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# Standardization of Military Rapid Response Teams

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STANDARDIZATION OF MILITARY RAPID RESPONSE TEAMS

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## Abstract

The healthcare industry is continuously challenged to improve patient outcomes while remaining focused on cost-containment and patient safety. The National Patient Safety goals (2009) provide healthcare organizations with performance standards aimed at reducing morbidity and mortality rates. Rapid response teams (RRT) are one of the initiatives intended to decrease cardiopulmonary arrests outside the Intensive Care Unit (ICU), decrease unplanned admission into the ICU, and decrease mortality rates.

The last twelve years at war has created a high deployment rate for military medical personal. Each year military hospitals lose an average of eight to ten providers to support the War of Terrorism. Deployment cycles and Permanent Change of Station (PCS) cycles create a military healthcare system that functions in a constant state of turmoil and transition.

Implementation of standardized programs has been problematic due to these high turnover rates and individualized hospital policies based on the local command. There is a lack of continuity and standardization in RRT programs in the Military healthcare system despite evidence that a standardized program can improve patient outcomes. Each hospital creates and operates their RRT programs based on local policy and procedures. Standardization of the RRT program is essential in a healthcare system that requires medical professionals to adapt to a new healthcare organization every three to four years as they are transferred among hospital facilities. The purpose of this Doctorate of Nursing Practice (DNP) Project is to create a standardized RRT policy based on current evidence and best practices and to present this policy to Dwight D. Eisenhower Army Medical Center (DDEAMC) for consideration for implementation.

Dedicated to the Soldiers, Airmen, Marines, and Sailors who continue to put themselves in harm's way every day. Your sacrifices do not go unnoticed, and your dedication and hard work are appreciated every day.

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## Chapter 1

### **Introduction**

The healthcare industry is continuously challenged to improve patient outcomes while remaining focused on cost-containment and patient safety. The National Patient Safety goals (2009) provide healthcare organizations with performance standards aimed at reducing morbidity and mortality rates. Rapid Response Teams (RRT) are one of the initiatives intended to decrease cardiopulmonary arrests outside the Intensive Care Unit (ICU), decrease unplanned admission into the ICU, and decrease mortality rates.

The last twelve years at war has created a high deployment rate for military medical personal. Each year military hospitals lose an average of eight to ten providers to support the War of Terrorism. Deployment cycles and Permanent Change of Station (PCS) cycles create a military healthcare system that functions in a constant state of turmoil and transition. Implementation of standardized programs has been problematic due to these high turnover rates and individualized hospital policies based on the local command. In an attempt to improve patient outcomes and meet the National Patient Safety goals (2009), the military healthcare system would benefit by standardizing the RRT.

### **Military Healthcare System**

The military healthcare system is made up of over 50 hospitals and 600 clinics described as located Contiguous United States (CONUS) and Outside Contiguous United States (OCONUS). Hospitals and clinics are located and operating within countries such as Germany, Italy and Korea. This unique healthcare system plays a pivotal role in providing acute and long-term care services to its service members, retirees, and their family members.



Also the Army Medical Department (AMEDD) classifies their hospitals as either a Medical Center (MEDCEN) or a Medical Activity (MEDAC). Hospitals are classified based on services provided, capabilities, and bed capacity. MEDCENs provide emergency medicine and cardiothoracic services as well as General Medical Education (GME) programs. A MEDCENs bed capacity can range between 100-300 beds. MEDACs are located within rural area and do not offer extensive services. Traditionally MEDACs are found on training posts such as Fort Polk, Louisiana or Fort Hood, Texas. The extents of a MEDACs services are focused on obstetrics, labor and delivery and orthopedic services.

Although the AMEDD is governed by Federal regulations, local leadership and commanders have the authority to create and enforce individualized policies and procedures. Lack of continuity and standardization across the military healthcare system poses a problem for clinicians and creates patient safety concerns (Zarzuela, Ruttan-Sims, Nagatakiya, & DeMerchant, 2013).

**Military turnover rate.** The military's turnover rate of active duty healthcare professionals has been occurring for decades. The military enforces frequent changes in duty assignments as an attempt to grow and mentor a well-diversified group of soldiers and healthcare professionals. Physicians and nurses are two professions within the AMEDD that are required to PCS every three to four years. This creates an extremely high turnover rate within the individual hospital or clinic facilities within the Army healthcare system. Military turnover rates can be broken down by PCS cycles, End Term of Service (ETS), retirement, and deployment.

Turnover can be defined as an internal or external process by which nurses decide to leave an organization (Hayes et al., 2011). Turnover rates refer to a numeral value placed on the number of nursing personal who leave the organization entirely or transfer laterally to a different

unit (Hayes et al., 2011). The AMEDD is made up of a group of healthcare professionals who volunteer to join the armed forces. Although these individuals entered service voluntarily, the expectation to move every three to four years is difficult for some people to handle. With this situation, it is sometimes unclear whether to classify the military high turnover rates as voluntary or involuntary. The military's high turnover rate is based on the underlining rules governing the PCS cycle and rotation amongst all AMEDD officers. Frequent change in duty stations requires all military health care professionals to remain flexible, adaptable and capable of adjusting to a new set of local governing rules and regulations.

### **Standardization in Healthcare**

Standardization is a term that sometimes receives negative feedback from the healthcare industry. Standards can be used to regulate behaviors and actions. They can be used to achieve a desired action or assist in producing optimal results (Zarzuela, Ruttan-Sims, Nagatakiya, & DeMerchant, 2013). Many healthcare professionals feel intuition and experience are more valuable compared to standardized pathways or recommendations. The benefits of standardization in healthcare have been proven to improve patient outcomes at a cost effective rate (Zarzuela, Ruttan-Sims, Nagatakiya, & DeMerchant, 2013). Basic Life Support (BLS), Advanced Cardiac Life Support (ACLS), and Pediatric Advanced Life Support (PALS) are three examples of standardized practices or algorithms developed by the American Heart Association (AHA) and used throughout most of the United States (U.S) as a form of standardized practice.

Clinical pathways are tools used to manage the quality of healthcare regarding the standardization of care processes. Clinical pathways have been shown to improve patient care, identify best practices, and recognize education and training needs (Huang, Lu, & Duan, 2012). Clinical pathways, BLS, and ACLS are a few examples of standardized procedures utilized

throughout many healthcare organization within the U.S. Standardized processes provide a foundation for continuity in a vast changing healthcare environment.

### **Introduction of the Rapid Response Team**

Since the 1990s evidenced has demonstrated that early recognition of patient deterioration and early intervention can improve patient mortality rates (Halvorsen, Garolis, Wallace-Scroggs, Stenstrom, & Maunder, 2007). In 2005, The Institute for Health Improvement (IHI) launched its 100,000 Lives Campaign. The goal of the campaign was aimed at preventing 100,000 avoidable hospital deaths. The IHI asked healthcare organizations to implement six evidenced based practices (EVP) to decrease patient deaths. One of those EVPs was the deployment of Rapid Response Teams (RRT) (Institute for Healthcare Improvement, 2009). The IHI recognized that the creation and implementation of RRTs was a significant strategy to prevent in hospital cardiac arrest, reduce unplanned ICU admissions and decrease hospital mortality rates (Halvorsen et al., 2007). The intent and objective behind RRT are clearly articulated within the IHI 100,000 Lives Campaign as well as in The Joint Commissions 2009 Patient Safety Goals. In 2008, the IHI published a Getting Started Kit that provided very general guidelines and examples of how to implement an RRT (Institute for Healthcare Improvement, 2009). Throughout the last several years individual hospitals have adapted their RRTs based on organizational needs and available resources. Rapid response teams should become standardized across the military healthcare system. Although some hospitals may offer different services, the core essentials needed to create and sustain an RRT program are available within all Army hospitals.

## **Problem Statement**

There is a lack of continuity and standardization in RRT programs in the Military healthcare system despite evidence that a standardized program can improve patient outcomes. Each hospital creates and operates their RRT programs based on local policy and procedures. In addition, standardization of the RRT program is essential in a healthcare system that requires medical professionals to adapt to a new healthcare organization every three to four years as they are transferred among hospital facilities. The purpose of this DNP Project is to create a standardized RRT policy based on current evidence and best practices and to present this policy to Dwight D. Eisenhower Army Medical Center (DDEAMC) for consideration for implementation.

