

**St. Michael's Hospital Pharmacy Residency Program:
Target Levels and Ranges for Resident Performance**

Background

In 2010, pharmacy residency programs across Ontario starting moving towards a competency-based framework for resident assessment as mandated by Canadian Hospital Pharmacy Residency Board (CHPRB) 2010 Accreditation Standards. This meant that residents would now be assessed against pre-defined knowledge, skills and attitudes as they pertain to the standards set forth as compared to the previous assessment system where the residents would simply complete a series of rotations and projects. In order to fully evaluate performance in a competency-based framework, it is essential to have a standard accepted definition of end performance. This equates to the targeted level of performance across a range of knowledge/skills and attitudes that the resident strives for at the end of his/her training. To this end, a Levels and Ranges document (L&R) has been developed to assist preceptors in referencing a common end point against which they can evaluate resident performance.

The content of this L & R document was adapted from various previous documents and supplemented by local clinical and coordinating experience. The following documents were used as references to create a base template for performance standards:

- Canadian Hospital Pharmacy Residency Board 2010 Accreditation Standards
- Canadian Hospital Pharmacy Residency Board 2009 Workshop Proceedings Levels and Ranges Document
- Association of Faculties of Pharmacy of Canada (AFPC) Levels of Performance Expected of Students Graduating from First Professional Degree Programs in Pharmacy in Canada
- National Association of Pharmacy Regulatory Authorities (NAPRA) Professional Competencies for Canadian Pharmacists at Entry to Practice
- University of Toronto, Doctor of Pharmacy Program
- St. Michael's Residency Program Longitudinal Assessment Rubric.

Methods

In developing the St. Michael's Hospital L&R document, the residency coordinators collected and compared competencies and standards of practice from CHPRB, AFPC, and NAPRA as well as previously established performance indicators in the St. Michael's Hospital Residency Program. The residency coordinators abstracted common themes around competencies from these sources. A range (breadth) of knowledge, skills, and attitudes consistent with competent performance for a graduating pharmacy resident was established for each of the CHPRB residency Accreditation Standards (Standards 3.1 to 3.6). In addition, examples of "Expected Performance", "Above Expected Performance", and "Below Expected Performance" were written to define the level of performance consistent with each competency. These levels of performance were adapted from previously established descriptions by CHPRB and reflect input from SMH staff, and the longitudinal, direct patient care, and non-direct patient care residency evaluation forms.

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3.1 Provide Direct Patient Care as a Member of Inter-professional Teams: The resident shall be proficient in providing evidence-based direct patient care as a member of an interprofessional team.

Range: The resident works collaboratively to manage common drug-related problems in a reasonable workload of patients with uncomplicated and complicated medical issues with minimal supervision from preceptors. The resident provides pharmaceutical care to patients with common and stable disease states with a few active (non-critical) issues. For uncommon drug related problems the resident self-identifies any supports required to assist in their provision of patient care. S/he works collaboratively within interprofessional teams and recognizes his/her own role, limitations, and responsibilities.

Below Expected Performance	Expected Performance Upon Completion of the Residency Program	Above Expected Performance
<ul style="list-style-type: none"> • Inconsistently, inaccurately, or unable to independently: <ul style="list-style-type: none"> - gather or obtain critical information from available resources - utilize a framework to identify and/or prioritize all drug related problems - establish goals, endpoints and outcomes of therapy - consider all alternatives to manage drug-related problems - select and defend an appropriate management strategy for drug related problems - resolve drug-related problems in a timely manner - monitor drug therapy outcomes without prompting - appraise primary literature as needed and demonstrates an over-reliance on tertiary references when developing care plans - communicate medication issues or care plans with prescribers and/or patients without prompting - intervene with patients, caregivers, and/or care team to resolve or prevent actual or potential issues without prompting - revise care plans based upon new information - provide continuity of care (i.e. provides patient hand-over when a patient is transferred to another floor) without prompting - document in a professional and timely manner - perform comprehensive Medication Reconciliation - assume less than 50% of a typical pharmacist's work load • Unable to identify patients who would obtain greatest benefit from pharmacist care • Does not work collaboratively and effectively as an interprofessional team member • Prioritizes own interests above those of the patient 	<ul style="list-style-type: none"> • Consistently, accurately, and independently: <ul style="list-style-type: none"> - gathers critical information from all appropriate sources with proficiency and efficiency - utilizes a framework to accurately identify and prioritize all relevant drug related problems - determines appropriate goals, endpoints and outcomes - considers all alternatives to manage drug related problems - selects and defends an appropriate management strategy for drug related problems - provides timely and effective resolution of drug related problems - proactively monitors drug therapy outcomes - analyzes patient information, uses critical appraisal of literature to design a care plan that is appropriate and reflects current standards of practice - proactively communicates medication issues to the prescriber and/or patient and makes recommendations to resolve the issues - proactively intervenes with the patient, caregivers, and/or immediate care team to resolve or prevent actual or potential issues - revises care plans based upon new information - provides continuity of care (i.e., provides patient hand-over when a patient is transferred to another floor) - documents care provided in a professional and timely manner - performs comprehensive Medication Reconciliation - assumes 50% of typical pharmacist's work load • Consistently and independently selects appropriate patients for care and provides appropriate depth of care • Works respectfully, cooperatively and collaboratively with other health care providers in the provision of direct patient care • Consistently demonstrates a professional, patient-centered, team-oriented approach • Consistently places the patient's interests and needs above their own 	<ul style="list-style-type: none"> • Consistently surpasses the expectations of their role to meet the patient's needs • Seeks additional patient care opportunities • Intervenes beyond the immediate care team to resolve continuity of care issues or drug-related problems (e.g., liaising with team members from a transferring healthcare organization) • Brings unique perspectives to critical evaluation of literature • Independently reviews and applies the literature and consults with specialists as needed to address complex drug-related problems • Able to carry greater than 50% of a typical pharmacist's workload • Able to manage patients with unstable complex medical conditions • Improves interprofessional team dynamics by actively encouraging the team to increase collaboration, communication and patient-centered care

