

Common Resident Program Manual

University of Utah Health Department of Pharmacy Services

Salt Lake City, Utah

2017 - 2018

**Chief Pharmacy Officer
Linda S. Tyler, PharmD, FASHP**

Residency Directors

Shantel Mullin, PharmD, BCPS – PGY1 Pharmacy Practice
Karen Gunning, PharmD, BCACP, BCPS, FCCP – PGY2 Ambulatory Care
Erin Lingenfelter, PharmD – PGY2 Critical Care
Erin Fox, PharmD, BCPS, FASHP – PGY2 Drug Information
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Dallas Moore, MS, RPh – PGY2 Informatics
David Young, PharmD – PGY2 Internal Medicine
Stephanie Sanders, PharmD, BCOP – PGY2 Oncology
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Recruitment and Selection of Residents

1. The Department shall participate in the Resident Matching Program of the American Society of Health-System Pharmacists (**ASHP**).
2. The Department shall participate in the Residency Program Showcase at the ASHP Midyear Clinical Meeting and may also conduct introductory interviews in the Personnel Placement Service (PPS).
3. At the ASHP Midyear Clinical Meeting, the Residency Program Director (**RPD**) or designee, current residents, and preceptors in attendance shall participate in the recruitment of candidates for the residency program.
4. The RPD shall address questions raised by candidates considering application to the program.
5. Those candidates who wish to be considered for an on-site interview shall submit an application, current curriculum vitae, college transcripts, and three letters of recommendation or standardized recommendation forms on PhORCAS by the first of January or date determined by the RPD. Candidates may be asked to participate in an introductory phone or video interview.
6. In January, after evaluation of the information submitted by residency candidates, a sufficient number of candidates shall be invited for an on-site interview.
7. The one-day interview shall include meeting with preceptors from each core practice area as well as the current program resident(s).
8. After the interview process is completed, the interview groups shall meet to discuss and evaluate each candidate. Each group shall submit a single ordinal rank list of all candidates to the RPD.
9. The RPD shall use the rank lists from each interview group and initial ranking to determine a final resident ordinal ranking.
10. The Chief Pharmacy Officer shall review and approve the resident ranking.
11. The RPD shall submit the approved rank list to ASHP Resident Matching Program.
12. If the program does not match all positions, the RPD and designated interviewers will use the resources of the National Matching Service to identify candidates and interview them by telephone or video-link if they are not local. The interview team will then rank candidates, and develop an ordinal ranking list. This list will be reviewed by the Chief Pharmacy Officer prior to submission by the RPD to Phase II of the National Matching Service Resident Matching Program. If unfilled positions still exist after Phase II is complete, the program will again use the resources of the National Matching Service to identify candidates and interview them by telephone or video-link if they are not local. The interview team will then rank candidates and offer position(s) to the top candidate(s) verbally.

General Information

1. The RPD shall serve as program advisor for each of the residents and will guide the resident in meeting the requirements for successful completion of the residency. Each program may also designate a coordinator to serve as a secondary advisor.
2. The resident shall meet with the RPD at the beginning of the program to evaluate their skills and knowledge and to develop an individualized plan based on the resident's previous preparation and professional practice goals.
 - a. The evaluation and planning process shall be documented in the PharmAcademic Customized Training Plan **(CTP)** using the Resident Self-Evaluation and Planning Form.
 - b. The resident and RPD will develop a customized residency program plan for each resident to accomplish the specific program goals taking into account the resident's goals, interests, strengths, weaknesses, and opportunities available within University of Utah Health.
 - c. The Resident Self-Evaluation and Planning Form will be used to develop each resident's schedule of rotations.
 - d. Once residency rotations have been assigned, the resident may request a change in assigned rotations. Requests will be accommodated whenever possible and appropriate for their training plan.
3. A copy of the Residency Manual shall be provided electronically to each resident outlining the requirements of the residency program.
 - a. Individual programs may also provide each resident with a program-specific appendix to supplement the common manual with information pertinent to that program.
 - b. Residents shall make themselves knowledgeable of all program requirements.
 - c. Residents shall make themselves aware of important dates and deadlines set forth and identified in the program manual and appendices.
4. Orientation to University of Utah Health and to the Department of Pharmacy Services will take place during the first weeks of the program; however, orientation and skills development will continue on an as-needed basis.
5. Residents are classified as regular, full-time, exempt employees of University of Utah Health (UUH) and are eligible for benefits as such. (See Appendix A for the Resident Job Description.)
6. Vacation Leave – PTO-Scheduled
 - a. Residents accrue 18 days paid time off **(PTO)** to cover vacation and sick leave during the residency year. To ensure the quality of the residency rotations, vacation leave is limited to 10 days over the course of the year and 2 days per 4-week rotation experience. PTO remaining at the end of the residency will be cashed out or will be maintained if the resident accepts a position with UUH. This includes leave time granted

for interviewing for positions and educational meetings that are **not** sponsored by the program. Unscheduled PTO for sick leave must be limited to 5 days per year without affecting the duration of residency and may only be used for illness or health-care appointments.

- b. Vacation requests must be submitted in writing, on a Leave Request form, to the RPD. The resident will first discuss the request with the affected rotation's preceptor to ensure that rotation objectives can be met, and the resident will obtain the consenting preceptor's signature on the Leave Request form **prior** to submitting it to the RPD. Vacation days should be limited to a maximum of two days per rotation. If more time off is required, the RPD must be informed to ensure rotation objectives can be met. The rotation may need to be extended if rotation objectives cannot be met.

7. Holidays and Holiday Leave

- a. Residents accrue 10 paid holidays as full-time exempt employees during the year in addition to PTO. Residents may count a worked holiday as part of service commitment if they have worked their regular commitment during the remaining weekdays and used the holiday from their holiday bank - making the worked holiday truly an extra shift. If the resident has worked less than a 40 hour commitment between the 8 hours of holiday pay (16 hours during the week of Thanksgiving), staffing, and regular rotation attendance, the resident must discuss PTO options with their RPD.
- b. Benefit-eligible UUH employees may "bank" time worked on a company-paid holiday for use at a later time. However, the shift work on that holiday cannot count as a required shift or be paid as ECS if the holiday is banked. The banked holiday must be used by April 1st if earned in the first 6 months, or by when residency employment ends.
- c. Residents shall discuss holiday service requirements with the affected rotation's preceptor as early as possible.
- d. Residents who staff inpatient areas are required to be available to staff Thanksgiving, Christmas OR New Year's holidays as a 2-day major holiday coverage commitment. For example, the resident will work Thanksgiving and the day after, or Christmas Eve and Christmas Day, or New Year's Eve and Day. Residents are also required to work two minor holidays including Martin Luther King, Jr. Day, Presidents' Day, Memorial Day, 4th of July, Pioneer Day, or Labor Day. Specific assignments shall be made in conjunction with the pharmacist scheduling manager. (Requirements vary by program for holidays.)
- e. Residents may participate in staffing of shifts for other holidays consistent with the standards applied to regular staff.

8. Sick Leave – PTO-Unscheduled

- a. Residents are afforded sick leave as a part of the PTO accruals.
- b. When the resident is unable to work as a result of illness, either on their rotation assignment or staffing assignment, the resident shall immediately notify their rotation preceptor or scheduling manager for required shifts, rotation days or project days.

- c. The resident shall subsequently and additionally notify the RPD of their absence from rotation, and submit the sick day request as PTO-unscheduled (PTO-U) in the appropriate format (eg, payroll exception form).

9. Excessive Absence During the Program

- a. A preceptor or RPD may decide that absences from the rotation or the program are excessive when there is the potential for a resident to not complete program expectations or requirements. Excessive absence may be due to illness or other factors. When situations such as these occur, the resident must work closely with the preceptor and RPD to make arrangements to meet the requirements.
- b. Despite all arrangements, a situation may arise where the resident has not completed the rotation experience and program requirements. This determination shall be made by the rotation preceptor in consultation with the RPD. An alternate written plan will be developed to enable the resident to successfully complete the program requirements if possible. The residency year may be extended for no more than 3 months to allow completion of program requirements.
- c. If the resident fails to complete the plan, disciplinary action will be considered. Residents unable to complete program requirements according to the written plan and appropriate extended timeframe will not graduate from the program. Once the annual salary has been paid out at the amount offered in the offer letter, the time spent in completing requirements will then be unpaid.
- d. Graduation from a PGY1 program is required prior to being eligible for PGY2 status. If a resident is in a 2-year program or has early committed to a PGY2 program at UUH, they must complete the PGY1 program first.

10. Disciplinary Action and Dismissal

- a. Disciplinary actions or dismissal from the program are actions that are considered when residents do not meet department, program or rotation expectations. Residents are informed of program requirements, expectations, and deadlines. Rotation expectations are communicated by the preceptor at the beginning of and throughout each rotation.
- b. When problems related to performance, professionalism, behavior or knowledge arise, the preceptors will counsel the resident on how to correct the problem. If the issues are not resolved, the ongoing concern will be documented and referred to the RPD. The Program Director may consult with the Residency Advisory Committee (**RAC**) regarding appropriate action.
- c. The RPD will discuss the issues with the resident and preceptors as appropriate.
- d. When disciplinary action is indicated, the RPD (or rotation preceptor in conjunction with the RPD) will take the appropriate action based on the situation and circumstances (See also University Policy 5-111: Corrective Action and Termination Policy for Staff Employees).

- e. When dismissal from the program may be indicated, the RPD will make recommendations to RAC. RAC will make the final decision concerning dismissal from the program.
- f. Dismissal from the program may occur with consultation with Human Resources during the resident's first 6 months of employment (probationary term). Problems discovered in the 4th or 5th month of the residency may result in a 3-month extension of the probationary term and will be negotiated with Human Resources by the RPD and the location manager. After this time, the resident will go through progressive discipline and be terminated from employment.

11. Pharmacist Licensure in Utah

- a. All residents are required to be eligible to work in the United States prior to their first day of residency.
- b. Residents must have either a full or temporary license by the first day of residency. Note that if there is any question that a full license will not be posted on the DOPL website at least 2 weeks prior to the start of residency, the resident should apply for a temporary license.
- c. Residents must be fully licensed in the state of Utah to practice as a pharmacist by September 30th at the very latest. If the resident is NOT licensed by this date, the resident will be dismissed from the program. Each instance of non-licensure will be evaluated on a case-by-case basis by the Residency Advisory Committee.

12. Residency Program Certificate

- a. Upon successful completion of all program requirements and compliance with all conditions of the residency program, the resident shall be awarded a certificate indicating successful completion of the residency for the appropriate program. The language on the certificate will match ASHP's requirements for certification of graduation.
- b. Residents that fail to complete program requirements and comply with all conditions of the residency program shall not be awarded a certificate of completion.
- c. Certificates will only be awarded to residents who have completed the following:
 - i. Completed 85% or more of objectives as achieved for residency (**ACHR**) and all other goals and objectives marked as "satisfactory progress" or "achieved" in PharmAcademic.
 - ii. All residents are expected to achieve all clinical goals for residency prior to graduation (e.g., R1.1 objectives for the PGY1 pharmacy practice program).
 - iii. Completed all required activities, projects, and presentations for residency.
 - iv. Turned in a formal written manuscript of their year-long project to the RPD and project mentor(s) who deem the document acceptable for submission to a journal.
 - v. Turned in a completed, hyperlinked electronic e-portfolio of all their written projects, presentations, rotation overviews, and readings as appropriate.

Residency Advisory Committee: 2017-2018

Russell Benefield, PharmD, BCPS-AQID Clinical Pharmacist, Infectious Disease PGY2 Director, Infectious Disease	
Erin Fox, PharmD, BCPS, FASHP Senior Director, Drug Information and Support Svc PGY2 Director, Drug Information	
Karen Gunning, PharmD, BCACP, BCPS Professor, Clinical PGY2 Director, Ambulatory Care	
Dallas Moore, PharmD, MS Director, Pharmacy Automation and Informatics PGY2 Director, Informatics	
Erin Lingenfelter, PharmD Clinical Pharmacist, ED & Critical Care PGY2 Director, Critical Care	
Macheala Jacquez, PharmD, BCACP Clinical Pharmacist, Primary Care PGY1 Coordinator	
Shantel Mullin, PharmD, BCPS Director, Quality, Safety and Training PGY1 Pharmacy Practice Director	
Stephanie Sanders, PharmD, BCOP Clinical Pharmacist, Oncology & Critical Care PGY2 Director, Oncology	
Lonnie Smith, PharmD Manager, Solid Organ Transplant PGY2 Director, Solid Organ Transplantation	
Linda Tyler, PharmD, FASHP Chief Pharmacy Officer, Pharmacy Services PGY1/PGY2 Director, Pharmacy Administration	
David Young, PharmD Professor, Clinical PGY2 Director, Internal Medicine	
Nancy Nickman, PhD Department of Pharmacotherapy Faculty (Ex Officio)	

Residency Program Coordinators (attend as back-up to RPDs)

Zubin Bhakta, PharmD (Internal Medicine), Adrian Carlson, PharmD (Solid Organ Transplantation), Gary Davis, PharmD (PGY1 Pharmacy Practice – Track A), Sara DeHoll, PharmD, BCOP (Oncology), Leigh Fritz, PharmD, MS (HSPA), Macheala Jacquez, PharmD, BCACP (PGY1 Pharmacy Practice – Track B), Nicholas Link, PharmD (Informatics), Ann Marie Prazak, PharmD, BCPS, BCCCP (Critical Care)

RAC Subcommittee Chairs (attend only when issues arise related to committees):

Jenni Buu & Elyse MacDonald (Preceptor Development and Teaching Certificate)
Macheala Jacquez (Recruiting)
Ann Marie Prazak (Orientation and Assessment)

Research Subcommittees are appointed annually by the following Chairs and generally consist of the program directors as well as interested program preceptors.

