



Department of Pharmacy

PGY2 Oncology Residency Manual

July 2023–June 2024



Memorial Sloan Kettering
Cancer Center

MSK Kids

WELCOME TO THE MSK FAMILY

A Welcome from your Residency Program Directors

We are both thrilled to have you join the MSK Pharmacy Family! It is a demanding year of training that is also full of personal and professional growth. As your RPDs, we serve as mentors, preceptors, and are involved with every aspect of your residency training. We are here for you throughout the year. We are as excited as you are to start the journey.



A handwritten signature in black ink, appearing to read 'Lisa Modelevsky'.

Lisa Modelevsky, PharmD, BCOP
PGY2 Oncology Residency Program Director
Manager, Clinical Pharmacy Practice



A handwritten signature in black ink, appearing to read 'Jennifer Thackray'.

Jennifer Thackray, PharmD, BCPS, BCPPS
PGY2 Pediatric Oncology Residency Program Director
Manager, Pediatric Clinical Pharmacy Services

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Memorial Sloan Kettering Cancer Center

Department of Pharmacy

PGY2 Oncology Residency Program

MISSION STATEMENT

The Pharmacy Department at Memorial Sloan Kettering Cancer Center (MSK) is dedicated to the progressive control and cure of cancer through programs of patient care, research, and education. This has been MSK's mission since 1884.

PURPOSE

PGY2 pharmacy residency programs build on Doctor of Pharmacy (Pharm.D.) education and PGY1 pharmacy residency programs to contribute to the development of clinical pharmacists in specialized areas of practice. PGY2 residencies provide residents with opportunities to function independently as practitioners by conceptualizing and integrating accumulated experience and knowledge and incorporating both into the provision of patient care or other advanced practice settings. Residents who successfully complete an accredited PGY2 pharmacy residency are prepared for advanced patient care, academic, or other specialized positions, along with board certification in oncology.

INTRODUCTION TO THE PGY2 ONCOLOGY PHARMACY RESIDENCY PROGRAMS

The PGY2 Oncology Residency Programs conducted by MSK is accredited by ASHP. Both residencies are 12-month (52-week) programs based upon the [American Society of Health-System Pharmacists \(ASHP\) Accreditation Standard for Postgraduate Pharmacy Residency Programs \(©2023 ASHP\) \(“The Standards”\)](#) and the [ASHP Required Competency Areas, Goals, and Objectives \(CAGOs\) for Postgraduate Year Two \(PGY2\) Oncology Pharmacy Residencies \(©2019 ASHP\)](#). The residencies focus on development of special competence in clinical therapeutics for cancer, an introduction to clinical research as well as introductory experiences in the management of sophisticated pharmacy service programs. It is required that residents have already achieved a basic level of competence in institutional and clinical pharmacy practice. The individualized development plan for each resident may vary in structure and emphasis based upon the resident's entering level of knowledge, skills, abilities, and interests.

One of the residency programs focuses on therapeutics in adults. The first month is dedicated to orientation to MSK, pharmacy department, and crash courses in oncology. Nine months are devoted to major rotations in patient care, ranging from 2 to 5 weeks in length. The patient care rotations are divided into inpatient and outpatient experiences. These rotations consist of hematologic malignancies (leukemia, lymphoma, and multiple myeloma), bone marrow transplantation, and solid tumor malignancies (breast, gastrointestinal, gynecologic, thoracic, genitourinary, and neuro-oncology). Other required learning experiences include pediatric oncology, infectious diseases, and early drug development. In addition to the direct patient care rotations, there are longitudinal learning experiences focusing on formulary and medication use policy, medication safety and quality management, pharmacy operations, leadership and clinical pharmacy administration, investigational drug studies, well-being and resilience, and research. Elective rotations permit the resident to expand abilities and skills in different areas of particular interest.

The second PGY2 oncology pharmacy residency focuses on pediatric oncology. The first month is dedicated to orientation to MSK, MSK Kids, the pharmacy department, and crash courses in oncology. Nine months are dedicated to learning experiences (rotations) providing direct patient care to children, adolescents, and young adults with cancer. Required rotations include inpatient learning experiences in pediatric hematology/oncology and pediatric transplant and cellular therapy (TCT), and outpatient rotations in pediatric neuro-oncology, pediatric hematologic malignancies, pediatric transplant and cellular therapy, pediatric sarcoma, and pediatric neuroblastoma. There is also one required rotation on the inpatient adult leukemia service to solidify the understanding of the treatment of hematologic malignancies. In addition to the direct patient care rotations, there are longitudinal learning experiences focusing on formulary and medication use policy, medication safety and quality management, pharmacy operations, leadership and clinical pharmacy administration, investigational drug studies, well-being and resilience, and research. Elective rotations permit the resident to expand abilities and skills in different areas of particular interest. Established elective rotations include pediatric intensive care unit, infectious diseases, pain and palliative care, long-term follow-up clinic, as well as spending additional time in previous rotations if desired. The resident may elect a rotation offered in either program.

The specific program for each resident varies based on the resident's goals, interests, and previous experience. However, all residents are required to complete rotations in core subject areas considered to be essential to the oncology pharmacy practitioner. Elective rotations are available to permit the resident flexibility in pursuing individual goals.

Effective communication skills are critical for the pharmacy practitioner. While the residents will have numerous opportunities to refine their skills on rotation, the following experiences can build their skills:

1. Direct involvement in patient admission medication reconciliation and discharge counseling regarding home medication regimen during selected clinical rotations within the hospital; and
2. Patient counseling in the ambulatory clinics involving hands-on experience, discussing the patient's disease and drug therapy, monitoring, and adjusting drug therapy regimens, and methods to enhance adherence.

PROGRAM GOALS

The main goals of this residency program are to:

1. Develop the resident's fundamental knowledge of oncology therapeutics and malignant disease states and build the clinical skills required to practice as an independent oncology clinical pharmacist.
2. Emphasize the role of continuous professional development through literature evaluation, didactic lectures, roundtable discussions, self-learning, and continuous self-reflection.
3. Apply evidence-based guidelines and standards in tailoring treatment plans to optimize patient care and outcomes.

PROGRAM PARTICIPANTS AND ROLES

A number of individuals play key roles in the administration of the PGY2 Oncology Pharmacy Residency programs.

