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Incorporating Emergency Management Training Within School-Based Health Centers

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Incorporating Emergency Management Training Within School-Based Health Centers

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APPROVAL FOR SUCCESSFUL DEFENSE

Alicia Christian has successfully defended and made the required modifications to the text of the DNP Final Scholarly Project for the Doctor of Nursing Practice during this Fall, 2021

Final Scholarly Project COMMITTEE

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Dedication

I dedicate this work to my mother, the late Leona Christian, who passed during the start of my DNP journey in December 2019. Her unwavering support and love kept me grounded and focused as I struggled with dealing with her death, along with navigating my pursuits of the doctoral education process. I was blessed to have such an amazing, strong, loving woman as a mother. My hope is to continue dream without limits and love with a genuine spirit as she did during her time on this earth. I will always love you, mommy. Thank you for giving me the spirit of going after my dreams and staying the course until completion.

To my wife, Chris, thank you for all the support and love a partner would need and want. Your constant encouragement and patience as I pursued this degree has not gone unnoticed. Thank you and I love you so much.

A very special thank you to my daughter, Amaris, you are the reason I began this nursing educational journey. I wanted to offer you a better life and be an example in showing you how hard work pays off if you trust the process and remain focused on your dreams. My prayer is that you never allow limitations or barriers hinder you from accomplishing your goals. You are my heart, and I love you more than you will ever know.

Last but certainly not least, thank you to my village of family and friends who have offered encouragement, a helping hand with my daughter, support, and love during these past few years. This journey has been a roller coaster of emotions, challenges, experiences, gains, as well as losses, but you all were there to provide me what I needed in each situation. So, for this, I am forever grateful and realize how truly blessed I am to have you all in my life.

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Abstract

Background: Emergencies are situations that present without warning but require skilled individuals to provide aid to someone needing assistance. The pediatric primary care setting rarely experiences emergency-based care, which could lead to a lack of training in this area of expertise. As pediatric primary care extends to schools, there is also a need to ensure staff and providers have an annual emergency management training program. *Project Aim:* The current program aimed to determine the need to incorporate emergency management training in the school-based health center (SBHC) setting. *Methods*: This quality improvement project method was a pre-intervention with post-intervention design. The pre-intervention consisted of reviewing the current emergency protocols and procedures for the SBHCs and previous emergency management training tools utilized by SBHC staff. A pre-test was sent to all participants to determine the current emergency management knowledge and skills. Two training sessions were conducted: an initial training for all staff, and second training only for providers and nurses. The post-intervention consisted of participants taking a post-test and survey determining the need to offer emergency management training on an annual basis. A total of 19 participants started the program, but four of the 19 left the organization to pursue other career opportunities, leaving 15 participants to complete the project. All 15 participants engaged in a 60-minute virtual training session; 7 of the participants (the providers and nurses) met a second time for the emergency medication administration training session. The post-intervention of the project consisted of all 15 participants participating in a post-test and survey. *Results*: The participants expressed an enhanced comfort level with managing an emergency (average 4.6 out on scale of 1-5) in the school- based setting. Many of the participants (75%) agreed that uniform emergency management protocols and procedures should be implemented within the SBHCs. *Conclusions*:

The need to incorporate emergency management training on an annual basis is necessary to ensure SBHC staff and providers are equipped to offer care in the event an individual needs assistance.

Keywords: Emergency management, school-based health centers (SBHC), pediatrics, emergency management training, emergency medical kit(s)

Background

Health care providers and staff members must be equipped with the necessary training and tools to care those in need, especially in emergency scenarios. At a family medical center in the Northeast, the providers and staff working in the school-based health centers (SBHCs) were not receiving annual emergency management training. The concern of emergency management training was raised when updating the SBHC emergency medical kit one year ago. Currently, emergency medications are checked each month, but there has never been a formal training on how to administer the medications in the Emergency medical kit, how to intervene in an advanced cardiac condition, or handle an emergency in the school setting.

Definition of Terms

1) Emergency: A kind of incident or imminent danger that yields or could produce a variety of health consequences that require organized action, typically urgent and often non-routine in nature (World Health Organization, 2018).
2) Emergency management: The executive role charged with generating the context within which communities decrease susceptibility to dangers and handle disasters (Federal Emergency Management Agency, n.d.).
3) School-based health centers (SBHC): A clinic that offers health services (primary care, mental health care, social services, dental care, and health education) to students in pre-Kindergarten through 12th grade during the school day; and may also be available during non-school hours. These clinics are typically established in schools that serve mainly low-income communities (Knopf, et al., 2016).

4) Pediatrics: The discipline that manages the social, biological, and environmental influences on the developing child and with the effect of disease and disfunction on development (American Academy of Pediatrics, 2015).
5) Emergency management training: Education and skills necessary to handle an emergency-based situation (American Academy of Pediatrics, 2007).
6) Emergency medical kit: A tool kit containing supplies, such as medication, First-Aid supplies, etc., needed during in the event of an emergency (Rosenburg, 2010).
7) Emergency medication: Stock medication kept in the Emergency medical kit and used for emergency purposes only (American Academy of Pediatrics, 2007).
8) Pedi-Wheel: A reference guide to assist with drug dose calculations by weight, offers seven critical values based upon the patient's age: average weight in kilograms, normal systolic blood pressure range, normal pulse rate, normal respiratory rate, as well as advanced emergency medical procedure information such as endotracheal tube placement (Life Assist, 2021).

Description of the Project

This quality improvement project consisted of a pre-test assessment for baseline skills and education of staff within the SBHCs. After the pre-test was completed, a virtual emergency management training was offered to the SBHC staff and providers. During the training session, four emergency simulations were given to participants. During that time, participants had the opportunity to discuss each scenario and provide input regarding care that should be implemented for each emergency following feedback from trainer. After the emergency management training, a post-test was sent to participants via email, along with a survey to assess the overall emergency management training process.

Purpose of the Project

The purpose of the emergency management project was to create an annual training for providers and staff within the SBHCs and to ensure efficient care is given in the event an emergency occurred in the clinical setting. This project also provided the opportunity to provide quality outcomes for not only the providers and staff, but those receiving care in the event of an emergency event. The focus of this project was on safety, quality, and efficiency outcomes. The emergency management training was offered to all SBHCs within a family medical center in the Northeast.

Goals and Objectives

The DNP project leader established several objectives for the project. After the educational session, the SBHC faculty and staff will:

- Know how and when codes/drills should be conducted.
- Be able to identify common emergency situations.
- Know the purpose of all emergency medical kit contents, including emergency medications and how to check expiration dates.
- Understand what task can and cannot be delegated during an emergency.
- Know how to report an incident and how to document the situation.
- Know how to initiate emergency medical service (EMS) support.

Significance of the Project

In a policy statement by the American Academy of Pediatrics (2007), it was noted that "studies have shown that emergencies are common in primary care practices that provide care to children…despite these findings, which suggest that a significant number of children present to primary care offices with urgent or emergent problems, some health care professionals discount

the need for preparation because ‘emergencies are not very common’ or because they feel they can rely on rapid response from emergency medical services (EMS) or proximity to a hospital” (pp. 200-201). The lack of emergency care readiness is apparent in the current literature and has been expressed among the participants in this project. Monachino et al. (2019) emphasized the need to regularly practice emergency scenarios within the office setting. This practice would include simulated scenarios and mock codes for all staff and providers working in the clinical setting.

The importance of creating a space where emergency management skills are practiced, in an equivalent manner to the daily operations of the SBHCs, is necessary in assuring providers and staff are confident, as well as comfortable in the event their skills will be utilized for a patient in distress.

Literature Review

Many pediatric settings are generally considered to be a “well” setting, indicating that children are unlikely to need advanced emergency management skills. In the setting of SBHC, emergency management was not an initial priority to providers and staff, as it relates to patient care, particularly in the pediatric population. At the same time, providers and staff working in these environments should be able to manage an unexpected emergency in the event a patient or someone needs urgent attention. In a descriptive pre- and post-survey design, Monachino et al. (2019) focused on the benefits of primary care clinicians and the need to refresh their emergency management skills. The authors examined staff reported stages of confidence and competence in response to an emergency in a pediatric primary care setting. The authors combined simulation educators with medical leaders, as well as ambulatory nursing personnel, to construct a mock emergency resuscitation (e.g., code blue) program for staff within the care network. Over a

period of months, 30 primary care locations performed simulations, the staff completed pre- and post-simulation surveys to assess levels of competence while managing an emergency, along with measuring confidence in decision-making skills. The team reported statically higher mean scores for both competence and confidence in the post-simulation survey when comparing the pre- and post-simulation survey outcomes. The authors concluded that simulation educational techniques increased levels of confidence and competence among primary care staff when needing to respond to an emergency. Also, the authors reported that staff established an overall enhanced awareness of emergency procedures and acknowledged the worth of simulation as an educational instrument.

Similar to Monachino et al. (2019), Gilfoyle et al. (2017) conducted a multicenter, prospective, interventional study to measure the effects of a single day training on Pediatric Advanced Life Support (PALS) guidelines. Such training intends to increase team efficiency, and teamwork through the use of simulation. These pediatric resuscitation teams consisted of intensive care unit nurse practitioners, registered nurses, registered respiratory therapists, and resident physicians (n = 300; 51 teams). From June 2011 to January 2015, the 1-day course took place at four Canadian tertiary-care children's hospitals, which included interactive lecture, four simulated resuscitation scenarios, and group discussions. Team members were given the opportunity to debrief after the simulations, discussions, and lecture. Prior to any team training, the first scenario (PRE) was given to the teams and then the same scenario was offered again, with some modifications to the patient history, as the final scenario at the end of the day. Each scenario used in this course offered standardized distractors set to provoke and challenge teamwork behaviors. The main outcome was change (before and after training) as it related to PALS recommendations, when measured by the Clinical Performance Tool. As for the secondary

outcome measures, the goal was to see change in areas to initiate chest compressions and defibrillation, as well as teamwork performance when measured by the Clinical Teamwork Scale. The authors reported that incorporating simulation-related team training educational involvement drastically enhanced alternate measures of clinical performance, when to implement key clinical tasks, and teamwork during the simulation scenarios. Based upon the correlation among clinical and teamwork performance, the researchers concluded that effective teamwork enhances the resuscitation team's clinical performance.

