

## **Pharmacist Readiness Training Program Pharmacist Readiness Roles and Competencies**

### **I. General Overview**

Defining the potential readiness roles of a pharmacist provides the foundation for guiding the curriculum for the Pharmacist Readiness Training Program (PRTTP). An initial list of readiness roles for pharmacists is included below. Each readiness role is associated with a list of competencies. These competencies provide guidance on the skills and experience necessary for a pharmacist to be successful in each role. The PRTTP curriculum will be tailored to provide pharmacists the necessary tools and competencies to prepare themselves for a readiness role.

#### Pharmacist Readiness Roles

- Clinical Roles
  - Ambulatory Care Readiness Pharmacist (same as ‘Pharmacist’ role in National Response Framework)
  - Pharmacotherapy Readiness Pharmacist
  - Critical Care Readiness Pharmacist
- Other Roles
  - WMD/Pandemic Pharmacist
  - Pharmacy Readiness Logistician
  - Pharmacist Readiness Manager

Each Pharmacist Readiness role is described below. A brief description of the duties, typical practice setting, and the competencies necessary to achieve each Pharmacist Readiness role are provided. Additional roles can be added as necessary.

Within the clinical roles, Ambulatory Care Pharmacist is considered the gateway or entry level Clinical Readiness Pharmacist role. The Ambulatory Care Pharmacist is equivalent to the ‘Pharmacist’ role of included in the National Response Framework. Pharmacotherapy and Critical Care are advanced/specialty areas of practice. While there is a natural progression from one Clinical Readiness Pharmacist role to the next, each role is considered independent and somewhat specialized. Therefore a Critical Care Readiness Pharmacist may not be suitable for an Ambulatory Care Readiness Pharmacist billet.

The ‘Other’ Pharmacist Readiness roles (i.e. WMD/Pandemic pharmacist, Pharmacy Readiness Logistician, and Pharmacist Readiness Manager) are all independent roles with little to no inter relationship.

## Crisis Factor (CF) – the difference between a Traditional and Readiness Pharmacist

While there are similarities in the roles and responsibilities between pharmacists in traditional, or non-readiness settings, and readiness roles, it is important to emphasize that they are not the same. A good Ambulatory Care pharmacist in a traditional setting may not be able to adapt to the role of an ambulatory Care Readiness Pharmacist. The differences at times may be subtle but they are important. In both settings an Ambulatory Care Pharmacist would be expected to develop patient care plans. In the disaster or humanitarian mission settings the Readiness Pharmacist must take into account the ‘Crisis Factor’ (CF). For example in addition to, or instead of, the typical considerations that might be made in a traditional setting a Readiness Pharmacist must consider the current state of the patient’s living environment and the limitations of the healthcare system. The Readiness Pharmacist must consider CF issues such as:

- Narrow and/or evolving drug formularies
- Exacerbation of adverse reaction risk
- Reduced patient compliance
- Limited access to diagnostic and monitoring tools (i.e. labs, x-rays)
- Fellow providers working out of area of expertise

Consider the following case-study of caring for a diabetic patient during a hurricane response. Mr. Kelly is a 65YO male, with 10 yr history of diabetes. He tests his blood sugars daily and prior to Hurricane Laura, his serum glucose level was normal. He takes Glyburide 5mg qd and Metformin 850mg BID. He’s currently living in a shelter and spends his days trying to restore his home and visiting his wife Kathy who is in the hospital after suffering a mild MI.

Five days after the storm, Mr. Kelly stops by your ambulatory clinic, at the local high school, seeking to replace the medications he lost during the storm. He’s feeling a little run down, but he’s otherwise in good spirits. He is in a bit of a rush because he has to see an insurance adjuster in an hour. You learn that Mr. Kelly has not had his meds for 4 days. You note that Mr. Kelly is carrying a bottle of water and is perspiring moderately.

Ideally the Ambulatory Care team would like to perform a number of tests to check a variety of things including his fluid status, renal function and serum glucose levels. Unfortunately access to advanced labs is non-existent. Luckily, you have access to a glucose monitor. Mr. Kelly’s blood sugar is 200mg/dl. He had a snack bar about 3 hours ago. His vital signs show BP 150/95, P 90, R 18, T 99°.

The team decision is to observe Mr. Kelly for about 30 minutes, provide him with replacement meds, and request that he stop by within the next 48 hours for follow-up. As the Ambulatory Care Readiness Pharmacist you’re asked to make a recommendation regarding Mr. Kelly’s anti-diabetic therapy. You don’t have either drug available in the current strengths that Mr. Kelly takes. The anti-diabetics that you currently have available on your formulary are: Glipizide 10mg; Metformin 500mg; and Metformin SR 500mg. The following represent a few of the issues that you must consider:

- Should you switch Mr. Kelly from Glipizide to Glyburide? What is the bioequivalence between the two sulfonylureas?
- What dose of Metformin should you recommend?
- Considering Mr. Kelly's disrupted but busy schedule should you switch him to the once daily Metformin SR formulation? Would the sustained release formulation increase his risk for adverse effects?
- Is Mr. Kelly at an increased risk for either hypo or hyper glycemia due to his current environment (emotional or physical stress, limited access to fresh water, sleep disturbance, dietary changes, limited monitoring capability).
- Your team leader is a pediatrician.
- How confident are you that Mr. Kelly will return for follow-up?
- How many days supply of medication should you provide? Your supplies are limited and it is unclear when the local medical establishment will be back on its feet.
- Mr. Kelly prefers easy off caps and all you have are safety caps. What type of packaging should you dispense his meds in?
- What are the three most important topics that you want to counsel Mr. Kelly regarding?
- If Mr. Kelly were to need insulin what recommendations would you make regarding storage?

This is just a snap-shot of some of the issues that must be considered by a Readiness Pharmacist during a crisis or humanitarian response. The issues run from the serious to the mundane, but all must be considered and addressed. While good skills in the traditional setting will provide a firm foundation for the readiness setting, there are clearly additional and specialized competencies to work in a crisis or humanitarian setting.