## Chapter 2

### **Review of Literature**

The Military Healthcare system is responsible for providing healthcare to thousands of service members, retirees, and their beneficiaries. It is crucial that such a significant and vital system standardize their safety initiatives to ensure they continue to provide safe and effective care. Rapid Response Teams (RRT) are a multidisciplinary group of trained critical care providers. They are responsible for performing triage and treatment on patients outside of the Intensive Care Unit (ICU) who exhibit signs of physiological deterioration. RRTs have been developed to identify patients at risk, provide early intervention and have a specialized team identified and trained to respond within an organization (Jones, Devita & Bellomo, 2011).

There is no literature available on military RRTs or Medical Emergency Teams (METs). Due to the lack of standardization across the military's RRTs there is an inability to begin benchmarking or measuring individual organizational success.

### **History of Rapid Response Teams**

RRTs are a safety initiative that was started in 2005 after the Institute for Healthcare Improvement (IHI) published its 100,000 Lives Campaign. The IHI believed that RRTs would provide healthcare organizations the opportunity to decrease the number of in-hospital deaths, cardiac arrest and admissions into the ICU. This would in turn improve patient outcomes and reduce overall healthcare costs (Stolldorf, 2008). It is assumed that if medical interventions are provided during a time of physiological instability, progression to cardiopulmonary arrest may be averted reducing the number of ICU admission, mortality rates and hospital costs (Winter & Dorman, 2006). The IHI predicted that RRT implementation would save at least 122,300 lives within an 18 month period (May 2004-June 2006) (IHI, 2004, IHI, 2006, Stolldorf, 2008). RRTs

were one of the IHIs six initiatives quickly adopted by healthcare organizations throughout the United States.

There are several terms floating throughout the healthcare industry that are used to describe a group of medical professionals who respond to medical emergencies. Medical emergency teams, rapid response teams, or critical care outreach teams and they are all made up of a group of medical experts who respond to emergencies within a hospital to prevent cardiopulmonary resuscitation (Mitchell et al., 2014). The first International Conference on Medical Emergency Teams (ICMET) met in 2005 to discuss the basic requirements of a rapid response team. The ICMET determined that RRTs should contain the following four competencies: Ability to prescribe treatment, advanced airway management skills, intravenous line insertion and have the capacity to begin critical care services at the bedside (Devito et al., 2006). Experts found that several different staffing models exist for RRTs; some teams are led by a physician while others are led by a critical care nurse. Some teams contain a Respiratory Therapist (RT) while others suggest having a pharmacist as part of the team's makeup. No matter how the team is devised the intent is to provide critical care services to any outlying area in the hospital with the goal of reducing the need for cardiopulmonary resuscitation (Devito et al., 2006). The IHI provided several models to be considered for RRT composition; ICU RN, RT, Intensivist; ICU RN, RT; ICU RN, RT, Intensivist, Resident; ICU RN, RT, Physician Assistant (PA); ED or ICU RN (Institute for Healthcare Improvement, 2009).

### **Positive Patient Outcomes**

A number of patients experience adverse events or medical emergencies during their hospitals stay. They typically present with signs and symptoms of instability in the form of tachypnea, hypotension, decreased oxygen saturation or altered mental status (Devito et al.,

2006). Some studies have shown that patients present with signs of deterioration for six to eight hours leading up to cardiac arrest. There are occasions when these signs are not apparent or are sudden and may not be recognized by the bedside nurse (Mitchell, Schatz, & Francis, 2014). RRTs are designed to identify and treat patients before they deteriorate to the point requiring cardiopulmonary resuscitation (Scott & Elliott, 2009). In addition, RRTs allow medical staff to circumvent the typical chain of command. Staff nurses are empowered to activate the RRT based on intuition or signs of deterioration. Nurses do not have to call the patients primary physician and wait for a response. This RRT intervention provides non-critical care bedside nurses with a quick assessment by a qualified team who can provide a patient with life-saving interventions (Grissinger, 2010).

A study conducted in an 870-bed hospital in Raleigh, North Carolina found that after thorough education and training proper RRT utilization resulted in a 39.5% reduction in unplanned transfers into the ICU and a 31.2% decrease in mortality (Hatlem, Jones, & Woodard, 2010). A prospective, controlled before and after trial was conducted in a large teaching hospital to evaluate the effects an emergency medical response team would have on decreasing the rate of adverse outcomes in surgical patients. Patients included in the study were those who were classified as having major surgery. Major surgery was defined as any operation requiring a hospital stay longer than 48 hours. At the conclusion of the four-month intervention period, it was found that post-operative adverse outcomes were reduced by 57.8%, ICU admission was reduced by 44.4%, and postoperative deaths were reduced by 36.6% (Bellomo et al., 2004). The implementation of a medical emergency response team was associated with a decrease in severe, in hospital adverse outcomes.

Although there is still some conflicting evidence on the success and positive impact of RRTs, these emergency response teams continue to be utilized throughout most of the United States healthcare system and abroad. RRTs are made up of a group of trained medical professionals who are focused on preventing and responding to a potentially life threatening situation outside of a critical care unit (Butner, 2011).

### **Team Composition**

In the article *Designing a Critical Care Nurse-Led Rapid Response Team Using Only Available Resources: 6 Years Later* (2014) the authors created an RRT which included the hospital supervisor, the Intensive Care Units (ICU) nurse manager and a RT. The hospital was unable to support a dedicated registered nurse position and feared staffing the RRT with a nurse who may have a patient assignment could lead to the nurse having the leave a patient unattended during an RRT emergency (Mitchell, Schatz, & Francis, 2014). At the completion of the first year, post RRT implementation, cardiac arrest outside the ICU decreased from 83% to 12.7%, producing sustainable decreases in the percentage of cardiac arrest outside the ICU (Mitchell et al., 2014).

In another study, in a 483-bed acute care medical center, the RRT was composed of a critical care nurse, a RT and an internal medicine physician. The physician and nurse worked together to complete an overall assessment of the patient while the respiratory therapist managed the airway. The primary staff nurse assigned to the patient was required to stay at the bedside in the event the physician required any background information on the patient (Halvorsen, Garolis, Wallace-Scroggs, Stenstrom, & Maunder, 2007).

In a study that was conducted in a 350-bed hospital in Rhode Island the researchers sought to demonstrate that a PA lead rapid response team, would improve patient outcomes.



There are a number of studies demonstrating the positive effects of a physician led RRT, therefore the researchers decided to set up their initial RRT with a PA as its team leader. The team was composed of a critical care nurse with more than five years of experience, a RT and a PA as team leader. The hospital had an intensivist available from 8:00am to 8:00pm daily in the event the RRT required back up. The PAs assigned as RRT team leaders shadowed an anesthesiologist to practice intubations, spent two weeks with emergency medicine physicians to learn advanced airway management and one month with the intensivists to refine their skills with central line insertions. The hospital utilized PAs due to a shortage of internal medicine physician willing and able to maintain round-the-clock operations leading the RRT. The study concluded that PA led RRTs were a positive addition to the team and helped improved patient outcomes. The hospital's mortality rate decreased from 2.82% to 2.35%; ICU admission decreased from 45% to 29% and cardiac arrests outside the ICU decreased from 7.6/1000 patients to 3.0/1000 patients. The implementation of a PA led rapid response team showcased exemplary results in improving patient outcomes and decreasing avoidable inpatient deaths (Dacey et al., 2007).

### **Activation Criteria**

Once a rapid response team is created hospitals must devise a way to activate or initiate RRT call. Activation criteria vary across healthcare organization. Some hospitals include family and patients in their activation criteria allowing them to call RRT if they fear for the safety and well-being of their family member. The University- of Pittsburgh Medical Center (UPMS) allows patients and their families to address concerns by RRT activation. Patients and their families were instructed to pick up a phone anywhere in the hospital to report a condition "H" for help. They were instructed that this was a means for them to voice concerns, articulate if they felt something was wrong, or receive additional information pertaining to their care if they felt

confused. The RRT in this setting provided the nursing staff, patients and their family members with a sense of security knowing that someone was always readily available to respond to a situation that required an experienced team to intervene when lifesaving measures may be needed (Grissinger, 2010).