Simulation scenarios in emergency management training provides the opportunity for providers and staff to combine training and skills necessary to manage an emergency. Keener et al. (2020) also used simulation twice in the fall of 2018 during a series of pilot studies. The researchers examined pediatric interprofessional education (IPE) promoting compassionate care, communication, and teamwork by a using high-fidelity simulation center. The researchers recruited 18 participants (third-year medical students, undergraduate nursing students, and second semester junior or senior students who completed a pediatric nursing course or clinical). The intervention used standardized patients and toddler and child high-fidelity mannequins for the two scenarios given in the session, followed by a debriefing of the scenarios. An evaluation of the achievement of objectives was conducted by the participants completing the Pediatric IPE Objective Evaluation, as well as the Pediatric IPE Simulation Center Evaluation forms. One month later, participants were contacted to determine how the scores of the surveys and their participation in the pediatric IPE affected their clinical practice. The overall participation indicated high achievement of the goals in the post-evaluation (at least 78% for each question) and IPE was highly valued as good or excellent (at least 94% for each question). The authors determined that through communication, teamwork, and compassion, healthcare students could

distinguish and mirror weaknesses that may exist and practice several techniques in a safe, simulated learning setting. The researchers report that the outcomes of the study did indeed demonstrate feasibility of upcoming pediatric IPE simulations and the potential for curricular modification that could improve education and education endeavors.

Sachedina et al. (2019) also used simulation as a tool while exploring the idea of code blue education by using a Code Blue Simulation Program (CBSP). The participants (N = 17) in the CBSP were residents that were invited to partake in one of three focus groups. The team collected data from small group guided discussions using semi-structured questions. The authors then coded the responses to the questions to evaluate underlying topics. The thematic analysis showed participants believed the CBSP improved readiness by capturing facets of real codes (e.g., lack of readily obtainable information, addition of pre-code scenarios with awake patients) and facilitating code blue developments. Despite the initiative to create high-fidelity simulation, participants shared they experienced increase anxiety, encountered various communication obstacles in real codes and observed added chaos in the environment. Sachedina et al. (2019) determined the CBSP improved resident readiness to help as code blue leaders. The learners emphasized they valued the CBSP; however, differences persist among simulated and real codes that should be incorporated into improving the reliability of future simulations.

The creation of emergency management programs is essential for the purpose of keeping providers and staff competent. Maintenance of these emergency management programs is just as important. Mariani et al. (2019), using a comparative experimental design, recognized that infrequent use of cardiopulmonary resuscitation skills and clinical knowledge can decline, which contributes to decreased quality in resuscitation. Mariani et al. (2019) aimed to explore the outcome of consistent pediatric mock simulation codes offering structured debriefing after each

scenario. This study consisted of 18 registered nurses from a mid-Atlantic five-hospital health system with current PALS certification who care for pediatric populations in ambulatory, emergency, inpatient pediatric, and post anesthesia units. The nurses were split into two groups, and all completed a Pediatric Emergency Preparedness Knowledge Assessment and a Self-Confidence in Learning Survey. The researchers created the Pediatric Mock Code Critical Element Observer (PMCCEO) to measure skill competency. During the scenarios, the nurses were randomly assigned either to the control and intervention group, in teams of three to four, by a coin toss. Even with the small sample size, the nurses in the intervention group had significantly higher scores on the knowledge test, providing pilot data supporting simulation-based experiences with debriefing as an effective approach in educating nurses on pediatric emergency care. On the other hand, there was no statistical difference in skill showing the possibility of little to no loss in skills based on the PMCCEO. Further research is recommended to replicate this study with a larger sample size to determine if simulation and debriefing has a major influence on knowledge, competency and self-confidence of nurses utilizing pediatric emergency protocols.

Maintaining competency of resuscitation and emergency care is equally important. The need for both resuscitation and emergency care in outpatient pediatric settings is limited given the infrequent nature of such events. Keys et al. (2009) sought to explore how competencies could be maintained. Through the design of the study, a team of nurse educators at a regional medical center in Washington State applied accelerated learning styles and adult learning theory to create and offer a series of activities to improve staff familiarity with procedures and equipment needed in an emergency. The series started with a carnival-themed training that offered hands-on practice and a review of emergency skills, which was then followed up by

random unannounced code drills facilitated by charge nurses and educators. The carnivals attendance consisted of total of 318 staff, including 72 certified nursing assistants, 223 registered nurses, and 23 technicians and technologist. The authors determined that adult learning theory and accelerated learning offered a foundation for the creation of the Code Carnivals and Code Blue drills. Staff participating in both the carnival and drills indicated they were more prepared and felt more comfortable with managing an emergency after this training.

The advent of the COVID-19 pandemic forced many practice settings to transition from face-to-face care to virtual web/video-based care. COVID-19 also impacted scheduled training, meetings, and overall business operations. The change from face-to-face training to web-based training became the topic of one study. Sprehe et al. (2016) conducted a quantitative study focusing on the effects of videoconferencing when conducting a code blue simulation training. The study compared the performance of two groups in relation to the outcomes of basic life support (BLS), as well as advanced cardiac life support (ACLS) resuscitation skills, and the views of confidence and learning. There were four code teams with 30 members comprising 120 participants representing nursing, respiratory therapy, medicine, pharmacy departments. The experimental group utilized videoconferencing and the control group was trained with the use of in situ training. The study results demonstrated that the experimental group showed statistically significant elevated skills performance scores and higher viewed confidence and learning than the control group. Sprehe et al. (2016) concluded the incorporation of videoconferencing into simulated practice could potentially be an effective approach to improve learning for topics such as code blue training.

Turkelson et al. (2020) also used a similar approach to Sprehe et al. (2016) by understanding that enhanced team behaviors and interprofessional education (IPE) improves

patient safety outcomes, but at the same time, wanted to address the gap among best practice for assisting in the development of competencies such as teamwork and communication. Using a quasi-experimental design, Turkelson et al. (2020) compared virtual deliberate practice (DP) to traditional DP on interprofessional team and communication performance. The study consisted of 184 students that either participated in virtual (26 teams) or face-to-face (28 teams) DP, along with 192 participants (56 teams) used in the simulation-enhanced, follow-up learning session. The project resulted in all students (n = 192) completing the pre-simulation learning prior to DP or the third phase, simulation-enhanced interprofessional education (Sim-IPE). Fifty-four interprofessional teams (n = 184) comprised of 112 DPT and 72 BSN students participated in DP. Roughly two weeks later, 56 Sim-IPE sessions were held for all 192 students (112 DPT, 72 BSN, and eight AG-ACNP). It was determined the video analysis supported the integration of both forms of DP to enhance teamwork and communication.

The current literature suggests that emergency management training, at least on an annual basis, is necessary to ensure skills are up to date. In the interim of these trainings, questions may arise regarding how to conduct certain skills or when to administer a medication in an emergent situation. In a study by Stewart et al. (2017), researchers focused on the best training method for code teams while adhering to the American Heart Association (AHA) guidelines to prevent loss in knowledge and skill after PALS training. The authors' objective was to train a multidepartment, multidisciplinary code team and measure this team's adherence to AHA guidelines throughout the simulation. The multidisciplinary trainings were conducted several times each month by using high-fidelity, in situ simulation. The trainings were filmed and reviewed for adherence to the five AHA guidelines: ventilation rate, chest compression rate, chest compression fraction use, use of a team leader, and use of a backboard. Modifications to

the training were made that included implementing just-in-time training and alteration of the compression team after the initial study period. Out of the 38 sessions that were completed, 31 were eligible for video analysis. The initial study period showed one session adhered to all the AHA guidelines, but in the second study period, after the change in the code team and implementing just-in-time training, none of the sessions adhered to all the AHA guidelines. On the other hand, there was an increase in the percentage of session adherence to chest compression and ventilation rate, as well as median ventilation rate, based off the interrater reliability calculation of the combined sessions. Despite the improvements in code team positioning, role completion, communication and minor enhancements in ventilation and chest rate, the study failed to show an increase in adherence to all the AHA guidelines.

In contrast to the lack of results from the Stewart et al. (2017) study, Gilroy et al. (2020) conducted a qualitative study with the purpose of finding characteristics and tasks essential in successfully navigating a proactive rapid response position at a quaternary pediatric hospital. Gilroy et al. (2020) conducted open-ended interviews to define the necessary functions and characteristics of a WATCh (Watch, Assess, Triage, for Children) nurse. The sample consisted of both WATCh nurses (n = 5) and other healthcare providers that work with the WATCh nursing staff. The population consisted of 10 acute and intermediate care nurses that were interviewed with five surgical floor nurses, two nurses from the medical floor, three nurses from intermediate care. The physicians interviewed were one PICU attending, a PICU fellow, one resident and two fellows from cardiology. It was determined that WATCh nurses comprise excellent communication skills, experience confidence, and possess advanced skills, which was helpful when working as an extension of the nurse and as an advocate, educator, and a facilitator for high-risk pediatric patients. The authors emphasized the need for a more proactive method to

ensure a successful pediatric rapid response team to prevent decompensation and code blues within this population. The authors also determined that a successful program must contain essential role characteristics and defined tasks. The training must incorporate not only practice skills, but personal skills to be successful in a pediatric-based medical facility.

Ancillary Equipment and Medications Used in Emergency Situations

Emergency care extends on the technical and communication skills and includes ancillary equipment and medications. Rosenberg (2010) considered acute medical emergencies that might arise in another outpatient setting, the dental office. Rosenberg (2010) emphasized those working in a dental office should be up to date with basic life support certification for health care providers, along with the ability to react quickly to an emergency. The purpose of this study was to offer dental staff the essential training as it relates to emergency medication, appropriate response to the situation, and the equipment needed for staff reacting to an emergent situation in a dental office setting. Rosenberg (2010) determined the completion of annual office emergency drills and continuing education courses ensured rapid response to emergent situations. The incorporation of a knowledgeable and skilled team with the monitoring equipment, basic airway rescue and oxygenation, an automated external defibrillator, and emergency medication kit created a safer setting for patients and improve dental professionals' competence to offer timely and appropriate care.

Summary of the Literature

This review of the literature offered the opportunity for the project leader to decipher best practice measures as they relate to emergency management training. While Monachino et al. (2019) decided simulation increases competence and confidence levels among primary care staff, Gilfoyle et al. (2017) revealed that integrating simulation-related team training improved the

team's overall clinical performance. The literature suggests that training, whether offered via simulation or reviewed from recorded educational videos, is essential to keeping providers and staff up to date with emergency management skills. Stewart et al. (2017) recorded trainings in accordance with the five AHA guidelines and demonstrated an improvement in the percentage of session adherence to chest compression and ventilation rate, as well as median ventilation rate. The expectation for primary care settings, such as SBHCs, to promote emergency management education by creating, implementing, and maintaining programs, offer best practice measures for providers and staff within these setting.

Project Methodology

To ensure the project objectives were met, the author proposed the idea of creating an emergency management program that started in the SBHC program and eventually would be shared with the entire organization. During the first month of the 2020 Fall semester, the author identified that an emergency management program was needed not just within the SBHC, but organization wide. After approval of this project was received, the selection of a mentor for the project was completed at the end of the first month of the Fall 2020 semester. After the selection of the mentor for this project, a literature review was conducted and submitted by the author at the end of the 2nd month in the Fall 2020 semester. By the 3rd month of the Fall 2020 semester, the author met with the Director of SBHC Clinical Services, Director of Pediatrics, and SBHC Nurse Administrator to review how to market the project to the SBHC providers and staff. At the start of the 3rd month, the creation of the pre- and post-test began, along with the start of the PowerPoint presentations and simulation scenarios for the educational trainings.