Shantel Mullin – PGY1 Pharmacy Practice Residents
Erin Fox – Drug Information, Pharmacy Administration, Informatics
Stephanie Sanders – Clinical PGY2 programs

Service Commitment

1. Residents are required to provide staffing support, within the department, as part of their program and stipend. The service commitment is **four full shifts** (no less than 32 hours) per month for most programs. Training for staffing shall begin in July of the residency year and time requirements may exceed 32 hours per month in staffing roles until training is completed.
2. Scheduling of service commitment will be made based on input from each resident. Residents may work 4, 8, 12 or 16 hour shifts and may ask for preferred dates before the schedule is completed, or they may pick up open shifts once the schedule is published. For example, shifts may be completed on weekday evenings or weekends in central or decentralized locations. The resident may only leave a rotation site early for a required or other extra shift if the rotation preceptor approves this prior to the resident signing up for the shift.
3. Duty Hours: Work Hours are defined as all clinical and academic activities related to the residency program. These can include, but are not limited to, patient care, administrative duties, and scheduled academic activities such as conferences and lectures. Work hours do include internal or external moonlighting shifts worked. Work hours do not include time spent away from the work site (i.e. at home) for reading and preparation or time traveling to conferences.

Work hours must be limited to 80 hours per week averaged over a 4-week period inclusive of all in-house activities and all moonlighting shifts. (Moonlighting must not interfere with the ability of the resident to achieve the educational goals and objectives of the residency program.) Residents must be given one day in seven free from all work-related responsibilities averaged over a 4-week period. One day is defined a 24-hour period free from all clinical, educational, and administrative activities.

Adequate time for rest and personal activities must be provided. This should consist of at least 10 hours between all daily duty periods averaged over 1 week. Residents must have 8 hours between scheduled duty periods.

4. Opportunities for service are chosen for the resident by the program director and may include on-call, staffing shifts on weekends or swing shifts as appropriate for the resident and training program needs. If the resident elects to sign up for a swing shift, he or she must obtain approval to leave their rotation site early to work the shift. The rotation site takes precedence over the required shift. If the preceptor states they would prefer the resident NOT cover swings during that rotation, the resident should select weekend shifts to avoid leaving the rotation early that month. This may be particularly relevant on ambulatory care rotations, consult rotations such as infectious disease, and ICU rotations.
5. Residents are expected to read and prepare for rotations and work on their projects on evenings and weekends as part of their learning process. Time spent in the hospital on off-hours working on projects or catching up on rotation requirements may not be used for compensation time or for required shifts. Time "on the clock" may affect duty hour limits.

Rotation Guidelines

1. The resident shall provide complete pharmacy services in coordination and cooperation with departmental professional and support staff, consistent with departmental policies and procedures for operations and clinical practice, meeting all the requirements and obligations of pharmacists on staff.
2. The resident shall actively participate in rotation activities, including: team meetings, rounds, and other interdisciplinary conferences that occur on the services of their rotations. The rotation preceptor shall be responsible to identify these opportunities and to commit the resident to effectively participate.
3. The resident shall identify therapeutic issues and problems and shall develop and present therapeutic recommendations. He or she will also present in-services to the medical, nursing, and pharmacy staff addressing those issues as needed.
 - a. The resident is encouraged to seek opportunities to educate other ancillary health care practitioners such as physician's assistants, nurse practitioners, and physical therapists, etc., on subjects relating to pharmacology and medication use.
4. The resident shall provide instruction for Doctor of Pharmacy students or other residents on clinical or administrative clerkships, under the supervision and guidance of their rotation preceptor.
5. Non-University of Utah Health Rotations (N-UUH):
 - a. Residents shall be allowed to obtain practice experience in N-UUH rotations as pre-approved by the RPD and Chief Pharmacy Officer.
 - b. Residents shall not be permitted more than four weeks in a N-UUH site rotation during the residency training program.
 - c. PGY1 residents are encouraged to take UUH rotations whenever possible to fulfill their learning objectives as N-UUH rotations do not count toward CMS site reimbursement.
6. The residency programs at University of Utah Health take a holistic approach to post-graduate training. The expectation is that an interdisciplinary team philosophy will be used, and the team member with the greatest experience will provide leadership and mentorship to other team members.
7. The resident may be required to staff their current or past rotation area alone during regular rotation hours following orientation to the service in certain situations. These situations may include preceptor illness or when preparation of the schedule has exhausted all other options for finding competent coverage. In extreme emergencies, residents may be pulled from their rotation site to cover other staffing locations due to acute illness or natural disaster and when all other options have been exhausted to cover these open shifts with other regular staff. Both the RPD and resident will be contacted to discuss the staffing situation prior to the shift being covered. This is a program and rotation expectation and will NOT count toward additional service commitment hours as it occurs during the regular rotation work week and is not considered extra hours of work.

Project

1. The resident shall, with the guidance and supervision of appropriate preceptors, develop and complete a residency project.
2. The resident is responsible for selecting an individual to serve as primary project advisor.
3. The project advisor(s) shall be responsible to:
 - a. Provide guidance to the resident in designing, performing, and documenting the outcomes of the project.
 - b. Oversee the development of the project proposal.
 - c. Meet with the resident at least bi-monthly to discuss the progress and deliverables on the project.
 - d. Support the resident during presentation of the proposal to the RAC.
 - e. Provide technical expertise and advice to the resident.
 - f. Provide editorial assistance in developing the platform presentation for Mountain States Residents Conference and the final project manuscript.
 - g. Review the final report and notify the RPD when the project is complete.
4. The project must be approved by the Residency Advisory Committee. The format for the proposal to RAC will follow the current requirements for submission to IRB.
5. The resident shall meet the following project deadlines:
 - a. July Identification of project idea & advisor(s)
 - b. August Development of project proposal
 - c. August-September Present project to the appropriate Research Subcommittee of the Residency Advisory Committee
 - d. September-October Final proposal submitted to RPD, Research Subcommittee Chair, and Institutional Review Board
 - b. November Submit abstract to Vizient-UHC for poster presentation in December (required for Teaching Certificate and optional for other residents)
 - c. February Mountain States Conference (or appropriate conference

as approved by RAC) abstract approved by project advisor(s) and RPD and submitted to Conference before the deadline

- g. April Draft of project Mountain States Conference slides and handout to project preceptor(s) and RPD
 - h. April Practice presentations for Mountain States Conference
 - i. May Present project at Mountain States Conference
 - j. June Due date (approximate) for submission of case studies and posters for next ASHP Midyear Clinical Meeting (Optional, but highly recommended)
 - k. June Final Summary Report (manuscript format) of project to RPD and project advisor(s) for approval. Send approved project summary (and Value Summary as appropriate) to the chair of RAC and the Chief Pharmacy Officer for review.
- 6 The resident is responsible to pursue any necessary funding for their residency project. Funds will be used to offset costs of the project and to support travel to conferences where the material will be presented.
 7. Funds generated for residency projects shall be deposited into the department's research account and shall be used to offset costs of the residency project.
 8. A final written report of the residency project shall be submitted to the RPD as a requirement for successful completion of the residency. The report shall be written using format and style consistent with publication in a professional journal, including project subject, background, methods, results, and conclusions. Residents will be ready to submit their project manuscript for publication in a professional journal. (Some programs may require the manuscript be submitted to a journal before the residency certificate is bestowed.)

Required Format for RAC Proposal:

Protocol Summary

Version: [version date]

[Study Title]

Principal Investigator

[Principal Investigator Name]

[PI Address]

[PI Phone Number]

[PI E-mail Address]

Please list all co-investigators with their contact information

Co-Investigator(s)

[Co-Investigator Name]

[Co-Investigator Address]

[Co-Investigator Phone Number]

[Co-Investigator E-mail Address(es)]

Faculty Sponsor (if applicable)

[Faculty Sponsor Name]

[Faculty Sponsor Address]

[Faculty Sponsor Phone Number]

[Faculty Sponsor E-mail Address]

DIRECTIONS:

- *Replace bracketed items on the title page, such as "[Study Title]" with the requested information. Please replace "[version date]" with a date.*
- *Delete all directions written in italics, such as this section.*
- *Read guidelines for each section, complete as applicable for your project and then delete the template guidelines.*

Your summary should be able to answer the following three questions regarding scholarly merit of the proposed activity:

1. *Will the research design yield valid results?*
2. *Does the research utilize acceptable practice for the discipline?*
3. *Does/Do the investigator(s) possess adequate qualifications to conduct the research?*

BACKGROUND AND INTRODUCTION: Identify the research area being studied and provide a review of the literature that provides the basis for understanding the objectives of the study. This review should be written such that scientists outside the investigator's area of expertise can understand the issues involved. Any information about previous research related to this study involving animals and/or humans should be summarized. Include studies on pregnant animals if the research is conducted on pregnant women, fetuses, or neonates.

OBJECTIVES: The objectives should be stated in such a way that the reader can determine the appropriateness of the study design below. If appropriate, state the specific hypotheses being tested and/or study aims.

PARTICIPANT SELECTION CRITERIA: Participant-entry criteria should be as detailed as necessary to define the patient population under study and, for clinical studies, to reduce confounding treatments or diseases. Precise criteria for age, gender, or any other factors (e.g., in a clinical study: diagnoses, extremes in signs or symptoms, etc.) should be included. Specific exclusion criteria should be listed which could interfere with the study or which place participants at risk during the study.

DESIGN: A simple statement of the design methodology proposed to test your hypothesis(es) should be included. Randomization and control methods should be stated. Of primary importance is clearly showing how the trial design will collect the study data and lead to the analysis and interpretation proposed. Any interim analysis or criteria for stopping a clinical trial should be stated. For studies not proposing experimental design include detail about the scientific methods to be employed.

STUDY PROCEDURES: This section of the protocol should state both the chronological flow of the study and the procedures/activities that the participants must undergo. The investigational activities, treatments, or procedures must be clearly detailed as to how and when they will be performed. For clinical studies, a distinction should be made between the procedures for treatment evaluation versus procedures for safety evaluation. Treatment endpoints must be defined as well as interim procedures for dealing with adverse events. Schematic diagrams may be helpful for understanding the flow of a study.

Standard of Care vs. Research-Related Procedures: Please separate and explain what proposed procedures for this study are considered standard of care and which ones are strictly research-related. *Delete this sub-section if it does not apply to your project.*

Data Safety and Monitoring: All moderate risk studies require a data safety and monitoring plan, committee, or board. The information provided to the IRB should describe the process and mechanisms in place for assuring the safety of research participants and the oversight of data integrity. *You may describe the plan in this sub-section or attach a separate document outlining the DSMB/DSMC to the documents and attachments page of the application under Protocol Summary. Please refer to the IRB website for more information regarding data safety and monitoring requirements under Guidelines. Delete this sub-section if it does not apply to your project.*

STATISTICAL METHODS, DATA ANALYSIS AND INTERPRETATION: The anticipated methods to be used for analysis and interpretation of the data should be stated. Naturally, these methods must compliment the design of the trial and the nature of the data which are being collected. The factors in the trial that determine the proposed sample size (e.g. power) should be stated.