According to the literature, RRT activation fluctuates based on the organization's capabilities and team composition. A 175-bed community hospital provided activation criteria through face to face training as well as placement of the RRT phone number on a sticker posted throughout the facility. If a call was initiated, a page was sent out providing the patient room number to the nurse assigned to the RRT, a respiratory therapist, and the nursing supervisor (Brown, Anderson, & Hill, 2012).

A RRT activation criterion extends beyond the availability of equipment or information pertaining to how to phone or page RRT members. There is a large body of literature available describing the patient's psychological and physiological signs and symptoms that warrant RRT activation. In a study conducted at seven Australian hospitals researchers found that abnormal respiratory rate, systolic blood pressure, heart rate and a patient's Glasgow Coma Scale (GCS) were all predictors of an unplanned admission to the ICU, cardiopulmonary resuscitation or death. After evaluating 450 cases, it was found that respiratory rates greater than 36 breaths/min, heart rate greater than 140 beats /min, systolic blood pressure less than 90 mmHg and a decreased GCS were predictors of serious events leading to patient deterioration and possible death (Cretikos et al., 2007).

### **Need for Standardization**

According to the IHI, RRT utilization is measured by calculating the number of RRT calls per patient discharge. Tracking RRT activation provides a means to measure its use and

effectiveness. A large, tertiary care hospital developed a logistics regression model to calculate the number of observed RRT calls compared to the number of expected calls. The purpose of the study was to begin benchmarking the activation and use of RRT to determine which departments utilize the team more frequently. The outcome of the study found that although patient variables such as age, admission diagnosis, severity of illness and risk of mortality was associated with higher RRT utilization, there was still a significant inter-service variability within the organization (Barocas et al., 2014). Before benchmarking and public reporting can begin, reducing the level of variability across services and creating standardization across the organization must first take place.

Stolldorf (2008) discusses how the lack of standardization across RRT staffing models, training and development and activation criteria restricts the ability of the medical community to formally research and conclude what are the best methods and methodologies used to operate a RRT. Devita et al. (2006) proposes that standardizing RRT terminology will help improve communication within an organization and improve the training and development of hospital staff prior to implementation and during utilization. With several disparities found from one organization to another, it is almost impossible to conclude which type of RRT composition would be best utilized in improving patient outcomes. Standardizing any new treatment or program is vital for measuring best practices and it enables benchmarking across facilities and promotes areas for future research (Devito et al., 2006).

## **Needs Assessment and Description of the Project**

The goal of this DNP project is to incorporate a standardized RRT within all military healthcare facilities. This DNP project is focused on presenting the command team at Dwight D. Eisenhower Army Medical Center (DDEAMC) with recommendations for a standardized RRT program based on current literature and best practices.

### **Population Identification**

The populations that will be affected by a standardized RRT program are active duty service members, retirees, and their family members who receive care at Dwight D. Eisenhower Army Medical center (DDEAMC). The populations of healthcare professionals that will be primarily affected are the nursing staff working within DDEAMCs Inpatient Services (IPS). IPS is broken down into three sections: Intensive Care Unit (ICU), 11W which is a combined telemetry/progressive care unit, and 9MSP which is a medical surgical unit. DDEAMCs team of critical care intensivists and respiratory therapist will also play a role in standardization.

### **Key Stakeholders**

The key stakeholders of a standardized RRT program are the Hospital Commander, Director of Clinical Care Services (DCCS), Deputy Commander of Nursing (DCN), Assistant Deputy Commander of Nursing (ADCN) and the Director of the Critical Care team.

### **Organizational Assessment**

DDEAMC is a 95-bed Medical Treatment Facility (MTF) located in Augusta, GA. DDEAMC originated in 1941 under the name of Camp Gordon Station Hospital. At that time, the hospital was responsible for caring for WWII casualties and their dependents. Today DDEAMC serves over 35,000 active duty service members, retirees, and their beneficiaries (U.S Army Medical Department, Dwight D. Eisenhower Army Medical Center, 2015).

## **Assessment of Available Resources and Team Formation**

DDEAMC staffs over 2,500 employees: 1,373 civilians, 788 active duty, 350 contractors and 150 volunteers. The ICU employs 38 registered nurses, 11W employs 40 registered nurses and 20 Licensed Vocational Nurses (LVNs), 9MSP employs 45 registered nurses and 15 LVNs. DDEAMC has five staff intensivists and ten full-time RTs. The ICU typically has five residents assigned for a 30-day rotation.

Proposed RRT composition will be based on current literature and evidence of best practices. Currently, the team is composed of one critical care nurse and one second year ICU resident.

## **Scope of the Project**

This project is intended to provide a standardized RRT program to the leadership team of DDEAMC. The first step, in accomplishing this task, I performed a thorough literature review in order to compare and contrast recent data and best practices. Next, information was sought from six different Military Treatment Facilities (MTFs) with the hopes of gaining access to review their local RRT program and policies. The goal was to analyze what other military organizations are using as their RRT framework and compare that to current evidence and best practices and use that information to propose an appropriate change in practice within DDEAMC, ultimately working to standardize all military RRTs.

## **Mission, Goals, and Objective Statement**

### **Mission Statement**

Rapid response team utilization has become a safety initiative since 2005. The military healthcare system currently lacks a standardized RRT policy. Individual hospitals compile and utilize their teams based on available resources. A standardized RRT policy is required in an

effort to benchmark success and provide continuity of practice for a highly mobile population of healthcare professionals. The author analyzed six RRT policies against current research and will make recommendations for changes in practice to the leadership team of Dwight D. Eisenhower Army Medical Center (DDEAMC) in Fall 2016.

## **Goals**

The goal of this DNP project is to standardize military RRTs. Standardization across the military healthcare system will create an opportunity for benchmarking and provide a continuity of practice for frequently rotating military healthcare professionals.

Goal #1. Create a standardized rapid response team model based on available personnel within the Army healthcare system;

Goal #2. Create a multi-disciplinary RRT training program;

Goal #3. Standardize the RRT patient activation criteria in terms of pathophysiological and psychological presentation and

Goal #4. Standardize the mode for RRT activation i.e. pagers, overhead announcement

## **Objective Statement**

To create a RRT policy that will provide the military healthcare system with a set of standardized operating procedures for team composition, activation criteria, and sustainment training.

## Chapter 3

### **Theoretical Framework**

Kurt Lewin's Change Theory (McEwen & Wills, 2007) and Malcolm Knowles, Adult Learning Theory (McEwen & Wills, 2007), provide theoretical frameworks that support the change from current RRT practice to standardized RRT procedures. A need for change has been identified in reference to the standardization of the procedure for the military's RRTs. Change most often creates chaos and resistance for key players. Utilizing Kurt Lewin's change theory as the foundation to begin the change process will provide my project with a model to guide the organization from start to finish. The application of Knowles Adult Learning Theory will provide the necessary framework for adult learners being asked to follow a revised policy and learn new procedures. Knowles adult learning theory will be utilized to assist experienced, adult learners in accepting the need for change and be willing to incorporate evidenced based practices into their daily lives.

### **Change Theory**

Kurt Lewin was one of the earliest theorists to suggest human behaviors are connected to both the person and its environment and behaviors are drawn from two coexisting forces. Lewin's field theory is the foundation for planned change (Brug, Van Lenthe, & Kremers, 2006) (Burnes & Cooke, 2013). The need for planned change is identified by a change agent. The change agent is responsible for recognizing change takes time and should occur gradually. Lewin's force field model proposed change can be broken down into three distinct phases: unfreezing, changing and refreezing (McEwen & Wills, 2007). In the initial phase of unfreezing, people begin to recognize the need for change. This recognition occurs because things may have become obsolete or organizational disaster resulted from internal or external threats. In the

changing phase, new ways of doing things are identified, and the proposed changes take place in the refreezing phase (Yukl, 2012).