3.2 **Manage and Improve Medication Use Systems:** The resident shall demonstrate a working knowledge of medication use system(s) as well as pharmacy and other care provider roles within the system, in order to manage and improve medication use for individual patients and groups of patients.

Range: The resident understands and effectively explains all aspects of drug distribution (dispensing, distribution, and production), system integration and types of technology utilized at the institution (e.g. automation, information management, CPOE). S/he is able to explain the importance and relevance of drug distribution to patient care and identify gaps in the system. S/he can describe safety and quality improvement measures built into the medication system. The resident collects all necessary information to accurately assess and process simple and/or common (e.g., pre-printed order sets that are utilized on a daily basis) medication orders independently. The resident problem solves and recognizes when additional support is required. The resident appropriately manages medication system related problems (e.g., missing medications, formulary management, administration time issues, etc) in order to optimize patient care. S/he is able to compare and contrast the roles of the pharmacist, pharmacy technician, pharmacy assistant, MD and RN in the medication use system as well as identify opportunities for collaboration within the team.

Below Expected Performance	Expected Performance Upon Completion of the Residency Program	Above Expected Performance
<ul style="list-style-type: none"> • Provides inaccurate or incomplete explanations of drug distribution systems within the health care organization, thereby resulting in incorrectly written orders, delayed access to medications, or medication errors. • Unable to clearly explain elements of safe medication system in accordance with the practices and policies of the institution (e.g., preparation of sterile products, narcotic and controlled drug management, etc) • Unable to clearly explain opportunities for quality improvement in the medication system (e.g., informatics related tools, preprinted order sets, etc). • Unable to consistently assess prescriptions for accuracy, appropriateness and adherence to the institution's policies and practices • Inaccurately or incompletely processes, validates and dispenses orders to the institution standards for a defined subset of patients in clinical rotation area • Unable to comprehensively apply systems knowledge to solve patient-level medication system related problems • Lacks awareness or provides inaccurate descriptions of the role of pharmacists and other healthcare providers within the drug distribution system 	<ul style="list-style-type: none"> • Clearly and comprehensively describes the components & operations of the drug distribution system and medication prescribing processes within the health care organization • Clearly explains elements of safe medication system in accordance practices and policies of the institution (e.g., preparation of sterile products, narcotic and controlled drug management, etc) • Clearly explains opportunities for quality improvement in the medication system (e.g., informatics related tools, preprinted order sets, etc). • Consistently assesses prescriptions for accuracy, appropriateness and adherence to the institution's policies and practices • Processes, validates and dispenses orders to institution standards for a defined subset of patients in clinical rotation areas • Consistently and comprehensively applies principles of medication systems knowledge to solve patient-level medication system related problems. • Describes clearly the role of pharmacists and other healthcare providers in the drug distribution system 	<ul style="list-style-type: none"> • Independently applies knowledge of the drug distribution system and prescribing process to solve patient-level medication system related problem and to improve efficiency and effectiveness of health care delivery • Consistently identifies and responds to safety risks and provides recommendations to prevent future occurrences • Identifies and responds to areas for improvement in the drug distribution system • Identifies gaps in current policies related to drug distribution and recommends alternatives • Participates in quality assurance / quality improvement projects to enhance the medication distribution system

3.3 Exercise Leadership: The resident shall apply leadership and management skills to contribute to the goals of the program, department, organization, and profession.

