and will discuss these patients daily with their preceptor. In addition to following patients on the ID consult service, the student will work with preceptor to learn skills in antimicrobial management. These skills include recommending proper dosing and monitoring for antimicrobial agents; appropriate streamlining and de-escalation of antimicrobials; intravenous (IV) to oral (PO) conversion; restricted antimicrobial indications and approvals; and shutting off vancomycin early (SHOVE). The preceptor and student will go over these concepts during the beginning of the rotation and the student will be expected to apply these antimicrobial management concepts to their patients throughout the duration of the rotation.

A typical APPE student day on service:

The student will round with the ID Consult team covering patients at OHSU and the VA. The team includes an attending physician, an ID fellow, medicine residents, and medical students. Students will be responsible for following 2-3 patients on the ID consult service and will discuss these patients daily with their preceptor. In addition to following patients on the ID consult service, the student will work with preceptor to learn skills in antimicrobial management. On the OPAT rotation these skills will be outpatient focused antimicrobial management skills in addition to the inpatient management skills acquired on rounds with the ID consult team.

Student Coordinator: Jim Lewis, PharmD, Amber Streifel, PharmD

Contact:

Jim Lewis

Hospital Units: OHSU units

Office Location/Phone for Jim: 4C/80257

Service Pager: 16695

Amber Streifel

Hospital Units: Baird Hall and OHSU units

Office Location/Phone for Amber: Baird Hall 3000A/47855

Service Pager: 12019

INFECTIOUS DISEASES-PEDIATRIC

Advanced level experience (Students must have completed general pediatrics or adult infectious diseases prior to this rotation)

Expected on-site hours: M-F, 0730-1600

General Description:

The Infectious Disease (ID) Department at Doernbecher Children's Hospital utilizes a clinical pharmacist to provide comprehensive pharmaceutical care to patients throughout their hospitalization through Antimicrobial Stewardship (ASP) and ID rounds. The Antimicrobial Stewardship Program (ASP) is a multidisciplinary effort and consists of an attending physician and the ID pharmacist. The ID team consists of attending physicians, medical residents, and/or medical students and the pharmacist confers with the ID team regularly to provide support.

The role of the ASP/ID clinical pharmacist is to assure safe and effective medication therapy throughout the patient's hospital stay. Many responsibilities are incorporated into this role: participate in daily inpatient rounds, communicate with pharmacists throughout the hospital and nursing staff to decrease medication error, and make recommendations for quality and safety improvement. The student will work toward assuming care of most patients and responsibilities throughout the six week rotation. The student must develop efficient strategies for accomplishing all required activities during the rotation.

A typical APPE student day on service:

The student should arrive early enough to work up patients prior to rounding (either for stewardship or for the ID rounding team). The student should be ready to participate actively in rounds and provide recommendations; any drug information support for the medical teams should be followed-up in a timely manner. Specific activities include but are not limited to:

- Establish collaborative professional relationships with the ID team
- Establish collaborative pharmacist-patient-caregiver relationships
- Provide drug information to ID and other health care teams
- Devise a plan for deciding which patients to focus on if given limited time and multiple patient care responsibilities.
- Collect patient information daily
- Analyze patient information
- Determine the presence of medication therapy problems in the current medication therapy
- Design evidence based therapeutic regimens for ID consult patients
- Design monitoring plans for ID consult patients
- Communicate regimens and monitoring plans
- Implement regimens and monitoring plans through discussing with the team
- Evaluate the progress of individuals with infectious disease processes and redesign regimens/monitoring plans as appropriate
- Use effective patient education techniques to provide counseling to individuals and caregivers
- Providing educational in-services to the ID or pharmacy staff as required
- Provide pharmacokinetic modeling when appropriate

Student Coordinator: Diana Yu, PharmD
Contact: yud@ohsu.edu; p12456, x46905
Other Preceptors: N/A

PARENTERAL NUTRITION

Entry level experience
Expected on-site hours: M-F, 0700-1530

General Description:

TPN is a six week learning experience at Oregon Health & Science University Hospitals and Clinics. This clerkship is designed to introduce students to Intravenous Nutrition Support pharmacy practice in all the acute care populations. The TPN pharmacist is an active member of both adult, pediatric, and neonatal interdisciplinary healthcare teams that provide nutrition intravenously to their patients. The pharmacist is the hub of TPN activity and use throughout all facets of the inpatients medication use process and is also the conduit for homecare TPN information, therapeutics and transitions of care. Daily responsibilities may include: attending rounds, serving as a TPN information resource, monitoring and evaluating patient therapeutic response to TPN therapy, writing consult notes, become accomplished in computerized TPN order entry, overseeing computerized TPN production, supervising TPN technicians, and participating in various organizational and departmental policy and quality improvement processes. The student is responsible for one student presentation and one TPN service improvement project.