Based on Kurt Lewin's model, the unfreezing phase occurred when the need for RRT standardization was identified. One major obstacle or opposing force that could create feelings of apprehension is the constant state of change experienced by the employees of DDEAMC. A few of the RRT stakeholders may fear that a standardized policy will remain in place for only three to four years until the leadership team is replaced. Members of the RRT and key players will be educated on current evidence based RRT practices with the intent to provide a basis for their acceptance of the proposed change. The unfreezing stage will incorporate a town hall meeting with all the key players involved in the current and proposed RRT program. At this time information pertaining to the organizations driving and opposing forces will be provided. Driving forces move toward a positive state and reinforce the need for change. Restraining forces are those individuals that choose to maintain status quo (Bozak, 2003). Outcomes from current best practices will serve as the driving force. Apprehension and fear of loss of the existing condition of contentment will most likely serve as restraining forces. With proper planning, it is during the refreezing phase that members of an organization begin to realize there is a need for change (Bozak, 2003).

The changing phase will take place during the development of the revised RRT program. Although, I will not be implementing the revised RRT program, the refreezing phase will take place when I present the standardized program to the leadership team of DDEAMC. During the refreezing phase, the leadership will decide to remain status quo or choose to implement a standardized RRT program. In the refreezing phase, stabilization occurs. If stabilization is successful and not met by any internal or external resistance, change is incorporated into the



system (McEwen & Wills, 2007). Yukl (2012) described the refreezing phase as a time when a new approach becomes established.

### **Adult Learning Theory**

Since the 1990s, Malcolm Knowles has been credited with popularizing the notion of andragogy; theory of adult learners. Knowles believed the most important aspects of facilitating adult learners was by creating a climate of comfort, trust, respect and acceptance of differences. Knowles identified six assumptions for adult learners; need to know, self-concept, experience, readiness to learn, orientation to learning and motivation. He believed adult learners need to know the “why” behind learning something new. This is a key element throughout this DNP project. Not only will the key stakeholders want to know why the current RRT program should be standardized but the RRT members will require a full understanding of the benefits to change.

The proposed changes to the current RRT programs throughout the military healthcare system will incorporate a modified team composition and include training requirement adjustments. RRTs are composed of experienced healthcare providers with vast experience and clinical knowledge. Proposing a change to training requirements could create a conflict for several members of the RRT. Change disturbs the status quo; it can lead to confusion and chaos. Resistance to change should always be expected (McEwen & Wills, 2007). Incorporating Knowles assumption of experience, this DNP project will integrate not only evidenced based practices it will include the vast knowledge and experience of the RRT members. Motivation is the cornerstone to acceptance of change. Adult learners are driven by a desire to solve problems. This assumption will be utilized during the implementation of my dissertation project. Experienced healthcare professionals are more willing to embrace a change in practice if it has been proven to improve patient outcomes. In addition, healthcare professionals are driven to their

field based on their desire to care for others and improve patients' lives. Maturity and experience direct adult learners towards a more problem-centered focus (Budd & Freeman, 2004). Malcolm Knowles adult learning theoretical framework will provide a foundation for learning about the standardized RRT policy. Knowles adult learning theory provides a better understanding of what helps facilitates change and drives adult learners. These assumptions will be incorporated throughout the planning, development and implementation phases of this DNP project.

## Chapter 4

### **Project Plan**

#### **Setting**

The setting for the DNP project will take place at Dwight D. Eisenhower Army Medical Center (DDEAMC), Georgia. DDEAMC is a 95-bed military hospital responsible for the treatment and care of active duty service members, retirees, and their beneficiaries. The specific units involved in the project will be the Intensive Care Unit (ICU), 11W (a combined telemetry and Progressive Care Unit (PCU)), and 9 MSP (medical surgical and pediatric unit).

#### **Population of Interest**

Project participants will include the Clinical Nurse Officer in Charge (CNOIC) - ICU, CNOIC - 11W, CNOIC- 9MSP, Chief of Critical Care, Chief of Surgery, Chief of Respiratory Therapy, all assigned residents to the ICU, ICU, 11W and 9MSP staff members.

#### **Measures, Instruments, and Activities**

The source of data utilized for this project was Rapid Response Team (RRT) policies from six different military Medical Treatment Facilities (MTFs) and current literature and evidence supporting the use of RRTs.

#### **Timeline**

The first project milestone was completed on 10 March 2015 with the successful completion of the DNP project proposal. During the summer 2015 semester, Institutional Review Board (IRB) was sought from the University of Nevada, Las Vegas. This project is a systematic investigation that will not involve human subjects or develop or contribute to generalizable knowledge, therefore, excluded.

During the summer 2015 semester, RRT policies from six different MTFs were obtained. The RRT policies were compared and contrasted with current best practices. The next step was

to develop a standardized RRT policy that will define a standardized team composition, training requirements and educational programs. During fall 2016, the proposed changes will be presented to the hospital command team at DDEAMC. Each member of the command team will be provided the opportunity to make suggestions and offer input. Upon approval, members of DDEAMC will have a new, standardized RRT program to implement within the organization.

### **Projects Tasks and Personnel**

The final projects task is to create a standardized RRT program from best current practices. To achieve this, the following additional tasks were required. An evaluation of six different MTFs RRTs policies was obtained. These six policies were analyzed and compared against best practices. The two primary key personal are the DDEAMC hospital command team and the DNP project author.

### **Resources and Supports**

The standardized RRT policy will utilize resources and personnel currently within DDEAMC. The support of DDEAMCs Chief of Critical Care was required in obtaining RRT policies from six outlining organizations. In the event the DNP project author meets resistance in obtaining RRT policies from outside organizations, the Chief of Critical Care will be asked to reach out to his counterparts for assistance.

### **Risks and Threats**

The risks or threats include the inability to obtain six different RRT policies from different military hospitals and the possibility of a lack of support from the hospital command team. If the hospital command team is reluctant to change, utilization of strategies consistent with Lewin's Change Theory of Change (McEwen & Wills, 2007), will be important. Kurt Lewin's Theory of Change, was utilized as a framework during the development of the RRT

program and throughout the final proposal to the hospital command team. It is critical that all key players understand the importance of change and the benefit a standardized RRT policy will be for the organization.

### **Evaluation Plan**

#### **Marketing Plan**

Once the standardized RRT policy is approved, the marketing plan will consist of educational posters distributed throughout DDEAMC. RRT pamphlets will be placed at all nurses stations, and one pamphlet will be included with all patient admission packets. First-year residents will be provided a one day in-service on the role and responsibility of RRT members. Second-year residents will be provided a two-day in-service which will include hands on training. All new nurses assigned to DDEAMC are currently required to attend a 15 minute in-service on RRTs. This will be increased to a 45-minute block of instruction to ensure all nurses are well aware of the policy and role in RRT activation. RRT badges will be worn by all DDEAMC employees. These badges will provide a quick snap shot of RRT requirements. They will contain RRT activation phone numbers and patient vital signs that warrant RRT activation.

#### **Financial Plan**

There will be no financial plan needed. This DNP project will utilize personal and resources readily available at DDEAMC. No additional personal or equipment will be required.

#### **Institutional Review Board Approval**

Summer 2015 semester, IRB determination through the University of Nevada, Las Vegas was submitted and approved. A determination letter stating the DNP project was determined not to be research by definition therefore excluded.

## CH 5

### Summary of implementation and results

#### Initiation of the Project

The project was started by selecting six Army Medical Treatment Facility (MTF) Rapid Response Team (RRT) policies that would be compared and contrasted against one another. The six MTF's individual RRT policies met the minimum requirement set by The Joint Commission; however each facilities policy was different and some fell short of the evidence based requirements set by the IHI.

The Army Medical Department (AMEDD) is made up six Medical Commands: Northern Regional Medical Command, Southern Regional Medical Command, Western Regional Medical Command, Pacific Regional Medical Command and Europe Regional Medical Command.

Within those six commands are 50 hospitals and 600 clinics. Military hospitals are then broken down into Medical Centers (MEDCEN) and MEDDACs also referred to as community hospitals.

The six MTFs chosen for the DNP project were based on size and available resources. The following six MTFs were chosen for inclusion: Brooke Army Medical Center (BAMC), San Antonio, Texas; Tripler Army Medical Center (TAMC), Hawaii; Dwight D. Eisenhower Army Medical Center (DDEAMC), Fort Gordon, GA; Womack Army Medical Center (WAMC), Fort Bragg, North Carolina; Reynolds Army Community Hospital, Fort Sill Oklahoma and Bayne-Jones Community Hospital, Fort Polk, Louisiana; .