Vice President and Chief Pharmacy Officer

Scott Freeswick, PharmD, MS

The Chief Pharmacy Officer justifies the importance of the residency program and supports the program for budget approval.

Program Directors (RPDs)

Lisa Modelevsky, PharmD, BCOP

Manager, Clinical Pharmacy Practice

Jennifer Thackray, PharmD, BCPS, BCPPS

Manager, Pediatric Clinical Pharmacy Services

The Residency Program Directors maintain responsibility for the residency program. This includes that the overall program and specific learning objectives are met, training schedules are maintained, appropriate preceptorship for each rotation or training period is provided and resident evaluations are conducted routinely and based on established learning objectives.

Program Coordinators (RPCs)

Charlene Kabel, PharmD, BCOP

Clinical Pharmacy Specialist, Cellular Therapy
Adult Oncology Program

Binni Kunvarjee, PharmD, BCOP

Clinical Pharmacy Specialist, Pediatric Transplant and Cellular Therapy
Pediatric Oncology Program

The Residency Program Coordinators (RPCs) support the Residency Program Directors in their responsibilities. They assume a leadership role in program administration and program recruitment activities. Specific responsibilities include but are not limited to assisting with the ASHP midyear interview process, serving as an active member of the resident selection committee, serving as the preceptor for the educational longitudinal rotation and coordinating learning activities such as the Oncology Didactic Lecture series.

Preceptors

Rose Baek, Wiktorija Bogdanska, Manpreet Boparai, Amelia Chan, Jenna Ciervo, Nina Cohen, Ryan Daley, Nicole Daukshus, Raymond DeMatteo, Stephen Eng, Jackie Gomes, Tami Guitaud, Issam Hamadeh, Charlene Kabel, Adam Kahleifeh, Lauren Koranteng, Binni Kunvarjee, Josiah Land, Andrew Lin, Dazhi Liu, Bernadette Loughlin, Jiani Luo, Morgan Mastin, Lisa Modelevsky, Stephanie Monaco, Mary Nauffal, Lane Nguyen, Michael Nguyen, Vivian Park, Kate Reichert, Richa Shah, Krisoula Spatz, Jennifer Thackray, Shirley Yan, Grashma Vadakkel

Pharmacist preceptors develop and guide the learning experiences to meet the residency program's goals and objectives with consideration of the residents' goals, interests, and skills. The preceptors review the residents' performance, with a final written evaluation at the conclusion of each learning experience.

GENERAL REQUIREMENTS

Licensure

1. Each resident is licensed with New York State by October 1 of the residency year. The resident must be licensed in the state of New York for a minimum of two-thirds of the 52-week residency program (35 weeks) to be eligible for successful completion of the residency program.
2. The residents should be active and timely in reporting to the program director in case there is a possible delay in pharmacy licensure beyond the October 1 deadline. Any resident who is unlicensed by October 1 will continue their assigned staffing schedule and function as a technician. Each operational staffing shift after October 1 that the resident is required to staff as a technician, the resident must compensate for after licensure with equal staffing time as a pharmacist.
3. By November 1, if the resident remains unlicensed despite satisfactory attempt(s) at licensure, a decision will be made by the residency program director for either program dismissal or program extension. If program extension is approved, the resident's term of appointment will be extended by the number of days the resident is without licensure past the November 1 deadline, not to exceed the last day in July of the graduation year. Compensation and benefits will continue for the extension.
4. The residents work as technicians until pharmacy licensure is obtained. Upon licensure, the residents are evaluated to assess preparedness for transition into a pharmacist role. If deemed competent, the residents work as pharmacists in the areas mentioned above. Each resident is expected to practice as a pharmacist in a designated pharmacy satellite throughout the residency year.

PGY1 Certificate of Completion

The resident must provide documentation to the PGY2 Oncology Residency Program Director (RPD) of successful completion of an ASHP-accredited or candidate-status PGY1 residency program within 7 days after the PGY2 residency program start date. Graduate tracking in PharmAcademic®, email communication with the PGY1 RPD, or an email attachment of the PGY1 certificate of completion may be used for verification. The certificate of completion must be retrievable by the resident upon request.

RESIDENCY POLICIES

Travel and Professional Society Involvement

Residents completing the program at MSK are expected to develop and maintain an involvement in professional society activities on a local, state and national level. Involvement is critical to the development of the oncology resident and the achievement of professional and personal goals.

1. Residents should plan to join and assume an active role in ASHP. Activities could include attending the midyear clinical meeting, volunteering their services to the society, or attending an orientation session for residents.
2. Residents should plan to join and assume an active role in the Hematology Oncology Pharmacy Association (HOPA). It is mandatory that the resident submit and present their oncology research project at the annual HOPA meeting.

As part of the residents' professional and personal development, travel, and attendance at meetings on a national level is expected. Funding for attendance at the ASHP midyear clinical meeting and HOPA is provided by the Pharmacy Department since the residents are required to attend these meetings.

All residents are expected to attend ASHP and HOPA annual meetings which are approved meetings for the residency program. If residents are interested in attending any meeting outside of the approved meetings, a special request must be submitted to the program director to discuss the benefit of attending the meeting. Reimbursement for meetings outside of ASHP and HOPA will not be provided unless attendance is required by the RPD.

Workplace Resources

The PGY2 Oncology Residency Program is conducted primarily out of the Upper East Side of Manhattan, with locations at MSK Main Campus (1275 York Ave), David H. Koch Center (530 E. 74th St), Evelyn H. Lauder Breast Center (300 E. 66th St.), Rockefeller Outpatient Pavilion (160 E. 53rd St), and Sutton (460 E. 63rd St).

The resident will be provided a workspace equipped with a desk, desktop computer, landline telephone, and desk drawers at Sutton (460 E. 63rd St). Entrance to the building will be via MSK ID badge. Two workstations in the Schwartz building at Main Campus (1275 York Ave)

will be available on a rotating basis. Residents will be provided with an iPad for clinical use as well. Access to clinical information, medical and pharmacy information databases, institutional resources and the MSK Medical Library will be provided. Virtual desktop computer (VDC) will be accessible via the MSK virtual private network (VPN) from remote location. Residents must comply with MSK's Code of Conduct which will be reviewed and attested during orientation.