Utilizing a customized pre-test framework from Microsoft Forms (Appendix A), a link was sent via email to the initial 19 providers and staff working within the SBHCs. The pre-test

survey consisted of 12 questions, with the first question asking participants about their comfort level with managing an emergency, and the remaining questions focusing on skills, training, delegation, and medication management. After the pre-test was completed and reviewed by the author, mentor, and SBHC leadership, the results were shared with the 19 participants during the initial training session. The author incorporated the pre-test results (Appendix B) into the emergency management educational training for review. Rationales were given for each question and participants were encouraged to ask questions during this section and throughout the entire training.

The second training session consisted of the providers and nurses within the SBHC with the goal to educate, review and discuss the medication needed during an emergency. The PowerPoint presentation (Appendix C) from the previous training was utilized for the purpose of reviewing common emergencies seen in schools, pre-assessment of the patient, emphasizing the purpose the medications, how to administer the medication, and performing post-assessment after giving the medication. During the session, the discussion of documentation of the event (for emergency medical services, the school, an incident report, and the SBHC electronic medical record system) was also discussed and encouraged for each provider to incorporate into their practice. Tutorial medication administration videos (Appendix D) were shared with participants and are currently housed in the department resource area in Microsoft Teams for review.

At the end of both trainings, a post-test and survey framework from Microsoft Forms (Appendix E) was sent to the 15 participants (four of the participants left the organization for other career opportunities). The post-test was like the pre-test, but the first question asked the participants their roles/jobs within the SBHC. The post-test was followed up with a survey asking if there is a need for emergency management training within the SBHCs, the participants'

comfort level during the training, facilitator knowledge level, whether the pre- and post-test provided clear information, and if participants easily understood the presentation. All post-test and performance survey results (Appendix F) were submitted and reviewed with the project mentor by the end of February 2021.

The need for creating quick reference guides for emergency medication administration was raised during the provider and nurses' training. Reference cards were created and completed by the end of Summer 2021 (Appendix G). The reference cards were sent to each SBHC to be placed in the Emergency medical kit. After the initial training, the SBHC leadership has confirmed that the emergency management trainings will be conducted on an annual basis.

Theoretical Framework

The concept of educating novice and experienced medical professionals requires obtaining baseline information from everyone. After receiving this information, via pre-test knowledge, the construction of appropriate tools was vital to the success of each participant. The advantage of providing emergency management education to all participants was based on understanding the information, while also properly executing hands-on skills. The incorporation of emergency education and skill set offers the provider or staff member the ability to assist in an emergent situation, which may save an individual's life. For these reasons, Bandura's social cognitive theory was selected for this research proposal. Social cognitive theory assumes human actions and motivation are based on three categories of beliefs: situation-outcome, action-outcome, and perceived self-efficacy. Situation-outcomes embody ideas in which consequences will happen in the absence of interfering individual action. Exposure to a health risk signifies a particular situation-outcome expectation. Action-outcomes is based on the idea that a certain behavior might or might not lead to a given result. An example of this would be the belief that

smoking cessation will lead to risk reduction of getting lung cancer. Self-efficacy is the expectation that a behavior is or is not within a person's control. One of the key tenets around a person's belief that they are or are not capable of conducting certain behavior, such as routine exercise, which constitutes self-efficacy expectations people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances – A judgment of one's capability to accomplish a certain level of performance (Bandura, 1997).

Risk Analysis

This was a Doctor of Nursing Practice quality improvement initiative intended to prepare staff on how to manage an emergency within a SBHC. The project was led by an advanced nurse practitioner (APN) who has studied emergency management protocols and procedures, along with her mentor, the Consulting Pediatrician for the SBHCs. The purpose was to offer a complete educational session (pre- and post-test, power point presentation, and scenarios) aimed at staff requiring introduction or a review of this content. This initiative comprises using the 4-step SWOT analysis classifying the strengths, weaknesses, opportunities, and threats to a comprehensive emergency management plan. An analysis using the SWOT outline determined the existing emergency plan was not operational and revealed an opportunity for improvement in educating staff on code blue management, task delegation, medication administration, documentation, and overall communication. The APN used the SWOT analysis during the modification of the former emergency plan by integrating evidence-based practices into the emergency management protocols and procedures within the SBHCs.

The SWOT analysis exposed numerous weaknesses in the emergency plan after various conversations with the staff and environmental surveillance of all the SBHCs. From these conversations and the environmental surveillance, the APN pinpointed the internal weaknesses

and developed an evidence-based action plan with the lead nurse practitioner and her mentor. The APN reviewed all the previous emergency plan documents such as emergency supply daily/monthly logs, medication expiration oversight, and code blue drill protocol and documentation. A reoccurring theme was a lack of consistency of when the protocols were conducted and the purpose/use of certain emergency medications. The lacking protocol information included frequency of code blue drills, when to update the emergency medical kit, and change the outside lock, delegation of task among staff in the event of an emergency, and the need to provide education to new staff during orientation. The APN also discovered weaknesses among other APNs regarding the purpose and administration of certain emergency medications within the emergency medical kit. Further weaknesses revealed throughout the SWOT analysis included nonexistence of emergency educators within SBHCs and the lack of time given to educate staff.

The APN recognizes threats to this project, which are external, including not adhering to the American Academy of Pediatrics Committee on Pediatric Emergency Medicine policy statement (American Academy of Pediatrics, 2007), the lack of ability to expand the project beyond the SBHC, and the risk of safety in the event of an emergency. These threats were aggressively recognized, and action was taken to ensure adequate emergency management education, protocols and procedures were successfully fulfilled to ensure pediatric patients receive evidence-based emergency-based care when necessary.

Implementation Timeline

The purpose of this project was to create an annual training for providers and staff to ensure efficient care could be delivered during an emergency. This project provided the opportunity to enforce quality outcomes for not only the providers and staff, but those receiving

care in the event of an emergency. The focus of this project was on safety, quality, and efficiency outcomes. The emergency management training was offered to all seven SBHCs within the organization. The author conducted a pre-test for baseline skills and education of staff within the SBHCs. After the pre-test was completed, a virtual emergency management training was offered to the SBHC staff and providers. During the training session, four emergency simulations were given to participants. During that time, participants had the opportunity to discuss each scenario and provide input regarding care that should be implemented for each emergency, following feedback from the trainer. After the emergency management training, a post-test was sent to participants, via email, along with a survey to assess the overall emergency management training process.

After the emergency management training was completed, an additional emergency medication training took place for the providers and nurses working at each SBHC. The education comprised the purpose, route/administration, and evaluation care needed when implementing the emergency medications found in the emergency medical kit. This training included the use of PowerPoint, videos of healthcare providers using the medications in simulation scenarios (Appendix D), and open discussions with the SBHC nurses and providers expressing their comfort levels of using each medication. The emergency medication training was offered for a 1.5-hour session in place of the weekly staff huddle and offered a refresher course for the nurses and providers.

Once the implementation of the project timeline was completed, an examination of assumptions took place. The assumptions concentrated on whether the providers and staff needed a structured format for emergency training on an annual basis. Various stakeholders within the organization were utilized to assist in this process. The undertakings explained in the theory

logic model are necessary for this project's implementation. The output section demonstrated the desired outcomes from the actions. Outcomes are the probable results after implementation. This would include an enhanced quality outcome for patient safety, along with provider/staff satisfaction. The success of this project occurred when an organizational shift in culture began for emergency management to become an annual training for all providers and staff within the organization.

Budget

Initiator or Project Coordinator

The author earns $58.00 per hour as a pediatric nurse practitioner for the SBHC department at a family medical center in the Northeast. She has taken on the role of overseeing the emergency management program for the SBHC and has also chosen this topic to champion the implementation of her project for the DNP program at Seton Hall University. The author supervised the complete operation and implementation of the project. She trained the SBHC team (nurse practitioners/providers, nurses, patient care technicians, and staff) and continues to create programing and tools that will enhance the emergency protocols for the SBHC program.

Educators

Currently, the author is the sole educator for this project and her earnings are $58.00 per hour. The hope is to expand the education team to at least two more providers in the department. If the proposal to have more educators is approved, the budget would have to consider a wage for a provider at $58.00 per hour.

Training Cost

The author trained the SBHC team, which consisted of two training sessions. There would be a need to determine the staff and labor costs associated with the training, including

fringe benefits. To minimize the costs, training occurred during regularly scheduled work hours, thus avoid overtime.

Marketing

The promotion of the project consisted of various email messages to the SBHC staff. The emails explained the importance of project, training, and implementation of skills for those in need of emergency services in a primary care setting. The electronic delivery of marketing and recruitment material was cost effective.

Marketing Plan

The author for this DNP quality improvement (QI) endeavor focused on determining the ability of the SBHC providers and staff in managing common emergencies within a school setting. The problem identified in this QI project was the lack of emergency management training for the SBHC providers and staff, which offers critical skills necessary to decipher the care and/or medication needed in an emergent situation.

The planning phase of the project allowed for the identification of skey stakeholders and marketing targets. The key stakeholders this project proposal was marketed to include the Director of Pediatrics, who manages project-based programming within the organization. Additional stakeholders included the Director of SBHC Clinical Services, who is an immediate supervisor to the SBHC providers and staff, as well as the Associate Director of the SBHC program. The DNP program coordinator, along with the project mentor are also essential stakeholders in the process of this project. The SBHC providers and staff who participated in the project are also very important marketing targets. The stakeholders' involvement entailed reviewing and approving the proposal, assisting with implementation, and involvement in the

project as participants in the emergency management training. Identifying these roles was essential in the planning, marketing, and completion of the project.

The focus of this project was to offer annual emergency management training for the providers and staff within the SBHCs. In this regard, it is essential to involve the providers and staff by offering concrete information on how this project will enhance their practice and provide safety within the clinical setting. The engagement of the SBHC providers, staff, and administration required an emphasis on minimal time taken away from patient care for the emergency management training. While not the focus of this project, time saving was essential due to the high volume of patients seen in each SBHC.

Project Approval Processes

The project was submitted for approval to the Director of SBHC Clinical Services, who reviewed the project material with the Director of Pediatrics for the final approval. This was accomplished by email communication, Microsoft Teams meetings, as well as telephone conversations.

After approval was given for the project start date, additional meetings with identified stakeholders took place. Results from the already finalized literature review were given to the stakeholders/marketing targets to expand their knowledge base, along with securing their approval, based on the possible enhancements this project will offer patients in need of emergency care. The approval process included the reiteration of short and long-term goals, as well as a timeline for project implementation and results were distributed.