Range: The resident understands change and the need for change within the institution, interprofessional teams, and the pharmacy department. The resident applies his/her understanding of administration knowledge including human resource knowledge, governance knowledge, operational knowledge, strategy knowledge, etc to a simple defined administrative problem. S/he demonstrates professional advocacy and leadership skills within the pharmacy department, institution, and profession. The resident adheres to professional and ethical standards when working through all professional situations.

Below Expected Performance	Expected Performance Upon Completion of the Residency Program	Above Expected Performance
<ul style="list-style-type: none"> • Unable to articulate the difference between leadership and management • Adopts an unprofessional, apathetic or negative stance towards issues within the organizational structures responsible for delivery of pharmacist services, or the health care organization or pharmacy profession rather than providing future-oriented, constructive proposals for change management • Even with assistance and guidance, is unable to address administrative problems to a satisfactory outcome • Demonstrates a lack of leadership by <ul style="list-style-type: none"> - being unable or unwilling to promote the practice of pharmacy, the role of pharmacists, or pharmacy practice residencies to the public, students, or other healthcare professionals - being unable to or requiring much assistance to carry out small projects to a designated endpoint • Displays questionable ethics and/or acts in opposition to professional standards in any aspects of his/ her role 	<ul style="list-style-type: none"> • Articulates the difference between management and leadership • Effectively and articulately responds to individuals opposing pharmacy-specific practices and policies • With assistance and guidance, is able to address administrative problems by: <ul style="list-style-type: none"> - effectively understanding and assessing the problem at hand - articulating alternatives and constructive proposals for resolution • Demonstrates leadership by: <ul style="list-style-type: none"> - articulating a personal statement or philosophy of practice, appropriate to diverse audiences - establishing professional relationships with other team members - actively participating as a member of professional associations - leading smaller projects to a designated endpoint with only minimal amounts of assistance • Upholds ethical principles and professional standards in all aspects of his/ her role 	<ul style="list-style-type: none"> • Independently and appropriately offers opinions and suggestions for pharmacy profession advancement • Effectively manages complex situations/ administrative problems by applying ethical and reflective practice skills • Effectively implements or resolves most administrative problems with minimal assistance • Seeks out additional opportunities for leadership development

3.4 Exhibit Ability to Manage One’s Own Practice of Pharmacy: The resident shall apply skill in the management of his/her own practice of pharmacy, to advance his/her own learning, to advance patient care, and to contribute to the goals of the program, department, organization, or profession.

Range: The resident accurately self-assesses and responds to practice demands and practice-related learning needs and ultimately takes responsibility for his/her own learning and professional development. The resident demonstrates effective time- and resource-management skills to allow him/her to balance multiple competing demands while achieving set objectives. The resident accurately self-assesses his/her contributions to and actively participates in initiatives to improve patient care, the pharmacy department, the institution, and the profession.

Below Expected Performance	Expected Performance Upon Completion of the Residency Program	Above Expected Performance
<ul style="list-style-type: none"> • Incompletely articulates and develops personal learning goals, objectives, and outcome indicators for success • Unable to identify own limitations • Routinely does not improve behaviour based on feedback • Relies on preceptors and others for own learning • Does not engage in effective self-assessment and reflective practice • Is unreliable, unaccountable and/or dishonest • Does not consistently exhibit responsible and independent behavior • Demonstrates poor sense of responsibility , poor time and resource management skills resulting incompletion of assigned tasks within an appropriate and timely manner • Does little to contribute to the mission, vision or goals of the department, the institution and the profession and minimally participates even when guided to do so 	<ul style="list-style-type: none"> • Develops personal learning goals and objectives along with clear outcome indicators for success • Effectively and accurately self-assesses practice-related learning needs and responds to practice demands as a foundation for planning continuous professional development with guidance • Generally aware of own limitations. Regularly seeks feedback and acts to improve behaviour • Takes responsibility for own learning • Consistently engages in effective reflective practice and applies this to personal learning • Displays a good sense of responsibility and independence: manages time, responsibilities, and priorities in an appropriate manner in order to complete tasks to an acceptable level in an appropriate time frame • Contributes to the mission, vision or goals of the department, the institution and the profession and participates when guided to do so 	<ul style="list-style-type: none"> • Articulates a professional development plan based upon a comprehensive self- and peer-assessment process • Independently and regularly self-evaluates personal contributions to advance professional development in diverse practice settings • Seeks out and creates opportunities to contribute to the mission, vision or goals of the department, the institution and the profession

3.5 Provide Medication and Practice-Related Education: The resident shall effectively respond to medication and practice-related questions, and provide education to others.

Range: The resident provides systematic drug reviews and presents practice-related content (including practice cases, critical appraisals, therapeutic controversies, etc). S/he responds to drug information questions which require synthesis of information from multiple resources providing a response in a timeframe that meets the clinicians' needs. The resident tailors information and education with detail appropriate for the audience. The resident creates appropriate documentation for all medication and practice-related education. S/he enthusiastically engages in teaching peers effectively. The resident provides meaningful direct instruction, coaching, facilitation, and modeling to student pharmacists and other healthcare providers.