## Competencies

The competencies provided are not mutually exclusive. Rather, they are inter-related skills that individually and collectively define the minimum and fully qualified capabilities determined to be essential for each readiness pharmacist role. In addition some competencies are reused in different Pharmacist Readiness Roles. Competencies are categorized within domains (i.e. clinical, operations, communication, public health). In addition each competency is associated with a proficiency level.

## Proficiency levels

Proficiency levels are assigned to each competency. The key to the proficiency levels is as follows:

0. Not Demonstrated: Minimal to no awareness of a topic/skill.
1. Novice: Basic level of mastery of the competency. Individuals may be able to identify the concept or skill but have limited ability to perform the skill.
2. Knowledgeable: Intermediate level of mastery of the competency. Individuals are able to apply and describe the skill.
3. Proficient: Advanced level of mastery of the competency. Individual is able to synthesize, critique, or teach the skill.
4. Expert: Individual is recognized as a leader in their field. Strategic thinker. Visionary. Able to shape and move the professional area forward.

## Minimal & Fully Qualified

The proficiency level provides guidance in the skill level each pharmacist is expected to have, to be either minimally qualified or to fully master each role.

- Minimal Requirement – The lowest proficiency level required for a pharmacist to work in any readiness role. A pharmacist can work in any Readiness Role, with supervision, as long as they have met the basic proficiency level for each competency (i.e. minimally qualified).
- Fully Qualified – Level of mastery required for a pharmacist to be considered completely competent in a subject matter area.

As stated earlier, competencies are not mutually exclusive. Therefore a pharmacist must meet all minimal requirements to be able to practice within a specific role; likewise they must be fully qualified in all competencies within a role to be considered fully competent in that area.

Within each competency the minimal and fully qualified proficiency level will be specified. For example:

Public Health Competency – Gather, organize and analyze data to identify health and drug-related trends for epidemiology studies (*Proficiency requirements – Minimal: 0 – Not demonstrated; Full: 3 – Proficient*)

### Personal Preparedness Competencies

It must be understood that every individual that participates in a disaster or humanitarian response mission, including all Readiness Pharmacists, must meet Personal Preparedness measures, such as:

- Maintain physical fitness to mitigate the risk of injury to themselves, team mates or patients;
- Appropriate clothing, and/or uniform, to protect the individual from exposure to environmental risks;
- Up to date vaccinations for all available biological risks that the provider may potentially be exposed to;
- Understand Incident Command System
- Understand the Federal Response Framework
- Appreciate safety and security concerns and how to mitigate them in a disaster or humanitarian response;
- Makes provisions for ‘continuity of operations’ for home and primary work environments
- Maintains appropriate equipment to address basic necessities in an austere environment (ex. Sleeping bag, tent, toiletries)

### Career Development

The competencies and proficiencies provide pharmacists guidance regarding the skills and requirements of each Pharmacist Readiness Role. The Pharmacist Readiness Training Program (PRTP) provides the pharmacist some of the tools necessary to obtain the specialized training required to meet the needs of a disaster or humanitarian response. Each training program of the PRTP is linked to one or more competencies. Successful completion of each PRTP program contributes an officer’s proficiency to meet a competency. It must be emphasized that the PRTP represents a subset of the skills and experience necessary to prepare a pharmacist to deploy to a disaster. Basic readiness and professional skills form the foundation of experience necessary for a pharmacist to be prepared to achieve each readiness role.

## II. Readiness Pharmacist Roles

### Readiness Ambulatory Care Pharmacist

#### Practice Setting

The Readiness Ambulatory Care Pharmacist is considered the gateway or entry level Clinical Readiness Pharmacist role. The Ambulatory Care Pharmacist is equivalent to the 'Pharmacist' role of included in the National Response Framework. Examples of Ambulatory Care Readiness Pharmacists work environments include outpatient clinics, strike teams, Disaster Medical Assistance Teams and Federal Medical Shelters (FMS). The types of patients cared for generally are ambulatory and/or have a low level of acuity. Ambulatory Care Readiness Pharmacist's provide care, in a disaster setting, for patients with common chronic diseases; including diabetes, asthma, hypertension, and HIV; and mild to moderate acute conditions such as headache, diarrhea, skin rash and muscle pain.

In all settings Readiness Pharmacists must anticipate, plan and accommodate for working in disaster environments where resources (equipment, personnel, information, communication) procedures and formularies are limited and frequently evolving.

#### Duties

The duties of an Ambulatory Care Readiness Pharmacist are:

- Optimize the outcomes of patients with mild to moderate chronic and acute conditions by providing evidence-based medication therapy as an integral part of an interdisciplinary team;
- Participate, as needed, in the management of medical emergencies based on best medical practices (ACLS, ATLS, PALS);
- Participates in all facets of the medication use system on aspects involving prescribing, dispensing, administering, monitoring and communicating medication needs of patients;
- Prepare and dispense vaccines, prescription and OTC medications to patients with mild to moderate chronic and acute conditions;
- Participate in sick-call operations for fellow team mates;
- Assure availability of appropriate vaccines, prescription and OTC medications to address mission needs;
- Serve as an authoritative resource to health professionals and patients on the optimal use of medications for patients with mild to moderate chronic and acute conditions;
- Serve as an epidemiology resource to identify health trends based on dispensing patterns;

- Develop systems and processes to minimize adverse event and prevent drug misadventures;
- Design and develop pharmacy facilities, equipment and procedures to optimize patient care, facilitate communication, protect patient confidentiality, and assure appropriate storage and security of pharmaceuticals;
- Assure all legal and ethical standards and requirements for pharmacy practice settings are met.
- Assure personal, team and public safety.