Project Dissemination

Once the project was finished and data and findings were collected, a manuscript was created and submitted to the Chief Medical Director for implementation within the organization,

as well as submitted to pediatric journals for publication and national conferences for knowledge distribution.

Project Outcomes

At the start of the project, there were 19 participants that completed the pre-test (Appendix A) before the training of this project took place. When asked how comfortable they were managing an emergency, 10 participants (53%) reported to be very comfortable, while 9 (47%) of the participants reported not being comfortable at the time. The pre-test continued with asking knowledge and skill-based questions that led to various answers for many of the questions. Of the 19 participants, 42% answered correctly that emergency management training should be conducted on an annual basis, 37% answered that emergency management training should be conducted every three months, and 21% answered that emergency management training should be conducted twice a year. On the other hand, 74% correctly answered that emergency protocols (codes/drills) should be completed every three months, 21% answered on an annual basis, and 5% answered twice a year.

The pre-test responses (Appendix B) also demonstrated the need for educating the participants on who should go to the emergency department (ED) with the patient in the event of an emergency. While most of the participants (79%) answered this question correctly, 5% said the school nurse should accompany the patient. The vast majority (89%) of the participants answered correctly how to document an emergency and answered that an incident report should be completed after an emergency.

The post-test (Appendix E) was sent to only 15 participants, as four of the participants left the organization to pursue other career opportunities. Of the 15 participants, seven were patient care technicians, 5 were providers (NPs/PAs), two were LPNs, and one was an

administrator. The post-test consisted of similar questions from the pre-test, but a survey rating the training was added as an additional section. The participants were asked to rate their overall comfort level after the training and the post-test results (Appendix F) showed an average score of 4.6 on a scale of 1-5. The number of participants answering correctly when asked how to correctly document an emergency increased (Table 1 and Table 2) from 89% to 93% but decreased from 89% to 87% when answering how to correctly complete an incident report after an emergency (Table 1). Only 60% of the participants knew that the emergency management trainings should be conducted on an annual basis. On the other hand, 87% correctly answered that codes and drills should be completed every three months.

Table 1

Pre-test Results

Questions	1	2	3	4	5	6	7	8	9	10	11	12
Pre-test	53% (10)	42% (8)	74% (14)	84% (16)	79% (15)	89% (17)	89% (17)	100% (19)	0% (19)	89% (17)	79% (15)	74% (14)

Note: Heading numbers in all tables represent the twelve surveyed questions

Table 2

Post-test Results

Questions	2	3	4	5	6	7	8	9	10	11	12	13
Post-test	92% (9)	73% (11)	100% (15)	93% (14)	87% (13)	93% (13)	73% (11)	87% (13)	80% (12)	100% (15)	87% (13)	60% (9)

The project evaluation results (Appendix F) showed 73% of the participants strongly agreed there is a need for uniform emergency management protocols and procedures within the SBHCs. The pre- and post-test questions were clearly stated and easy to understand for 60% of the participants, while 73% of said the facilitator was knowledgeable and answered questions related to the subject manner. Many participants (73%) also were able to understand the information presented during the trainings.

During the second training with the providers and nurses, videos were shown (Appendix D) on how to administer four of the medications found in the Emergency medical kit. These videos are available on YouTube but have been shared as links and housed in the SBHC resource area on the Microsoft Teams platform. It also was decided that the Emergency medical kites needed an updated Pedi-Wheel, as the medications listed were not found in the SBHC Emergency medical kites. The participants asked for a similar resource that would be created by the author for reference when administering medication during an emergency. The author met with her mentor and the SBHC leadership to discuss creating the new reference cards for the Emergency medical kites. The leadership approved the creation of the reference cards (Appendix G) in the Spring 2021. The cards were completed in June 2021 and distributed to each SBHC in July 2021.

Summary

The current literature acknowledges the need for an increase in emergency management training within pediatric primary care clinics. Navigating an emergency without the proper training and tools could lead to a harmful or even fatal event. While the acknowledgment of the need for increased emergency management training is apparent, the lack of research requires a need for additional information within this area of medical care.

Recent practices in many pediatric primary care settings project various methods of how providers and staff are educated on how to assist during an emergency. The practices consist of video tutorials, power point presentations, and simulation scenarios, which are optimal tools for learning emergency management skills, but have not been executed on a consistent basis. This doctoral-level QI project demonstrated the need to offer an annual emergency management training for individuals working in SBHCs.

Sustainability

The author's approach to emergency management training (PowerPoint presentation, simulation scenarios, YouTube videos, etc.) is cost-effective and does not require extensive time out of the employees' schedules. This training could be an asynchronous learning tool that incorporates the pre- and post-test to determine the learners' understanding after completing the training. While none of the participants during this project needed asynchronous instruction, this should be considered in future training sessions. The participants in this project preferred the online sessions, as opposed to attending an in-person training, because it afforded them flexibility to remain at their SBHC site and still conduct patient care after the training. Emergency management training is necessary and the ability to complete it on an annual basis is attainable based upon the current literature and this QI project.

Recommendations

The positive feedback from the participants and SBHC leadership determined sustainability of conducting mandatory emergency management training on an annual basis. Future projects could be completed by focusing on the emergency management training with the pediatric staff within the entire organization. The organizational leadership determined the need of this training, as well as discovering not all the providers (NPs and PAs) have pediatric

advanced life support (PALS) training, which has led to discussions about PALS certification requirements for all pediatric providers within the organization. A consideration of future projects involves comparing knowledge of a control group, longer training sessions, or offering post-testing 1-2 months from the time of the trainings to determine knowledge retention.

Conclusions

This QI project exhibited that emergency management training is necessary for the primary care setting, particularly SBHCs. There are various ways to conduct these types of trainings but given the circumstances of the project taking place during the SARS-CoV-2 pandemic in New York, virtual sessions were conducted, and the project was successfully completed without many barriers during the process. The project results are comparable to other studies focusing on pediatric primary care emergency management training, highlighting that simulation training is beneficial to the learner when incorporating this technique in the learning process. These positive findings suggest that emergency management training should be offered on an annual basis, but further examination with well- designed research studies is necessary.

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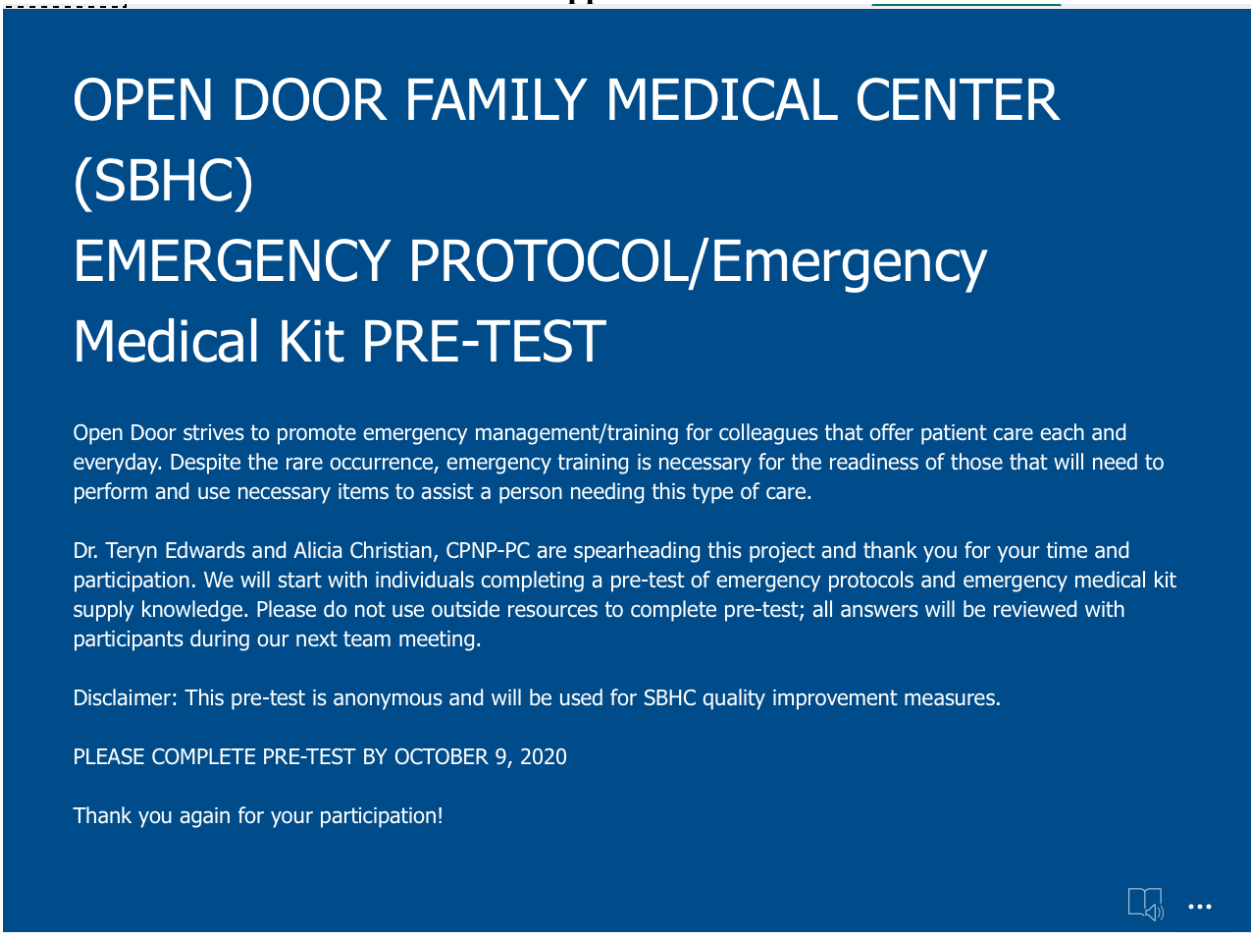
Appendix A



OPEN DOOR FAMILY MEDICAL CENTER (SBHC)
EMERGENCY PROTOCOL/Emergency Medical Kit PRE-TEST

Open Door strives to promote emergency management/training for colleagues that offer patient care each and everyday. Despite the rare occurrence, emergency training is necessary for the readiness of those that will need to perform and use necessary items to assist a person needing this type of care.

Dr. Teryn Edwards and Alicia Christian, CPNP-PC are spearheading this project and thank you for your time and participation. We will start with individuals completing a pre-test of emergency protocols and emergency medical kit supply knowledge. Please do not use outside resources to complete pre-test; all answers will be reviewed with participants during our next team meeting.

Disclaimer: This pre-test is anonymous and will be used for SBHC quality improvement measures.

PLEASE COMPLETE PRE-TEST BY OCTOBER 9, 2020

Thank you again for your participation!