A typical APPE student day on service:

Student Coordinator: Brittany Cummiskey, PharmD
Contact: ***
Other Preceptors: ***

INFUSION/ONCOLOGY CLINICAL/OPERATIONAL ADMINISTRATION (AMBULATORY)

Entry level experience, MBA candidates preferred
Expected on-site hours: M-F, 0730-1600

General Description:

The rotation can be 6 weeks or 12 weeks in length and can be used to satisfy administration rotation blocks for MBA candidates. The rotation is tailored to each student's interests and career goals. A detailed schedule is built after a discussion between the student and primary preceptor at the start of the block.

Students are exposed to several levels of pharmacy leaders including Director, Clinical/Operational Managers, and Clinical/Operational Supervisors. Students have the opportunity to learn about clinical oncology and infusion services, research pharmacy services, and pharmacy administration through mini-rotation/shadowing experiences throughout the block. Topic discussions include but are not limited to precision medicine,

biosimilars, research pharmacy, medication safety incident review, drug purchasing and reimbursement, value based payment models, pharmacy budget, inventory management, and pharmacy compliance.

The rotation is heavily project based and requires independent, self-starters who thrive with a flexible schedule and exposure to multiple pharmacy leaders. The rotation provides a global view of pharmacy and allows students to gain perspective about the current and future challenges of pharmacy practice in the ambulatory oncology setting.

A typical APPE student day on service:

Attendance at meetings with pharmacy leaders

Topic discussions

Clinical and operational project work

Real time problem solving related to day to day operations

Shadowing pharmacists and technicians to gain exposure to various areas of pharmacy

Student Coordinator: Erin Corella, PharmD, Andrew Albanese, PharmD

Contact: 4-4132

Other Preceptors: Susie Jiing, PharmD

INSTITUTIONAL/HOSPITAL PHARMACY (INPATIENT)

Entry level experience

Expected on-site hours: M-F, 0800-1630, varies depending on projects, additional hours may be required

Preceptor Hours: M-F, 0730-1730, varies

General Description:

The Institutional/Hospital Pharmacy (inpatient) rotation is a six week learning experience at Oregon Health & Science University. The objective of this rotation is to give the student a thorough understanding of inpatient pharmacy activities. The student will focus on the medication use process as it relates to safe acquisition, preparation and dispensing of medications in the pharmacy department. The student will work with the inpatient pharmacy staff in learning more about inpatient pharmacist and technician roles. The student will also work with the pharmacy management team to identify and implement at least one process or practice improvement project within the inpatient pharmacy area.

A typical APPE student day on service:

The student will meet with their primary preceptor each morning to review the responsibilities for each specific day. The student will be asked to attend valuable meetings to better understand inpatient operations, change management tactics, leadership development, and crisis management strategies. Topic discussions will be facilitated by the student and presentations to the inpatient operations leadership team will be conducted on a weekly basis.

Student Coordinator: Jason Wong, Lam Nguyen, PharmD

Contact: Jason Wong, 503-494-8524 (office), wojas@ohsu.edu

Other Preceptors: Christy Hughes, Tiffany Josef, Cassy Robertson, Justin Babino

PHARMACY ADMINISTRATION (12 WEEKS)

Advanced level experience (Students will benefit most if they have completed at least one hospital or inpatient clerkship prior to this rotation, MBA Students)
Expected on-site hours: M-F, 0700-1530

General Description:

This rotation will provide the administration student with exposure to Senior Level Pharmacy and Pharmacy Operations Management. The purpose of the rotation is to provide the student with insight into Senior Level Decision making as well as operational decision making within the context of a distributed and clinic system. This includes knowledge of financial and operational development of new and innovate methods to practice pharmacy. The student's learning experience during the rotation will consist of day-to-day operations, and decision making algorithms. The student will learn to synthesize a systematic approach to formulate recommendations for improvement to the medication use process. Upon the completion of the rotation, the student will be equipped to effectively represent a distributed health-system approach to a patient's care.