ADMINISTRATIVE RESPONSIBILITIES:

Study Resources: Specify the resources available to conduct the research including qualified personnel, equipment, space, and what facilities will be involved. Include an explanation of the methods for maintaining confidentiality of the study data. *All investigators must provide this information.*

Recruitment: Describe methods of participant recruitment which will be used to recruit participants such as newspaper/internet advertisements or flyers. *Please note that the University of Utah IRB does not allow cold-calling as a method of recruitment. All recruitment materials must be attached to the documents and attachments page in the application. If chart review will be involved as a method of recruitment, you must complete a request for waiver of authorization and consent in the application. Delete this sub-section if it does not apply to your project.*

Control of Investigational Devices/Drugs: If this project involves an investigational drug or device please provide a plan as to how you will control, store, and dispense investigational drugs/devices to ensure they are only used by the qualified investigator(s) for this study and the participants enrolled in this research project. *Delete this sub-section if it does not apply to your project.*

Communication Plans for Multi-Center Studies (i.e. multiple sites around the nation): If you are the lead investigator for this study, or the University of Utah is the lead site for this study, please describe the management and communication among sites of information obtained in this research that may be relevant to the protection of research participants, such as:

- Unanticipated problems involving risks to participants or others
- Interim results
- Protocol modifications

Please attach an IRB approval or signed letter of support from each participating site to the documents and attachments page of the application under Other Documents. Delete this sub-section if it does not apply to your project.

Participating Sites outside the University of Utah (i.e. multiple sites around the city or state):

This section should discuss which other institutions are participating in the study for which you, as the PI, are responsible. Please describe the procedures, provisions and resources in place at the participating institutions to protect the safety of participants, and how unanticipated problems will be communicated to the PI and the University of Utah IRB. If the participating site is not adequately equipped to handle safety concerns, please explain the procedures and plan in place for the PI to respond to any such occurrences. *Please attach an IRB approval or signed letter of support from each participating site to the documents and attachments page of the application under Other Documents. Delete this sub-section if it does not apply to your project.*

TIMELINE FOR PROJECT (specific to RAC proposal)

ROLE OF RESIDENT IN COMPLETING THE PROJECT (specific to RAC proposal)

JOURNAL PRE-SELECTED FOR SUBMISSION (specific to RAC proposal)

REFERENCES AND APPENDICES: Citations from the literature should be included in the Background/Introduction section above and the references listed here. Other supporting information, such as your own publications, should be submitted if you feel it would allow a deeper understanding of the project.

Presentations

1. The resident shall participate in departmental staff development programs as directed by the RPD.
2. Residents shall prepare and deliver a minimum of four presentations under the direction of the Residency Presentation Coordinator and the Content Advisor for each presentation selected by the resident. The Presentation Coordinator is Gary Davis. The four required presentations are:
 - A. A formal, academic seminar to the Department of Pharmacy Services staff, or a similar presentation type as determined by the RPD for each program (e.g. therapeutic debates for PGY2 Critical Care or METS sessions for PGY2 Oncology) may fulfill this requirement.
 - B. An American Council of Pharmaceutical Education (ACPE)-approved, presentation developed and presented for area pharmacists, pharmacy students, and technicians on a topic that is of current interest to pharmacy practitioners. The continuing education presentation is subject to the guidelines provided by ACPE, and must include an evaluation of available literature.
 - C. The residency project presentation given at the Mountain States Residency Conference (or other approved conference) with practice sessions presented to the staff preceding the Conference.
 - D. Facilitation of 4 recitation sections (PGY1) or a combination of lectures and recitations at the University of Utah College of Pharmacy, with approval by the resident's RPD and the Course Coordinator at the College.
3. The following are the goals for each of the four presentations:
 - A. Formal, academic seminar to the pharmacy staff. (The RPD for each program will provide additional goals and requirements for each presentation replacing the seminar requirement such as pro/con debates.)

Goal 1 – Demonstrate the ability to verbally present a practice controversy to peers in 30 to **35 minutes**. The primary focus of clinical residents will be to identify the clinical dilemma/controversy and related literature, orient the audience to where these data fit in clinical practice, present data from the literature to answer the clinical question, and then clearly provide guidance to audience members on what to do clinically if faced with this clinical controversy. A Seminar Content Advisor, chosen by the resident and confirmed by the RPD, will serve as the content expert and mentor the resident through this process. (Residents in PGY2 programs may choose to present controversial administrative or technological controversies as approved by their RPD.)

Goal 2 – Demonstrate the ability to appropriately select and evaluate literature. The chosen literature should support or refute the **controversial** issue chosen. A written evaluation of at least 3 articles using the Seminar Pre-Work handout (attached) will be due to the Content Advisor and RPD **21 days** prior to the first seminar in the seminar series.)

Goal 3 – Prepare and use appropriate visual aids (e.g., PowerPoint) for a small- to medium-sized conference room. All audio/visual content must meet approval of the Presentation Advisor and either the Presentation Coordinator or RPD prior to presenting the seminar.

Goal 4 – Demonstrate the ability to appropriately answer questions posed by peers.

Goal 5 – Provide clear recommendations to the audience members regarding what they should do if confronted with this clinical scenario in the future. If clear recommendations are not given, the resident will be required to re-evaluate the data and present the seminar a second time in order to complete this residency requirement.

Goal 6 – Demonstrate the ability to present clinically relevant data in a clear, concise manner and demonstrate a high level of professionalism. Lack of clarity in the presentation may result in the resident needing to re-present to a small group of Residency Advisory Committee members.

B. ACPE-approved presentation for pharmacists, pharmacy students, and **technicians**.

Goal 1 – Learn the preparation and procedures required for presenting an ACPE-approved presentation. For example, the presentation must be a full **50 minutes** of contact time, allowing 5-10 minutes for questions.

Goal 2 – Prepare a PowerPoint presentation for a large auditorium with appropriate handouts.

Goal 3 – Demonstrate the ability to review a disease state, established or innovative therapeutic plan, new pharmacologic agent, or other pharmacy-practice issue.

Goal 4 – Select and evaluate appropriate **primary and tertiary** literature to support conclusions relevant to the pharmacy practitioner (i.e., pharmacist and technician).

Goal 5 – Provide clear conclusions and information related to the “role of the pharmacist and technician.”

Goal 6 – Improve speaking skills and presentation style as compared with the first seminar presentation to pharmacy staff.

C. Formal platform presentation at the Mountain States Residency Conference

Goal 1 – Clearly and confidently present original research.

Goal 2 – Follow the guidelines established for a formal invited speaking engagement. In this case, follow the guidelines mandated by the Mountain States Conference coordinators.

Goal 3 – Use PowerPoint effectively to make slides using tables, graphs, or imported graphics (referenced).

Goal 4 – Use this presentation as a medium to organize data to be included in the final manuscript, which will be written and submitted for publication in a national peer-reviewed journal and to the RPD.

D. Recitation facilitation and/or lecture for students at the University of Utah College of Pharmacy (with the approval of the RPD and Teaching Certificate Coach as appropriate).

Recitation Goal 1 – Residents will review foundational knowledge of the professionalism, therapeutic, and basic science topics for the day's recitation cases ahead of class.

Recitation Goal 2 – Use facilitation skills and active learning techniques to encourage full participation by every member of the student group.

Recitation Goal 3 – Residents will elicit accurate responses to cases from students without giving away the best responses to the students.

Recitation Goal 4 – Residents will provide evaluations of each student's ability to respond to cases following each recitation section, and provide appropriate feedback to students and the Course Coordinator.

Recitation Goal 5 – PGY1 residents will participate in a minimum of 4 recitations per year in either the spring or the fall with guidance from the recitation section coordinator. Other program residents will participate in recitations as directed by their RPD.

Lecture Goal 1 – Provide an appropriate overview of material that is new to a group of pharmacy students.

Lecture Goal 2 – Research the lecture topic in order to become a content expert.

Lecture Goal 3 – Select current primary and tertiary literature to reference for the class.

Lecture Goal 4 – Prepare a handout and other visual aids that are appropriate for pharmacy students.

Lecture Goal 5 – Use active learning techniques to engage students at a higher level in the classroom.

Lecture Goal 6 - Work with the course coordinator/primary instructor to schedule the class and verify that the lecture content is adequate.

Lecture Goal 7 – Write clear and appropriate test questions for the class material presented. (Questions should be submitted with the lecture material for review by the course coordinator and Teaching Certificate Coach as appropriate prior to the presentation of the lecture material in class.)

4. Deadlines:

Seminar: A **seminar** topic and Content Advisor must be selected by mid-August. Objectives, pre-work, and rough draft of slides for the seminar are due **21 days** prior to the first presentation in the series to the RPD, Presentations Coordinator and the Content Advisor. Feedback will be returned to the resident within 5 business days. A final handout and completed draft of slides will be due **14 days** prior to the first seminar in the series to the RPD and Content Advisor.

ACPE-Approved Presentation: A topic and Content Advisor must be selected for the **CE presentation** by the end of July (fall series) or November (spring series). Objectives and other paperwork required for accreditation of the ACPE presentation are due a full **75 days** prior to the first day of the presentation series to the USHP CE Administrator and to the resident's chosen CE Content Advisor. A first draft of all materials for the ACPE-approved presentation (including handout and slides) are due *without fail* to the RPD, Presentations Coordinator and the Content Advisor **65 days** prior to the beginning of the CE series (approximately: PGY2-Aug 31; PGY1-January 7). The resident shall then make improvements based on feedback from the advisor and provide a second draft **45 days** prior to the presentation series to the individuals listed above and to the USHP CE Coordinator. These deadlines must be met to fulfill program requirements. Residents who fail to meet their deadlines will be required to present their seminar or CE in a closed-door session with the RPD and Content Advisor and risk losing CE-accreditation for their presentation.

Recitations/Lectures: The recitation/lecture dates and due dates for materials and test questions will be negotiated with the Course Coordinator. When the lecture topics are selected, the resident must immediately notify the RPD and Presentation Coordinator.

Project Platform Presentation: Mountain States practice sessions will be held starting

3-4 weeks prior to the meeting in order to meet slide submission deadlines. Each resident will practice presenting at least twice to Research Committee members and project advisors.

5. At the end of each presentation, the resident will identify to the audience who his/her advisor is and thank him/her for his/her effort. CE mentors must sign the conflict of interest statement for USHP in addition to the resident completing their contract.
6. Audience members will complete a standard evaluation for the continuing education presentation and seminar. Failure to achieve satisfactory evaluations, meet the ACPE requirements, or meet deadlines will result in the seminar or continuing education presentation being revised and repeated by the resident. The resident will not receive a certificate of residency completion until all presentation requirements are met.
7. Shortly after the seminar (within 1 week following presentation), the resident and either the RPD or the Content Advisor should meet and discuss how the resident performed, what the resident thought went well and did not go well, how the resident thinks he/she can improve for next time, and any comments on the evaluations that need further discussion.
8. The residents shall attend all seminar and CE sessions, practice sessions, and project presentations as assigned by program and approved by the rotation preceptor. In the event of conflicts with rotation requirements, the resident shall resolve the conflict with the preceptor of the rotation and the RPD. Residents shall attend a minimum of 3 of their resident colleagues' seminars and 3 CE presentations.
9. Presentation handouts, slides, evaluations, and test questions (if appropriate) shall be included in the Resident's electronic portfolio for all four required presentations.

SEMINAR EVALUATION FORM

DATE: _____
EVALUATOR: _____
PRESENTER: _____
TITLE: _____

This is a learning experience for both you and the resident. Please provide constructive feedback. "Great Job!" is not constructive feedback.

Evaluation codes: **S = Satisfactory** **NI = Needs Improvement**
 Please provide constructive feedback to resident, especially if "NI" is checked

I. PRESENTATION STYLE

The style was conducive to my learning.

Objective	S	NI	Comments
Voice Projection			
Pace			
Lack of Distracting Mannerisms			
Professional Dress			
Eye Contact			

Additional Comments:

II. VISUAL AIDS

The material and techniques used enhanced my comprehension and interest.

Objective	S	NI	Comments
Use of equipment and lighting			
Reasonable amount of slides utilized for the allotted time			
The slides/ handouts enhanced the topic (e.g., through the use of diagrams, figures, tables)			
The number of words per slide allowed easy comprehension for the audience			

Additional Comments:

III. PREPARATION

The presenter was prepared regarding the clinical implications of the topic presented.

Objective	S	NI	Comments
Did you feel the presenter achieved an expert level of knowledge such that information presented was valid?			

Additional Comments:

IV. EFFECTIVENESS OF PRESENTATION

The resident was able to identify the clinical dilemma, orient the audience to where these data fit in clinical practice, present data from the literature to answer the clinical question, and then clearly provide guidance to audience members on what to do clinically if faced with this dilemma.