Duty Hours

The PGY2 Oncology Residency Program adheres to the [ASHP Duty Hour Requirements for Pharmacy Residencies guidance](#). Duty hours are defined as all hours spent on scheduled clinical and academic activities related to the pharmacy residency program that are required to meet the educational goals and objectives of the program. This includes inpatient and outpatient care, weekend staffing, and administrative responsibilities (e.g., meetings). Duty hours do not include reading, studying, and academic preparation time for presentations and journal clubs or hours that are not scheduled by the residency program director or a preceptor.

Duty hours are limited to 80 hours per week, averaged over a four-week period, inclusive of weekend operational and clinical staffing responsibilities. The clinical, operational, and administrative responsibilities outlined within the residency program are structured to fall below the maximum duty hours throughout any four-week period. Resident duty hours will be tracked monthly through a resident self-reporting tool in PharmAcademic that residents will be assigned to complete each month. Residents should refer to the [ASHP Duty Hour Requirements for Pharmacy Residencies](#) guidance for a full overview of the duty hour policy.

If the resident anticipates exceeding the duty hour requirements (> 80 hours per week), the resident should contact their RPD to discuss a prevention plan. In addition, the RPD will routinely review the resident's duty hour attestation in PharmAcademic® and assess instances of non-compliance. The RPD and the resident will work together to identify residency-related responsibilities and deadlines that could be modified to prevent exceeding duty hour requirements in the future.

Moonlighting (internal or external) is not permitted during the residency program.

Paid Time Off

The following table highlights legal holidays recognized by the hospital. Residents, as a part of the professional staff of the department, are expected to assist with holiday coverage if needed. Residents may be required to staff one holiday during the residency year at the discretion of the program director.

Legal Holidays	
Independence Day	New Year's Day
Labor Day	Martin Luther King
Thanksgiving	Memorial Day
Christmas Day	

Each resident will receive a total of 15 personal days during their residency training year. These days may be used for times when the residents are absent from work for illness, interviewing for a future position and personal leave or vacation. Residents are entitled to take five consecutive days off during the December research month. Residents are limited to two days off during any one 4-week rotation and 1 day off during any 2-week rotation. Any additional time off during a rotation requires special review by the program director with a plan for how the days will be compensated. Any personal days left unused at the end of the residency year will be forfeited and no additional compensation will be provided.

All requests for time off must be approved by the residency program director. Requests should be submitted in writing.

The residents are responsible for arranging switches for all other vacation and time off during their regular scheduled weekend. Unlicensed residents are not eligible for schedule switches.

Sick Days

The residents must email the preceptor as well as the program director to inform them of any sickness. Residents who are sick are not expected to show up to work. Residents who miss more than two days during a rotation should compensate for the absence; the preceptor and resident should agree on a plan that should be presented to the residency program director.

The Pharmacy Department, in accordance with ASHP standards, has established a minimum training length for residency programs.

Residents should check with the Residency Program Director to confirm that their expected leave time will not jeopardize their ability to complete the program on time.

Extended Leave

Residents who require an extended leave, defined as consecutive time off for 10 or more business days or a combined total of 37 days per 52-week training year, will be required to obtain the necessary approvals from the RPD and will need to compensate for this time at the end of the year through an extension of the residency program. Approval of a residency program extension will be at the discretion of the RPD and assessed on a case-by-case basis. If a program extension is granted, compensation and benefit coverage will be provided. For additional information on MSK leave policies (not already addressed in this manual), please refer to the [MSK GME Leave Policy](#) and the [MSK Human Resource](#) webpage and contact your residency program director.

Unexplained Absences

Residents who do not show up to a scheduled activity and do not notify the proper personnel of the absence are subject to counseling. This program has no tolerance for unprofessional behavior.

Remediation

Resident progress will be assessed during quarterly development meetings and use of the customized development tool. Residents failing to progress as expected during the residency program will meet with the residency program director to address issues and develop a remediation plan. Progress will be assessed on a weekly basis with conclusion at week 7. If the resident fails to meet remediation plan expectations, the certificate of completion will be withheld. Program dismissal or extension will be discussed at week 7 and if an extension is approved it cannot exceed the last day of July of the graduation year. Compensation and benefits will continue if an extension is approved. For more information, a sample remediation plan can be provided.

Termination

Residents can be terminated from the program at any time during the year, after two documented counseling's with no improvement. The Residency Advisory Committee conducts a formal evaluation of residents in November to address any possible case of termination early in the year. However, this does not remove the committee's authority to terminate a resident at any point after documented counseling.

REQUIREMENTS FOR PROGRAM COMPLETION

The following list of requirements must be met to ensure the successful completion of the PGY2 Oncology Pharmacy Residency Program. The Residency Program Academic and Work Products Guide Document (and Folder Check Template) will be provided to all residents within the first week of the program start date. It will be reviewed for completeness at the close-out of the residency year (last week of residency).

Residency certificates will only be awarded to residents completing all requirements and deliverables. Documentation of progress and completion of these requirements will be assessed on a quarterly basis during the quarterly development plan meetings and at the end of the academic residency year. More information on each requirement maybe found in the respective guideline and expectation document or in the learning experience description.

1. Verification of PGY1 Certificate of Completion
2. Licensed in the state of New York for a minimum of two-thirds of the 52-week residency program (35 weeks) to be eligible for successful completion of the residency program.
3. Receive a score of achieved for the residency (ACHR) on 80% or more of the program goals and objectives as defined in the ASHP Required Competency Areas, Goals, and Objectives for Postgraduate Year Two (PGY2) Oncology Pharmacy Residencies as documented in the report: PharmAcademic® Resident Goals and Objectives with ACHR History.
 - a. Additionally, must receive a minimum score of satisfactory progress in all patient care-focused objectives listed under 'Competency Area R1: Patient Care' by the end of the year.
4. Completion of PGY2 Oncology Required Topics as listed in the ASHP Required Competency Areas, Goals, and Objectives for PGY2 Oncology Pharmacy Residencies Appendix. See Appendix I and II for Adult and Pediatric Required Topics, respectively.
 - a. Residents will be provided a list of these required topics and will be responsible for obtaining signatures from preceptors upon completion.
5. Completed at minimum the following presentations:
 - ACPE-accredited CE lecture
 - 4 Case Presentation or Didactic Lectures
 - 2 Journal Clubs
 - 1 Debate Presentation

6. Major Residency Research Project
7. Medication Utilization Evaluation (MUE)
8. Drug Monograph
9. Medication Safety Event Analysis
10. Minimum completion of 80% of scheduled staffing (minimum 183 hours)

PROGRAM STRUCTURE

The program is designed to allow the resident to experience various aspects of oncology practice. Each resident is responsible for achieving enough educational experience throughout the year. The intent is to ensure that each resident master the minimum requirements for each educational experience. As delineated by The Standards, the program is divided into several key areas:

1. Orientation
2. Required and Elective Learning Experiences (i.e., rotations)
3. Longitudinal Learning Experiences
4. Additional Educational Activities
5. Staffing and Pharmacy Operations

1. Orientation

This first, required learning experience that facilitates orientation of the resident to the residency program and practice environment at the beginning of the residency. The overall goal is to achieve consistency and proficiency in the basic skills among the residents given their various training backgrounds, to identify and provide feedback on areas for improvement, and ultimately to build an individualized, structured residency plan.