* Required

1. How comfortable are you with managing an emergency situation? *

- ○ Very comfortable
- ○ I feel I can get through it, not completely comfortable
- ○ Very uncomfortable
- ○ I would not oversee an emergency situation

2. How often should emergency protocol/emergency medical kit training occur? *

- Every 3 months
- Annually
- Twice a year
- Not at all

3. Emergency protocol (codes) should be completed at SBHCs how often? *

- Every 3 months
- Annually
- Twice a year
- Not at all

4. Who should be notified in the event of an emergency at an SBHC? *

- Parents
- School Nurse
- Principal
- All the above

5. In the event an emergency requires ED evaluation, who should accompany the patient? *

- The school nurse
- The parent, if available
- A teacher or administrator from the school
- B & C

6. How should emergency situations be documented? *

- ○ The school nurse should document what happened.
- ○ In the educational records at the school
- ○ In eCW
- ○ A & C

7. Each emergency situation should require that an incident report be completed. *

- ○ True
- ○ False

8. Providers can delegate a PCT to manage an emergency situation. *

- ○ True
- ○ False

9. Please select all items that should be brought with you in an emergency situation (Select all that apply): *

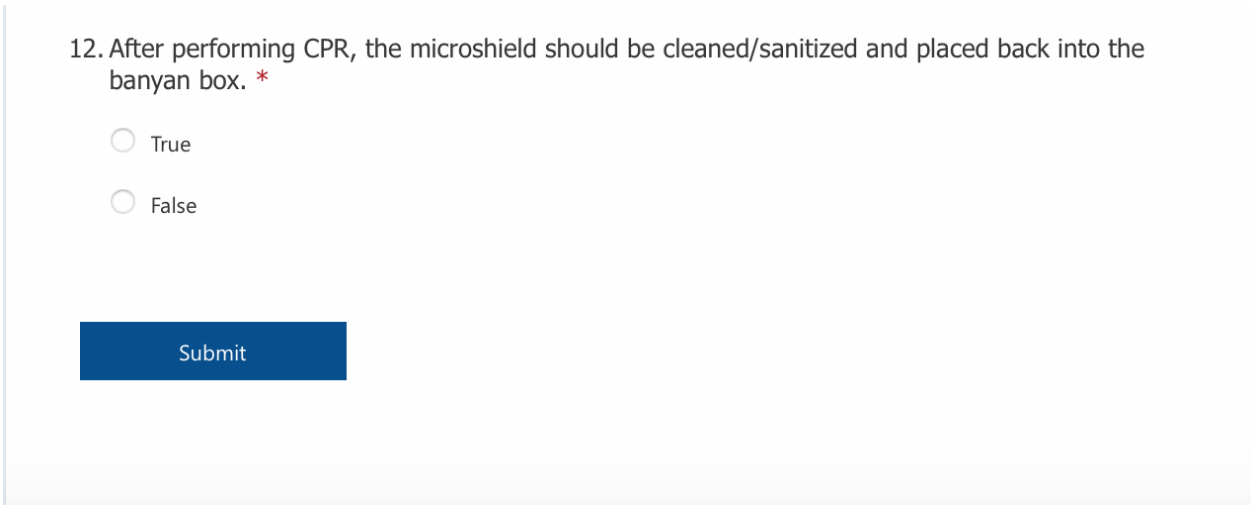
- ☐ Emergency medical kit
- ☐ Stethescope
- ☐ Ambu bags and masks (pediatric and adult)
- ☐ Pulse Ox
- ☐ AED
- ☐ Glucometer

10. The Pedi-Wheel may be used to find dosages of common medications used in emergency situations. *

- True
- False

11. Please match the following medications contained in the emergency medical kit with purpose of use and correct administration: *

	Seizures over 5 minutes, given rectally.	Suspected opioid overdose, given nasally.	Anaphylaxis, given in outer thigh.	Relieve chest pain, placed under the tongue/sub lingual	To help treat shock from injury, hypersensitivity reactions, & others stressful conditions; given IM.	Hypoglycemia, taken by mouth (chewed).	Allergic reaction, taken by mouth.
Epinephrine (Adult/pediatric)	○	○	○	○	○	○	○
Diazepam rectal gel (Diastat)	○	○	○	○	○	○	○
Glucose Tabs	○	○	○	○	○	○	○
Naloxone (Narcan)	○	○	○	○	○	○	○
Hydrocortisone sodium succinate (Solu-Cortef)	○	○	○	○	○	○	○
Nitroglycerin (Nitrostat)	○	○	○	○	○	○	○
Diphenhydramine (Benadryl)	○	○	○	○	○	○	○



Developed by Alicia Christian

Appendix B

OPEN DOOR FAMILY MEDICAL CENTER (SBHC)
EMERGENCY PROTOCOL/Emergency Medical Kit PRE-TEST

19	16:04	Closed
Responses	Average time to complete	Status

Review answers | Post scores | Open in Excel

1. How comfortable are you with managing an emergency situation?

More Details

Very comfortable	10
I feel I can get through it, not ...	9
Very uncomfortable	0
I would not oversee an emerg...	0

2. How often should emergency protocol/emergency medical kit training occur?

42% of respondents (8 of 19) answered this question correctly.

More Details

Every 3 months	7	
Annually	8	✓
Twice a year	4	
Not at all	0	

3. Emergency protocol (codes) should be completed at SBHCs how often?

74% of respondents (14 of 19) answered this question correctly.

More Details

Every 3 months	14	✓
Annually	4	
Twice a year	1	
Not at all	0	

4. Who should be notified in the event of an emergency at an SBHC?

84% of respondents (16 of 19) answered this question correctly.

More Details

Parents	0	
School Nurse	2	
Principal	1	
All the above	16	✓

5. In the event an emergency requires ED evaluation, who should accompany the patient?

79% of respondents (15 of 19) answered this question correctly.

More Details

The school nurse	1	
The parent, if available	2	
A teacher or administrator fro...	1	
B & C	15	✓

6. How should emergency situations be documented?

89% of respondents (17 of 19) answered this question correctly.

More Details

The school nurse should docu...	0	
In the educational records at t...	0	
In eCW	2	
A & C	17	✓

7. Each emergency situation should require that an incident report be completed.

89% of respondents (17 of 19) answered this question correctly.

More Details

True	17	✓
False	2	

8. Providers can delegate a PCT to manage an emergency situation.

100% of respondents (19 of 19) answered this question correctly.

More Details

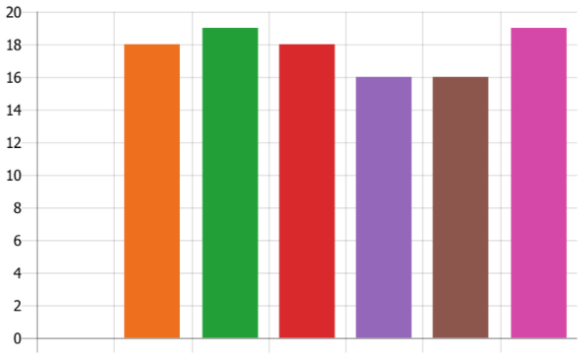
True	0	
False	19	✓

9. Please select all items that should be brought with you in an emergency situation (Select all that apply):

0% of respondents (0 of 19) answered this question correctly.

More Details

Emergency medical kit	0	✓
Stethescope	18	✓
Ambu bags and masks (pediat...	19	✓
Pulse Ox	18	✓
AED	16	✓
Glucometer	16	✓
Other	19	



10. The Pedi-Wheel may be used to find dosages of common medications used in emergency situations.

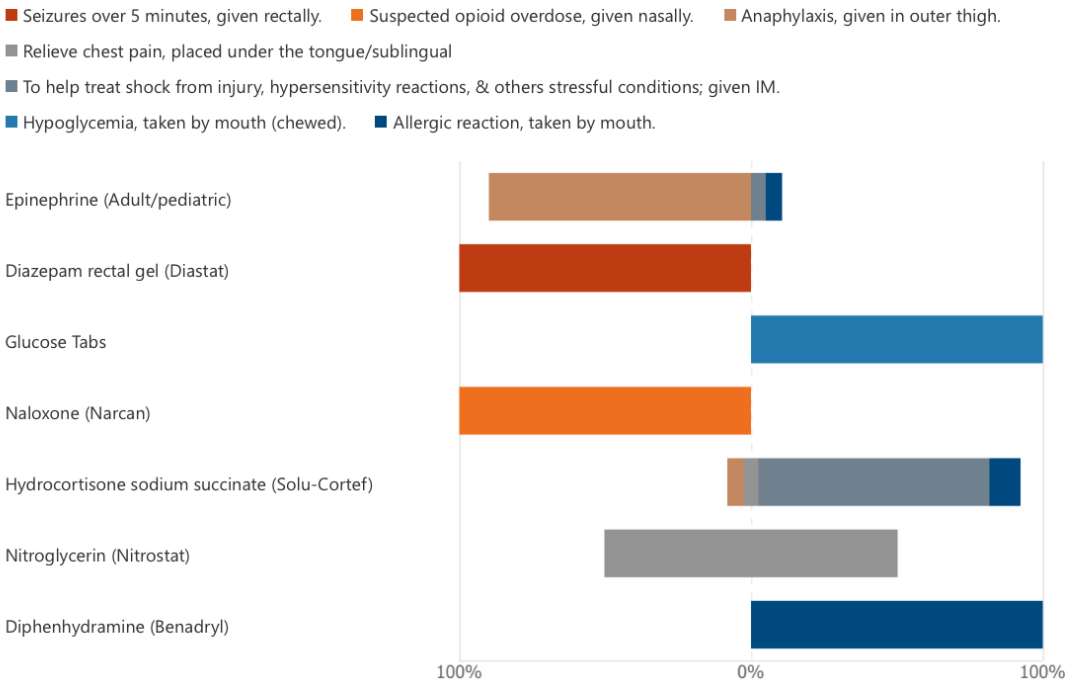
89% of respondents (17 of 19) answered this question correctly.

More Details

True	17	✓
False	2	

11. Please match the following medications contained in the emergency medical kit with purpose of use and correct administration:

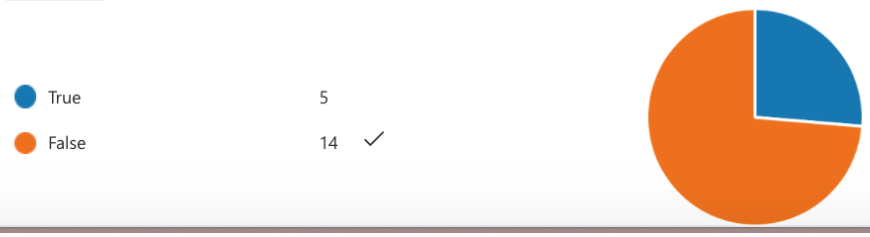
More Details



12. After performing CPR, the microshield should be cleaned/sanitized and placed back into the banyan box.

74% of respondents (14 of 19) answered this question correctly.