### Competencies (*Proficiency Requirements*)

In a disaster response setting:

#### **Clinical**

- Identify and develop efficient, effective, evidence-based, patient-centered care plans for patients with mild to moderate chronic and acute conditions; (*Proficiency Requirement – Minimal: 1 - novice: Full: 3 - Proficient*)
- Provide therapeutic selection recommendations and guidance to healthcare team tailored to meet the unique needs and limitations of patients with mild to moderate chronic and acute conditions during a readiness response (i.e. narrow and evolving drug formularies; adverse reaction risk; and current state of the healthcare system); (*Proficiency Requirement – Minimal: 1 - novice: Full: 3 - Proficient*)
- Monitor drug therapy, commonly prescribed for mild to ambulatory patients, to evaluate appropriateness of use, dose, dosage form, regimen, route, therapeutic duplication, and drug interactions; (*Proficiency Requirement – Minimal: 1 - novice: Full: 3 - Proficient*)
- Apply personal protection and safety measures (*Proficiency Requirement – Minimal: 1 - novice: Full: 2 - Knowledgeable*)
- Provide emergency care on a limited basis including:
  - Cardiopulmonary resuscitation & Automated External Defibrillator (*Proficiency Requirement – Minimal: 1 - novice: Full: 2 - Knowledgeable*)
  - Treatment Algorithms & Drug Management (*Proficiency Requirement – Minimal: 0 – Not demonstrated: Full: 1 - novice*)
  - Patient triage (*Proficiency Requirement – Minimal: 1 - novice: Full: 1 - novice*)
- Participate in and/or coordinate team sick-call operations for minor ailments. (*Proficiency Requirement – Minimal: 1 – Novice: Full: 2 - Knowledgeable*)

#### **Operations**

- Prepare and dispense vaccines, prescription and OTC medications; commonly prescribed to ambulatory patients; while assuring right drug, right patient and right dose; (*Proficiency Requirement – Minimal: 2 -Knowledgeable: Full: 3 - Proficient*)

- Develop, implement, integrate and/or manage pharmaceutical and medical supply chain to maintain adequate pharmaceutical supplies; (*Proficiency Requirement – Minimal: 1 - novice: Full: 2 - Knowledgeable*)
- Monitor prescribing patterns and operational plans/needs and adjust pharmaceutical inventory accordingly. (*Proficiency Requirement – Minimal: 1 - novice: Full: 2 - Knowledgeable*)

### **Communication**

- Collaborate with interdisciplinary ambulatory-care medical team recommend safe, appropriate, and cost-effective use of medications for ambulatory patients; (*Proficiency Requirement – Minimal: 1 - novice: Full: 3 - Proficient*)
- Demonstrate professional communication through health literacy, authoritative resource on medications; and understanding of disease etiology, diagnosis and treatment commonly found in ambulatory-care settings; (*Proficiency Requirement – Minimal: 1 - novice: Full: 3 - Proficient*)
- Perform patient interviews, medication histories and counseling to identify patient health needs and maximize outcomes; (*Proficiency Requirement – Minimal: 1 - novice: Full: 3 - Proficient*)
- Demonstrate effective patient communication skills such as using active listening, open ended questions, layman’s terminology, empathy and confirmation of patient comprehension. (*Proficiency Requirement – Minimal: 1 - novice: Full: 3 - Proficient*)

### **Public Health**

- Gather, organize and analyze data to identify health and drug-related trends for epidemiology studies; (*Proficiency Requirement – Minimal: 0 - Not Demonstrated: Full: 2 - Knowledgeable*)
- Promote health improvement, wellness, and disease prevention through provision of population-based drug information; (*Proficiency Requirement – Minimal: 1 - novice: Full: 2 - Knowledgeable*)
- Provide patient management to prevent or mitigate drug-related problems, such as adverse reactions, drug interactions and drug-misadventures. Especially those issues that might be exacerbated in a disaster or humanitarian response; (*Proficiency Requirement – Minimal: 1 - novice: Full: 3 - Proficient*)
- Demonstrate leadership in the prevention, detection, monitoring, documentation, and reporting of adverse drug reactions and medications errors. (*Proficiency Requirement – Minimal: 1 - novice: Full: 2 - Knowledgeable*)
- Provide subject matter appropriate training for professional staff (*Proficiency Requirement – Minimal: 0 - Not Demonstrated: Full: 2 - Knowledgeable*)



## Management

- Identify, design, develop and manage pharmacy facilities, equipment and procedures to optimize patient care, facilitate communication, protect patient confidentiality, assure regulatory compliance and proper storage and security of pharmaceuticals; (*Proficiency Requirement – Minimal: 0 - Not Demonstrated: Full: 2 - Knowledgeable*)
- Assure all legal and ethical standards and requirements for pharmacy practice settings are met; (*Proficiency Requirement – Minimal: 1 - Novice: Full: 2 - Knowledgeable*)
- Participation in medication-use evaluations and quality improvement activities. (*Proficiency Requirement – Minimal: 0 - Not Demonstrated: Full: 2 - Knowledgeable*)

## Pharmacotherapy Readiness Pharmacist

### Practice Setting

The Pharmacotherapy Readiness Pharmacist typically works in a hospital or hospital-like settings during a disaster response. Examples of Pharmacotherapy Readiness Pharmacists work environments include Disaster Medical Assistance Teams, Federal Medical Shelters (FMS) and traditional hospital setting. The types of patients cared for generally have an intermediate level of acuity. Pharmacotherapy Readiness Pharmacist's treat patients with common chronic diseases; and moderate to severe acute conditions that require definitive care and/or hospitalization (e.g., internal medicine, surgery, pediatrics, psychiatry, geriatrics). In large scale manmade or natural biologic events Pharmacotherapy Readiness Pharmacists would assist with delivery of definitive (treatment) care to the affected population.

In all settings Readiness pharmacists must anticipate, plan and accommodate for working in disaster environments where resources (ex. equipment, personnel, information, communication) procedures and formularies are limited and frequently evolving.

### Duties:

The duties of a Pharmacotherapy Readiness Pharmacist include:

- Optimize the outcomes of patients with moderate to severe conditions by providing evidence-based medication therapy as an integral part of an interdisciplinary team;
- Participate in the management of medical emergencies based on best medical practices (i.e. ACLS, ATLS, PALS, etc);
- Provide, as needed, nutritional support recommendations to medical team;
- Facilitate discharge for home care patients when appropriate;
- Participates in all facets of the medication use system on aspects involving prescribing, dispensing, administering, monitoring and communicating medication needs of patients;
- Prepare and dispense vaccines, prescription and OTC medications to patients with moderate to severe conditions;
- Participate in sick-call operations for fellow team mates;
- Assure availability of appropriate vaccines, prescription and OTC medications to address mission needs;
- Serve as an authoritative resource to health professionals and patients on the optimal use of medications;
- Serve as an epidemiology resource to identify health trends based on dispensing patterns
- Develop systems and processes to minimize adverse event and prevent drug misadventures.
- Assure all legal and ethical standards and requirements for pharmacy practice settings are met.