A set of Crash Courses is given the last two weeks of the orientation month. Material, journal articles, or guidelines are distributed to the residents prior to the scheduled sessions. The purpose of these sessions is to provide a consistent knowledge base for the starting residents so that the preceptors may focus on higher-level learning during clinical rotations.

Additionally, an assessment of the resident's baseline knowledge The ASHP Entering Self-Assessment Form (PharmAcademic®) is performed to provide an assessment of the baseline clinical skills and goals of each oncology resident. This process helps identify areas that the residents

need to further develop or focus on throughout the year and serve as a reference for the preceptors and program director to use in their evaluations.

For more information, please see the Pharmacy Orientation Learning Experience Document and Orientation Checklist.

2. Required and Elective Learning Experiences (i.e., rotations)

Organized rotations provide the structure of resident training in various oncology settings. The residents are expected to consider the goals and objectives for each rotation as a foundation for their learning experiences.

Residents are expected to perform independently and demonstrate proficiency in their rotations. The residency preceptors provide guidance and assistance to the residents and ensure that the goals set forth by the residents and the program are met. The preceptors also provide the resident with frequent evaluation of their progress, including a written evaluation at the conclusion of the rotation. Frequent, clear communication is the key to a successful resident/preceptor relationship. To maximize the learning experience, the residents are expected to personally inform the preceptor of all absences, schedule conflicts, longitudinal commitments, and/or concerns that might arise during the learning experience. Residents are also expected to prepare for topic discussions, read materials in a timely manner, and perform other tasks assigned by the preceptors.

The residency program is composed of both required and elective learning experiences that generally range 2 to 5 weeks in length. The elective learning experiences are available toward the end of the year and can vary between residents depending on future career goals. Elective rotations options are available or may also consist of repeating any of the required rotations. Additionally, the program has several longitudinal learning experiences (LLE) throughout residency year that supplement the trainees experience in key areas of clinical research, education, pharmacy operations and quality assurance.

A 12-month resident rotation schedule provides a framework for structured learning activities. Each resident will meet with their respective program director at the beginning of the year to form an initial development plan. Once the resident's development plan has been finalized it will be added to PharmAcademic and emailed to each resident's respective preceptors, so preceptors remain informed of resident goals and scheduled rotations.

Adjustments and changes to residents' schedules are discussed at each quarterly development plan meeting. Goals are assessed throughout the year and learning experiences may be modified as needed to tailor to the resident's development plan and goals.

The following tables outline the program structure for the oncology programs.

PGY2 ONCOLOGY PROGRAM STRUCTURE AT MSK (ADULT ONCOLOGY PROGRAM)	
Required Rotations	Duration
Orientation	4 weeks
Leukemia	4 - 5 weeks
Bone Marrow Transplant	4 - 5 weeks
Lymphoma	4 - 5 weeks
Infectious Diseases	2 – 4 weeks
Thoracic	4 weeks
Neuro-Oncology	2 weeks
Gastrointestinal Clinic	2 weeks
Breast Clinic	2 - 3 weeks
Pediatrics	2 weeks
Gynecologic Clinic	2 weeks
Genitourinary Clinic	2 weeks
Multiple Myeloma	4 weeks
Early Drug Development	2 weeks
Elective Rotations	Duration
BMT Clinic	2 weeks
Critical Care	2 weeks
Leukemia Clinic	2 weeks
Lymphoma Clinic	2 weeks
Pain/Palliative	2 weeks
Cellular Therapy Service	2 weeks

**PGY2 ONCOLOGY PROGRAM STRUCTURE AT MSK KIDS
(PEDIATRIC ONCOLOGY PROGRAM)**

Required Rotations	Duration
Orientation	4 weeks
Inpatient Pediatric Hematology/Oncology (IP H/O)	4 – 5 weeks
Inpatient Pediatric Transplant and Cellular Therapy (IP TCT)	4 – 5 weeks
Outpatient Pediatric Hematologic Malignancies (OP HM)	4 – 5 weeks
Outpatient Pediatric Neuro-Oncology (OP NO)	4 weeks
Outpatient Pediatric Transplant and Cellular Therapy (OP TCT)	4 weeks
Outpatient Pediatric Sarcoma & Neuroblastoma (OP Sar/NB)	4 – 5 weeks
Inpatient Adult Leukemia	3 weeks
Elective Rotations	Duration
Pediatric Critical Care (PICU)	2 – 4 weeks
Long Term Follow-Up (Survivorship) Clinic	2 weeks
Pain/Palliative	2 weeks
Infectious Diseases	2 weeks
Early Drug Development	2 weeks
Adult Oncology	2 weeks

3. Longitudinal Learning Experiences (LLE)

The following tables outline the longitudinal learning experience structure for the oncology programs. Please see descriptions for more details.