More Details



Appendix C

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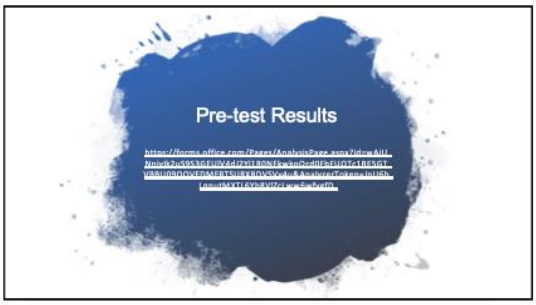

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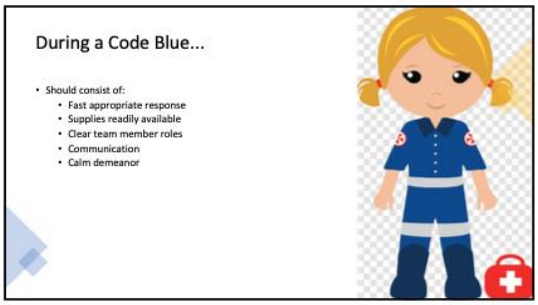

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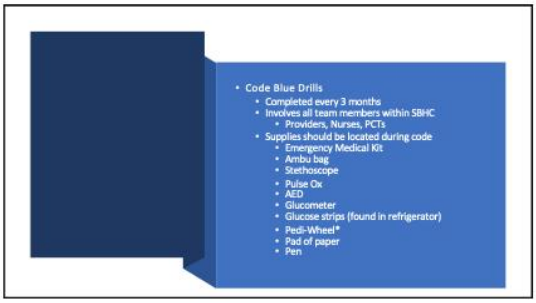

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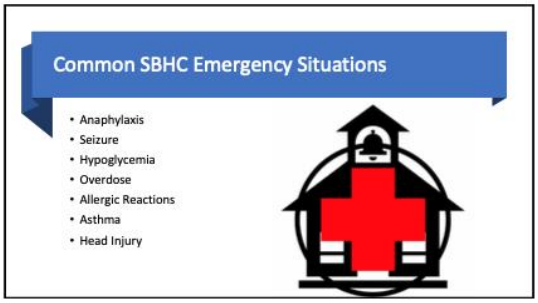

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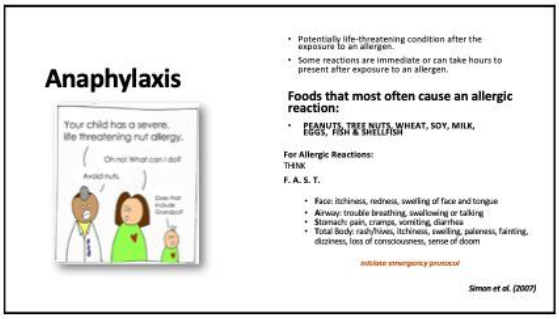
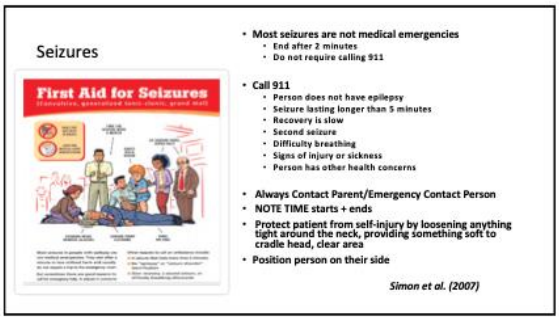

Anaphylaxis
Your child has a severe, life threatening nut allergy.
Oh no! What can I do!!
Avoid nuts.
Does that include Grandma?
• Potentially life-threatening condition after the exposure to an allergen.
• Some reactions are immediate or can take hours to present after exposure to an allergen.
Foods that most often cause an allergic reaction:
• PEANUTS, TREE NUTS, WHEAT, SOY, MILK, EGGS, FISH & SHELLFISH
For Allergic Reactions:
THINK
F. A. S. T.
• Face: itchiness, redness, swelling of face and tongue
• Airway: trouble breathing, swallowing or talking
• Stomach: pain, cramps, vomiting, diarrhea
• Total Body: rash/hives, itchiness, swelling, paleness, fainting, dizziness, loss of consciousness, sense of doom
Initiate emergency protocol
Simon et al. (2007)

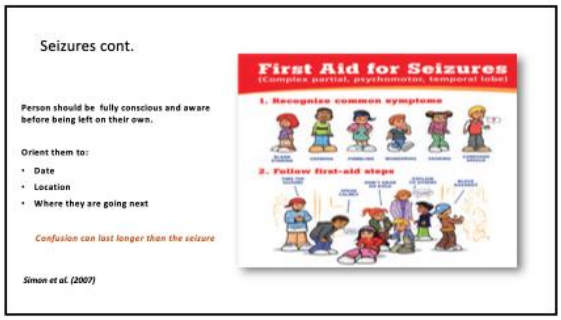
7


Allergic Reactions
Stings
• Yellow jackets
• Paper wasps
• Hornets
Latex
• Gloves
• Balloons
• Art supplies
Simon et al. (2007)

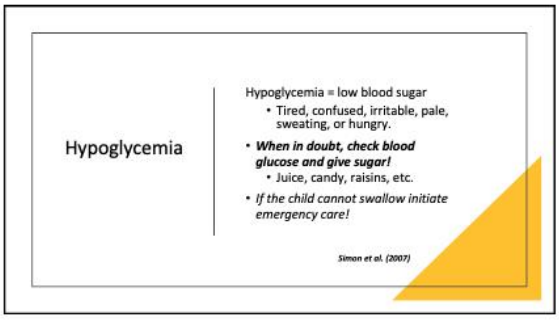
8


Seizures
First Aid for Seizures
• Most seizures are not medical emergencies
• End after 2 minutes
• Do not require calling 911
• Call 911
• Person does not have epilepsy
• Seizure lasting longer than 5 minutes
• Recovery is slow
• Second seizure
• Difficulty breathing
• Signs of injury or sickness
• Person has other health concerns
• Always Contact Parent/Emergency Contact Person
• NOTE TIME starts + ends
• Protect patient from self-injury by loosening anything tight around the neck, providing something soft to cradle head, clear area
• Position person on their side
Simon et al. (2007)

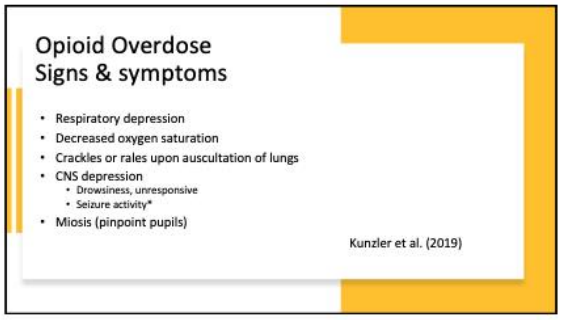
9


Seizures cont.
Person should be fully conscious and aware before being left on their own.
Orient them to:
• Date
• Location
• Where they are going next
Confusion can last longer than the seizure
Simon et al. (2007)
First Aid for Seizures
(Complex partial, psychomotor, temporal lobe)
1. Recognize common symptoms
2. Follow first-aid steps

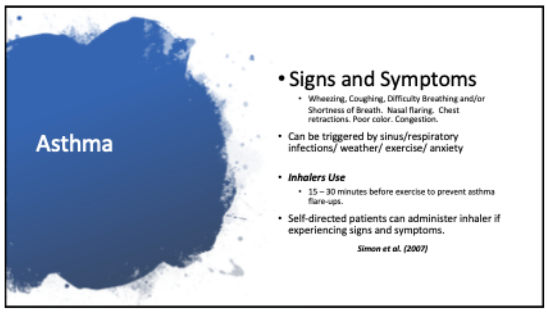
10


Hypoglycemia
Hypoglycemia = low blood sugar
• Tired, confused, irritable, pale, sweating, or hungry.
• When in doubt, check blood glucose and give sugar!
• Juice, candy, raisins, etc.
• If the child cannot swallow initiate emergency care!
Simon et al. (2007)

11


Opioid Overdose
Signs & symptoms
• Respiratory depression
• Decreased oxygen saturation
• Crackles or rales upon auscultation of lungs
• CNS depression
• Drowsiness, unresponsive
• Seizure activity*
• Miosis (pinpoint pupils)
Kunzler et al. (2019)

12



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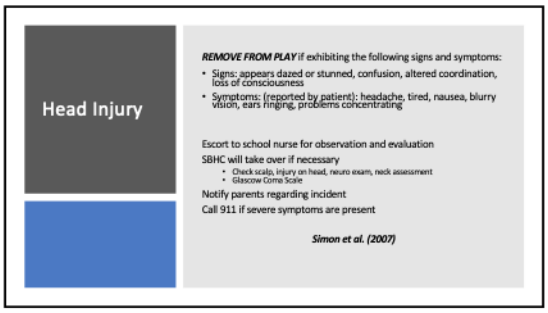

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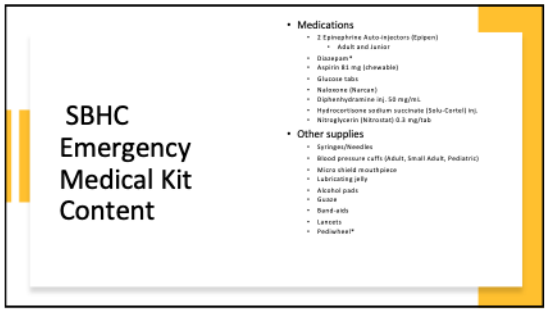

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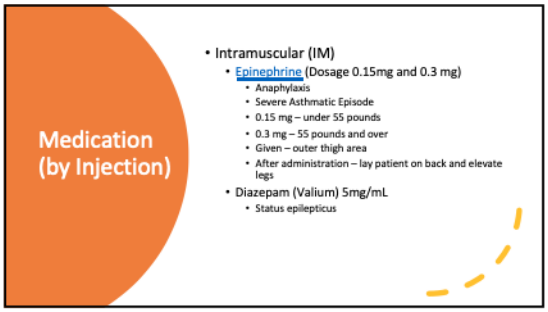

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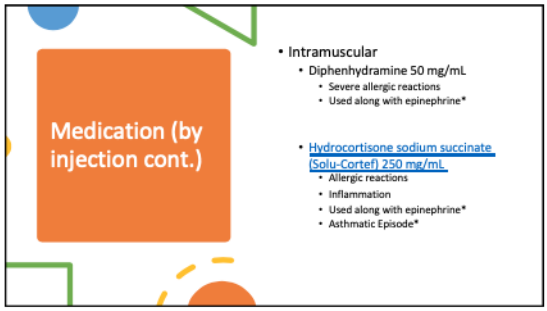