Objective	S	NI	Comments
Was the clinical dilemma presented clearly at the beginning of the seminar?			
Were the objectives clear, relevant and reflect the content presented?			
Were the objectives effectively addressed by the end of the seminar?			
Was the resident able to appropriately orient the audience as to where this clinical controversy fits in contemporary clinical practice?			
Did the resident effectively use published literature to support/refute what is currently done in contemporary clinical practice?			
Was the resident able to focus the presentation into clear, concise "take-home" points that were easily understood by the audience?			
Were the conclusions reached by the resident credible based on the published data provided?			
Were clear recommendations made regarding what the audience member should do if confronted with this clinical scenario in the future?			(If these were not given, a recommendation to suggest redoing the seminar is strongly recommended)
Did the resident enhance your understanding of this clinical dilemma?			

Additional Comments:

V. OVERALL IMPRESSION OF PRESENTER

It is encouraged that ALL attendees provide comments to these questions so that the residents may improve.

Objective	Please provide constructive comments to each question?
How effective was the resident at presenting a seminar that was clear, concise, well-structured, and well-supported by literature?	
What steps do you suggest this presenter take to improve their ability to give an effective seminar?	

Additional Comments:

___ Pass ___ Recommend rework and second presentation

Seminar Pre-Work: Complete this form for each study used to prepare your seminar – submit to Seminar Advisor
 Questionnaire for Evaluating Primary Literature compiled by Linda S. Tyler, PharmD

Article: _____

Introduction	yes/ no/ partial	Comments
Is the reason for conducting the study discussed?		
Are the study objectives clearly defined?		
Is the null hypothesis clear?		
Methodology	yes/ no/ partial	How might this influence the results or affect the validity of the study?
Have adequate measures been taken to prevent selection bias?		
• Is the study population adequately defined?		
• How were subjects selected? What are the inclusion criteria? Are the selection procedures clearly defined?		
Case-control: How were cases selected? How were controls selected? Are the controls comparable to the cases? Was bias introduced in the selection process?		
Follow-up/cross-sectional: How was the study population selected? Was bias introduced in the selection process?		
Experimental: Were subjects randomly selected? Did all qualified subjects have an equal chance of being admitted to the study? Are the treatment groups comparable?		
• Are pertinent patient specific data provided? (ie healthy subjects vs patients, sex, age, concurrent disease states, concurrent therapy, race, weight or other pertinent information)		
Have adequate measures been taken to prevent classification bias?		
• Does the study use specific definitions for the study parameters?		
• How were patients classified for entrance into the study? Do they have the disease of interest? (case-control, experimental)		
• Is the severity of disease described?		
• How were the risk factors classified?		
• How were the outcomes classified?		
Have adequate measures been taken to prevent confounding bias?		
• Have measures been taken to prevent competing interventions that may influence the results?		
Are exclusion criteria clearly defined?		
Have adequate measures been taken to prevent information bias?		
• Are data sources used appropriate and likely to have the appropriate information? What is the quality of the data?		
• Have the issues related to recall bias been adequately addressed?		
Have adequate measures been taken to prevent measurement bias?		
• What measures were used to evaluate the outcomes of the study? Are they adequately described?		
• Were the measures used appropriate?		

• Were objective measures used?		
• Are the measures reproducible?		
Were subjects observed for a sufficient length of time?		
Have adequate measures been taken to prevent observer bias?		
• Are the observers specified?		
• Have measures been taken to prevent inter-observer variation?		
Experimental studies:		
• Were subjects randomized? Are randomization procedures appropriate and clearly defined? [Allocation bias]		
• Are the interventions well described?		
• Is the study blinded? Are blinding procedures appropriate?		
• Were specific data on drug regimens given including dose, dosage form, duration of administration, time of dose in relationship to meals?		
• Were all study drugs given in appropriate doses and regimens?		
• Are both groups comparable, and treated in the same manner, except for the intervention?		
• Were the measures adequate to insure or evaluate compliance?		
• Were there any competing therapies that would have influenced the results		
If the study is a crossover trial, was the washout period adequate between interventions?		
Statistical Analyses		
• Have the authors described the statistical analyses to be used in the study?		
• Are the statistical tests appropriate for the type of data (nominal, ordinal, continuous)?		
• Is the sample size determination information included?		
• Have appropriate significance levels been established?		
• Is the power of the study described?		
Based on the methodology, is the study likely to have external validity?		
• Is the study sample representative of the general population?		
• Were the interventions practical? (experimental)		
Results	yes/ no/ partial	Comments
Patients studied		
• Is the number of patients specified?		
• Can all patients be accounted for?		
• Is the number of dropouts given? Are the reasons for dropping out described? (experimental, follow-up)		
• Were sufficient numbers of patients studied?		
• Were patient demographics presented?		

• Do the groups look similar based on demographics?		
Data presentation		
• Are data presented for all measurements specified in the methodology?		
• Are data presented objectively?		
Statistical Analyses		
• Are appropriate descriptive statistics presented? [ie measure of central tendency (median, mean, mode), spread of the data (range), variation in the data (SD)]		
• Are p values and confidence intervals specified?		
• Are the inferential statistical tests applied appropriately?		
• Are statistical analyses meaningful?		
Discussion/ Conclusions	yes/ no/ partial	Comments
Are the author's conclusions appropriate based on the data presented?		
Are the results statistically significant?		
Are the results clinically significant?		
Does the author discuss objectively the limitations to the study?		
Are the conclusions consistent with the purpose of the study?		
Can the conclusions be extrapolated to the population in general?		
Overall		
Do the title and abstract appropriately reflect the content of the study?		
Does the author cite mostly primary literature? Is the article referenced appropriately?		
Who sponsored the study?		
What is the reputation of the journal? Is it peer reviewed?		
Are there editorials available that discuss the article? (companion editorials or editorials that come out later)		

Summary: Overall assess the study's strengths and weaknesses

Does the study have internal validity?

Does the study have external validity? Is it relevant to your problem/situation/practice

PRESENTATION EVALUATION FORM FOR THE SPRING CE SERIES:

SAMPLE: Speaker Evaluation

University of Utah Resident CE Series

Resident Name Here

“CE TITLE GOES HERE”

1. Did the presenter meet the stated educational objectives? (Place Pharmacist Objectives 1st, then Tech Objectives 2nd, clearly delineating which is which.)

- | | | |
|-----------------------------------|-----|----|
| a. Objective #1 written out here. | Yes | No |
| b. Objective #2 written out here. | Yes | No |
| c. Objective #3 written out here. | Yes | No |
| d. Objective #4 written out here. | Yes | No |
| e. Objective #5 written out here. | Yes | No |

Please rate the following, 1 = very dissatisfied, 5 = very satisfied

2. How satisfied are you with this presentation? 1 2 3 4 5

3. Was the content of this presentation relevant to your area of practice? Yes No

4. How does this topic pertain to your educational goals? _____

5. The speaker was:

- | | | | | | |
|-------------------------------------|---|---|---|---|---|
| a. Interesting | 1 | 2 | 3 | 4 | 5 |
| b. Practical | 1 | 2 | 3 | 4 | 5 |
| c. Answered questions appropriately | 1 | 2 | 3 | 4 | 5 |
| d. Showed mastery of the subject | 1 | 2 | 3 | 4 | 5 |

6. Please rate the quality of the learning materials. 1 2 3 4 5

7. Please rate the effectiveness of the learning activity. 1 2 3 4 5

8. The presentation was free from bias, promotion, or advertisement? Yes No

If no, please explain:

9. What other topics would you like to see presented in the future? _____

10. Please use the space below to provide any constructive comments about the presenter or the topic presented and if you had any unanswered questions.

Mountain States Conference Platform Presentation Evaluation Form

Presenter's Name: _____ Abstract #: _____

Presenter's Institution: _____

Evaluator: Resident Fellow Preceptor RPD Other: _____

Presentation Feedback	1=Needs Improvement 5=Excellent	Comments
Presenter demonstrated strong presentation skills: pace and volume were appropriate. Good eye contact. Free of distracting mannerisms.	1 2 3 4 5	
Slides were clear and readable and augmented the presentation well.	1 2 3 4 5	
The presentation was organized and flowed well.	1 2 3 4 5	
Project was clearly described: sufficient background to understand the project; methods clearly described; results presented for each objective; conclusions are clear.	1 2 3 4 5	
Presenter handled questions well.	1 2 3 4 5	
Handout is well organized and contains useful information.	1 2 3 4 5	

Presentation strengths:

One key way to improve presentation:

Project / Research Feedback	1=Needs Improvement 5=Excellent	Comments
Reasons for selecting project clear; objectives clearly stated.	1 2 3 4 5	
Methods appropriate to answer research question; statistics appropriate for the study design.	1 2 3 4 5	
Results relevant to pharmacy practice.	1 2 3 4 5	
Conclusions match the results presented.	1 2 3 4 5	
Resident's interest and participation in project evident.	1 2 3 4 5	

Please provide additional comments that will help the presenter with future research.

Resident Participation in Conferences and Committees

1. Residents shall meet on a weekly basis for a 1 to 2 hour directed discussion session. Attendance at these conferences is **mandatory** for PGY1 Pharmacy Practice Residents. PGY1 residents must negotiate absences with the program director before the conference begins. All other residents are encouraged to attend to learn and to mentor the PGY1 residents as often as they are able.
2. A schedule of discussion topics shall be developed and a discussion leader shall be assigned. Possible conference topics include teaching and training, leadership, journal club, professionalism, and time and project management, etc.
3. Residents shall be responsible to participate in or lead discussion and to be prepared by reading background materials and by supplementing with additional readings.
4. PGY1 residents on rotations located on campus are required to attend weekly Resident Conference on Wednesdays at 4:00 p.m. as assigned provided they are not on patient care rounds, or ambulatory care conference at 7AM at Redwood as assigned during ambulatory care rotations Residents must notify all preceptors that they are required to attend weekly resident conference prior to starting each rotation.
5. The resident shall attend all departmental staff meetings related to their area of practice. For University Hospital and Huntsman Hospital-based residents, staff meetings are held on the fourth Wednesday of the month at 2:30 p.m. unless otherwise directed.
6. Residents are encouraged to participate in department and hospital-based committees and task forces (e.g., Med Error Review Committee, policy task forces, Exceptional Patient Experience teams, Pharmacy Medication Safety Committee, etc.) Residents wishing to attend a P&T meeting will work with Erin Fox to develop an item to present for P&T.
7. Residents are encouraged to participate on state and national committees and task forces (i.e., ASHP, Vizient, or USHP).
8. Residents are encouraged to attend RAC meetings as they are able. Meetings are the second Wednesday of each month at 3:00 p.m. Residents will be excused for topics involving potential disciplinary issues.

Conference Attendance

ASHP Midyear Clinical Meeting - required

Residents will be given educational leave to attend the meeting. Residents shall spend time helping recruit potential candidates for the next residency class, attend our residency showcase, and attend the Utah reception. The residents will also attend CE presentations and will give summaries in writing or during Grand Rounds upon their return.

Mountain States Residents Conference – required for all residents

The Mountain States Conference for Pharmacy Residents, Fellows and Preceptors will be held each May. Utah residents will present their project to other residents and preceptors during this meeting. Residents are expected to attend assigned presentations, and as many other resident presentations as possible as one of the host organizations.

Other Conferences

PGY2 residents may have department funding for one additional specialty conference per year. Other conferences may be attended at the resident's own expense and using accrued vacation time (PTO-S), provided the time away from rotation does not prevent the resident from meeting the required rotation objectives. If the resident has a presentation or poster prepared with a pharmacist preceptor at University of Utah Health, they should complete two steps. First, verify with the RPD and the preceptor of the rotation affected by the conference that the absence is acceptable. Once permission is granted by the preceptor and RPD, complete the Travel Request Form available on the online Pharmacy Help Book and submit the request to their Pharmacy Director and a copy to the RPD. Educational leave and/or partial reimbursement for travel and registration may be available from the Pharmacy Department depending on available budget resources.

Professional conduct is expected from all attendees while representing the University of Utah at any conference. Unprofessional conduct during meetings may result in disciplinary action.

Residency Program Portfolio

1. The resident shall maintain a Residency Portfolio electronically which shall be a complete record of the resident's program activities. Residents are to maintain the e-portfolio throughout the year. The e-portfolio shall be submitted to the RPD at the conclusion of the residency training program and shall be a requirement for successful completion of the program.
2. The residency program portfolio shall include the following items:
 - a. Completed Resident Self-Evaluation and Planning Form
 - b. Residency profile and plan
 - c. Documentation of activities, projects, presentations, and edited documents.
 - d. Evaluations of the preceptors, rotations, and self that are **NOT** posted on PharmAcademic
 - e. A record of all in-services, presentations, and seminars given
 1. Handouts developed
 2. A list of attendees/participants (as available)
 3. Evaluations
 4. Slides
 - f. Residency Project
 1. RAC and IRB proposals
 2. Grant/funding proposal
 3. Final manuscript
 4. Value Summary (as appropriate for each project)
 5. PHI should NOT be posted in the e-portfolio
 - g. A list of all seminars/meetings attended
 1. Staff meetings
 2. Committee meetings (including professional associations)
 3. Educational presentations (i.e., grand rounds)
 3. Departmental staff development/pharmacy grand rounds
 4. State/local continuing education
 5. Regional/national meetings
 7. Residency program retreat
 - h. A current curriculum vitae
 - i. Staffing/PTO/ECS log
3. An electronic file will be kept for each resident and will contain planning forms, presentations, and projects.