Brooke Army Medical Center is a 450-bed facility and the Army's only level one trauma center. The hospital provides inpatient and outpatients services to active duty, reserve, retired service members and their family members located in the city of San Antonio, Texas. Some of the available resources include Family Medicine, Internal Medicine, Neurology, General

Surgery, Orthopedics, Child Neurology, Physical Medicine, Psychology, and Radiation Oncology. TAMC is a 200 -bed facility located on the island of Honolulu, Hawaii. TAMC is the largest medical treatment facility in the entire Pacific Basin. Tripler provides services to the Pacific Region to include Guam and the Philippines. TAMC is equipped to provide the following services: Family Medicine, Internal Medicine, General Surgery, Urology, Radiology, Psychiatry, Otolaryngology, and Pediatrics.

Dwight D. Eisenhower Army Medical Center (DDEAMC) is a 98-bed facility located in Augusta, Georgia. The hospital is equipped to provide the following services: Family Medicine, General Surgery, General Surgery Research, Internal Medicine and Orthopedics. WAMC is a 105-bed facility located on Fayetteville, North Carolina. The hospital is outfitted to provide Family Medicine, Orthopedic, and Obstetrical-Gynecological services.

Reynolds Hospital and Bayne-Jones Army Hospital are two of the Army's smaller community hospitals. Reynolds Community Hospital is located in Fort Sill, Oklahoma. It is a 24-bed facility providing general surgical and medical services. Bayne-Jones Community Hospital is a 22 -bed facility located in Fort Polk, Louisiana. Baynes-Jones Community Hospital provides general medical and surgical services to the Joint Readiness Training Center and the Fort Polk Community.

Once the six MTFs were chosen the proponent for each of the MTFs RRT policies were located and contacted via email. Each MTFs Clinical Nurse Specialist (CNS) was emailed requesting a copy of their RRT Policy. The email contained a short introduction and reason behind the request. Within a week, five of the six CNS's provided a copy of their RRT policies. TAMCs CNS directed me to contact the director of critical care. The director was the proponent for the hospitals policy, and I required his approval before receiving a copy. An email was later

sent to the director of critical care and shortly after I received a copy of their RRT policy. Since the military healthcare system is made up of several different hospitals located throughout the world, the policy was created broad enough to meet the diverse needs of all military healthcare organizations.

Once the policies were received a chart was created comparing each of the six RRT policies. The chart was used to outline the following items: team composition, training, activation criteria and mode used to activate the RRT. The chart was compared against the National Guideline Clearinghouse (National Guideline Clearinghouse, n.d.), RRT policy recommendation, The Institute for Clinical Systems Improvement (Institute for Clinical Systems Improvement, n.d.) and current literature.

**Team composition.** Rapid Response Team members were chosen based on available personnel across the military healthcare system. The RRT will be composed of a physician, nurse, RT, and nurse supervisor. The RRT physician will be an attending or resident. All military hospitals have at minimum a resident physician on duty at all times. This will provide the team with an in-house physician to support the RRT 24 hours a day, seven days a week. When an attending is available they will be authorized to respond to an RRT call in the place of the resident physician.

The RRT nurse will be categorized as a critical care nurse. This provides the individual facilities the option to staff the team with an ICU or ER nurse. Those community hospitals not equipped with an ICU will be required to utilize their ER nurses as members of the RRT. The respiratory therapist was chosen to provide airway support during the initial activation. This allows the physician and nurse to focus on a head to toe assessment. The nursing supervisor was added as an RRT member to provide administrative support. They will be required to respond to



the RRT call and help facilitate all administrative requirements. They will remain present until the patient is transferred to a higher level of care or if the physician officially deactivates the RRT call. If the patient requires a higher level of care, the nursing supervisor will coordinate with the gaining and losing units and help facilitate the transfer.

**Activation criteria.** The RRT activation criteria were based on current literature and the recommendation made by the National Guideline Clearinghouse (National Guideline Clearinghouse, n.d.). The majority of the military's RRT policies contain activation criteria covering the following abnormal physiological markers: respiratory rate, heart rate, oxygen saturation (spO<sub>2</sub>), acute mental changes, and family and staff members concerned. The following additional criteria were added to provide the military healthcare organizations with a larger range of activation criteria: chest pain, symptoms of stroke and significant changes in skin, fluid status and pain.

**Mode of activation.** A standard pager system will be utilized as the primary mode for RRT activation. The RRT pager number will be located at the nurse's station throughout the facility, and a sticker will be placed on all in house phones. This will provide the staff and family members with quick access to the RRT activation number. In the event the pager system fails staff or family members will be authorized to call the ICU directly to activate the RRT. If staff, or family members are unable to reach the ICU they will be authorized the dial "0" on any house phone and notify the operator to activate the RRT by placing an overhead page across the healthcare organization. RRT activation can be initiated by any of the three options. This provides all organizations with the ability to utilize a pager system, telephone or overhead system to activate the RRT.

To ensure family members are aware of the activation number stickers will be placed on every phone located in patient rooms and on all house phones located throughout the facility.

The RRT pager number and ICU number will be located on each sticker.

**Team training.** Team members will be required to maintain the following certifications while serving as an RRT member: BLS, ACLS, and PALS. Team members will be required to participate in one team simulations exercise per quarter. Simulation training will be organized and tracked by the Department of Hospital Education and Training (HET). Simulation training is an effective method for recreating clinical scenarios in a safe environment. Simulation training offers team members the opportunity to test the RRT activation and implementation plan (Lin, 2008).

Hospital staff members will receive initial RRT training during hospital orientation. A 45-min lecture will be provided by an RRT member to all new employees explaining the role of the RRT, activation criteria, and the mode to activate the team. Annual RRT training will be required by RRT members as well as all hospital employees. Annual RRT training will be conducting through APEQS training system. HET will maintain all records for training.

### **Threats and Barriers to the Project.**

The only expected barrier to the project is the inability to receive six different military RRT policies. Only one facility required me to contact the RRT director to receive a copy of their policy. No other threats were expected or endured.

### **Monitoring of the Project**

**Data collection.** Data was collected by receiving a copy of each of the six MTFs RRT policies selected for the DNP project.

**Data analysis.** Once all six RRT policies were received a chart was created comparing each of the six policies. The six policies were then compared against current literature, The National Guideline Clearinghouse and The Institute for Clinical Systems Improvement.

### **Giving Meaning to the Data**

This is neither a qualitative or quantitative study. This is a DNP project aimed at creating a standardized RRT policy to be instituted across the military healthcare system. The current military healthcare system lacks a standardized RRT policy. This lack of standardization has led to inconsistency in care, inability to benchmark organizational success and discrepancies in the implementation of RRTs across the military healthcare system.

The purpose of RRT's is to decrease the number of cardiopulmonary arrests outside the ICU, decrease unplanned admission into the ICU and decrease mortality rates. A standardized RRT policy across the military healthcare system will provide military and civilian employees with a standardized process to help alleviate discrepancy in assessment and treatment of patient exhibiting signs of deterioration. Standardization across the military healthcare system will create an opportunity for benchmarking and provide a continuity of practice for frequently rotating military healthcare professionals.

### **Operating Company Model**

The AMEDD has transformed into a High-Reliability Organization (HRO) with the implementation of the Operating Company Model (OCM) methodology as a means of decreasing variance and improving consistency, clarity, and accountability. Within the OCM framework, the AMEDD established several lines of effort aligning capabilities to improve patient safety, quality, efficiency, productivity, and financial optimization across multiple clinical domains. The OCM seeks consistency in processes and treatment modalities. It is a conceptual

representation on how an organization functions across processes, technology, and patient-focused functions to accomplish its mission (Dunbar, 2013).

A standardized RRT policy is in alignment with the AMEDDs transformation and acceptance of the OCM. A standardized policy will provide the AMEDD with a means to benchmark and measure organizational success.

### **Dissemination and Utilization of the Results**

In fall of 2016, the Dwight D. Eisenhower Army Medical Center (DDEAMC) leadership team will be presented with the proposed RRT policy. Each member of the command team will be provided the opportunity to make suggestions and offer input. Upon approval, members of DDEAMC will have a new, standardized RRT program to implement within the organization.