The student will be responsible for attending any applicable meetings throughout the rotation and gain as much exposure to higher level systematic decision making. Throughout the rotation, the student will be responsible for identifying one major system to improve upon. They will be responsible to present this project to the administrative team at the end of the rotation. There will also be opportunities to complete or assist in other projects. Good communication and interpersonal skills are vital to success in this experience. The student must devise efficient strategies for accomplishing the required activities in a limited time frame.

A typical APPE student day on service:

Building upon prior baseline administration knowledge and experience, the student will meet with their primary preceptor each morning to review the responsibilities for each specific day. The student will be asked to attend valuable meetings to better understand inpatient operations, change management tactics, leadership development, and crisis management strategies. Topic discussions will be facilitated by the student and presentations to the inpatient operations leadership team will be conducted on a weekly basis. The student will also be asked to shadow pharmacist and technician shifts to gain a robust understanding of central and perioperative pharmacy services.

Student Coordinator: Jason Wong, PharmD, Lam Nguyen, PharmD

Contact: Jason Wong, 503-494-8524 (office), wojas@ohsu.edu

Other Preceptors: Christy Hughes, Tiffany Josef, Cassy Robertson, Justin Babino

MEDICATION SAFETY/INFORMATICS

Entry level experience

Expected hours: M-F, 0800-1630

General Description:

The Medication Safety/Informatics rotation is a split rotation intended to expose the APPE student to the core concepts of medication safety and informatics. Students will use these concepts to work on related projects,

tickets and medication error reporting review. Focus will be placed on the medication use cycle and how it affects both medication safety and informatics and the everyday workings of pharmacy services.

A typical APPE student day on service:

A typical day includes check in with your assigned preceptor, article and assignment review and shadowing of projects, meetings etc. There will be time for self-motivated learning.

Student Coordinator: Lindsey Eick, PharmD, Van Do, PharmD

Contact:

Lindsey Eick, PharmD, BCPS

goldsmil@ohsu.edu

503-494-7183

Other Preceptors:

Van Do, PharmD

dva@ohsu.edu

RESEARCH PHARMACY

Entry level experience

Expected on-site hours: M-F, 0700-1530

General Description:

This rotation will provide the pharmacy student with an experiential learning opportunity through integration into the various roles of Research Pharmacy Services (RPS) at Oregon Health and Science University (OHSU). The experiences will include both administrative and operational aspects of these positions. The purpose of the rotation is to provide detailed exposure to the steps required to implement a clinical trial from the beginning stages of building out the logistics to dispensing the medications to the patients. This six week rotation will include the following: active participation in daily operations including drug dispensing (IV, chemotherapy, intravitreal, oral, etc.), direct patient care including counseling and drug information, order review (including exposure to Vestigo, Beacon for chemotherapy, and Willow systems), assistance with study monitor visits, shadowing of study team members including providers, protocol development and project assignments under the guidance of the preceptors and the staff. Upon the completion of the rotation, the student will be able to review and dispense a research order from start to finish without assistance (except for final verification) and interpret a clinical trial, comprehending what was necessary to implement that trial at a major medical center. In addition as OHSU has over 600 clinical trials, the goal is to provide an individualized learning opportunity to include time focused on specific areas that is of interest to the student.

A typical APPE student day on service:

The APPE student will be assigned a particular aspect of the RPS each week, which will include both operations and clinical reviews. Operations includes assisting the pharmacist in the following: reviewing/releasing orders from Beacon for chemotherapy, review and dispensing of various orders both inpatient and in the ambulatory

setting, and dispensing oral medications for the various studies for the entirety of OHSU Health. They will attend meetings with study teams, collaborate with providers and nurses, assist in drug procurement, preparation and dispensation, patient counseling, as well as monitor and review patients for appropriateness of supportive therapies. There are opportunities for medication reconciliation, concomitant medication review, and drug information questions daily.