Evaluation Guidelines

1. All evaluations shall be timely and documented on appropriate forms in PharmAcademic.
2. If for any reason an evaluation is not documented in PharmAcademic, copies of the completed evaluations shall be forwarded to the RPD and uploaded to the resident's PharmAcademic supplemental documents.
3. Evaluation of Resident:

The performance of the resident shall be based upon the use of predetermined goals and objectives derived from the ASHP Residency Program Design and Conduct: Goals and Objectives.

- a. Rotation: The resident shall be responsible to attend periodic meetings with their rotation preceptor to assess and evaluate their progress in the rotation. The frequency and scheduling of these sessions shall be determined by the rotation preceptor and the resident. At a minimum, an oral mid-rotation evaluation, a final self-evaluation (using the same evaluation form as the preceptor for the first half of the year), and final evaluation by the preceptors will be performed.

If the rotation is team-taught, the preceptors will communicate with each other about the resident's progress, specific recommendations for improvement, and upcoming assignments and special requirements.

Within seven days after the completion of each rotation, and **preferably on the last day of the rotation**, the preceptor will evaluate the overall performance of the resident using the Summative Evaluation form in PharmAcademic. The evaluation will be reviewed with and signed by the resident, and forwarded to the RPD for co-signature in PharmAcademic.

- c. Quarterly: Quarterly evaluation sessions with the RPD shall be scheduled to assess progress toward meeting global goals and program requirements. The resident shall schedule the sessions to be held in approximately July (baseline), October, January, April and June. This information is documented as part of the Customized Training Plan (CTP).
- d. Failure to demonstrate adequate performance or to meet program deadlines may result in formal disciplinary action including possible dismissal from the residency program.
- e. The Achieved Definition for Residents: The RPD may allow some goals and objectives to be marked as achieved only after completion of specific activities. For

example, a resident is unlikely to achieve goals related to writing prior to successfully completing a RAC proposal or Drug Information rotation. The resident appropriately and consistently demonstrates during all learning opportunities, rotations, and throughout the year the following in knowledge, skills and abilities (as appropriate for each goal evaluated):

Achieved Definition:

1. Competently and safely care for patients at a level acceptable for all pharmacists in the University system.
2. Present patients in a logical and succinct order and understand the priorities of pharmaceutical needs.
3. Serves as a valuable resource for the healthcare team.
4. Gives timely responses that are clear and appropriate for audience understanding.
5. Demonstrates an advanced level of problem solving skills. Demonstrating knowledge, and proper use, of all available resources.
6. Able to autonomously identify and prioritize current tasks as well as upcoming deadlines.
7. Appropriately balance time between work tasks, personal life, projects, and learning opportunities in order to complete all requirements, while continuing to increase knowledge and skills.
8. Through actions demonstrates reliability, responsibility, and trustworthiness on a level that would be desirable for employment.
9. Helps to create an amiable, productive work environment.

4. Evaluation of Preceptor and Learning Experience

Within seven days after the completion of each rotation, and **preferably by the last day of the rotation**, the resident shall complete the Preceptor and Learning Experience Evaluation. This evaluation shall be discussed with the preceptor and submitted to the RPD through PharmAcademic.

5. Evaluation of Program

Residents may bring program issues to the attention of the RPD, the Chief Pharmacy Officer, or to RAC at any time during the year.

Residency Program Retreat:

- a. The resident class (including PGY1 and PGY2 residents) shall be responsible to schedule two residency program retreats that shall be held in December and June. The residents, Chief Pharmacy Officer and the Chair of RAC shall attend the retreat.
- b. Residents shall develop an agenda for the retreat in cooperation with either

the CPO and Chair of RAC.

- c. The purpose of the retreat shall be to address the strengths and weaknesses of the programs.
 - d. The residents shall produce a summary of the proceedings of the retreat that shall include recommendations for change that are identified by the program participants.
6. The residency program considers a resident's evaluations as privileged information within the program to ensure focused development and feedback for each resident. Use of evaluations as a recruiting tool for future employers or residency/fellowship programs is discouraged. The RPD and preceptors will NOT release copies of a resident's evaluations to anyone NOT serving as a preceptor for the Program.

Appendix A

Job Description

**Department of Pharmacy Services
University of Utah Hospitals and Clinics
University of Utah Health Sciences Center**

Pharmacy Resident (7578)

Fair Labor Standards Act (FLSA): Exempt

Revision Date: Mar 04, 2013

Position Summary

This position provides all the functions of a clinical pharmacist as part of a 1-2 year structured training program to develop the resident's skills and knowledge. The residency program director sets the program requirements and is responsible for the overall training program. As part of this training program, the resident will complete a project. Residents are supervised by program preceptors for each of their assigned training rotations.

Essential Functions

- Performs all the essential functions of a Clinical Pharmacist.
 - Solves problems in the medication use process for patients and the organization.
 - Identifies and engages in organizational and department quality improvement activities to improve patient care, medication use process, and pharmacy operations.
 - Educates and trains residents, students, interns, colleagues and other health care professionals as well as supervises technicians, residents, interns, or trainees in their job tasks.
 - Responsible for the medication use process of preparing and dispensing medications following medication use policy and all laws, regulations, and standards applicable to pharmacy practice.
 - Assesses appropriate drug information and literature resources, and provides effective information to varied audiences including patients, other health care professions, and peers.
- Meets all the program requirements of a resident as outlined in the program requirements.
- Conducts a major project.

Knowledge / Skills / Abilities

- Ability to perform the essential functions of the job as outlined above.
- Ability and willingness to train department trainees (e.g. students, interns, and new staff).
- Ability to assess data regarding the patient's status and provide care as described in the department's policies and procedures manual.
- Demonstrated knowledge and skills necessary to provide care appropriate to the age of the patients served on his or her assigned unit.
- Demonstrated knowledge of the principles of life span growth and development and the ability to assess data regarding the patient's status and provide care as described in the department's policies and procedures manual.

Qualifications

Required:

- Graduate of an accredited college of pharmacy in the United States.
- Applications are accepted via PhORCAS until January 1st each year or as otherwise specified by the program director. University Hospitals & Clinics participates in the ASHP Resident Matching Program for the selection of residents into the program. Applications may be accepted in late March for any positions not filled during the matching process.

Required license(s):

- Current Pharmacist license in the State of Utah (obtain within 90 days of starting residency)

Appendix B

PGY1 Required Competency Areas, Goals, and Objectives

See the following section on the ASHP website for a variety of information related to the PGY1 Competency Areas

<https://www.ashp.org/Professional-Development/Residency-Information/Residency-Program-Directors/Residency-Accreditation/PGY1-Competency-Areas>

PGY2 Outcomes, Educational Goals and Objectives

See the following section on the ASHP website for a variety of information related to the PGY2 Competency Areas

<https://www.ashp.org/Professional-Development/Residency-Information/Residency-Program-Directors/Residency-Accreditation/PGY2-Competency-Areas>

Appendix C

PharmAcademic Instructions:

Log in to PharmAcademic at <https://www.pharmacademic.com/Login.aspx>
and follow the Help and Support link

Appendix D

Service Commitment Record

Name:

Print Date:

Required Shift Log Sheet								
Month	Shift	Date	Required	Shift	Date	ECS	PTO-S/U	Date
July			<input type="checkbox"/>			<input type="checkbox"/>		
			<input type="checkbox"/>			<input type="checkbox"/>		
			<input type="checkbox"/>			<input type="checkbox"/>		
			<input type="checkbox"/>			<input type="checkbox"/>		
August			<input type="checkbox"/>			<input type="checkbox"/>		
			<input type="checkbox"/>			<input type="checkbox"/>		
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Appendix E

Past Resident Graduates and Project Titles

Last Name	First Name	School	Year	Resident Project
Allen	Scott	U of U	16-17 (CC)	Evaluation of High-dose Ascorbic Acid in Thermal Injury
Bertolaccini	Corinne	Northeastern	16-17 (CC)	Evaluation of anti-Xa levels in surgery patients receiving fixed dose heparin
Biksacky	Meryl	U of U	16-17 (Track B)	Implementation and evaluation of a clinical decision support tool to minimize drug-drug interactions among older patient populations in emergency department and ambulatory care settings.
Bliven	Katie	MUSC	16-17 (Onc)	Utilization of granulocyte colony stimulating factors in metastatic solid tumors
Bowden	Ashley	Ohio State	16-17 (Admin-2)	Assessing the Impact of a Central Refill Center Using a Culture of Safety Survey
Buss	Brian	U of Wisconsin	16-17 (ID)	Impact of a Molecular Based Rapid Diagnostic for Bloodstream Infections with Antimicrobial Stewardship Notification at a National Cancer Institute
Carey	Jessica	U of U	16-17 (Track A)	Antineoplastic Policy Compliance among Clinical Pharmacists at an Academic Medical Center
Carroll	Emma	U of Illinois	16-17 (Onc)	Evaluation of Molecular Biomarkers and Response to Therapy in Prostate Cancer
Copeland	Vanessa	Ohio State	16-17 (Onc)	Outcomes evaluation for adult Ewing's, osteosarcoma, and rhabdomyosarcoma patients treated with off-label COG protocols
Cotiguala	Laura	Creighton	16-17 (Tx)	Evaluation of immediate versus delayed valganciclovir initiation for the prevention of cytomegalovirus in abdominal transplant recipients
Cox	Nicholas	U of U	16-17 (AC)	Retrospective analysis of pharmacist engagement with patients with non-cancer pain on chronic opioid therapy at a family medicine clinic
Dwenger	Andrew	U of U	16-17 (DI)	There was a policy for that? Implementing policies, guidelines, and formulary guidance into the electronic health record
Ferreira	Kristine	Albany COP	16-17 (IM)	Evaluation of Vancomycin Dosing and Nephrotoxicity in Intravenous Drug Users Admitted to the Internal Medicine Service
Huynh	Hoa	U of U	16-17 (IM)	Optimizing Pharmacokinetics and Pharmacodynamics of Intravenous Amikacin in Cystic Fibrosis Patients:
Jones	Emma	U of Nebraska	16-17 (Track B)	Assessment of Clinical Outcomes and Nephrotoxicity
Kappenman	Ashley	U of Iowa	16-17 (Admin-2)	Implementation of inpatient chemotherapy education at an academic cancer center
Murugappan	Meena	U of Minnesota	16-17 (Admin-1)	Designing and Implementing Centralized Mail Order Pharmacy Services: Phase 2
Namanny	Halee	U of U	16-17 (Onc)	Development of a Systematic and Standardized Method for Documenting Symptomatic Adverse Events to Systemic Anticancer Treatment
Palasik	Brittany	U of Maryland	16-17 (IM)	Emergent inpatient anticancer therapy administration in patients with metastatic solid tumors
Pan	Irene	U of U	16-17 (Track A)	Evaluation of Single High-dose Oral Vitamin D3 Therapy versus Standard Care in Adult Cystic Fibrosis Patients
Pigott	Heidi	Duquesne	16-17 (Track B)	Incidence of Thrombosis Post-Kidney Transplant and the Use of Venous Thromboembolism Prophylaxis
				Implementation and evaluation in opioid risk reduction strategies in a suburban family medicine clinic

Ratte'	Morgan	U of Rhode Island	16-17 (Track A)	Review of methylprednisolone use for diffuse alveolar hemorrhage (DAH) in hematopoietic stem cell transplant (HSCT) recipients and the subsequent implementation of an evidence-based guideline
Steffens	Laura	U of U	16-17 (Track A)	Minimizing the Delay in Time to Antibiotics in Patients Presenting to the Emergency Department with Urosepsis
Trovato	Anthony	U of U	16-17 (Track A)	Implementation of a medication reconciliation improvement bundle for acute care inpatients