## Appendix A

<b>Organization</b>	<b>Team Composition</b>
<b>Eisenhower Army Medical Center, Fort Gordon, Georgia</b>	<ul style="list-style-type: none"> <li>-critical care nurse</li> <li>-critical care doctor</li> </ul>
<b>Brooke Army Medical Center, San Antonio TX</b>	<ul style="list-style-type: none"> <li>-critical care nurse</li> <li>-respiratory therapist</li> <li>-patients primary care team</li> <li>-bed coordinator</li> <li>-nursing staff supervisor</li> <li>-rescue physician</li> </ul>
<b>Tripler Army Medical Center, Hawaii</b>	<ul style="list-style-type: none"> <li>-RRT Physician (ICU attending)</li> <li>-critical care Nurse</li> <li>-respiratory therapist</li> <li>-emergency department medic</li> </ul>
<b>Womack Army Medical Center, Fort Bragg, NC</b>	<ul style="list-style-type: none"> <li>- critical care nurse</li> <li>-respiratory therapist</li> <li>-nursing supervisor</li> <li>-critical care attending or resident physician</li> </ul>
<b>Bayne-Jones Army Community Hospital, Fort Polk, Louisiana</b>	<ul style="list-style-type: none"> <li>-emergency room nurse</li> <li>- respiratory therapist</li> <li>- emergency room physician</li> <li>-pediatric physician</li> </ul>
<b>Reynolds Army Community Hospital, Fort Sill, Oklahoma</b>	<ul style="list-style-type: none"> <li>-emergency room nurse</li> <li>-respiratory therapist</li> </ul>

**Appendix B**

<b>Organization</b>	<b>Team Training and Credentials</b>
<b>Eisenhower Army Medical Center, Fort Gordon, Georgia</b>	<ul style="list-style-type: none"> <li>- Initial Training: hosp. staff will receive RRT briefing as part of Newcomers Orientation to hospital and clinical tracks</li> <li>-RRT responders receive initial training by CNS or critical care designee</li> <li>-RRT competency checklist completed</li> <li>-Maintain BLS, ACLS, and PALS</li> </ul>
<b>Brooke Army Medical Center, San Antonio TX</b>	<ul style="list-style-type: none"> <li>- BLS</li> <li>-Hospital level orientation competency</li> <li>-ACLS</li> <li>-Annual simulation-based team training</li> </ul>
<b>Tripler Army Medical Center, Hawaii</b>	-none noted
<b>Womack Army Medical Center, Fort Bragg, NC</b>	<ul style="list-style-type: none"> <li>- Certification in BLS and ACLS</li> <li>-RRT Training</li> <li>-PALS training</li> <li>-simulation based team training</li> </ul>
<b>Bayne-Jones Army Community Hospital, Fort Polk, Louisiana</b>	None noted
<b>Reynolds Army Community Hospital, Fort Sill, Oklahoma</b>	-BLS, ACLS, PALS

**Appendix C**

<b>Organization</b>	<b>Mode of Activation</b>
<b>Eisenhower Army Medical Center, Fort Gordon, Georgia</b>	<ul style="list-style-type: none"> <li>-Dial 706-829-2277 (primary)</li> <li>- 706-829-2253 (alternate)</li> </ul>
<b>Brooke Army Medical Center, San Antonio TX</b>	<ul style="list-style-type: none"> <li>- Page the adult RRT using text or telephonic paging system</li> <li>-Text paging can be utilized for all pagers through <a href="http://www.usamobility.com">www.usamobility.com</a></li> <li>-Telephonic paging system can be utilized by dialing 513-2090 or by leaving a call back number.</li> <li>-if pager system is down, call 3 South (MICCU) 916-1410/5562/3291</li> <li>-Overhead pager system</li> </ul>
<b>Tripler Army Medical Center, Hawaii</b>	<ul style="list-style-type: none"> <li>-telephone paging 577-0066</li> <li>-text paging from the TAMC intranet homepage by clicking on the RRT Group Pagers link and then select adult, pediatric or neonatal</li> </ul>
<b>Womack Army Medical Center, Fort Bragg, NC</b>	<ul style="list-style-type: none"> <li>-Hospital staff activate RRT by dialing 910-643-2500</li> <li>-Family and friends activate RRT two ways:               <ul style="list-style-type: none"> <li>- Tell a hospital staff member to initiate RRT activation</li> <li>- dial 643-2500 from the patient telephone and tell the hospital reception desk attendant to initiate a RRT</li> </ul> </li> </ul>
<b>Bayne-Jones Army Community Hospital, Fort Polk, Louisiana</b>	<ul style="list-style-type: none"> <li>-use overhead pager by dialing 3800</li> </ul>
<b>Reynolds Army Community Hospital, Fort Sill, Oklahoma</b>	<ul style="list-style-type: none"> <li>-initiate activation by clicking on RRS icon on any computer in the Progressive Care Unit, Maternal Child Unit, PACU, or same day surgery. Enter the pts location and press send.</li> <li>-if computers are down, dial 115 and enter the page number 700. Enter the phone number of your location.</li> </ul>

**Appendix D**

<b>Organization</b>	<b>Patient Activation Criteria</b>
<b>Brooke Army Medical Center, San Antonio TX</b>	<ul style="list-style-type: none"> <li>-HR &lt;40 or &gt;130</li> <li>-RR &lt;8 or &gt;24</li> <li>-SP02 &lt;90% with supplemental oxygen</li> <li>-SBP &lt;90 mmHg</li> <li>-staff or family concern about patient clinical state</li> <li>-RRT can be initiated by staff, family member or visitors</li> </ul>
<b>Eisenhower Army Medical Center, Fort Gordon, Georgia</b>	<ul style="list-style-type: none"> <li>-staff concerned about patients clinical state</li> <li>-RR&lt; 8 or &gt;24</li> <li>- HR &lt;40 or &gt;130</li> <li>- Acute changed in mental status</li> <li>-Sp02 &lt;90%</li> <li>-SBP &lt;90mmHg</li> <li>- Family concerned about patients clinical state</li> </ul>
<b>Tripler Army Medical Center, Hawaii</b>	<ul style="list-style-type: none"> <li>-RR &lt;8 or &gt;28</li> <li>-HR &lt;40 or &gt;130</li> <li>-SBP &lt;90mmHg</li> <li>-Sp02 &lt;90% on supplemental oxygen</li> <li>-acute changes in mental status</li> <li>-staff concerned about patients clinical state</li> <li>-Family concerned about patients clinical state</li> </ul>
<b>Womack Army Medical Center, Fort Bragg, NC</b>	<ul style="list-style-type: none"> <li>-RR&lt;8 or &gt;24</li> <li>-HR &lt;40 or &gt;130</li> <li>-Acute changes in mental status</li> <li>-Spo2 &lt;90% on supplemental oxygen</li> <li>-Systolic Blood pressure &lt;90mmHg</li> <li>-Seizure Activity</li> <li>-Staff worried about patient's clinical state</li> <li>-Family concerned about patients clinical state</li> </ul>
<b>Bayne-Jones Army Community Hospital, Fort Polk, Louisiana</b>	<ul style="list-style-type: none"> <li>-RR &lt;8 or &gt;24</li> <li>-HR &lt;40 or &gt;130</li> <li>-Spo2 &lt;90 on supplemental oxygen</li> <li>-Blood Pressure (systolic) &lt;90 or &gt;180 and symptomatic</li> <li>-staff/visitor concerned about patient clinical status</li> <li>-new, repeated or prolonged seizures</li> <li>-sudden loss of movement, weakness of face, arms or legs</li> </ul>
<b>Reynolds Army Community Hospital, Fort Sill, Oklahoma</b>	<ul style="list-style-type: none"> <li>-RR &lt;8 or &gt;24</li> <li>-HR &lt;40 or &gt;130</li> <li>-Sp02 &lt;88% on supplemental oxygen</li> <li>-SBP &lt;90 or &gt;200</li> <li>-staff worried about patients clinical state</li> <li>-Patient/Family concerned about patients clinical state</li> </ul>





REPLY TO  
ATTENTION OF:

MCHF-IPS-ICU

15 JAN 2016

MEMORANDUM FOR All Personal Assigned to Dwight D. Eisenhower Army Medical Center

SUBJECT: Rapid Response Team (RRT)

1. **PURPOSE:** To establish policies and procedures for Rapid Response Team Practices and to ensure standardized team composition, activation criteria and training requirements.