- Assure personal, team and public safety.

### Competencies (*Proficiency Requirements*)

#### **Clinical**

- Identify and develop efficient, effective, evidence-based, patient-centered care plans for patients with moderate to severe conditions; (*Proficiency Requirement – Minimal: 1 - novice: Full: 3 - Proficient*)
- Provide therapeutic selection recommendations and guidance to healthcare team tailored to meet the unique needs and limitations of patients with moderate to severe conditions during a readiness response (i.e. narrow and evolving drug formularies; adverse reaction risk; and current state of the healthcare system); (*Proficiency Requirement – Minimal: 1 - novice: Full: 3 - Proficient*)
- Monitor drug therapy, commonly prescribed in hospital settings; to evaluate appropriateness of use, dose, dosage form, regimen, route, therapeutic duplication, and drug interactions; (*Proficiency Requirement – Minimal: 1 - novice: Full: 3 - Proficient*)
- Provide interpretation and application of pharmacokinetic data and principles to patient care; (*Proficiency Requirement – Minimal: 1 - novice: Full: 2 - Knowledgeable*)
- Apply personal protection and safety measures (*Proficiency Requirement – Minimal: 2 - Knowledgeable: Full: 3 - Proficient*)
- Provide emergency care on a limited basis including:
  - Cardiopulmonary resuscitation & Automated External Defibrillator (*Proficiency Requirement – Minimal: 1 - novice: Full: 2 - Knowledgeable*)
  - Treatment Algorithms & Drug Management (*Proficiency Requirement – Minimal: 1 – Novice: Full: 2 - Knowledgeable*)
  - Patient triage (*Proficiency Requirement – Minimal: 1 - novice: Full: 2 - Knowledgeable*)
- Design and develop nutritional support plans for patients with moderate to severe conditions; (*Proficiency Requirement – Minimal: 0 –Not Demonstrated: Full: 2 - Knowledgeable*)
- Participate in and/or coordinate team sick-call operations for minor ailments (*Proficiency Requirement – Minimal: 1 - novice: Full: 2 - Knowledgeable*)

#### **Operations**

- Prepare and dispense vaccines, prescription and OTC medications; commonly prescribed in hospital settings; while assuring right drug, right patient and right dose; (*Proficiency Requirement – Minimal: 1 - novice: Full: 2 - Knowledgeable*)
- Develop, implement and/or integrate into pharmaceutical and medical supply chain to maintain adequate pharmaceutical supplies; (*Proficiency Requirement – Minimal: 0 –Not demonstrated: Full: 2 - Knowledgeable*)
- Monitor prescribing patterns and operational plans/needs and adjust pharmaceutical inventory accordingly. (*Proficiency Requirement – Minimal: 0 – Not demonstrated: Full: 2 - Knowledgeable*)

## **Communication**

- Collaborate with interdisciplinary medical team recommend safe, appropriate, and cost-effective use of medications for patients with moderate to severe conditions; (*Proficiency Requirement – Minimal: 1 - novice: Full: 3 - Proficient*)
- Demonstrate professional communication through health literacy, authoritative resource on medications; and understanding of disease etiology, diagnosis and treatment commonly found in a hospital or hospital like settings; (*Proficiency Requirement – Minimal: 1 - novice: Full: 3 - Proficient*)
- Perform patient interviews, medication histories and counseling to identify patient health needs and maximize outcomes; (*Proficiency Requirement – Minimal: 1 - novice: Full: 2 - Knowledgeable*)
- Demonstrate effective patient communication skills such as using active listening, open ended questions, layman's terminology, empathy and confirmation of patient comprehension. (*Proficiency Requirement – Minimal: 1 - novice: Full: 3 - Proficient*)

## **Public Health**

- Gather and organize data to identify health and drug-related trends for epidemiology studies; (*Proficiency Requirement – Minimal: 0 – Not demonstrated: Full: 2 - Knowledgeable*)
- Promote health improvement, wellness, and disease prevention through provision of population-based drug information; (*Proficiency Requirement – Minimal: 1 – Novice: Full: 2 - Knowledgeable*)
- Provide patient management to prevent or mitigate drug-related problems, such as adverse reactions, drug interactions and drug-misadventures. Especially those issues that might be exacerbated in a disaster response; (*Proficiency Requirement – Minimal: 1 – Novice: Full: 3 - Proficient*)
- Demonstrate leadership in the prevention, detection, monitoring, documentation, and reporting of adverse drug reactions and medications errors. (*Proficiency Requirement – Minimal: 0 – Not demonstrated: Full: 2 - Knowledgeable*)
- Provide subject matter appropriate training for professional staff (*Proficiency Requirement – Minimal: 0 – Not demonstrated: Full: 2 - Knowledgeable*)

## **Management**

- Identify, design, develop and manage pharmacy facilities, equipment and procedures to optimize patient care, facilitate communication, protect patient confidentiality, assure regulatory compliance, maintain appropriate staffing, and assure proper storage and security of pharmaceuticals; (*Proficiency Requirement – Minimal: 0 – Not demonstrated: Full: 2 - Knowledgeable*)
- Assure all legal and ethical standards and requirements for pharmacy practice settings are met; (*Proficiency Requirement – Minimal: 0 – Not demonstrated: Full: 2 - Knowledgeable*)
- Participation in medication-use evaluations and quality improvement activities. (*Proficiency Requirement – Minimal: 0 – Not demonstrated: Full: 2 - Knowledgeable*)

## **Critical-Care Readiness Pharmacists**

### **Practice settings:**

A Readiness Critical-care pharmacist can work in an ICU or ICU-like settings. They will also serve in areas with a high risk for emergency services (ER, DMAT). Critical-care pharmacists may also be of value in primary and ambulatory care settings (i.e. Federal Medical Shelter, Strike team) where there is the occasional potential for high acuity patients or the need for emergency support services.