Student Coordinator: Calan Eyler, PharmD, BCPS

Contact: eyler@ohsu.edu, RPS Phone: (503) 494-6865

Other Preceptors: Brooke Bernard, PharmD; Rebecca Hodgson, PharmD; Aimee Kelly, PharmD; Helen Lu, PharmD, BCPS; Maggie Ryan, PharmD, BCPPS; Sarah Bissonnette, PharmD; Brian Tessman, PharmD; Sharon Shiraga, PharmD, BCOP, Brad Fujisaki, PharmD, BCPS

DRUG INFORMATION

Entry level experience

Expected on-site hours: M-F, 0830-1700

General Description:

Drug Information/Drug Policy is a six week virtual learning experience at Oregon Health & Science University. The Drug Information Service receives consult requests from OHSU clinicians and OHSU Partners taking care of OHSU/OHSU Partner patients. Consults may be in support of drug policy that occurs at various committees throughout the department (PPIRC, CQC) and the institution (Clinical Knowledge and Therapeutic Executive Committee [CKTEC], Medication Safety Committee, etc). The service is also responsible for reporting adverse drug events to MedWatch, determining whether medications may be safely used following temperature excursion, and performing medication utilization evaluations.

The Student will learn and implement the modified systematic approach to answering drug information consults to provide evidence-based responses in a timely manner. This may involve identifying and resolving medication therapy issues for specific patients (i.e. as drug-drug interactions or identifying a causative drug when presented with an adverse effect), performing a literature review to identify a medication's place in therapy, or providing a compounding recipe or extended drug stability information. The student will provide and document their search strategy, and the final written consult will be sent to the requester with preceptor sign-off. The student will also learn appropriate follow-up questions when presented with a drug information request and how to efficiently analyze and summarize medical literature. The student may also have the opportunity to be involved with the formulary process at OHSU by creating documents such as medication monographs and medication use evaluations that will be reviewed at various committees after preceptor sign-off.

A typical APPE student day on service:

A typical day on Drug Information rotation includes 3 daily virtual check-ins with preceptors. In the morning, the preceptor may assign the student a new Drug Information consult and review the appropriate search strategy to approach the consult. The student will work independently to perform and document the search, and then formulate a written response. The student's work will then be reviewed by the preceptor prior to providing the

final response to the requesting clinician. The student will work with the preceptor to identify all relevant resources and literature, and to ensure the written information is provided in an accurate, succinct and efficient manner. The preceptor will touch-base with the students in the afternoon and at the end-of-day wrap up, or intermittently as needed. In addition, the student will attend Medical Grand Rounds lectures, student sessions or preceptor topic discussions aimed at improving literature evaluation skills.

Student Coordinator: Kylee Kastelic, PharmD

Contact: kastelic@ohsu.edu ; tel: 503-494-7530

Other Preceptors:

Rebecca Britton, PharmD, BCPS

Linda Nguyen, PharmD, MBA

Christina Bowen, PharmD, BCPS

COMMUNITY PRACTICE (PHYSICIANS PAVILION)

Entry level experience

Expected on-site hours: M-F, 0800-1800

General Description:

The OHSU Physicians Pavilion pharmacy is a full service outpatient pharmacy on the main OHSU campus. This location serves both the main hospital, as well the employees and surrounding communities. The Pavilion Pharmacy provides same day specialty pharmacy services, immunizations, meds to bed services, curbside delivery, and mailing options. Students will have the opportunity to participate in a variety of activities, both within the pharmacy and in the main hospital.

A typical APPE student day on service:

Typically students spend the majority of their time in the pharmacy, providing consultations, vaccinations, and general support for the pharmacy team. We have students perform case studies and clinical presentations to the staff, as well as drug updates. Depending on the time of year, we also get students involved with our meds to bed program. Students provide great support in the emergency department, as it is very fast paced and students can assist with expediting discharges. The emergency department presents a unique opportunity to bridge the gap between emergency/immediate care, and outpatient pharmacy services.

This is not the typical outpatient APPE at a drug store – Pavilion staff keep students very busy with experiences they would not experience anywhere else.