Black	William	U of KY	15-16 (Admin-2)	Standardizing the Medication Reconciliation Process: Phase II
Bliven	Katherine	MUSC	15-16	Evaluating a change in surgical prophylaxis in kidney transplant recipients
Bowden	Ashley	Ohio State	15-16 (Admin-1)	AHRQ Community Pharmacy Survey on Patient Safety Culture: The results are in, what to implement now?
Carroll	Emma	U of IL	15-16	Effect of a Structured Pharmacist Education and Documentation Process on HCAHPS Pain Management Scores
Clough	Alyson	Purdue	15-16 (Onc)	Characteristics of Long-Term Responders and Survivors of Metastatic Colorectal Cancer
Coleman	Abby	Creighton	15-16 (CC)	Reducing pulmonary vasodilator dependence using oral sildenafil after coronary artery bypass grafting or valve procedure
Cox	Nicholas	U of U	15-16	Descriptive Analysis of Thrombophilia Testing in Hospitalized and Emergency Department Patients
Ferreira	Kristine	Albany	15-16	Improving pneumococcal vaccination rates of diabetic patients with use of a pharmacist workflow within a family medicine residency clinic
Garcia	Breanne	U of U	15-16 (Comm)	Implementation of a pharmacy workflow process intended to improve Prevnar 13 immunization rates in patients 65 years and older
Geurts	Kelsee	Roseman	15-16 (Comm)	Evaluation of the use of statin therapy for primary prevention in type 2 diabetes patients between the ages of 40-75 years old: a retrospective, observational study
Harrington	Erik	U of U	15-16 (Onc)	Correlation of Genomic Aberrations and Response to First line VEGFR-TKI in Metastatic Renal Cell Carcinoma
Hedges	Ashley	UNC	15-16 (CC)	Retrospective Analysis of Levetiracetam Dosing in Neurosurgical Patients for Seizure Prophylaxis
Holesh	Lauren	UNC	15-16 (Admin-2)	Health-System and Patient Care Benefits of a Centralized Prior Authorization Service: Phase II
Hummert	Shelly	UofAZ	15-16 (Onc)	Evaluation of safety and effectiveness of rivaroxaban compared to enoxaparin for treatment of venous thromboembolism in patients with malignancy
Huynh	Hoa	U of U	15-16	Survey of audiology testing in cystic fibrosis patients who receive aminoglycosides for the treatment of acute pulmonary exacerbations
Kappenman	Ashley	U of IA	15-16 (Admin-1)	Designing and Implementing Centralized Mail Order Pharmacy Services
Kelley	Dawnyle	U of SC	15-16 (IT)	Pharmacist Evaluation of Fall-Risk via Use of a Medication Based Fall-Risk Assessment
Prelewicz	Stacy	Wilkes	15-16 (Onc)	FOLFOX relative dose intensity and correlation with survival outcomes in metastatic colorectal cancer
Pugazhenth	Vidya	U of CO	15-16 (IM)	Survey of antibiotic utilization for treatment of Stenotrophomonas maltophilia infection in cystic fibrosis patients
Smith	Nakeisha	FL A&M	15-16 (Comm)	Are we appropriately screening and treating albuminuria in patients with type 2 diabetes?
Smith	Tonya	MUSC	15-16 (IM)	Pharmacokinetics of Intermittent Vancomycin in Adult Cystic Fibrosis Patients
Traylor	Katie	UNC	15-16 (AC)	Aspirin Prescribing Practices for Primary Stroke Prevention in Elderly Women Following Monthly Population-Based Clinical Pharmacist Evaluation
Witt	Benjamin	Findlay	15-16 (DI)	Development of a Method to Measure Adherence to Medication Management Policies
Yeager	Sarah		15-16 (Tx)	Evaluation of the use of mTOR inhibitors in pancreas transplant recipients
Arterbury	Allison	Arizona	14-15	Evaluating Warfarin versus Aspirin for Post-operative VTE Prophylaxis in Patients with TKA and THA

Au	Trang	Creighton	14-15 (Onc)	Evaluation of Safety and Effectiveness of Vascular Endothelial Growth Factor-Tyrosine Kinase Inhibitors with Concomitant Proton Pump Inhibitors or Statins in Advanced Renal Cell Carcinoma
Babin	Jennifer	Alabama	14-15 (IM)	Implementation of an Inpatient Computer-Based Inhaler Education Program
Bailey	Hanna	Florida	14-15 (Onc)	Evaluation of neutropenic fever admissions in patients with solid tumors
Black	William	Kentucky	14-15 (Admin-1)	Standardizing the Medication Reconciliation Process
Caffiero	Nicole	Wilkes U	14-15 (Comm)	Interruptions and Distractions Before and After the Implementation of a Central Call Center on Pharmacists and Technicians in a Community Pharmacy Setting
Coleman	Abby	Creighton	14-15	Left Ventricular Assist Devices as Independent Risk Factors for GI Bleeding in Cardiovascular Surgery Patients
Diamantopoulos	Anastasia	TX Tech	14-15 (CC)	Evaluation of the Efficacy and Safety of a Dexmedetomidine Protocol in Traumatic Brain Injury Patients
Fung	Brian	Florida	14-15 (IT)	Implementation of Antimicrobial Renal Dosing Decision Support in EPIC Using SmartText
Hansen	Alisyn	Nebraska	14-15 (AC)	Implementation of Hypertension Shared Medical Appointments in An Academic Family Practice Clinic
Holesh	Lauren	UNC	14-15 (Admin-1)	Health-System and Patient Care Benefits of a Centralized Prior Authorization Service
Hong	Lisa	Colorado	14-15 (IM)	Pharmacokinetics of continuous infusion beta-lactams and tobramycin in the treatment of acute pulmonary exacerbations in adult cystic fibrosis patients
Hoyt	Jessica	Wisconsin	14-15	Analysis of Adherence to Asymptomatic Bacteriuria Treatment Guidelines for an Emergency Department at an Academic Medical Center
Kosloske	Ashley	Minnesota	14-15	Assessment of Empiric Antibiotic Prescribing Practices in the Emergency Department for Patients Admitted with a Diagnosis of Acute Pyelonephritis
Louie	Jessica	Southern Cal	14-15 (CC)	A comparison of dexmedetomidine-propofol sedation to propofol sedation in mechanically ventilated patients
Marini	Erica	Northeastern	14-15 (Admin-2)	Impact of Central Call Center on Distribution of Work Activities in Outpatient Pharmacies
McPherson	Jordan	WVU	14-15 (Onc)	Predictors of Systemic Chemotherapy Utilization Within the Last 30 Days of Life
Palmer	Kelsey	Montana	14-15 (Comm)	Using failure mode and effects analysis (FMEA) methods to identify barriers contributing to low human papillomavirus (HPV) vaccination rates in a University of Utah community-based clinic
Schoen	John	Colorado	14-15	Developing a Guideline for Weight-Based Dosing of Medications in Obese Adults
Sirandas	Bhanupriya	UI Chicago	14-15	Evaluation of Induction Therapy in Renal Transplant Recipients
Smith	Tonya	MUSC	14-15	Survey of Antibiotic Utilization for Treatment of <i>Burkholderia cepacia complex</i> Infection in Cystic Fibrosis Patients
Tanner	Natalee	Arizona	14-15 (Onc)	Utilization of Antineoplastic Chemotherapy Near the End-of-Life
VanWagoner	Eve	Utah	14-15 (Comm)	Patient Safety Culture within the University of Utah Health Care Community Pharmacies
Burger	Jordan	Drake	13-14 (Admin-2)	Strategizing Dispensing of Medications Prescribed in Specialty Clinics
Diamantopoulos	Anastasia	Texas Tech	13-14	Risk of Venous Thromboembolism in Patients Receiving BID versus TID Prophylactic Heparin Dosing Based on a 90 kg Weight Cut-off

Ford	Ian	UoPacific	13-14 (IT)	The Effect of an Improved, Guideline-Based Clinical Decision Support Tool on Ambulatory Clinic Vaccination Rates
Fritz	Kelly	Ohio Northern	13-14 (Onc)	Evaluation of Complications of Chemotherapy in HIV-positive Patients on HAART Therapy Compared to HIV-negative Matched Controls
Garza	Carissa	Incarnate Word	13-14 (Tx)	Use and Outcomes of Rabbit Antithymocyte Globulin for Induction Therapy in Cardiac Transplantation: A Single Center Experience
Hansen	Alisyn	Nebraska	13-14	Evaluation of Aspirin Prescribing Practices in Elderly Women at the University of Utah Sugar House Health Center
Holcomb	Kelly	Auburn	13-14 (IM)	Survey of Antibiotic Utilization for Treatment of <i>Mycobacterium abscessus</i> Infection in Cystic Fibrosis Patients
Jacquez	Machaela	Utah	13-14 (Comm)	The Identification of Medication Related Problems from a Medication Review Provided by a Clinical Pharmacist in a Community Setting
Johnston	Kiersten	Utah	13-14 (DI)	Did we do What we Said we Would do? Developing a Process to Follow-up on P&T Decisions
Liu	Cindy	Maryland	13-14 (Comm)	Socio-economic and Clinical Characteristics of Patients Hospitalized with Prescription Opioid-Related Overdose
Louie	Jessica	Southern Cal	13-14	Safety of Continuous Infusion Beta-lactam Antibiotics in Adult Cystic Fibrosis Patients During an Acute Pulmonary Exacerbation
Marini	Erica	Northeastern	13-14 (Admin-1)	Optimization of Care Transition Practices Performed by Pharmacy Services Across a University Health System
Maxa	Kim	Drake	13-14 (Onc)	Voriconazole Safety in Obese and Non-Obese Patients
McTish	Ryan	Georgia	13-14 (CC)	Experience with Colistin in the Management of an Extensive Drug Resistant Acinetobacter Outbreak in an ICU
Miles	A. Meredith	Georgia	13-14 (Comm)	The Gap in Transitions of Care in Heart Failure Patients: When, Why and Who do Drug-related Problems Affect?
Paul	Shilpa	Illinois-Chicago	13-14 (Onc)	Utilization of Antineoplastic Chemotherapy Near the End-of-Life
Ratermann	Kelley	Kentucky	13-14	Effect of Pharmacy-Initiated Chronic Pain Management Admission Notes on HCAHPS Scores
Schoen	John	Colorado	13-14	Descriptive Case-series of the Use of Kcentra™ for the Reversal of Warfarin-associated Major Bleeding
Thompson	Johanna	Washington	13-14 (AC)	A Clinical Pharmacist's Assessment of Bisphosphonate Use for Osteoporosis and Appropriateness of Long Term Therapy
Wilds	Brandon	LECOM	13-14 (Onc)	Clinical Outcomes and Risk Factors for Treatment Failure and Recurrence of <i>Clostridium difficile</i> Infections in Hematopoietic Stem Cell Transplant Patients
Wolfe	Brianne	Montana	13-14 (CC)	'Development and Implementation of a Protocol for the Treatment of Acute Massive Pulmonary Embolism
Bhakta	Zubin	TX Tech	12-13 (IM)	A Survey of the Pharmacist's Role at U.S. Cystic Fibrosis Foundation - Accredited Centers
Bowles	Harmony	New Mexico	12-13 (Onc)	Incidence of febrile neutropenia in patients with HER2 positive breast cancer receiving docetaxel, carboplatin, and trastuzumab (TCH) for adjuvant treatment
Burger	Jordan	Drake	12-13 (Admin1)	Verification of benefits for clinic and infusion medication administration
Buu	Jenni	Idaho State U	12-13 (Comm)	Improving evidence-based guideline implementation – Identifying barriers and developing a process to improve adult influenza vaccination rates and clinical guideline implementation in a community clinic setting