LLE	Duration	Deliverable(s)
Education	12 months	<ul style="list-style-type: none">• CE Presentation• Case Presentations• Didactic Lectures• Debate Presentation• Journal Clubs• Oncology Didactic Lectures (ODLs)• In-Services (as assigned)
Formulary and Medication Use Policy	12 months	<ul style="list-style-type: none">• MUE• Drug Monograph
Investigational Drug Service	6 – 12 months	<ul style="list-style-type: none">• n/a
Leadership	12 months	<ul style="list-style-type: none">• n/a
Major Research Project	12 months	<ul style="list-style-type: none">• See Major Research Project LLE Description
Medication Safety and Quality Management	12 months	<ul style="list-style-type: none">• Medication Safety Event Analysis
Operations	12 months	<ul style="list-style-type: none">• Checklists
Well-being and Resilience	12 months	<ul style="list-style-type: none">• n/a

Oncology Didactic Lectures (ODLs)

These are lectures dedicated to enhancing residents' oncology knowledge. The topics are scheduled by the oncology program directors and coordinators. All residents will be expected to be prepared for the oncology didactic lectures with each resident preparing the review of at minimum one drug from the topic list of medications. During these sessions one resident will serve as the resident facilitator to help lead the discussion, however all residents are expected to participate in the discussion. The resident facilitator is responsible to assign each session's drug list to respective co-residents. In addition, the resident facilitator should

have a global understanding of all the drugs within the session and needs to come prepared with at least five questions to guide the discussion. These questions should be geared towards highlighting key pharmacotherapy aspects and differences between agents in each class. The format of these lectures is subject to change as needed to enhance retention and preparation for board certification.

ACPE-Accredited Continuing Education (CE) Presentation

The Department of Pharmacy gives a monthly continuing education program to healthcare professionals. The residents are responsible for presenting one lecture per year. This allows the residents to practice their presentation skills in discussing a comprehensive and advanced topic. The residents are expected to adequately prepare and master the area in which the presentation is given.

Journal Clubs

The journal clubs are designed to give the resident experience in critiquing a medical journal article. The resident will evaluate the article beforehand and lead the group in discussion of the article, soliciting opinions from all attendees. The residents have the opportunity to prepare for at least two journal clubs.

Clinical Presentations (CPs) & Didactic Lectures

The presentations prepared and presented by the oncology residents. There will be appropriately 2 – 4 sessions per month with each resident completing at least 4 presentations throughout the academic year.

The Clinical Presentation (CP) format may vary from an interactive case-based format, to more didactic in nature, or may consist of novel active learning approaches such as therapeutic debates. During the case-based format the resident should cover the disease state and what are the possible interventions necessary to improve this specific patient outcome.

Didactic Lectures will cover a specific disease state and require residents to discuss clinical trials and current standards of care. While clinical debates will allow residents to pair up and engage in an evaluation of a specific treatment option and explore the supportive evidence and specific critiques of the emerging treatment modality.

In-Services

An in-service is defined as a presentation of at least 15 minutes in length, with at least three people in attendance. The residents give in-services on various rotations. These in-services are scheduled by the preceptor.

4. Additional Education Opportunities

Co-precepting Pharmacy Students

The structure of this educational requirement is largely left up to the preceptor and student. To achieve this goal, the oncology resident should be comfortable leading an hour-long discussion with a student under the preceptor's oversight at least four times in a rotation month. Oncology residents are expected to take a larger leadership role in precepting students. Also, residents may assist the student on rounds, following up with patients, drug information questions, or other daily activities in a rotation month. The residents should participate in this when they are well into the residency year or are in an area in which they have adequate clinical experience to serve as the preceptor for the student.

Department of Pharmacy Newsletter (inPHARMation)

The newsletter provides an opportunity for residents to develop medical writing skills to effectively communicate clinical updates to a varied audience in a clear and concise way. The residents are required to write original clinical content for the newsletter at least once throughout the year, but additional articles are encouraged.

Academic Lecture at Local College of Pharmacy (Optional)

MSK has a formal teaching relationship with Rutgers School of Pharmacy. If the resident wishes to participate in didactic lectures, evaluations, or exam writing, opportunities will be coordinated.

5. Staffing and Pharmacy Operations

To be consistent with The Standards each resident completes a staffing component during their residency. This practice component represents a longitudinal learning experience (LLE) within the framework of the oncology residency program. This experience is crucial to the development of professional practice skills. The resident will become proficient in pharmacy chemotherapy operations, including all aspects of order verification, medication preparation and distribution. In addition, the resident will develop skills in leadership and personnel management and gain insight into process improvement issues related to chemotherapy preparation.

The residents staff these areas:

- a. adult oncology (clean room)
- b. pediatric oncology (M9, PACC, and R5 clean room)
- c. inpatient floors (M10, M12, and M16)

The residents are required to work one weekend per month. Residents in the adult program additionally staff two evenings per month and residents in the pediatric program staff one evening per month. The weekend shift starts at 8:00 a.m. and ends at 5:00 p.m. This applies to both Saturday and Sunday. The evening schedule begins at 4:00 p.m. and ends at 6:00 p.m. In addition, all residents will staff for 20 hours over a one-week period in December. Residents are expected to work January 1 to cover medication reconciliation. Staffing activities outlined above may change during the residency year, depending on departmental need or to enhance the resident's pharmacy staffing competency.

During the staffing component the residents become familiar with all chemotherapy agents, checking, mixture, and handling of hazardous materials. In addition to the operational staffing component, residents will also be required to complete clinical responsibilities on the weekends such as medication reconciliation and completion of follow up from clinical sign out. For adult residents, staffing is mainly in the chemotherapy clean room. This pharmacy satellite is dedicated to processing and dispensing chemotherapy agents to all the adult inpatient floors. This satellite is also responsible for processing chemotherapy orders for some hematologic outpatient oncology clinics such as leukemia and lymphoma and bone marrow transplant. Pediatric residents work on the M9 satellite and the R5 Clean Room. The M9 satellite provides medications for the inpatient pediatric unit. For chemotherapy order processing and mixing, the pediatric resident spends time in the Pediatric Ambulatory Care Center (PACC) and the clean room as scheduling permits throughout the year. In addition to the operational staffing component, the residents are also required to complete clinical responsibilities on the weekends such as medication reconciliation and completion of follow-up from clinical sign out. More information may be found in the Pharmacy Operations LLE description and Operational Staffing Checklist.

If the adult resident prefers to have experience in pediatric oncology, some arrangements can be made to give the resident the opportunity to staff the PACC and/or M9 satellite. In addition, residents are encouraged to assess their own performance and to express any need in modifying the staffing to gain more experience. Other areas that residents might benefit from are the pharmacy satellites on different floors.

RESIDENCY-RELATED COMMITTEES AND SUPPORT TEAMS

1. Residency Advisory Committee (RAC)

The Residency Advisory Committee is a standing committee of the Department of Pharmacy. It is composed of residency program directors, residency program coordinators, and residency preceptors. The committee serves in an advisory capacity to maintain the quality and consistency of the residency program.