Student Coordinator: Matt Spinar, PharmD

Contact: 503-494-6054

Other Preceptors: None

COMMUNITY PRACTICE (CHH1)

Entry level experience

Expected on-site hours: M-F, 8:30AM – 5PM (pharmacy hours are 8AM – 6PM)

General Description:

OHSU CHH1 pharmacy is a busy pharmacy which serves the needs of local community patients, OHSU employees, as well as many specialty clinics. These clinics include fertility, short stay surgery, gastroenterology, immediate care, and dermatology. We offer delivery to the Mirabella (assisted living/skilled nursing facility nearby), mail, and curbside pick-up services. Students will engage with patients, providers, and other members of the healthcare team on a daily basis.

A typical APPE student day on service:

A typical day on service will include patient consultations on common outpatient OTC and Rx medications, chart reviewing, processing insurance rejections, answering questions and calling providers on medication related questions, special projects, and time for assigned self-study.

Student Coordinator: Ron Kuiper, PharmD

Contact: louico@ohsu.edu

Other Preceptors: Donald Backus, PharmD (manager), Jennifer Meagher RPh, Monika Miller RPh

COMPOUNDING PHARMACY

Entry level experience

Expected on-site hours: M-F 6:00 AM to 2:30 PM

General Description: Introduction to compounding theory and practice.

A typical APPE student day on service:

50% didactic/50% compounding

Student Coordinator: Mark Roska

Contact: Mark Roska

Other Preceptors: Annette Adkins, Elena Schaller

CREEKSIDE MAIL ORDER & SPECIALTY

Entry level experience

Expected on-site hours: M-F, 0800-1630

General Description:

Creekside pharmacy operates as a mail order and specialty pharmacy focusing on home delivery services for patients with, but not limited to chronic medical conditions such as solid organ transplant, HIV, cystic fibrosis, multiple sclerosis, and most other immunocompromised or complex conditions. Students will engage with pharmacists, patients, providers, and pharmacy technicians to provide care coordination, medication support, specialty care and resources.

A typical APPE student day on service:

This rotation will provide the student with the basic understanding of the workflows and operations of a specialty/mail order pharmacy. Students will provide in-depth patient education and management on specialized medications via patient consultations. Students will be given opportunities to communicate with patients, caregivers, and other health care providers to answer drug inquiries. The student is also expected to actively participate in processing, billing, and dispensing of prescription medications using EPIC while understanding best practices related to safe medication use and distribution to patients.

Student Coordinator: Donald Backus, PharmD

Contact: Donald Backus- email backusd@ohsu.edu

Main Pharmacy phone number: 503-346-3370

Other Preceptors: Steve Tran, Ruby Chen, Jade Adkisson, Chau Do

HOME INFUSION PHARMACY

Entry level experience

Expected on-site hours: M-F, 0830-1700

General Description:

OHSU Home Infusion provides services to a variety of patients ranging from infant to geriatric. Our main therapies include specialty infusions (IVIG and monoclonal antibodies for a wide range of indications), parenteral nutrition, antibiotics, hydration, and many more. We offer services to patients throughout Oregon and into southwest Washington. OHSU Home Infusion Services is an interdisciplinary department consisting of

Pharmacists, Pharmacy Technicians, Nurses, Dietitians, and PAS staff all focused on providing high-quality infusion and injectable services in the patient's home. This rotation focuses not only on the pharmacy practice of Home Infusion, but also on the logistics of delivering care in patient homes as well as the interdisciplinary communication and relationships that are required. Students will learn about the unique practice that is home infusion. They will learn to evaluate complex therapies and develop individualized care plans in collaboration with other disciplines. Concepts related to sterile compounding (USP 797 and USP 800) will be high-focus. In addition, students will utilize clinical skills including lab monitoring, vancomycin and aminoglycoside dosing, parenteral nutrition management, and many more.

A typical APPE student day on service:

A typical APPE student day will be dynamic, consisting of both clinical care and assisting with dispensing medications and supplies. Students will shadow in various areas throughout the pharmacy, including the med room, calling patients to arrange refills, packaging, and working with nurses. Students will work in an interdisciplinary team environment including both an office location and within the pharmacy itself. Throughout the rotation, students will perform various clinical tasks including patient counseling, clinical monitoring, and management of various therapies.