Ford	Ian	UoPacific	12-13	Effect of Implementation of a Barcode Medication Administration System In the Incidence of Medication Administration Errors
Fritz	Kelly	Ohio Northern	12-13	Analysis of Community-Oriented Resistance Patterns in Urinary Tract Infections for an Emergency Department at an Academic Medical Center
Gillespie	Matthew	Michigan	12-13 (Tx)	Cytomegalovirus prophylaxis with valganciclovir in kidney transplant recipients: A single-center experience
Hays	Emily	Nebraska	12-13 (AC)	Pharmacist intervention to decrease risk of hypoglycemia in older patients with diabetes mellitus
Holsopple	Megan	Creighton	12-13 (DI)	How SMART can we be? – Maximizing the use of smart pump infusion data to improve guardrail programming
Johnston	Kiersten	Utah	12-13	One-Stop Shopping: Integrating Medication Use Information into the Online Formulary at the University of Utah Hospitals and Clinics
McTish	Ryan	Georgia	12-13	Observational Study of a High Dose Heparin Protocol with Bolus in Comparison to a Bolus-free Low Dose Heparin Protocol in Brain Injured Patients with Concomitant Thrombosis
Mishra	Adya	Utah	12-13	Evaluation of acute coronary syndrome/myocardial infarction (ACS/MI) heparin drip protocols in obese patients at the University of Utah Hospital
Nguyen	Truong	UMKC	12-13 (IT)	Implementing Clinical Decision Support - Medication Dosing in Renal Impairment
Ogborn	Diane	Utah	12-13 (Comm)	Tdap Vaccination Rates in Pregnant Women through Electronic Medical Record Process Changes
Parikh	Kinjal	UNC	12-13 (Onc)	Outcomes of Metastatic Renal Cell Carcinoma Patients with Favorable Clinical and Histologic Features Treated with High-Dose Interleukin-2 Therapy
Pecoraro	Joshua	Wyoming	12-13 (Onc)	Effect of thrombocytosis on venous thromboembolism risk in pancreatic cancer patients receiving chemotherapy
Rim	Matthew	Western U	12-13 (Admin-2)	Developing a Pharmacy Benefit Management Program (Part II)
Sledge	Tyler	TX Tech	12-13 (CC)	Measuring the clinical impact of surgical intensive care pharmacists using documentation in the electronic medical record
Bailey	Erin	West Virginia	11-12 (Onc)	Opportunity to Optimize Oral Chemotherapy Outcomes: The Pharmacist's Role
Bhakta	Zubin	TX Tech	11-12	Evaluation of Prasugrel vs. High-Dose Clopidogrel in Acute Coronary Syndrome Patients
Burgeson	Mick	Colorado	11-12 (IT)	Developing a Web-Based Collaborative Information Sharing Environment
Cline	Kyle	UMKC	11-12	Comparison of the Treatment and Prophylaxis of Patients with Heparin-Induced Thrombocytopenia Prior to and Following Hospital Guideline Implementation
Ghaffarian	Sanaz	UCSF	11-12 (DI)	Reformulating the Formulary at the University of Utah Hospitals and Clinics
Hiller	Sara	UMKC	11-12 (Onc)	Evaluation of Iron Deficiency Anemia and Treatment in Cancer Patients
Parikh	Kinjal	UNC	11-12	Use of Simvastatin in Transplant Patients and the Incidence of Side Effects, and Evaluation of Efficacy
Rim	Matthew	Western U	11-12 (Admin-1)	Developing a Pharmacy Benefit Management Program
Robinson	McKay	Wyoming	11-12 (Comm)	Bridging the Gap Between FDA Safety Warnings and Patients: Are Pharmacists the Appropriate Messengers?
Sledge	Tyler	TX Tech	11-12	Evaluation of a New Hyperglycemia Protocol Across Multiple Intensive Care Units
Soni	Nimisha	Wayne State	11-12 (Tx)	Analysis of Risk Factors for the Development of Chronic Kidney Disease After Orthotopic Liver Transplant
Sorensen	Teshia	Wyoming	11-12	Development of Albumin Use Guidelines

Streeter	Jessica	New Mexico	11-12 (Onc)	Hematologic Effects of Sulfamethoxazole/Trimethoprim and Dapsone for Pneumocystis jiroveci Pneumonia Prophylaxis in Patients with Glioblastoma Multiforme Receiving Concomitant Temozolomide and Radiation
White	Jacob	Utah	11-12 (CC)	Evaluation of Administration Rate of 23.4% Sodium Chloride on Duration of Intracranial Pressure Control
Bailey	Erin	West Virginia	10-11	Clinical outcomes of MRSA bacteremia treated with vancomycin: Assessing the utility of vancomycin trough serum concentrations and AUC ₂₄ /MIC
Carlson	Adrian	North Carolina	10-11 (Tx)	Analysis of Rabbit Antithymocyte Globulin Induction Therapy in Elderly Kidney Transplant Patients
Filtz	Michael	Maryland	10-11 (Onc)	Feasibility, Justification and Clinical Development of a Hospice Care Program
Gebarski	Matt	U Michigan	10-11 (IT)	A Comparison of Medication Order Error Rates in a Neonatal Intensive Care Unit Before and After Computerized Prescriber Order Entry Implementation
Ghaffarian	Sanaz	UCSF	10-11	Antiplatelet Therapy Versus Anticoagulation in Patients with Cervical Artery Dissection
Giouroukakis	Mary	New York	10-11 (DI)	Descriptive Case-Series of the Treatment and Prophylaxis of Patients with HIT at University of Utah Hospital
Hatch	Heather	Utah	10-11	Evaluation of Adherence to Thienopyridines After Discharge from University of Utah Hospital Cardiovascular Medicine Unit
Katzourakis	Michael	Utah	10-11 (Admin)	Impact of CPOE decision support on IV to PO medication interchange initiative: Assessing quality and cost
Hiller	Sara	UMKC	10-11	Evaluation of Peri-procedural Anticoagulation in Patients Undergoing Atrial Fibrillation Ablation
Prazak	Ann Marie	Houston	10-11 (CC)	Evaluation of the Efficacy and Safety of a Dexmedetomidine Protocol
Stenehjerm	David	Minnesota	10-11 (Onc)	Factors affecting clinical response to tyrosine kinase inhibitors in chronic myeloid leukemia
Votroubek	Nathan	U Iowa	10-11	What are the Underlying Causes of Resistance to Erythropoiesis Stimulating Agents?
Williams	Kali	Wisconsin	10-11 (Onc)	Clinical outcomes of rasburicase administration in tumor lysis syndrome: A retrospective cohort study
Alwan	Michael	Butler	09-10 (Admin-2)	Evaluation of workflow before and after implementation of computerized provider order entry (post-implementation)
Filtz	Michael	Maryland	09-10	Evaluation of 14.6% NaCl for the Treatment of Increased Intracranial Pressure in Traumatic Brain Injury
Mahmoudjafari	Zahra	Missouri	09-10 (Onc)	Correlating electrolyte abnormalities with hematopoietic recovery following myelosuppressive chemotherapy
MacDonald	Elyse	Creighton	09-10 (DI)	Drug Shortages Impact on Patient Safety
Miars	Laura	Butler	09-10 (Onc)	Comparative toxicities of 2 high-dose IL-2 treatment doses at Huntsman Cancer Hospital
Milne	Nikki	Utah	09-10	Evaluation of the Appropriateness of Bisphosphonate Therapy Using the FRAX Calculator
Prazak	Ann Marie	Houston	09-10	Evaluation of the cardiothoracic surgery heparin protocol at the University of Utah Hospital
Simons	Heidi	Montana	09-10 (CC)	Evaluation of Cardiac Arrest Documentation in an Academic Teaching Hospital with Pilot Implementation of Electronic Cardiac Arrest Documentation
Stenehjerm	David	Minnesota	09-10	Effects of P-glycoprotein Modulators on Acute Epileptic Events
Wagstaff	Dustin	USN	09-10 (CC)	Surgical ICU Nurse-Owned Wake-up, Extubate and Discharge: (SNOWED) Trial
Williams	Kali	Wisconsin	09-10	A Retrospective Dose-finding Study of Hydroxyurea for Leukocytoreduction in Myelogenous Leukemia
Alwan	Michael	Butler	08-09 (Admin-1)	Evaluation of workflow before and after implementation of computerized provider order entry (pre-implementation)
Burt	Lauren	U Florida	08-09 (Onc)	Vitamin Deficiencies in Anemic Cancer Patients
Dryer	Megan	Utah	08-09	Medication Use Evaluation of Intravenous Acyclovir for Suspected Viral Encephalitis
Kenyon	Nicole	Midwestern IL	08-09 (Tx)	Evaluation of a transplant specialty pharmacy service line on renal allograft function and survival

Mason Myers	Russell Kathryn	UC San Diego U Conn	08-09 08-09 (CC)	Visual Compatibility of Intravenous 3% Hypertonic Saline Hospital-wide Evaluation of Off-Label Use of Recombinant Activated Factor VII
Ngo	Nolan	U of Iowa	08-09 (Onc)	Efficacy Assessment of Current Antiemetic Regimens for Chemotherapy-Induced Nausea and Vomiting at the Huntsman Cancer Institute
Simons	Heidi	Montana	08-09	Implementation of an Enoxaparin Dosing Protocol for Venous Thromboembolism Prophylaxis in Obese Surgical Intensive Care Unit Patients
Walker	Amanda	Kansas	08-09	Evaluation of Combined Warfarin and Antiplatelet Use at the University of Utah Thrombosis Center and Community Clinics
Walraven	Carla	New Mexico	08-09	Evaluation of the diagnostic and therapeutic management of CA-MRSA SSTIs in the emergency department
Winslow	Roger	USN (NV)	08-09 (Admin)	Breakeven Analysis of a Proposed Pharmacy Discharge Prescription Medication Reconciliation Program
Lin	Hsin	Northeastern	07-08 (CC)	The Early Use of Intravenous Neostigmine for the Prevention of Barbiturate-induced Ileus and Necessity for Parenteral Nutrition in Neurosurgical Patients in Barbiturate Coma
Gallegos Truax	Amanda Crystal	Utah Drake	07-08 07-08 (Tx)	Cystic Fibrosis Quality Improvement Study Impact of reduced-dose mycophenolic acid therapy on the incidence of renal transplant rejection and graft loss in corticosteroid withdrawal patients
Shipley	R. Wayne	Creighton U	07-08 (CC)	A Monte Carlo Simulation of Piperacillin-Tazobactam in Critically Ill Patients with Pseudomonas Aeruginosa
Myers	Kathryn	U Conn	07-08	Electrolyte Replacement Protocol Design and Assessment in the ICU Setting
Miles	LeeAnn	Utah	07-08	Comparison of Indomethacin and Ibuprofen in Neonates with Patent Ductus Arteriosus
VanDemark	Kimberly	Wisconsin	07-08	Conversion of chronic hemodialysis patients from intravenous erythropoietin alfa to intravenous darbepoetin alfa
Ponce	Paola	Kansas	07-08	Establishing Optimal Dosing of Intravenous Amiodarone in the Treatment of New Onset Atrial Fibrillation for Postoperative Surgical Patients
Sanders	Stephanie	Ferris State U	07-08 (Onc)	Establishing and Outpatient Anticoagulation Clinic for Oncology Patients
Lampas	Mary	Purdue	07-08 (Onc)	Assessment of Appropriate Vancomycin Use in Neutropenic Patients
Sanders	Tom	Ferris State U	07-08 (DI)	Building a Better Drug Budgeting System: A Survey and Assessment
Winslow	Roger	USN (NV)	07-08 (Admin)	The Financial Impact of Pharmacy Specialty Billing Services
Au	Cam	Utah	06-07	Insulin availability in a parenteral nutrition solution
Au	Lara	Utah	06-07 (Onc)	Analysis of anticoagulation practices in multiple myeloma patients treated with thalidomide and dexamethasone
Canann	David	Midwestern AZ	06-07	Drug compatibility during Y-site infusions
Condie	Chad	Utah	06-07	Drug compatibility during Y-site infusions
Dang	Kim	Utah	06-07 (CC)	Levothyroxine infusions in the setting of shock and its effects on hemodynamic stability
Draper	Leslie	Utah	06-07	Venous thromboembolism prevention in the morbidly obese medically ill patient: A pharmacological analysis of the predictability of prophylactic weight-based enoxaparin dosing
Kantesaria	Pranish	Massachusetts	06-07 (Admin)	Improved patient outcomes in a pharmacist managed anemia clinical at Huntsman Cancer Hospital
Lingenfelter	Erin	Ohio Northern	06-07 (CC)	The management of sepsis and septic shock in the SICU of the University of Utah Hospitals and Clinics
Masck	Mary	Purdue	06-07	The role of D-ribose in patients diagnosed with fibromyalgia
Truax	Crystal	Drake	06-07	Evaluation of the drug interaction between low-dose fluconazole and tacrolimus in renal transplant patients
Brooks	Tyson	Wyoming	05-06 (IM)	Exacerbation rates associated with non-selective vs. B1 selective beta-blocker use in patients with asthma or chronic obstructive pulmonary disease
Burns	Shauna	Mercer	05-06 (Onc)	Impact of cytokine prophylaxis on patients receiving moderately myelosuppressive chemotherapy regimens