Below Expected Performance	Expected Performance Upon Completion of the Residency Program	Above Expected Performance
<ul style="list-style-type: none"> • Requires assistance to obtain adequate detail on initial contact for DI requests • Assistance is required to establish the underlying clinical question • Unable to produce an adequate and accurate response to DI questions due to inefficient use of resources (e.g., wrong sequence of resources), inability to recognize when insufficient or excessive information is presented • Provides information or responses that are inaccurate, ambiguous or lacking justification • Requires assistance with critical appraisal for common types of drug literature • Presentations do not meet the learning needs of the audience • Sets unsuitable learning objectives/goals for audience or content of presentation does not match with learning objectives/goals • Demonstrates poor verbal and written communication skills • Needs prompting or considerable assistance in conducting any of the four roles of teaching 	<ul style="list-style-type: none"> • Gathers adequate information upon initial contact to be able to fully answer the underlying drug information request • Able to consistently produce comprehensive and accurate responses to DI questions by: <ul style="list-style-type: none"> - independently determining the underlying clinical question (DTP's) and identifying appropriate references to use - independently retrieving, analyzing and synthesizing information in an organized manner with appropriate justification • Able to independently critically appraise common types of drug literature • Able to design and deliver presentations that: <ul style="list-style-type: none"> - are in line with the learning needs of the audience and prepares appropriate learning objectives and goals - employ an optimal mode of teaching/content dissemination (lecture/workshop/ small group seminar) and contain appropriate level of content in an organized & effective manner to meet learning objectives • Effectively creates and/or utilizes adjunctive tools and documentation (e.g. slides, AV supports, handouts) in a manner that enhances message delivery and learning • Demonstrates effective verbal and written communication skills • Independently conducts direct instruction sessions in a manner that conveys the defined learning objectives of the session utilizing an appropriate format • Instructs pharmacy students and other pharmacy personnel on relevant therapeutic topics while on clinical rotations with assistance • Facilitates pharmacy student small group seminar sessions at a junior student level with assistance • Independently models pharmacy skills and professional behaviour to junior pharmacy students • Coaches junior pharmacy students with assistance 	<ul style="list-style-type: none"> • Identifying when follow-up might be required from completed drug information requests • Recognizes controversial issues and clearly articulates limitations of evidence • Provides practical supplemental information tailored to the audience (e.g., handout with supplemental information) • Presentations are enhanced by superior use of presentation aides / education techniques and are evidence-informed • Exhibits superior writing skills • Seeks out or creates opportunities to employ and refine teaching skills in any of the four domains • Conducts the four teaching roles independently

3.6 **Demonstrates Project Management Skills** - The resident shall use effective project management skills to undertake, conduct, and successfully complete a project related to pharmacy practice.

Range: The resident can identify a practice-based problem or issue, generate a proposal to address it, develop appropriate methodologies, and exhibit effective data gathering and analyzing skills. For research projects, the resident can navigate the Research Ethics Board (REB) process and requirements. The resident completes a written report in a format suitable for dissemination, and is able to defend all elements of the project, from conception to execution to interpretation.

Below Expected Performance	Expected Performance Upon Completion of the Residency Program	Above Expected Performance
<ul style="list-style-type: none"> • Unable to identify or develop a practice-based problem or issue into focused objectives and/or unable to define a realistic approach for assessment • Demonstrates disinterest or disengagement with project • Overly reliant upon preceptors and others for direction • Unable to negotiate and adhere to project deadlines, goals, objectives, and expectations • Produces poor quality project documentation and/ or requires considerable assistance to complete 	<ul style="list-style-type: none"> • With assistance, clearly identifies a practice-based problem or issue, and defines and executes the approach for assessment • With assistance, establishes and leads work according to project timelines, goals, objectives, and expectations • Initiates, executes, and completes project components independently but requests assistance from others when appropriate • Effectively collaborates with others to initiate, execute, and complete project components • With assistance, manages unanticipated issues to ensure project success • Able to defend hypotheses, methods, results, and conclusions of project in a convincing manner • Assembles project results in a scholarly manner suitable for dissemination with assistance 	<ul style="list-style-type: none"> • Perceptively and independently identifies a practice-based problem or issue, and defines & executes the approach for assessment • Independently establishes and leads work according to project timelines, goals, objectives, and expectations • Demonstrates initiative and creativity in developing a project proposal or methodology • Engages other health professionals to collaborate effectively as part of the project • Resolves project management issues independently, with minimal supervision • Pursues further opportunities to disseminate project results (e.g., publication in a peer reviewed journal, etc.) • Selects challenging projects outside traditional area of pharmacy