Student Coordinator: Melinda Hawkins, RPh

Contact: Melinda Hawkins, RPh 503-346-3826

Other Preceptors: Tri Nguyen, Austin Ewing, Kristen LaGrotta, Maria Im, Phuong Nguyen, Howard Jensen, Sonya Lee, Travis Tang

AMBULATORY INFUSION PHARMACY (CHH2)

Entry level experience

Expected on-site hours: M-F, 0800-1630 (may be flexible)

General Description:

This rotation provides the student with a basic understanding of the workflows and operations of an ambulatory infusion pharmacy. It will include an introduction to sterile compounding and orientation to a pharmacy clean room, experience with pharmacy automation including automated dispensing cabinets and controlled substance management, and participation in pharmacy leadership meetings with various clinic and service line leadership if opportunities arise. Substantial time will be spent with oncology infusion pharmacists verifying chemotherapy orders and educating patients on supportive care plans. Students will also spend time at OHSU community hematology/oncology site(s) within the Portland Metro area.

A typical APPE student day on service:

Shadow oncology/infusion pharmacist verifying chemotherapy or supervising operations in the IV room, educating new patients on supportive care plans (take home medications), attending operations meetings with pharmacy leadership, or shadowing pharmacy technicians responsible for medication distribution throughout the South Waterfront campus.

Student Coordinator: Mitch Hoel, PharmD

Contact: Mitch Hoel direct phone number: 503-418-7054

Main pharmacy phone number: 503-418-9900

Other Preceptors: Frontline staff, including many different oncology pharmacists

HEART FAILURE/HEART TRANSPLANT CLINIC (AMBULATORY)

Entry level experience

Expected on-site hours: M-F, 0800-1630

Remote Telehealth Visits: No

General Description:

The heart failure and heart transplant ambulatory experience is aimed at giving students a taste of chronic heart failure management as provided at the OHSU Knight Cardiovascular Institute at Center for Health and Healing building 1 (CHH-1). Patients cared for in this clinic have a range of cardiovascular dysfunction ranging from mild heart failure all the way to ventricular assist devices (VAD) and heart transplantation. Pharmacists in this clinic work closely with the multidisciplinary team to provide services aimed at optimizing heart failure regimens, anticoagulation management, immunosuppression titration, and other medication issues as they arise. In addition to direct patient care and education, students will also learn about improving access to medication and identifying opportunities for process improvement in the delivery of care.

A typical APPE student day on service:

Students will be able to interact with patients in clinic and via phone or virtual interactions. Since most interaction is in-person, student will be on-site at the CHH-1 7TH floor cardiology clinic. Days vary depending on the type of clinic scheduled (VAD, Transplant, vs Heart Failure) and the heart failure provider on service.

Student Coordinator: Jessie Dunne, PharmD, BCPS, BCCP

Contact: dunneje@ohsu.edu, Office phone: 503-494-6436

Other Preceptors: Cynthia Wong, PharmD, BCTXP

CARDIOLOGY CLINIC (AMBULATORY)

Entry level experience

Expected on-site hours: M-F, 0700-1530

Remote Telehealth Visits: Yes

General Description:

The cardiology ambulatory rotation will consist experiences in two different cardiology clinics at Oregon Health & Science University Knight Cardiovascular Institute including preventive cardiology and hypertrophic cardiomyopathy / cardiac amyloidosis clinics. The student will spend 3 weeks in each rotation with the assigned preceptor.

The Preventive Cardiology rotation is designed to introduce the students to pharmacy practice in the ambulatory care, preventive cardiology population, encompassing atherosclerotic cardiovascular disease (ASCVD), dyslipidemia, hypertension, obesity, diabetes, smoking cessation and lifestyle management. The practice

consists of three Physicians, two Nurse Practitioners, one Clinical Pharmacist, one Dietician, one Registered Nurse, medical assistants and managerial staff.

The hypertrophic cardiomyopathy (HCM) / cardiac amyloidosis (CA) rotation is designed to introduce the students to the basic understanding of the diagnosis, management and follow-up of patients with these subsets of cardiomyopathy and the pharmacy support provided in this clinic. The practice consists of two Cardiologists, one Clinical Pharmacist, one Geneticist, one Registered Nurse, medical assistants and managerial staff.