The committee provides a forum for preceptors to discuss common concerns, to develop additional learning experiences, and to continually assess and improve the residency program based on ASHP standards and guidance, and resident feedback. The committee meets monthly.

The specific functions of the committee include:

- continuous evaluation of the curriculum, goals, and objectives
- monthly evaluation of residents' progress
- evaluation and support of residency projects
- resident recruitment and selection
- provide program preceptors with preceptor development vignettes to highlight specific areas of improvement and enhancement of preceptor skills (burnout assessment, well-being and resilience strategies, feedback, teaching methods, etc).

Meeting minutes are distributed for approval prior to each meeting.

The preceptors periodically discuss the preparation plan for ASHP accreditation survey.

2. Residency Research Subcommittee (RRS)

This subcommittee is responsible for guiding residents, evaluating, and facilitating the completion of the project. This subcommittee is mainly involved with the major research project of the year. More information can be found in the Residency Research Project Guidelines in the H: drive.

3. Pharmacy Quality and Safety Division

This team is responsible for guiding the residents to complete the medication safety event assessment. This team facilitates a longitudinal learning experience under the preceptorship of a pharmacist from the pharmacy division of quality and safety. For more information, please see the Medication Safety and Quality Management LLE description.

4. Drug Policy Management Division

This team guides the resident in the medication utilization evaluation project. This team facilitates a longitudinal learning experience under the preceptorship of a staff member in drug policy management. For more information, please see the Formulary and Medication Use Policy LLE description.

OVERALL EVALUATION STRATEGY AND METHODS

The oncology residency programs at MSK and MSK Kids offer residents opportunities to obtain the knowledge, skills, and abilities required to become competent oncology and pediatric oncology practitioners. The specific program for each resident can vary based upon interests and goals. During the year, the residents are evaluated by rotation preceptors, the program director, and the residents themselves.

The residents are required to meet with the rotation preceptors prior to the start of each new rotation, primarily to discuss and customize the rotation's goals and objectives to meet the specific needs of the resident.

Rotation Hand-Off Meetings

Residents will plan a meeting with the RPD, their prior rotation preceptor, upcoming rotation preceptor, and mentor (attendance optional) to review the goals that need to be achieved in the next rotation and to identify the areas of improvement. The RPD will facilitate the Hand-Off Meeting and provide a longitudinal perspective of the resident's progress.

Learning Experience Evaluation

A review of the rotation specific objectives and resident objectives should be completed on the first day of each rotation. During the rotation, the residents meet with the preceptors on a regularly scheduled basis, as determined by the preceptors and residents. Any additional modifications to the rotation or its goals and objectives are also discussed.

During the rotation there are midpoint and final evaluations. The midpoint evaluation is a verbal evaluation to communicate any areas for improvement and the final evaluation is completed in PharmAcademic® and discussed verbally. The final evaluation includes the resident's self-assessment, preceptor assessment, learning experience assessment, and the preceptor's evaluation of the resident's progress during the learning experience. All evaluations

will be based on learning objectives. All resident and rotation evaluations must be submitted through the PharmAcademic system within 5 business days from the last day of the learning experience. Below are the approved definitions/criteria to be used for the evaluation of a resident's progress for each residency programs goals and objectives:

<p>Needs Improvement (NI)</p>	<p>Resident displays one or more of the following characteristics as it relates to goal/objective:</p> <ul style="list-style-type: none"> • Requires direct and repeated supervision, guidance, intervention, and/or prompting • Makes questionable or unsafe clinical decisions • Fails to seek out feedback, incorporate feedback, or is unable to create a sound plan for improvement • Fails to complete tasks in a time appropriate manner • Acts unprofessionally
<p>Satisfactory Progress (SP)</p>	<ul style="list-style-type: none"> • Resident performs at the level expected for their training. • The resident responds to feedback and requires limited prompting and guidance to complete tasks appropriately • Resident can accurately reflect on performance and create a sound plan for improvement
<p>Achieved (ACH)</p>	<p>Resident displays <u>ALL</u> the following characteristics for the assigned goal/objective:</p> <ul style="list-style-type: none"> • Independently and proficiently completes assigned tasks required to meet objective • Displays responsibility to follow-up as needed on all assigned tasks • Accurately reflects on performance and can create a sound plan for improvement • Seeks guidance when needed
<p>Achieved for Residency (ACHR)</p>	<ul style="list-style-type: none"> • For an objective to meet criteria for achieved for residency (ACHR), it must have been achieved (ACH) <u>twice</u> from a preceptor (at any time point) on a required or elective rotation OR <u>once</u> from a preceptor on a longitudinal learning experience. • Eighty percent (80%) of objectives (32 or more out of 40) must be ACHR by the end of the residency program

Quarterly Evaluation: Customized Development Plan

Resident customized development plans will contain an initial and quarterly assessment of the resident's progress on previously identified areas for improvement related to the competency areas and to ensure the resident is on track for completing requirements for residency completion and graduation. It will also contain identification of new strengths and opportunities for improvement (related to the competency areas, goals, and objectives for the residency). The plan will document changes in the residents practice interests, career goals immediately post residency and a current assessment of their well-being and resilience. IDPs will be completed initially (within 30 days of the start of the program) and every 90 days thereafter (by the end of October, January, and April). The plans will be reviewed with the RPD, stored in PharmAcademic®, and emailed to all the resident's preceptors.

All documents related to rotations, learning activities, staffing, and research will be stored electronically in the shared folder.

ADDITIONAL ACTIVITIES

1. Residency Program Director Meetings

The residency program director meetings are held periodically throughout the year. These meetings keep residents informed regarding progress and developments in the department, serve as a forum for didactic presentations of management topics, and broaden the resident's knowledge of professional issues. The leadership series is incorporated into these sessions.

2. Mentor/Mentee Program

During the beginning of the residency year residents are matched with a preceptor mentor to guide them throughout the residency and provide professional support and advice. The resident and mentor typically meet monthly, prior to the Residency Advisory Committee meetings, to discuss the resident's progress throughout the rotation. The mentor and resident will also meet prior to the ASHP midyear meeting to discuss potential job opportunities and provide professional guidance.

3. Interview of Future Residents

Residents participate in evaluating potential future residents. Their involvement may start as early as the ASHP midyear clinical meeting. Residents also may participate in scheduling the January and February on-site interviews.