2. **REFERENCES:**

A. The Joint Commission Comprehensive Accreditation Manual for Hospitals, National Patient Safety Goals.

B. The US Army Medical Command (MEDCOM), Quality Management Division (QMD), Patient Safety Web site, (<http://www.gmo.amedd.army.mil/ptsafety/pts.ht>)

C. National Clearinghouse Guidelines: Rapid Response Team Guideline Summary

3. **DESCRIPTION:** The Rapid Response Team at Dwight D. Eisenhower Army Medical Center (DDEAMC) is a patient safety initiative to speed the identification of and delivery of care to patients with clinical deterioration or factors suggesting impending deterioration. The goal of the RRT is to decrease the number of cardiopulmonary arrests that occur outside the Intensive Care Unit (ICU) and Emergency Department (ED) as well as increase patient, family and staff satisfaction.

The RRT is a hospital asset comprised of staff members from the patient's primary care team, ICU attending and/or resident physician, critical care nurse, respiratory therapist

and hospital bed manager. The RRT is distinct from the Code Blue team. Patients in cardiopulmonary arrest are not appropriate candidates for an RRT call and a Code Blue should be initiated on these patients.

RRT is available 24 hours per day, 7 days per week and responds promptly to calls.

4. **APPLICABILITY:** The policy applies to adult and pediatric inpatients on the following inpatient care units at DDEAMC: 11W, 9MSP, Interventional Radiology, PACU (after hours), 13E, Resident Treatment Facility (RTF) and Ambulatory Medical Care (AMC) Unit.

5. Team Composition:

- a. Department of Medicine: ICU attending and/or resident physician.
- b. Department of Nursing: Critical Care staff nurse
- c. Department of Respiratory: Respiratory Therapist
- d. Bed Coordinator/Evening/Night Nursing Supervisor.

6. Activation of the RRT is mandatory when the following parameters are met:

A. RR: <8 or > 28

B. HR: <40 or >160

C. Systolic Blood Pressure: <80 mmHg >180 mmHg

Diastolic Blood Pressure: >100

D. Chest Pain

- Unresponsive to nitroglycerin
- Acute new onset of pain

E. SpO<sub>2</sub>: <90% or supplemental oxygen

F. Acute change in mental status

1. Symptoms of stroke:

- Sudden loss or change in speech
- Sudden loss of movement (or weakness) of face, arms or legs
- Numbness and tingling

G. Significant acute change in:

- Pain

- Fluid status
- Skin color (pale, dusky, blue)

H. Staff concerned about patients clinical status

I. Family concerned about patients clinical status

## 7. RRT Activation

A. The activation criteria for the RRT are mandatory. A patient who meets any one of these criteria requires activation of the RRT. Therefore, individuals will not be dissuaded from calling or activating an RRT.

B. In situations where a patient is consistently meets RRT activation criteria but is otherwise stable (i.e a patient with a baseline SBP <90), the primary team Attending physician, or the resident in consultation with the Attending, may write an order suspending that specific criteria for the patient. The order must state that specific RRT activation criteria are suspended and new parameters for activation are annotated in the patients' electronic medical record.

C. Staff will activate the RRT at the patient/family members request

D. All staff are empowered to activate the RRT

E. During observation if the staff in uncomfortable with a patients condition, even in the absence of vital sign changes, the staff's concerns should be stressed as valid and encouraged to activate the RRT

F. Activation of the RRT is non-punitive. All RRT calls should be viewed as an opportunity for learning and fostering improvements in assessment or critical thinking skills. Regardless of the trigger for the call or the presumed validity, all calls should be viewed as an opportunity to advocate for the patient's safety.

G. An RRT response cannot be canceled, but individual team members may be dismissed if it is determined by the RRT that assistance is no longer needed and the primary team is physically present at the bedside.

## 8. RRT Mode of Activation:

A. Page the RRT team at 706-787-4567

B. Call the ICU at 706-787-1390

C. Page the ICU resident on duty 706-787-1278

D. Over head page the RRT 706-787-

## 9. RRT Training Requirements:

A. Team Member:

1. Required Certification:

- a. BLS
- b. ACLS
- c. PALS

2. Team Members will be required to attend one team simulation based exercise per quarter.

B. Hospital Staff:

- 1. RRT briefing as part of initial hospital orientation and clinical tracks
- 2. RRT update annually provided through APEQS training

10. Responsibility of RRT Members:

A. Critical Care Nurse:

1. Monitor the "On watch" system: Nurses assigned to the RRT during any given shift will be responsible for monitoring all patients whose vital signs are outside the normal limits. RRT nurse will be required to assess the on watch system at minimum every hour while assigned as RRT.

2. Rounding on Floors: Nurses assigned to the RRT during a given shift will be responsible for rounding each of the inpatient units every four hours. RRT nurse will communicate with charge nurse and nurse assigned to any patients populated on the on watch system. RRT nurse will conduct a quick assessment of any patient being monitored on the on watch system.

B. Coordinator/Evening/Night Nursing Supervisor:

1. Provide administrative support in the event the patient needs to transfer.

- a. Notify the gaining unit of a possible transfer

2. Determine and provide an acceptable number and mix of nursing personnel in response to the acute needs of the patient

10. Equipment Testing:

A. RRT nurse will conduct a test of the pager system once per shift

11. Data Collection:

A. An RRT log and hospital data base will be maintained by the Clinical Nurse Officer in Charge (CNOIC) of the ICU

B. Surveys will be provided to the initiating unit after each RRT call; evaluating the RRT response from the activator and primary team. All completed surveys will be placed in the CNOICs mailbox 48 hours after activation. (See appendix A)

12. The point of contact for this memorandum is MAJ Kristine Broger at (210) 380-2448 or [kristine.p.broger.mil@mail.mil](mailto:kristine.p.broger.mil@mail.mil).

//ORIGINAL SIGNED//  
KRISTINE BROGER  
MAJ, AN

Appendix F



**UNLV Biomedical IRB - Administrative  
Review Notice of Excluded Activity**

**DATE:**

**TO: FROM:**

**PROTOCOL TITLE: SUBMISSION TYPE:**

**ACTION: REVIEW DATE:  
REVIEW TYPE:**

January 19, 2016

Jessica Doolen, PhD, APRN UNLV Biomedical  
IRB

[755650-1] Standardization of Military Rapid Response Teams New Project

EXCLUDED - NOT HUMAN SUBJECTS RESEARCH January 19, 2016  
Administrative Review

Thank you for your submission of New Project materials for this protocol. This memorandum is notification that the protocol referenced above has been reviewed as indicated in Federal regulatory statutes 45CFR46.

The UNLV Biomedical IRB has determined this protocol does not meet the definition of human subjects research under the purview of the IRB according to federal regulations. It is not in need of further review or approval by the IRB.

We will retain a copy of this correspondence with our records.

*Any* changes to the excluded activity may cause this protocol to require a different level of IRB review. Should any changes need to be made, please submit a Modification Form.

If you have questions, please contact the Office of Research Integrity - Human Subjects at [IRB@unlv.edu](mailto:IRB@unlv.edu) or call 702-895-2794. Please include your protocol title and IRBNet ID in all correspondence.

Office of Research Integrity - Human Subjects  
4505 Maryland Parkway . Box 451047 . Las Vegas, Nevada  
89154-1047 (702) 895-2794 . FAX: (702) 895-0805 .  
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## Curriculum Vitae

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**KRISTINE P.BROGER RN, MSN, MHA, CCRN**

### EDUCATION

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May 2016                      University of Nevada, Las Vegas  
Degree: Doctorate Nursing Practice-Executive Nursing

July 2010                      University of Phoenix  
Degree: Master of Science in Nursing-Education

Mar 2008                      Webster University, School of Business and Technology  
Degree: Masters in Health Administration

May 2002                      Seton Hall University, School of Nursing  
Degree: Bachelor of Science in Nursing

### PROFESSIONAL EXPERIENCE

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**May 2015- Present    Army Legislative Liaison**  
**Office, Chief of Legislative Liaison, 1600 Army Pentagon, Washington D.C**  
Serves as an Army Legislative Liaison in the Office, Chief Legislative Liaison.  
Responsible for the overall integration of the Army's effort with Congress, develops comprehensive congressional engagement strategies for Army senior leaders, and disseminates critical information on all major congressional activities.