Dang	Cathyen	Utah	05-06 (CC)	Intensive insulin therapy in critically ill surgical patients: evaluation of outcome benefit of tighter glucose control
Gilreath	Jeffrey	Wisconsin	05-06	Developing a collaborative practice agreement between pharmacists and oncologists to manage erythropoietic growth factor therapy for oncology patients in a pharmacist run ambulatory oncology center
Ho	Mei-Jen	Rutgers U	05-06 (IT)	Economic benefits of self-managed pharmacy benefit manager in a large academic hospital
Kantesaria	Pranish	Massachusetts	05-06	Retrospective analysis of Cinacalcet use in renal transplant patients at an academic medical center
Nighorn	Katie	Wisconsin	05-06	Efficacy of a pharmacist managed hypertension service
Roberts	Keri	Northeastern	05-06 (Tx)	Impact of a rapid steroid withdrawal protocol on height and weight outcomes in pediatric renal transplant recipients
Sederholm	Benson	Utah	05-06	Pharmacist managed hyperlipidemia care versus usual care for patients with dyslipidemia in a UUHCS community clinic setting
Smith	Lara	Utah	05-06	Evaluation of venous thromboembolism prophylaxis in medically ill oncology patients
Allard	Jill	Nebraska	04-05	Retrospective Review of Steroid Withdrawal in Renal Transplant Patients
Howarth	Shannon	UNC	04-05	Improving Immunization Rates for Inpatients at UUHC
Neyens	Ron	So Dakota	04-05	Intensive Insulin Therapy in Burn Trauma Patients
Puett	Heather	UNC	04-05	Workplace Contamination with Antineoplastic Agents in a new Cancer Hospital Using a Closed Drug preparation System
Wohlt	Paul	Wisconsin	04-05	Outpatient Management Protocol for Venous Thromboembolic Disease
Bohm	Nicole	Florida	04-05 (IM)	Appropriateness of Fluoroquinolones as Empiric Therapy for Nosocomial UTIs
Ludwig	Kyle	St. Louis CoP	04-05 (CC)	Ventilator-Associated Pneumonia: A Retrospective Look at the Pharmacological Management in the SICU
Mills	Kyle	Wyoming	04-05 (IM)	Asthma Medications and their association with Symptomatic Gastroesophageal Reflux
Wilkinson	Joey	Wyoming	04-05 (Tx)	Retrospective Review of BK Nephropathy in a Renal Transplant Population
Aggers	Patricia	Idaho State	03-04	Review of Efficacy and Safety of Valganciclovir for CMV Prophylaxis in Adult Renal Transplant Recipients
Beaumont	Cody	Michigan	03-04	Investigation of the Venous Thromboembolism (VTE) Prophylaxis in Patients at our Rehabilitation Unit
Buchanan	Christie	PCP	03-04(Tx)	Assessing the pharmacokinetics of MMF by bound and free levels of MPA and MPAG in Renal Failure
Christensen	Russell	Utah	03-04 (IM)	The Predictability of Antibiotic Sensitivities Based on the Urine Analysis Nitrite Test
Gebhart	Benjamin	Drake	03-04 (CC)	Sedation Management in a Surgical Intensive Care Unit
Hermansen	Erica	Utah	03-04 (PC)	Evaluation of pharmacist vs physician anticoagulation management in a family medicine residency clinic
Jefferies	Kristen	Utah	03-04	The Impact of a Pharmacist initiated medication History on Patient Satisfaction and Accuracy of Medications Ordered
Kay	Brent	Utah	03-04	Evaluation of Medication Ordering for University Hospital
Wilkinson	Joey	Wyoming	03-04	Describing the Usage Patterns, Reimbursement Rates, Acquisition Costs and Efficacy of Epoetin alfa and Darbepoetin at the Huntsman Cancer Institute
Dell	Kamila	UNC	02-03 (CC)	Medication propensity to clog nasoduodenal feeding tubes
Feddema	Sarah	U of Wyoming	02-03 (DI)	Evaluating Online Formulary Vendors for a University Hospital
Gebhart	Benjamin	Drake	02-03	Glucose control using a standardized sliding scale insulin protocol in a surgical intensive care unit
McDevitt	Lisa	Nebraska	02-03 (Tx)	Evaluating the Benefit of aggressive anemia treatment in renal transplant patients
Scott	Amy M	Idaho State	02-03	Inpatient utilization of erythropoietin and darbepoetin: improving treatment of anemia
Skordos	LeAnne	Utah	02-03	Evaluation of the Venous Thromboembolism prophylaxis in medical patients
Strain	Joe	South Dakota	02-03	Health Care Screening at University Hockey Games

VanBeuge	Derrick	Idaho State	02-03	Retrospective Analysis of anemia and associated cardiovascular and renal allograft complications post primary renal transplant
Dell	Kamila	UNC	01-02	Evaluation of a Heparin Nomogram
Fakata	Keri	Nebraska	01-02	Sirolimus inhibitions of P-Glycoprotein: a Possible Mechanism for increased Nephrotoxicity with concomitant use with Cyclosporin
Feddema	Sarah	U of Wyoming	01-02	Physical Compatibility of Vasopressin with Commonly Used Medications in Cardiac Arrest
Moaleji	Norwan	Colorado	01-02	Assessment of Cholesterol Treatment in a Family Medicine Clinic: Are we at goal with NCEPIII
Peterson	Dave	Utah	01-02 (DI)	Improving Documentation During Codes: A Process Improvement Project
Sundberg	Aimee	U of Wisconsin	01-02 (Tx)	Opinions of Pediatric Renal Transplant Patients about Switching from Cyclosporine to Tacrolimus
Wick	Catherine	U Washington	01-02	Evaluation of Surface and Personnel Cytotoxic Contamination at the Huntsman Cancer Institute
Carter	Orly	U of Utah	00-01 (PC)	A Multidisciplinary Approach to Hypertension Management: Utilizing a Pharmacist as an Education Provider in a Family Medicine Clinic
Chalverus	Carrie	U Washington	00-01	Surfactant Adverse Outcomes Monitor: A Comparison of Infasurf vs. Survanta
Crompton	Jason	Philadelphia	00-01 (Tx)	Impact of Basiliximab Induction Therapy in Adult Living Renal Transplants
Dalpiaz	Anthony	U of Montana	00-01 (DI)	Outcome Evaluation of Combination High Dose Daily interferon Alfa Plus Ribavirin in Patients with Hepatitis C
Davis	Lynn	U of Florida	00-01	Estimation of Creatinine Clearance between Aminoglycoside Pharmacokinetics, Cockcroft-Gault, and Jelliffe Methods in Critically Ill Patients
Sundberg	Aimee	U of Wisconsin	00-01	Opinions of Pediatric Renal Transplant Patients about Switching from Cyclosporine to Tacrolimus
Crompton	Jason	Philadelphia	99-00	Development of a Fail-Safe Medication Error Prevention System in Cancer Chemotherapy
Dalpiaz	Anthony	U of Montana	99-00	Treatment of Myofascial Trigger Point Pain with Topical Lidocaine Patches
Fox	Erin	U of Utah	99-00 (DI)	Assessing the Cost Savings of a Pharmacy-Administered IV to PO Interchange Program
Johnson	Stephanie	Creighton U	99-00	Assessing the Impact of Switching Maintenance Immunosuppression from Cyclosporin to Tacrolimus in Rediatric Renal Transplant Patients
McGee	Kelly	U of Cincinnati	99-00 (PC)	Homocysteine Reduction in a Geriatric Clinic Population: Effectiveness of Multivitamin Supplements
Raap	Jonathon	U of Texas at Austin	99-00	Movement Toward Becoming an Integrated Health Delivery System: Initiation of Pharmacy Services in a Primary Care Clinic
Grahmann	Paula	Texas at Austin	98-9	Analysis of Pain Clinicians' Perceptions of Opioid Use in Chronic Non-malignant Pain
Martin	Andrew	Ferris State U	98-9 (DI)	Developing a Drug Evaluation Process
Panjwani	Nooruddin	Texas at Austin	98-9	Treatment of Post-Ictal Vascular headaches with Intra-Nasal Sumatriptan (Imitrex)
Smith	Lonnie	Tennessee	98-9	Prophylactic Low Dose Fluconazole after Primary Renal Transplantation
Voytilla	Krista	U of Pittsburgh	98-9	Compatibility of Dolasetron with Commonly Used Post-Surgical Drugs During Y-Site Delivery
Wellman	Melinda	Utah	98-9 (PC)	Assessing Medication prescribing Appropriateness, Patient Educational Needs and Compliance in Ambulatory Family Medicine Patients: A Descriptive Study
Bearden	David	U of Illinois	97-8	Evaluation of Amiloride Use with Amphotericin B in the Oncology Patient
Mathiason	Mark	Creighton	97-8	A Three Year Retrospective Survey of Yeast Isolates Compared to Fluconazole Use in a University Hospital
Nguyen	Long	Houston	97-8	Evaluation of Patient's Satisfaction Utilizing Telepharmacy to Deliver Pharmaceutical Care
Phillips	Mark	Idaho State	97-8	An Assessment of Hyperlipidemia in HIV Patients Treated with Protease Inhibitors

Wetzstein	Gene	N.Dakota State	97-8	The Impact of a Clinical Event Management System on Pharmacy Services in a University Medical Center
Brumfield	Lauren	MCV	96-7	Effect of Administration Sets and Volumes on the Delivery of Gentamicin to Low-Birth-Weight Infants
Salverson	Sandra	U of Illinois	96-7	Using Telemedicine as a Tool to Implement Pharmaceutical Care in Remote Ambulatory Setting
Mullin	Shantel	Idaho State U	96-7 (DI)	Computerizing Drug Information Services- External Survey and Internal Evaluation
Shah	Hetal	Rutgers U	96-7	Assessment of Clinical Outcomes Utilizing Predicted Carboplatin AUC in Autologous Bone Marrow Transplant (ABMT) Patients Treated with a Stamp V Regimen
Vaezi	Liza	Creighton U	96-7	Application of a Multi-Attribute Utility Theory (MAUT) Model to Select Agents for Use in ICU Sedation
Hutchings	Steven	Idaho State U	95-6	Y-Site Physical Compatibility of Cefmetazole with Other Commonly Used Drugs
Johnson	Melissa	St Louis U	95-6	Evaluation of Current Serotonin Antagonist Use in Chemotherapy Treated Patients
Mullin	Shantel	Idaho State U	95-6	Assessing the Use of an Emesis Questionnaire for Monitoring Chemotherapy and Antiemetic Outcomes in Ambulatory Oncology Patients
Rubingh	Carla	U of Nebraska	95-6	Therapeutic Interchange by Pharmacists: Outcomes in an Ambulatory Care Clinic
Albright	Lisa	U of Nebraska	94-5	Evaluating Inpatient and Outpatient Allergy Documentation in a University Hospital Setting
Cerveney	Joli	U of Nebraska	94-5 (HIV)	Using Pharmaceutical Manufacturer Support to Fund an HIV Residency Program at University Hospital
Furniss	Shawn	Idaho State U	94-5	Indomethacin vs Surgical Ligation for the Treatment of Patent Ductus Arteriosus- A Retrospective Chart Review
Loeffelbein	Robert	U of Nebraska	94-5	A Comparison of Parenteral Nutrition Solution Osmolarity and Loss of Peripheral Venous Access in Neonates
Muncey	Lance	Idaho State U	94-5	Implementation and Evaluation of New American Diabetes Association Standards of Care for the Diabetic Patients in a Family Practice Clinic
Portley	Bonnie	Idaho State U	94-5	The Effect of Osmolality on Feeding Tolerance in the Preterm Neonate
Andrews-Boudreaux	Stacey	Idaho State U	93-4	Evaluation of Depression in the Elderly Using the Geriatric Depression Scale
Cerveney	Joli	U of Nebraska	93-4	Evaluation of a Pharmacist's Role During Cardiac Arrest
DiGregorio	Vicky	UC SF	93-4	Evaluating the Accuracy of Medical and Drug Histories in Russian Patients' Charts- An Evaluative Study
Grunden	John	U of Utah	93-4 (DI)	Evaluation of an Electronic Formulary
Najari	Zohre	U of Arizona	93-4	Y Site Physical Compatibility of Common BMT Drug Combos
Beckwith	Christina	U of Utah	92-3 (DI)	Surveying Former Drug Information Residents for Career Aspirations
Cafee	Anne	U of Florida	92-3	Pharmacist Counseling when a Sample Medication is Dispensed
Davis	Gary	U of Arizona	92-3	Evaluation of Transdermal Nicotine Replacement Therapy in the Outpatient Population - an Evaluative Study
Kelsey	Julie	U of the Pacific	92-3	First Dose Gentamicin Pharmacokinetics in Obstetric Patients
Moser	Lynette	U of Illinois	92-3	Pharmacist Participation in an Established Hyperlipidemia Clinic- A Descriptive Report
Dwinell	Andrea	U of Minnesota	91-2	Patient Compliance with Prescription Filling After Discharge from the Emergency Department
Robinette	Bryan	Tennessee	91-2	Physical Compatibility of Ceftazidime Sodium, and Methylprednisolone Sodium Succinate with Secondary Intravenous Agents via Simulated Y-Site Injection