4. Resident Buddy System

In the spring of each residency year, following the results of the residency matching program, incoming oncology residents are assisted by current residents. Activities of the Resident Buddy System include assisting with relocation and finding housing, licensure procedures, orientation, mentorship, and fellowship.

5. Emergency Preparedness (Natural Disasters or Bioterrorism)

Inclement weather, natural disasters, or other emergent situations are unpredictable. Pharmacy residents may be redeployed to perform pharmacy operational support/duties during these times. This includes availability for all shifts, including overnights. Every effort will be made to maintain the integrity of the rotation when possible.

6. Interdisciplinary Meetings

To broaden and coordinate the residency experience, residents are requested to attend a variety of meetings throughout the year. These may be departmental meetings, pharmacy administrative staff meetings, Pharmacy and Therapeutic Committee (P&T) meeting, Clinical Council, Hospital Quality Assurance Committee meeting, Performance Improvement, Internal Review Board meeting etc. The preceptor will assign meeting attendance at the beginning of the month. In other cases, the resident will be requested to attend a specific meeting by another preceptor to broaden the resident's educational experience or assist with the development of a project. Meeting times and locations will be announced at the beginning of each rotation. Only the P&T and Pharmacy QA meetings are obligatory; residents are encouraged to spend most of their time devoted to patient care rather than attending meetings.

RESPONSIBILITIES OF THE RESIDENT

TO PATIENTS

As members of the MSK team, it is our collective mission to create an environment that embraces diverse perspectives and values the unique contributions each of us bring to the institution and patient care. It is your vow and ours to care for patients and collaborators with respect, warmth, and dignity.

TO MSK

Every hospital has its own policies, rules, and regulations. You, as an oncology resident, being an employee of the hospital, are expected to familiarize yourself and abide by them.

Additionally, as a pharmacist within the hospital you will be expected to practice within the legal framework of the profession. You must strictly adhere to all federal, state, and local laws. The hospital may assume liability for a breach of any pharmacy standard, law, or regulation.

Disciplinary measures generally are progressive in nature; however, misconduct, behavioral issues, work performance problems, violations of the law or MSK policies or other actions by an employee may, at the discretion of MSK Management, warrant more immediate and severe discipline including but not limited to termination of employment. Please refer to the [MSK Corrective Action Policy](#) for additional information.

TO THE PHARMACY PROFESSION

Continual ongoing professional development is an important skill to maintain throughout your pharmacy career. As a pharmacist this includes staying abreast of new clinical developments and therapeutic treatment options, following changes in pharmacy practice standards, and providing back to the profession through opportunities in education to pharmacists and pharmacy students.

It is your professional responsibility to observe both moral and ethical codes. You should show that your conduct is above reproach and has met the qualities of a good pharmacist. Earn respect through your daily interactions with people by the way you conduct yourself as a professional.

TO THE DEPARTMENT OF PHARMACY

As a resident you are an integral member of the department of pharmacy. As such, at all times, each resident is expected to adhere to pharmacy procedures and practices as outlined during orientation. Residents will be expected to treat all members of the department with respect. We encourage residents to approach every experience throughout the residency as a unique learning opportunity that will enhance a residents training and perspective.

TO YOUR PRECEPTORS

Residents are expected to treat all program preceptors with respect. Residency program preceptors devote a significant amount of time and effort into precepting and are committed to helping residents achieve their residency learning objectives and goals. Please remember your preceptors' time is valuable. Please respect their time and be punctual for all required activities and alert them of any unexpected delays.

We encourage residents and preceptors to maintain an open line of communication with each other to enhance the success of each learning experience. If a resident has any specific concerns or questions, he/she is encouraged to address these issues as early in the rotation as possible. Additionally, residents and preceptors should openly discuss expectations and learning styles that will be effective at the start of each rotation and modify these if needed as the rotation progresses.

Don't forget that your preceptors are a fantastic resource! Residents should seek out opportunities to observe and model the practice style of each of their preceptors. This in turn provides each resident an excellent opportunity to select strategies that they find the most effective throughout the year and use those to develop their own individual practice style.

TO YOURSELF

Listed below are several qualities and attitudes for which you should assume responsibility. These characteristics promote personal and professional growth that are essential for success throughout your residency and your profession. Your well-being is of utmost importance and a culture of respect is expected. If you experience inappropriate behavior or harassment ([MSK Policy Against Harassment and Discrimination](#)), please report this to your RPD immediately or if you prefer to remain anonymous, contact Human Resources at (646) 677-7411 or via email at hrrc@mskcc.org. Please see [Equality, Diversity & Inclusion and Well-Being](#).

1. Attendance and punctuality
2. Professional appearance
3. Integrity of character
4. Willingness to work
5. Diligence and application
6. Improvement and initiative
7. Enthusiasm
8. Perform duties promptly and professionally

APPENDIX I: ADULT ONCOLOGY PHARMACY-FOCUSED PROGRAM TOPIC AREAS

TOPIC AREAS			
TOPIC AREAS	REQUIRED Direct Patient Care Experience Required	REQUIRED Case-Based Application Acceptable	ELECTIVE
Adult Oncology Pharmacy-focused Programs			
Hematologic Malignancies	<ul style="list-style-type: none"> • Acute lymphoblastic leukemia (ALL) • Acute myelogenous leukemia (AML) • Chronic lymphocytic leukemia (CLL) • Chronic myelogenous leukemia (CML) • Hodgkin lymphoma • Multiple myeloma • Non-Hodgkin lymphoma (NHL) 		<ul style="list-style-type: none"> • Amyloidosis • Myelodysplastic syndromes • Myeloproliferative disorders • Primary CNS lymphoma • Waldenström's macroglobulinemia
Hematological Disorders			<ul style="list-style-type: none"> • Aplastic anemia • Hemophilia A • Hemophilia B • Hemolytic anemia • Immune thrombocytopenic purpura (ITP) • Iron deficiency anemia • Paroxysmal nocturnal hemoglobinuria • Porphyria • Sickle cell anemia • Thrombotic thrombocytopenic purpura (TTP)/Hemolytic uremic syndrome (HUS) • Von Willebrand's disease