A typical APPE student day on service:

Shadowing the clinical pharmacist as an active member of the interdisciplinary healthcare team, ensuring safe and effective medication use throughout all facets of the medication use process. Daily responsibilities include: seeing patients in clinic in conjunction with the providers, optimizing drug therapy, serving as a drug information resource, performing patient profile reviews, writing consult notes, assisting with medication reconciliation, performing collaborative drug therapy management, educating patients, providing remote patient care activities, employing cost avoidance strategies, improving medication adherence and participating in various organizational and departmental policy and quality improvement projects and committees. Other tasks would include topic discussions, attending conferences and student sessions, and developing provider education presentations/materials.

Student Coordinator: Bruce Warden, PharmD, Hongya Chen

Contact: wardenb@ohsu.edu; chenhong@ohsue.edu

Other Preceptors: N/A

CYSTIC FIBROSIS/DIABETES CLINIC

Entry level experience

Expected on-site hours: M-F, 0800-1700 (alternating days/weeks with CF/DM clinic, times will vary)

Remote Telehealth Visits: Yes

General Description:

DM: The pharmacist is designated member of the diabetes health center, which is composed of endocrinologists, physician assistants, registered nurses, registered dietitians, certified diabetes educators, medical assistants and other allied staff. The clinical pharmacist serves by primarily providing comprehensive pharmaceutical care to patients with diabetes. This pharmacist works under a collaborative drug therapy agreement with the Harold Schnitzer Diabetes Health Center providing individualized care in collaboration with physicians, physician assistants and other healthcare professionals to ensure the delivery of safe, effective and economic drug treatment. The populations served include adults patients with type 1 diabetes mellitus, type 2 diabetes mellitus, prediabetes, drug-induced hyperglycemia, post-transplant diabetes mellitus in patients with solid organ transplant, hyperglycemia secondary to nondiabetic conditions/therapies such as Cushing's syndrome, pancreatic insufficiency, cystic fibrosis related diabetes (CFRD), pancreatectomy, total-pancreatectomy with islet-cell autotransplantation (TPIAT), etc.

CF: The pharmacist is a designated member of the adult and pediatric cystic fibrosis (CF) teams and is assigned primary responsibility for providing comprehensive pharmaceutical care to patients with CF. The pharmacist evaluates, identifies and solves medication related problems and acts as a liaison between patients and patients' families and other health care team members regarding medication issues. The pharmacist also works with

patients and their families and members of the CF team including physicians, nurses, medical assistants, dietitians and social workers to contribute to the continuity of care for each patient.

A typical APPE student day on service:

A typical day would include conducting and documentation of face-to-face or digital (virtual or phone) appointments for either Cystic Fibrosis adult or pediatric patient drug management or collaborative drug therapy management of diabetes. Other tasks would include CF and DM topic discussions, fulfilling drug-information requests, assisting patients with prescription barriers, participating in clinical research trials, and attending conferences and student sessions. Independent learning, good communication and interpersonal skills are vital to success in this experience.

Student Coordinator: Cori Muirhead, CF PharmD, Rita Parsiani, DM PharmD

Contact: Cori Muirhead, PharmD, dustan@ohsu.edu; (503) 351-9177 Rita Parsiani, PharmD, parsiani@ohsu.edu; (503) 709-1521

PRECISION MEDICINE (AMBULATORY)

General Description:

This rotation will provide the pharmacy student with exposure to Precision Medicine in the setting of oncology at Oregon Health and Science University (OHSU) Knight Cancer Institute (KCI). The purpose of the rotation is to provide insight into the multitude of analytics used to personalize therapy and to incorporate clinical information to improve patient care. Upon the completion of the rotation, the student will be able to describe the function of various analytics, review literature, and develop a personalized care plan.

A typical APPE student day on service:

This six week learning experience will include the following learning experiences for the student: active participation in daily operations, meeting attendance, patient care monitoring, review and assess literature, participate in the molecular tumor board, and project assignments under the guidance of the preceptors and the staff.

Student Coordinator: Ben Kong, PharmD

Contact: Ben Kong, PharmD