In all settings, Readiness pharmacists must anticipate, plan and accommodate for working in disaster environments where resources (equipment, personnel, information, communication) procedures and formularies are limited and frequently evolving.

### **Duties**

The duties of a Critical Care Readiness Pharmacist include:

- Optimize the outcomes of patients with moderate to severe conditions by providing evidence-based medication therapy as an integral part of an interdisciplinary team;
- Participate in the management of medical emergencies based on best medical practices (i.e. ACLS, ATLS, PALS);
- Provide nutritional support recommendations to medical team;
- Participates in all facets of the medication use system on aspects involving prescribing, dispensing, administering, monitoring and communicating medication needs of patients;
- Prepare and dispense vaccines, prescription and OTC medications to patients with moderate to severe conditions;
- Participate in sick-call operations for fellow team mates;
- Assure availability of appropriate vaccines, prescription and OTC medications to address mission needs;
- Serve as an authoritative resource to health professionals and patients on the optimal use of medications;
- Develop systems and processes to minimize adverse event and prevent drug misadventures.
- Assure all legal and ethical standards and requirements for pharmacy practice settings are met.
- Assure personal, team and public safety.

## Competencies (Proficiency Requirements)

### **Clinical**

- Identify and develop efficient, effective, evidence-based, patient-centered care plans for critically ill patients in a disaster setting; (*Proficiency Requirement – Minimal: 1 – Novice: Full: 3 - Proficient*)
- Provide therapeutic selection recommendations and guidance to healthcare team tailored to meet the unique needs and limitations of critically ill patients during a readiness response, such as narrow and evolving drug formularies; adverse reaction risk; and current state of the healthcare system; (*Proficiency Requirement – Minimal: 1 – Novice: Full: 3 - Proficient*)
- Monitor drug therapy; of medications commonly prescribed to critical ill patients; to evaluate appropriateness of use, dose, dosage form, regimen, route, therapeutic duplication, and drug interactions; (*Proficiency Requirement – Minimal: 1 – Novice: Full: 3 - Proficient*)
- Provide interpretation and application of pharmacokinetic data and principles to patient care; (*Proficiency Requirement – Minimal: 1 – Novice: Full: 2 - Knowledgeable*)
- Apply personal protection and safety measures (*Proficiency Requirement – Minimal: 2 - Knowledgeable: Full: 3 - Proficient*)
- Provide emergency care, as needed, including:
  - Cardiopulmonary resuscitation & Automated External Defibrillator (*Proficiency Requirement – Minimal: 2 - Knowledgeable: Full: 3 - Proficient*)
  - Treatment Algorithms & Drug Management (*Proficiency Requirement – Minimal: 2 - Knowledgeable: Full: 3 - Proficient*)
  - Patient triage (*Proficiency Requirement – Minimal: 2 - Knowledgeable: Full: 3 - Proficient*)
- Design and develop nutritional support plans for critically ill patients; (*Proficiency Requirement – Minimal: 1 – Novice: Full: 2 - Knowledgeable*)
- Participate in and/or coordinate sick-call operations for fellow team members. (*Proficiency Requirement – Minimal: 1 – Novice: Full: 2 - Knowledgeable*)

### **Operations**

- Prepare and dispense vaccines, prescription and OTC medications; commonly prescribed to critically ill patients; while assuring right drug, right patient and right dose; (*Proficiency Requirement – Minimal: 1 – Novice: Full: 2 - Knowledgeable*)
- Develop, implement and/or integrate into pharmaceutical and medical supply chain to maintain adequate pharmaceutical supplies; (*Proficiency Requirement – Minimal: 0 – Not Demonstrated: Full: 1 - Novice*)
- Monitor prescribing patterns and operational plans/needs and adjust pharmaceutical inventory accordingly. (*Proficiency Requirement – Minimal: 0 – Not Demonstrated: Full: 1 - Novice*)

## **Communication**

- Collaborate with interdisciplinary medical team recommend safe, appropriate, and cost-effective use of medications for critically ill patients; (*Proficiency Requirement – Minimal: 2 - Knowledgeable: Full: 3 - Proficient*)
- Demonstrate professional communication through health literacy, authoritative resource on medications; and understanding of disease etiology, diagnosis and treatment commonly found in a critical care settings; (*Proficiency Requirement – Minimal: 1 -Novice: Full: 3 - Proficient*)
- Perform patient interviews, medication histories and counseling to identify patient health needs and maximize outcomes; (*Proficiency Requirement – Minimal: 1 – Novice: Full: 2 - Knowledgeable*)
- Demonstrate effective patient communication skills such as using active listening, open ended questions, layman’s terminology, empathy and confirmation of patient comprehension. (*Proficiency Requirement – Minimal: 1 – Novice: Full: 2 - Knowledgeable*)

## **Public Health**

- Provide patient management to prevent or mitigate drug-related problems, such as adverse reactions, drug interactions and drug-misadventures. Especially those issues that might be exacerbated in a disaster response; (*Proficiency Requirement – Minimal: 2 - Knowledgeable: Full: 3 - Proficient*)
- Demonstrate leadership in the prevention, detection, monitoring, documentation, and reporting of adverse drug reactions and medications errors. (*Proficiency Requirement – Minimal: 1 – Novice: Full: 2 - Knowledgeable*)
- Provide subject matter appropriate training for professional staff (*Proficiency Requirement – Minimal: 1 – Novice: Full: 2 - Knowledgeable*)

## **Management**

- Identify, design, develop and manage pharmacy facilities, equipment and procedures to optimize patient care, facilitate communication, protect patient confidentiality, assure regulatory compliance and proper storage and security of pharmaceuticals; (*Proficiency Requirement – Minimal: 1 – Novice: Full: 1 - Novice*)
- Assure all legal and ethical standards and requirements for pharmacy practice settings are met; (*Proficiency Requirement – Minimal: 0 – Not Demonstrated: Full: 1 - Novice*)
- Participation in medication-use evaluations and quality improvement activities. (*Proficiency Requirement – Minimal: 0 – Not Demonstrated: Full: 1 - Novice*)

## **Readiness Pharmacist Logistician**

### **Practice Settings**

Pharmacy logisticians work in a variety of practice sites both proximate and distant from the direct patient care setting. Pharmacy logisticians can be located in hospitals, clinics and central coordinating or distribution centers.