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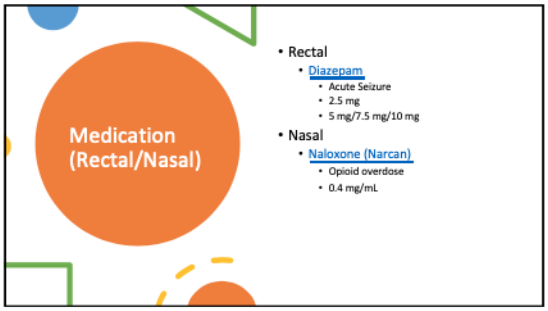

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Diazepam Dosage

2 - 5 Years 0.5 mg/kg		6 - 11 Years 0.3 mg/kg		12+ Years 0.2 mg/kg	
Weight (kg)	Dose (mg)	Weight (kg)	Dose (mg)	Weight (kg)	Dose (mg)
6 to 10	5	10 to 16	5	14 to 25	5
11 to 15	7.5	17 to 25	7.5	26 to 37	7.5
16 to 20	10	26 to 33	10	38 to 50	10
21 to 25	12.5	34 to 41	12.5	51 to 62	12.5
26 to 30	15	42 to 50	15	63 to 75	15
31 to 35	17.5	51 to 58	17.5	76 to 87	17.5
36 to 44	20	59 to 74	20	88 to 111	20

19

Medication (by Mouth)

- Oral
  - Glucose Tabs
    - Hypoglycemic episode
    - Check blood sugar before giving tab(s) and 15 minutes after administration.
      - If blood glucose is still low repeat treatment
  - Acetylsalicylic acid (Aspirin chewable) 81 mg
    - Chest pain/possible heart attack
  - Nitroglycerin (Nitrostat) 0.3 mg/tab*
    - Angina/Congestive heart failure (CHF)
  - Diphenhydramine 50 mg/mL
    - Allergic reactions

20

SBHC Emergency Medical Kit Content (cont.)

- Content with expiration dates should be reviewed during monthly lock change
  - Each month the lock on the box should be changed or when supplies need to be updated.
  - Expired meds/supplies should be removed, and new supplies must be ordered.*
  - Update expiration dates on log in Banyan box.
  - Update Banyan box log with new lock number

- *This task is done by the providers or nurses on the SBHC team.*

21

Provider Delegation

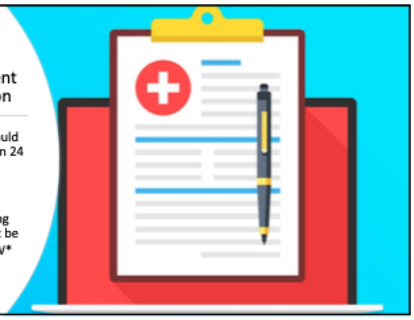
- **Providers can delegate:**
  - Ask for emergency supplies to be brought to scene
  - Have someone call 911*
  - Contact patient's emergency contact
  - Inform School Nurse, Administration, etc.
  - Assist in crowd control
  - Check vitals
  - Perform CPR

- **Providers cannot delegate:**
  - Assess patient's condition
  - Administer medication
  - Manage emergency

22

Reporting Incident & Documentation

- Incident Report should be completed within 24 hours.
  - Can be found in drive*
- Care provided during an emergency must be documented in eCW*
  - This is for SBHC patients only.



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EMS Support

- Provide vitals, medication administration, and any changes in patient's status to EMS staff.
- Confirm who is going with patient to ED. School nurse, providers, PCTs should not accompany patient.
- Make sure security is aware EMS has been called.
- Please contact Maryam Motabar, Sara Hodgdon and Lindsay Neptune if 911 is call for an SBHC patient.

24

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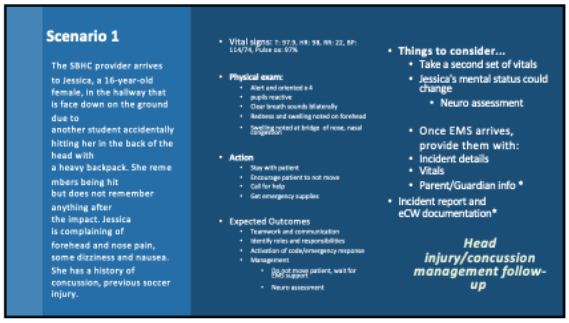

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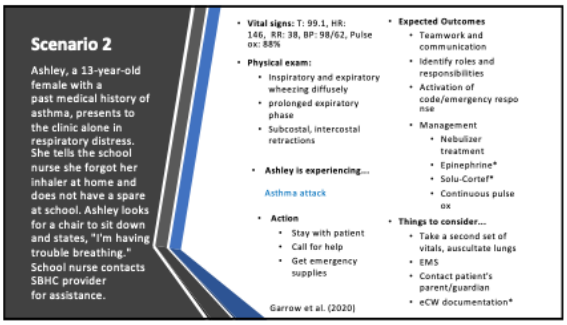

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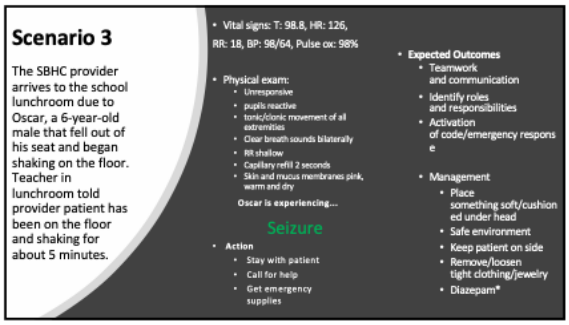

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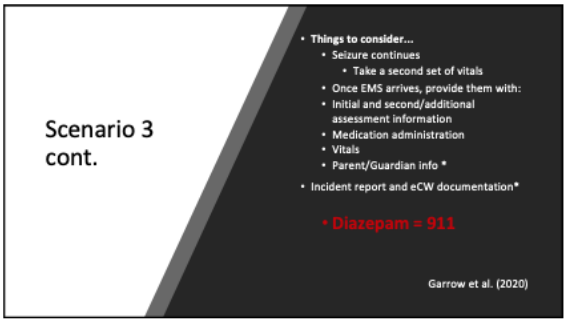

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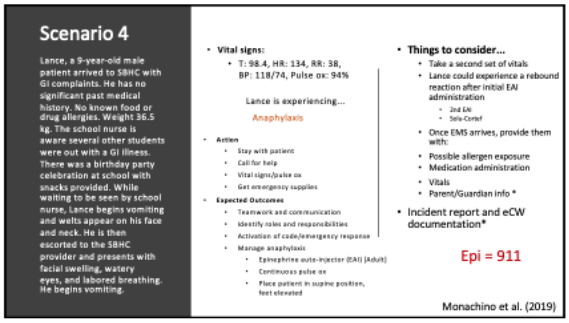

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31

32

Developed by Alicia Christian

Appendix D

EMERGENCY MANAGEMENT TRAINING VIDEOS

Solucortef Injection Training from the SUCCEED clinic:

- https://youtu.be/nuJ9Wj_eb4U

Responding to Seizures with Diastat (2015)

- https://youtu.be/ZOT3Psbwle4

NARCAN training video - Instructions for administration of NARCAN® Nasal Spray 4mg

- https://youtu.be/tGdUFMrCRh4

How To Use an EpiPen

- https://youtu.be/EN83hen4D-Y

Appendix E

OPEN DOOR FAMILY MEDICAL CENTER (SBHC)
EMERGENCY PROTOCOL/Emergency Medical Kit POST-TEST

Thank you so much for your participation in the Open Door SBHC Emergency Management training. Our hope is to continue to build upon this training by ensuring optimal emergency management education and skill set is met for each colleague within the SBHC.

Please take the time to complete the following post-test. Like the pre-test, this will test your emergency management knowledge, please refrain from using any outside resources. Post-test results will be emailed to everyone and please reach out if you have any questions regarding the post-test results.

Disclaimer: This post-test is anonymous and will be used for SBHC quality improvement measures.

PLEASE COMPLETE POST-TEST BY December 18, 2020

Thank you again for your participation.

* Required

1. My role in the SBHC is... *

- ◯ Patient Care Technician
- ◯ Provider (NP/PA)
- ◯ Nurse (LPN)
- ◯ Administration/Other

2. Please rate your overall comfort level with managing an emergency after taking the emergency training? *

1 2 3 4 5

○ ○ ○ ○ ○

3. Please select all items that should be brought with you in an emergency situation (Select all that apply): *

- ☐ Stethoscope
- ☐ Pulse Ox
- ☐ Emergency Medical Kit
- ☐ AED
- ☐ Ambu bags and masks (pediatric and adult)
- ☐ Glucometer with glucose strips

4. The Pedi-Wheel may be used to find dosages of common medications used in emergency situations. *

- ○ True
- ○ False

5. How should emergency situations be documented? *

- ○ The school nurse should document what happened.
- ○ In eCW
- ○ A & B
- ○ In the educational records at the school.

6. Most emergency situations require an incident report be completed. *

- ◯ True
- ◯ False

7. Please match the following medications contained in the emergency medical kit with the purpose of use and correct administration: *

	Suspected opioid overdose, given nasally.	Relieves angina/chest pain, place under the tongue/sublingual	Seizures over 5 minutes, given rectally.	Anaphylaxis, given in outer thigh.	Hypoglycemia, taken by mouth (chewed).	To help treat shock, inflammation, hypersensitivity, & other stressful conditions; given IM.	Allergic reaction, taken by mouth or IM.
Glucose tabs	◯	◯	◯	◯	◯	◯	◯
Diazepam rectal gel (Diastat)	◯	◯	◯	◯	◯	◯	◯
Epinephrine (Adult/pediatric)	◯	◯	◯	◯	◯	◯	◯
Hydrocortisone sodium succinate (Solu-Cortef)	◯	◯	◯	◯	◯	◯	◯
Nitroglycerine (Nitrostat)	◯	◯	◯	◯	◯	◯	◯
Diphenhydramine (Benadryl)	◯	◯	◯	◯	◯	◯	◯
Naloxone (Narcan)	◯	◯	◯	◯	◯	◯	◯

8. After performing CPR, the microshield should be cleaned/sanitized and placed back into the banyan box. *

- ◯ True
- ◯ False

9. In the event an emergency requires ED evaluation, who should accompany the patient? *

- ◯ The parent, if available
- ◯ The school nurse
- ◯ A & D
- ◯ A teacher or administrator from the school