Pediatric Malignancies		<ul style="list-style-type: none"> • Acute lymphoblastic leukemia • CNS Tumors • Neuroblastoma • Non-Hodgkin lymphoma • Wilms Tumor 	<ul style="list-style-type: none"> • Ewing Sarcoma • Osteosarcoma • Retinoblastoma • Rhabdomyosarcoma
Supportive Care/Symptom Management	<ul style="list-style-type: none"> • Anemia • Constipation • Diarrhea • Fatigue • Hypercalcemia of malignancy • Infection prophylaxis and management • Mucositis • Myelosuppression • Nausea and vomiting • Neutropenic fever • Organ-systems toxicity (i.e. - cardiotoxicity, dermatologic, hepatotoxicity, nephrotoxicity, neurotoxicity, pulmonary) • Pain management • Malignant effusions • Spinal cord compression syndrome • Superior vena cava syndrome • Thrombosis • Tumor lysis syndrome 	<ul style="list-style-type: none"> • Extravasation • Hypersensitivity reactions • Radiation complications • Survivorship 	<ul style="list-style-type: none"> • Infertility • Secondary malignancies
Transplantation	<ul style="list-style-type: none"> • Autologous hematopoietic stem cell therapy • Infection prophylaxis • Mobilization 	<ul style="list-style-type: none"> • Allogeneic hematopoietic stem cell therapy • Graft-versus-host disease (prophylaxis, management of 	

	<ul style="list-style-type: none"> • Preparative regimens • Vaccinations 	<p>acute and chronic)</p> <ul style="list-style-type: none"> • Immunosuppression • Infection prophylaxis • Preparative regimens • Sinusoidal obstruction syndrome • Vaccinations 	
<p>Solid Malignancies *Must have 15 different types of common solid malignancies (comprised of the 9 listed in the direct patient care column and choose at least 6 more disease states from the case based column for required direct patient care experiences.)</p>	<ul style="list-style-type: none"> • Breast cancer • Colon cancer • Melanoma • Non-small cell lung cancer • Ovarian cancer • Pancreatic cancer • Prostate cancer • Rectal cancer • Small cell lung cancer 	<ul style="list-style-type: none"> • Adult sarcomas • Bladder cancer • Carcinoid cancer • Carcinoma of unknown primary • Cervical cancer • CNS malignancies • Endocrine tumors • Endometrial cancer • Esophageal cancer • Gastric cancer • Germ cell tumors • Head and neck cancer • Hepatobiliary cancers • Mesothelioma • Non-melanoma skin cancers • Renal cell cancer • Thyroid cancer 	<ul style="list-style-type: none"> • Anal cancer

APPENDIX II: PEDIATRIC ONCOLOGY PHARMACY-FOCUSED PROGRAM TOPIC AREAS

Pediatric Oncology Pharmacy-focused Programs			
TOPIC AREAS	REQUIRED Direct Patient Care Experience Required	REQUIRED Case-Based Application Acceptable	ELECTIVE
Pediatric Hematologic Malignancies	<ul style="list-style-type: none"> Acute lymphoblastic leukemia (ALL) Acute myelogenous leukemia (AML) Hodgkin lymphoma Non-Hodgkin lymphoma 	<ul style="list-style-type: none"> Chronic myelogenous leukemia (CML) Chronic lymphocytic leukemia (CLL) Multiple myeloma 	<ul style="list-style-type: none"> Amyloidosis Myelodysplastic syndromes Myeloproliferative disorders Primary CNS lymphoma Waldenströms Macroglobulinemia
Hematological Disorders		<ul style="list-style-type: none"> Sickle cell anemia Aplastic anemia Hemophilia A Hemophilia B Iron deficiency anemia 	<ul style="list-style-type: none"> Hemolytic anemia Immune thrombocytopenic purpura (ITP) Paroxysmal nocturnal hemoglobinuria Hemophagocytic lymphohistiocytosis (HLH) Porphyria Thrombotic thrombocytopenic purpura (TTP)/Hemolytic uremic syndrome (HUS) Von Willebrand's disease
Pediatric Solid Malignancies	<ul style="list-style-type: none"> CNS Tumors Ewing sarcoma Neuroblastoma Osteosarcoma Wilms tumor 	<ul style="list-style-type: none"> Retinoblastoma Hepatoblastoma Rhabdomyosarcoma 	<ul style="list-style-type: none"> Langerhans Cell Histiocytosis
Supportive Care/Symptom Management	<ul style="list-style-type: none"> Anemia Constipation Diarrhea 	<ul style="list-style-type: none"> Extravasation Hypersensitivity reactions Malignant effusions 	<ul style="list-style-type: none"> Infertility Secondary malignancies

	<ul style="list-style-type: none"> • Fatigue • Infection prophylaxis and management • Mucositis • Myelosuppression • Nausea and vomiting • Neutropenic fever • Organ-systems toxicity (i.e. - cardiotoxicity, dermatologic, hepatotoxicity, nephrotoxicity, neurotoxicity, pulmonary) • Pain management • Thrombosis • Tumor lysis syndrome 	<ul style="list-style-type: none"> • Radiation complications • Survivorship • Spinal cord compression syndrome • Superior vena cava syndrome 	<ul style="list-style-type: none"> • Hypercalcemia of malignancy
Transplantation	<ul style="list-style-type: none"> • Autologous hematopoietic stem cell therapy • Infection prophylaxis • Mobilization • Preparative regimens • Vaccinations 	<ul style="list-style-type: none"> • Allogeneic hematopoietic stem cell therapy • Graft-versus-host disease (prophylaxis, management of acute and chronic) • Immunosuppression • Infection prophylaxis • Preparative regimens • Sinusoidal obstruction syndrome • Vaccinations 	
Adult Malignancies		<ul style="list-style-type: none"> • Breast cancer • Colon cancer • Melanoma • Non-small cell lung cancer • Ovarian cancer • Prostate cancer 	<ul style="list-style-type: none"> • Anal cancer • Adult sarcomas • Bladder cancer • Carcinoid cancer • Carcinoma of unknown primary • Cervical cancer • CNS malignancies

		<ul style="list-style-type: none"> • Small cell lung cancer • Germ cell tumors 	<ul style="list-style-type: none"> • Endocrine tumors • Endometrial cancer • Esophageal cancer • Gastric cancer • Head and Neck cancer • Hepatobiliary cancers • Mesothelioma • Non-melanoma skin cancers • Pancreatic • Rectal • Renal cell cancer • Thyroid cancer
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