In all settings Readiness pharmacists must anticipate, plan and accommodate for working in disaster environments where resources (ex. equipment, personnel, information, communication) procedures and formularies are limited and frequently evolving.

### **Duties**

The duties of a Pharmacy Logistician:

- Manage pharmacy distribution operations in a variety of settings including hospital, clinic and central warehousing
- Provide coordination for medication distribution and control systems
- Maintain proper storage, packaging and security for pharmaceutical inventory
- Maintain proper storage, packaging and security for medical and surgical supplies
- Manage storage facilities and equipment
- Integrate with distribution and transportation networks
- Oversee fiscal resources including accounting, budgeting and inventory control
- Coordinate supply chain and inventory management to assure the safety, stability and security of drugs and other medical equipment.
- Participate in Pharmacy and Therapeutics formulary review activities
- Assess mission needs to assure availability of adequate medical and pharmaceutical supplies.
- Assure personal, team and public safety.

### **Competencies (Proficiency Requirements)**

In a disaster response setting:

#### **Clinical**

- Understand common diseases and ailments of US population and their treatments. (*Proficiency Requirement – Minimal: 1 - Novice: Full: 2 - Knowledgeable*)
- Appreciate common injuries and illness that may occur in a disaster or humanitarian mission and their treatments. (*Proficiency Requirement – Minimal: 0 - Not Demonstrated: Full: 2 - Knowledgeable*)

#### **Operations**

- Design and manage pharmacy distribution operations in a variety of settings including hospital, clinic and central warehousing (*Proficiency Requirement – Minimal: 0 - Not Demonstrated: Full: 2 - Knowledgeable*)



- Identify and develop proper storage, packaging and security for pharmaceutical inventory (*Proficiency Requirement – Minimal: 1 - Novice: Full: 3 - Proficient*)
- Identify and develop proper storage, packaging and security for medical and surgical supplies (*Proficiency Requirement – Minimal: 1 - Novice: Full: 3 - Proficient*)
- Identify and develop proper storage, packaging and security for basic necessities (i.e. food, water, shelter) (*Proficiency Requirement – Minimal: 1 - Novice: Full: 3 - Proficient*)
- Manage storage facilities and equipment (*Proficiency Requirement – Minimal: 0 - Not Demonstrated: Full: 2 - Knowledgeable*)
- Understand alternative Health Care Delivery Systems (*Proficiency Requirement – Minimal: 0 - Not Demonstrated: Full: 2 - Knowledgeable*)
- Develop, implement and/or integrate into pharmaceutical and medical supply chain to maintain adequate pharmaceutical supplies; (*Proficiency Requirement – Minimal: 0 – Not Demonstrated: Full: 3 - Proficient*)
- Monitor prescribing patterns and operational plans/needs and adjust pharmaceutical inventory accordingly. (*Proficiency Requirement – Minimal: 0 - Not Demonstrated: Full: 2 - Knowledgeable*)

### **Communication**

- Collaborate with interdisciplinary medical team to identify medical and pharmaceutical needs; (*Proficiency Requirement – Minimal: 0 – Not demonstrated: Full: 3 - Proficient*)
- Collaborate with pharmaceutical, medical and other suppliers, distributors and transport personnel; (*Proficiency Requirement – Minimal: 0 – Not Demonstrated: Full: 2 - Knowledgeable*)

### **Public Health**

- Provide subject matter appropriate training for professional staff (*Proficiency Requirement – Minimal: 0 – Not Demonstrated: Full: 1 - Novice*)

## Management

- Participate in Pharmacy and Therapeutics formulary decision making process  
(*Proficiency Requirement – Minimal: 0 - Not Demonstrated: Full: 2 - Knowledgeable*)
- Identify, design, develop and manage pharmacy distribution facilities, equipment and procedures to optimize availability of medical and pharmaceutical resources to patients that need them; (*Proficiency Requirement – Minimal: 0 - Not Demonstrated: Full: 3 - Proficient*)
- Recognize and employ fiscal best practices including accounting, budgeting and inventory control and forecasting (*Proficiency Requirement – Minimal: 0 - Not Demonstrated: Full: 3 - Proficient*)
- Assure all legal and ethical standards and requirements for pharmacy practice settings are met; (*Proficiency Requirement – Minimal: 1 - Novice: Full: 2 - Knowledgeable*)
- Participation in medication-use evaluations and quality improvement activities.  
(*Proficiency Requirement – Minimal: 0 - Not Demonstrated: Full: 1 - Novice*)

**WMD/Pandemic Readiness Pharmacist** - *(Laura – I just focused on biologic events and POD activities. Should we add details regarding other WMD roles (i.e. chemical agents, nuclear threats)? Another idea is to change role title to specifically limit to biological threats (i.e. POD Readiness Pharmacist). The risk here is that we would need to add another role (at a later date) for chem/nuclear agents. What do you think?*

### Practice settings

The National Response Framework calls for creation of Points of Distribution (PODs) in response to natural or manmade large scale biologic events. WMD/Pandemic Readiness Pharmacists will be integral members or leaders of POD facilities. POD locations and activities will typically be established and coordinated by local authorities. Many local plans call for using well recognized public facilities, such schools, post offices, malls, stadiums, to serve as POD locations. WMD/Pandemic Pharmacists may also serve in locations and roles outside of, but in support of POD facilities, such as Strategic National Stockpile (SNS) storage or transfer facilities; Local, State or Federal coordinating centers; or mobile POD units to serve individuals that are unable to receive care at a POD facility, such as non-ambulatory (ex. nursing homes, shut-ins), or restricted to travel (ex. prisons, quarantine facilities), or to sites/individuals deemed by local authorities as integral for with public safety (ex. first responders, police, fire departments, National Guard)