**Oct 2013- May 2015    Clinical Nurse Officer in Charge (CNOIC)-Intensive Care Unit**  
**Eisenhower Army Medical Center, Augusta Georgia**  
Supervisor of a 12-bed, open heart, Intensive Care Unit. Responsible for the clinical proficiency and credentialing for 35 civilian registered nurses and 15 military officers. Implemented a unit level education program that provided over 50 professional nurses with the skills necessary to work in an open heart ICU. Responsible for the initiation and monitoring of four unit level performance improvement projects. Provided advanced hands on and didactic training on the Nxstage and Belmont machines. Implemented adult learning strategies to capture the individual needs of 50 professional staff members. Collaborated with the Hospital Education Department to provide three offsite training seminars to the hospital nursing staff.

**Oct 2013-May 2015      Trauma Nurse Core Class (TNCC) Program Director  
Eisenhower Army Medical Center, Augusta Georgia**

Trauma Nurse Core Class (TNCC) program director for Fort Gordon, Georgia. Initiated a satellite TNCC program providing TNCC to over 200 professional nurses Fort Jackson, Fort Benning and Fort Stewart. Responsible for the registration and scheduling for five TNCC courses which successfully produced over 100 TNCC providers and 15 Instructor Potentials.

**June 2012- Oct 2013      Chief Nurse, 541<sup>st</sup> Forward Surgical Team  
FORSCOM, Fort Bragg North Carolina**

Serves as the Chief Nurse and Officer in Charge (OIC) of the Advanced Life Support Section (ATLS) and Intensive Care unit. Providing Role 2 Health Services to U.S. Coalitions Forces and contractors while deployed in support of Operation enduring Freedom. Responsible for the initial resuscitation of all patients, patient flow through the Forward Surgical team, standards of nursing care, monitoring and management of manpower requirements. Responsible for the clinical competency and medical readiness for all soldiers assigned to include 2 surgeons, 1 CRNA, 1 registered nurse, 2 licensed vocational nurses and 3 combat medics. Patient safety and Infection Control Officer.

**Oct 11- June 2012      Clinical Coordinator, Hospital Education and Staff Development  
Womack Army Medical Center, Fort Bragg North Carolina**

Responsible for the planning and coordination of hospital wide education and training sessions to include Trauma Nurse Core Course (TNCC), Advanced Cardiac Life Support and Defibrillator refresher course. Spearheaded the TNCC program at Fort Bragg through coordination with the Defense Medical Readiness Training Center. Planned and executed 6 TNCC provider course and 4 TNCC Instructor course which resulted in the education and certification over 50 registered nurses. Coordinates with hospital wide staff educators and clinical nurse leaders in order to ensure proper competency is maintained and sustainment training conducted hospital wide.

**July 11- June 2012      Chief Nurse, 240<sup>th</sup> Forward Surgical Team  
FORSCOM, Fort Bragg North Carolina**

Chief Nurse of the 240<sup>th</sup> FST comprised of 15 soldiers across 9 specialty areas, capable of worldwide contingency operations and able to rapidly deploy, provide urgent surgical care, and post operative resuscitation. Responsible for the medical evacuation and management of patient during triage, surgery and recovery. Ensures education and training for all FORSCOM and Professional Filler System (PROFIS) soldiers assigned through organizing classes, ensuring credentials are maintained, coordinating cross-training and organizing medical proficiency training at Womack Army Medical Center. Assists with the management and accountability of over 1.6 million in medical and military rolling stock.

**June 09 – June 11      United States Army Health Care Recruiting Command**

United States Army health care recruiter for New York City. Officer in Charge for Fort Hamilton medical recruiting station. Responsible for 1 officer, 10 enlisted, 1 civilian. Coordinates and is responsible for all recruiting activities pertaining to 20 Baccalaureate nursing schools. Supervises the professional training and mentorship for all personal assigned

**April10-April 11      Clinical Nurse, Medical Intensive Care Unit  
Mt. Sinai Hospital, New York City**

Functioned as a Per Diem, critical care nurse on a 16-bed Medical Intensive Care Unit (MICU). Provided comprehensive care to high acuity patients suffering from acute to chronic illnesses. Responsible for the assessment and implementation of care delivered to patients ranging from acute lung injury to chronic end-stage liver disease.

**Aug 06 – Aug 09 Chief Flight Nurse of the Special Medical Augmentation Response Team- Burn (SMART-B)/Burn Flight Team**

**US Army Institute of Surgical Research**

Responsible for the mission readiness of 30 flight team members to include flight surgeons, registered nurses, licensed vocational nurses and respiratory therapists. Responsible for the coordination for over 22 real time missions that included the transport of over 100 patients suffering from severe burn injuries and poly-trauma worldwide. Maintained an annual working budget of over \$1 million dollars which was allocated for equipment, training and continuing education.

**Feb 05-Aug 09 Clinical Nurse, Burn Intensive Care Unit  
Institute of Surgical Research**

Functioned as a critical care staff nurse on a 16-bed critical care burn research and extremity trauma unit located within a large regional, teaching, Level I Trauma Center. Provides highly complex and comprehensive multi-system nursing care to high acuity patients from age twelve to geriatric with other associated injuries and significant past medical histories. Responsible for overseeing, planning, implementing, and evaluating of all aspects of quality patient care utilizing an interdisciplinary approach. As charge nurse, supervises 4-6 registered nurses, 2-5 licensed vocational nurses and 2 ancillary staff.

**Mar 2004-Sep 2004 Clinical Nurse, Hematology/Oncology Medical Surgical Unit  
Brooke Army Medical Center**

Functioned as a clinical/charge nurse on a 29 combined medical-surgical/oncology unit in a 29 bed, Level I trauma center. Responsible for assessing, planning, implementing and evaluating nursing care delivered to medical/gynecological/hematological/oncological/ambulatory and multiple trauma patients for adolescent/adult/geriatric population. Assisted in the orientation, clinical skill development, and professional development for civilian and military staff. Served as the unit's infection control coordinator.

**Mar 2003-Mar 2004 Clinical Nurse, Intermediate Care Ward  
21<sup>st</sup> Combat Support Hospital, Balad, Iraq**

Functioned as a clinical/charge nurse on an Intermediate Care Ward (ICW) in support of Operation Iraqi Freedom (OIF). Responsible for the assessment, intervention, and evaluation of clinical nursing care provided for U.S. and coalition Forces, DOD Civilians, civilian casualties, and Enemy Prisoners of War (EPW). Developed working knowledge of Collective Protection (CP) DEPMEDS hospitals systems to include medical equipment and supplies required to operate in an austere environment.

**Nov 2002-Feb 2003 Clinical Nurse, Hematology/Oncology Medical Surgical Unit  
Brooke Army Medical Center**

Functioned as a clinical/charge nurse on a 29 combined medical-surgical/oncology unit in a 29 bed, Level I trauma center. Responsible for assessing, planning, implementing and evaluating nursing care delivered to medical/gynecological/hematological/oncological/ambulatory and multiple trauma patients for adolescent/adult/geriatric population. Assisted in the orientation, clinical skill development, and professional development for civilian and military staff. Served as the unit's infection control coordinator.

#### LICENSE AND CERTIFICATION

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New York Nursing License #XXXXXX  
Expires 01/31/17

Critical Care Registered Nurse  
Expires 04/30/17

Advanced Cardiac Life Support provider and Instructor  
Expires 06/17

Basic Life Support Provider and Instructor  
Expires 05/17

TNCC Provider and Instructor  
Expires 02/18

Pediatric Advanced Life Support  
Expires 05/17

#### AWARDS

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2008 Army Nurse Corps Award of Excellence-CJ Reddy Award

2008 Elizabeth Ann Seton Young Alumnus Award

2011 Seton Hall University's Humanitarian Award