### Duties

It is important to emphasize that a WMD/Pandemic Readiness Pharmacist's primary role relates to dispensing prophylactic therapies to prevent or mitigate the development of disease symptoms, to individuals at risk during a large scale manmade or natural biologic event. Definitive care for symptomatic patients will occur in treatment facilities (i.e. hospitals, clinics, shelters). The key duties of a WMD/Pandemic Readiness Pharmacist are:

- Prepare and dispense vaccines, prescription and OTC medications, in accordance to local, State or Federal protocols and guidelines, to individuals at risk from a manmade or natural biologic agent;
- Optimize the outcomes, for individuals at risk, by providing evidence-based medication therapy as an integral part of an interdisciplinary team;
- Participates in all facets of the medication use system on aspects involving prescribing, dispensing, administering, monitoring and communicating medication needs of individuals at risk;
- Participate in sick-call operations for fellow team mates;
- Assure availability of appropriate vaccines, prescription and OTC medications to address mission needs;
- Interact with local, State and Federal mission planning, operations and logistics staff to establish and achieve mission objectives and needs;

- Serve as an authoritative resource to health professionals and patients on the optimal use of prophylactic medications and vaccines;
- Develop systems and processes to minimize adverse event and prevent drug misadventures;
- Provide public health education and recommendations to optimize care and minimize risk to the general public;
- Assure all legal and ethical standards and requirements for POD dispensing sites are met.
- Assure personal, team and public safety.

### Competencies (*Proficiency Requirements*)

#### **Clinical**

- Describe CDC's bioterrorism threat agents including diagnosis, signs/symptoms, prognosis, risks, prevention, treatment, prophylaxis, and infection control
  - Category A threat agents (*Proficiency Requirement – Minimal: 1 – Novice: Full: 3 - Proficient*)
  - Category B & C threat agents (*Proficiency Requirement – Minimal: 0 – Not demonstrated: Full: 1 - Novice*)
- Describe primary and secondary treatments for CDC threat agents, especially those contained within the Strategic National Stockpile, including adult & pediatric dosing; dose adjustments; adverse effects; drug interactions; mechanism of action; and storage/stability
  - Category A threat agent treatments (*Proficiency Requirement – Minimal: 2 – Knowledgeable: Full: 3 - Proficient*)
  - Category B & C threat agent treatments (*Proficiency Requirement – Minimal: 1 – Novice: Full: 2 - Knowledgeable*)
- Apply personal protection and safety measures (*Proficiency Requirement – Minimal: 2 - Knowledgeable: Full: 3 - Knowledgeable*)
- Perform triage to direct individuals to prophylactic or treatment areas based established event specific criteria (*Proficiency Requirement – Minimal: 2 - Knowledgeable: Full: 2 - Knowledgeable*)
- Assist with establishing therapeutic (ex. primary & secondary agents, days supply, alternative treatments, identification of affected population), recommendations and guidance to healthcare team based on evolving mission circumstances and requirements; (*Proficiency Requirement – Minimal: 0 – Not demonstrated: Full: 3 - Proficient*)
- Select optimal patient specific preventive therapy based on Federal and/or local guidelines and protocols (*Proficiency Requirement – Minimal: 2 - Knowledgeable: Full: 3 - Proficient*)
- Provide vaccination services to affected population (*Proficiency Requirement – Minimal: 0 – Not demonstrated: Full: 3 - Proficient*)
- Participate in and/or coordinate sick-call operations for fellow team members. (*Proficiency Requirement – Minimal: 0 – Not Demonstrated: Full: 1 - Novice*)

## Operations

- Organize, set-up and establish a mass dispensing or vaccination clinic suitable to address specific mission requirements (*Proficiency Requirement – Minimal: 1 – Novice: Full: 3 - Proficient*)
- Dispense/administer prophylactic antibiotics, vaccines and other treatments to pre-identified individuals at risk (*Proficiency Requirement – Minimal: 1 – Novice: Full: 3 - Proficient*)
- Understand Strategic National Stockpile (SNS) policies and procedures related to storage, distribution and utilization of SNS supplies (*Proficiency Requirement – Minimal: 1 – Novice: Full: 3 - Proficient*)
- Develop, implement and/or integrate into pharmaceutical and medical supply chain (i.e. Strategic National Stockpile) to maintain adequate pharmaceutical supplies; (*Proficiency Requirement – Minimal: 1 – Novice: Full: 1 - Knowledgeable*)
- Monitor dispensing patterns and operational plans/needs and adjust pharmaceutical/vaccine inventory accordingly. (*Proficiency Requirement – Minimal: 0 – Not Demonstrated: Full: 1 - Knowledgeable*)

## Communication

- Collaborate with interdisciplinary medical team recommend safe, appropriate, and cost-effective use of medications during a manmade or natural biologic event; (*Proficiency Requirement – Minimal: 2 - Knowledgeable: Full: 3 - Proficient*)
- Demonstrate professional communication through health literacy, authoritative resource on medications; and understanding of disease etiology, diagnosis and treatment of CDC's primary threat agents; (*Proficiency Requirement – Minimal: 1 - Novice: Full: 3 - Proficient*)
- Perform patient interviews, medication histories and counseling to identify patient health needs and select appropriate prophylactic therapy; (*Proficiency Requirement – Minimal: 1 – Novice: Full: 3 - Proficient*)
- Demonstrate effective patient communication skills such as using active listening, open ended questions, layman's terminology, empathy and confirmation of patient comprehension. (*Proficiency Requirement – Minimal: 1 – Novice: Full: 2 - Knowledgeable*)

## Public Health

- Assist with coordination, development and implementation of population based infection control measures (*Proficiency Requirement – Minimal: 1 – Novice: Full: 1 - Novice*)
- Deliver health education regarding CDC primary threat agents and treatments (*Proficiency Requirement – Minimal: 1 – Novice: Full: 2 - Knowledgeable*)
- Preserve possible evidence and chain of custody (*Proficiency Requirement – Minimal: 1 – Novice: Full: 1 - Novice*)

- Provide patient management to prevent or mitigate drug-related problems, such as adverse reactions, drug interactions and drug-misadventures. (*Proficiency Requirement – Minimal: 1 - Novice: Full: 3 - Proficient*)
- Demonstrate leadership in the prevention, detection, monitoring, documentation, and reporting of adverse drug reactions and medications errors. (*Proficiency Requirement – Minimal: 0 – Not demonstrated: Full: 2 - Knowledgeable*)
- Provide subject matter appropriate training for professional staff (*Proficiency Requirement – Minimal: 1 – Novice: Full: 2 - Knowledgeable*)

## **Management**

- Identify, design, develop and manage POD facilities, equipment and procedures to optimize patient care, facilitate communication, protect patient confidentiality, assure regulatory compliance and proper storage and security of pharmaceuticals; (*Proficiency Requirement – Minimal: 1 – Novice: Full: 1 - Novice*)
- Assure all legal and ethical standards and requirements for POD sites are met; (*Proficiency Requirement – Minimal: 0 – Not Demonstrated: Full: 1 - Novice*)
- Participation in medication-use evaluations and POD quality improvement activities. (*Proficiency Requirement – Minimal: 0 – Not Demonstrated: Full: 1 - Novice*)

## **Readiness Pharmacist Manager**

### Practice Settings

A Readiness Pharmacist Manager can work in a variety of settings providing leadership and guidance to pharmacy operations.

In all settings a Readiness Pharmacist Manager must anticipate, plan and accommodate for working in environments where resources (equipment, personnel, information, and communication), procedures and needs are limited and frequently evolving.

### Duties

The duties of a Crisis Response Pharmacist Manager are:

- Optimize pharmacy operations to achieve mission needs
- Provide leadership and guidance to pharmacy staff
- Assess and evaluate ongoing mission requirements and organize pharmacy operations to achieve them
- Project future mission requirements and prepare pharmacy operations to achieve them
- Assure all legal and ethical standards and requirements for pharmacy practice settings are met
- Assure personal, team and public safety.

### Competencies (*Proficiency Requirements*)

#### **Clinical**

- Understand common diseases and ailments of US population and their treatments. (*Proficiency Requirement – Minimal: 2 - Knowledgeable: Full: 2 - Knowledgeable*)
- Appreciate common injuries and illness that may occur in a disaster or humanitarian mission and their treatments. (*Proficiency Requirement – Minimal: 2 - Knowledgeable: Full: 2 - Knowledgeable*)

#### **Operations**

- Design and manage pharmacy operations to support mission needs (*Proficiency Requirement – Minimal: 2 - Knowledgeable: Full: 3 - Proficient*)
- Maintain proper storage, packaging and security for pharmaceutical, medical and other supplies (*Proficiency Requirement – Minimal: 1 - Novice: Full: 3 - Proficient*)
- Understand alternative Health Care Delivery Systems (*Proficiency Requirement – Minimal: 1 - Novice: Full: 2 - Knowledgeable*)

## **Communication**

- Communicate to staff, supervisors, mission coordinators and the public the tactical and strategic plans and procedures to achieve the mission (*Proficiency Requirement – Minimal: 2 - Knowledgeable: Full: 3 - Proficient*)
- Employ group dynamics (team building, empowerment, responsibility and motivation) to optimize team success(*Proficiency Requirement – Minimal: 2 - Knowledgeable: Full: 3 - Proficient*)
- Demonstrate effective communication skills to acquire and disseminate relevant mission information (*Proficiency Requirement – Minimal: 2 - Knowledgeable: Full: 3 - Proficient*)
- Engage in public and media relations (*Proficiency Requirement – Minimal: 1 - Novice: Full: 2 - Knowledgeable*)

## **Public Health**

- Provide leadership in promoting health improvement, wellness, and disease prevention; (*Proficiency Requirement – Minimal: 1 – Novice: Full: 2 - Knowledgeable*)
- Develop programs to prevent or mitigate drug-related problems, such as adverse reactions, drug interactions and drug-misadventures. Especially those issues that might be exacerbated in a disaster response; (*Proficiency Requirement – Minimal: 1 – Novice: Full: 3 - Proficient*)
- Identify and develop appropriate training for professional staff (*Proficiency Requirement – Minimal: 1 – Novice: Full: 2 - Knowledgeable*)

## **Management**

- Provide strategic planning and leadership to direct & develop programs to achieve mission requirements (*Proficiency Requirement – Minimal: 2 - Knowledgeable: Full: 3 - Proficient*)
- Organize and design staffing, facilities and procedures to maximize efficiency and effectiveness (*Proficiency Requirement – Minimal: 2 - Knowledgeable: Full: 3 - Proficient*)
- Provide decision making to select course of action to meet program and mission needs (*Proficiency Requirement – Minimal: 2 - Knowledgeable: Full: 3 - Proficient*)
- Oversee resource (human, material, facilities, information) management (*Proficiency Requirement – Minimal: 2 - Knowledgeable: Full: 3 - Proficient*)
- Prioritize plans based on evolving mission needs and resources (*Proficiency Requirement – Minimal: 2 - Knowledgeable: Full: 3 - Proficient*)
- Provide conflict management to effectively manage interpersonal and organization conflicts through impartiality, negotiation and communication (*Proficiency Requirement – Minimal: 2 - Knowledgeable: Full: 2 -*



*Knowledgeable)*

- Recognize and employee fiscal best practices including accounting, budgeting and inventory control and forecasting (*Proficiency Requirement – Minimal: 2 - Knowledgeable: Full: 2 - Knowledgeable)*
- Assure all legal and ethical standards and requirements for pharmacy practice settings are met; (*Proficiency Requirement – Minimal: 2 - Knowledgeable: Full: 2 - Knowledgeable)*
- Participation in or lead medication-use evaluations and healthcare quality improvement activities. (*Proficiency Requirement – Minimal: 1 – Novice: Full: 2 - Knowledgeable)*