10. Providers can delegate a PCT to manage an emergency situation. *

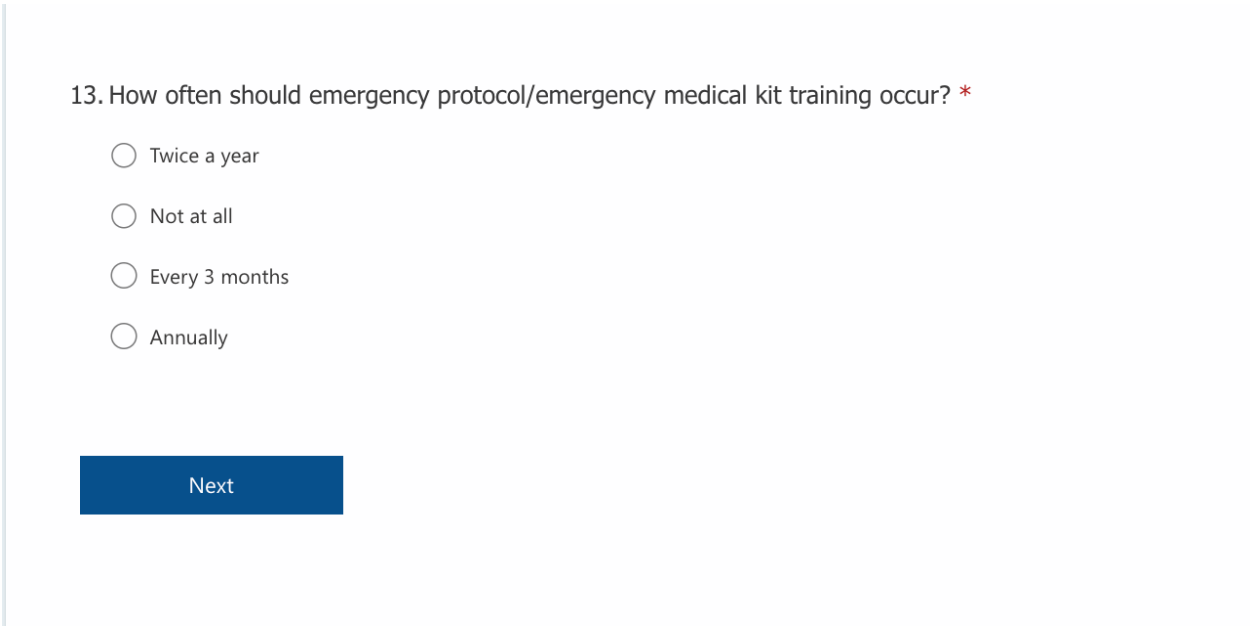
- ◯ True
- ◯ False

11. Who should be notified in the event of an emergency at an SBHC? *

- ◯ Principal
- ◯ School Nurse
- ◯ Parents
- ◯ All the above

12. Emergency protocol (codes) should be completed at SBHCs how often? *

- ◯ Annually
- ◯ Twice a year
- ◯ Every 3 months
- ◯ Not at all



Developed by Alicia Christian

Appendix F

OPEN DOOR FAMILY MEDICAL CENTER (SBHC)
EMERGENCY PROTOCOL/Emergency Medical Kit POST-TEST

15	97:43	Active
Responses	Average time to complete	Status

Review answers | Post scores | Open in Excel

1. My role in the SBHC is...

More Details

Patient Care Technician	7
Provider (NP/PA)	5
Nurse (LPN)	2
Administration/Other	1

2. Please rate your overall comfort level with managing an emergency after taking the emergency training?

More Details

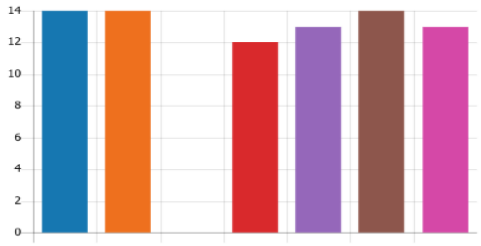
15	4.6
Responses	Average Number

3. Please select all items that should be brought with you in an emergency situation (Select all that apply):

0% of respondents (0 of 15) answered this question correctly.

More Details

Stethoscope	14	✓
Pulse Ox	14	✓
Emergency Medical Kit	0	✓
AED	12	✓
Ambu bags and masks (pediat...	13	✓
Glucometer with glucose strips	14	✓
Other	13	



4. The Pedi-Wheel may be used to find dosages of common medications used in emergency situations.

100% of respondents (15 of 15) answered this question correctly.

More Details

True	15	✓
False	0	

5. How should emergency situations be documented?

93% of respondents (14 of 15) answered this question correctly.

More Details

The school nurse should docu...	0	
In eCW	1	
A & B	14	✓
In the educational records at t...	0	

6. Most emergency situations require an incident report be completed.

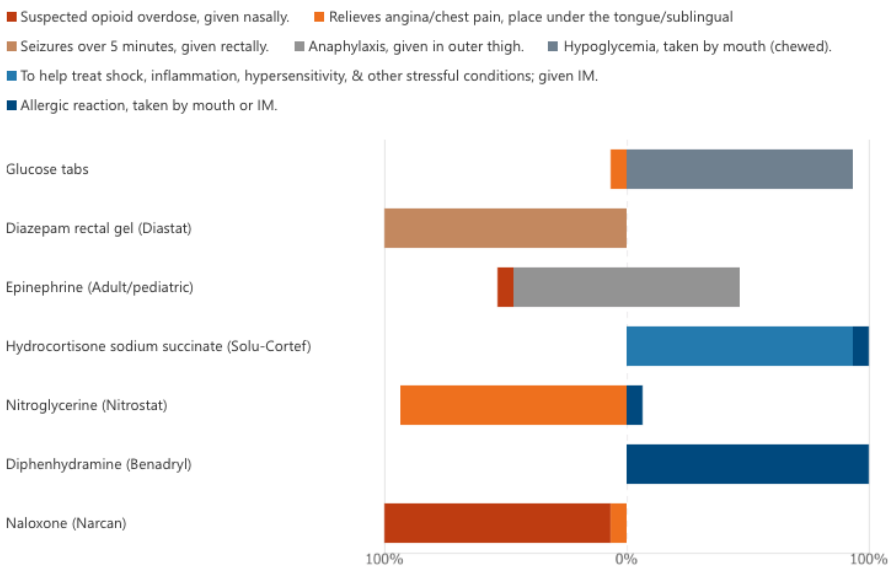
87% of respondents (13 of 15) answered this question correctly.

More Details

True	13	✓
False	2	

7. Please match the following medications contained in the emergency medical kit with the purpose of use and correct administration:

More Details



8. After performing CPR, the microshield should be cleaned/sanitized and placed back into the banyan box.

73% of respondents (11 of 15) answered this question correctly.

More Details

True	4	
False	11	✓

9. In the event an emergency requires ED evaluation, who should accompany the patient?

87% of respondents (13 of 15) answered this question correctly.

More Details

The parent, if available	1	
The school nurse	1	
A & D	13	✓
A teacher or administrator fro...	0	

10. Providers can delegate a PCT to manage an emergency situation.

80% of respondents (12 of 15) answered this question correctly.

More Details

True	3	
False	12	✓

11. Who should be notified in the event of an emergency at an SBHC?

100% of respondents (15 of 15) answered this question correctly.

More Details

Principal	0	
School Nurse	0	
Parents	0	
All the above	15	✓

12. Emergency protocol (codes) should be completed at SBHCs how often?

87% of respondents (13 of 15) answered this question correctly.

More Details

Annually	2	
Twice a year	0	
Every 3 months	13	✓
Not at all	0	

13. How often should emergency protocol/emergency medical kit training occur?

60% of respondents (9 of 15) answered this question correctly.

More Details

Twice a year	0	
Not at all	0	
Every 3 months	6	
Annually	9	✓

14. Do you believe there is a need for uniform emergency management protocols and procedures within the Open Door SBHC?

More Details

Strongly Agree	11
Agree	3
Neutral	1
Disagree	0
Strongly Disagree	0

15. The facilitator was knowledgeable and answered questions related to the subject matter.

More Details

Strongly Agree	11
Agree	3
Neutral	1
Disagree	0
Strongly disagree	0

16. The pre- and post-test were clearly stated and left no room for question.

More Details

Strongly Agree	9
Agree	4
Neutral	1
Disagree	1
Strongly disagree	0

17. The information was presented in ways I could understand.

More Details

Strongly Agree	11
Agree	4
Neutral	0
Disagree	0
Strongly disagree	0

18. I felt comfortable participating in this project.

More Details

Strongly Agree	10
Agree	4
Neutral	1
Disagree	0
Strongly disagree	0

Appendix G

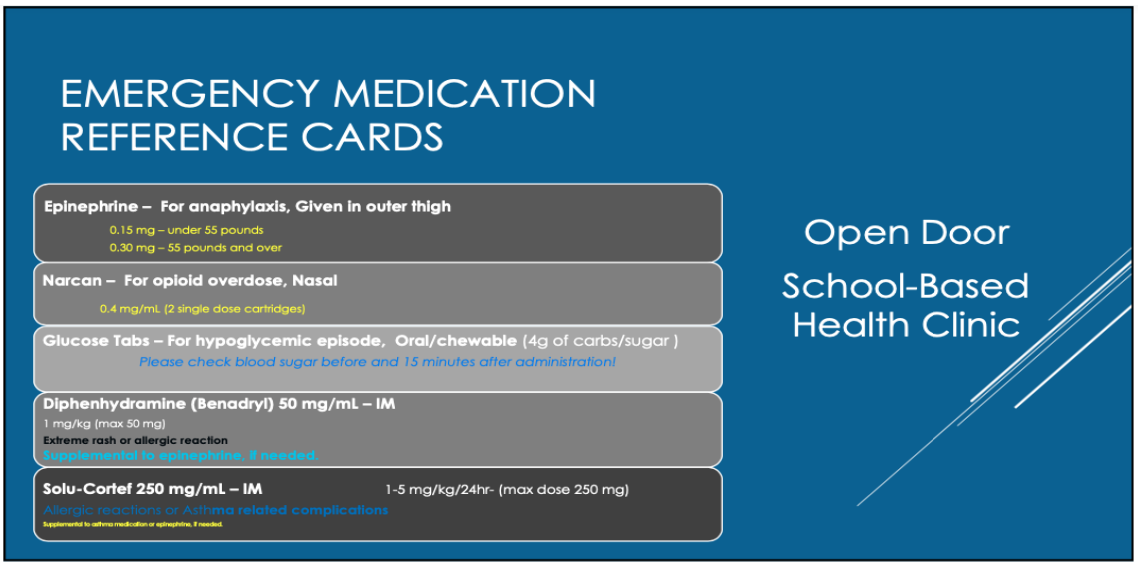
OPEN DOOR
FAMILY MEDICAL CENTER

1

OBJECTIVES

- Offer providers a quick reference guide to utilize when needing to administer medication during an emergency.

2



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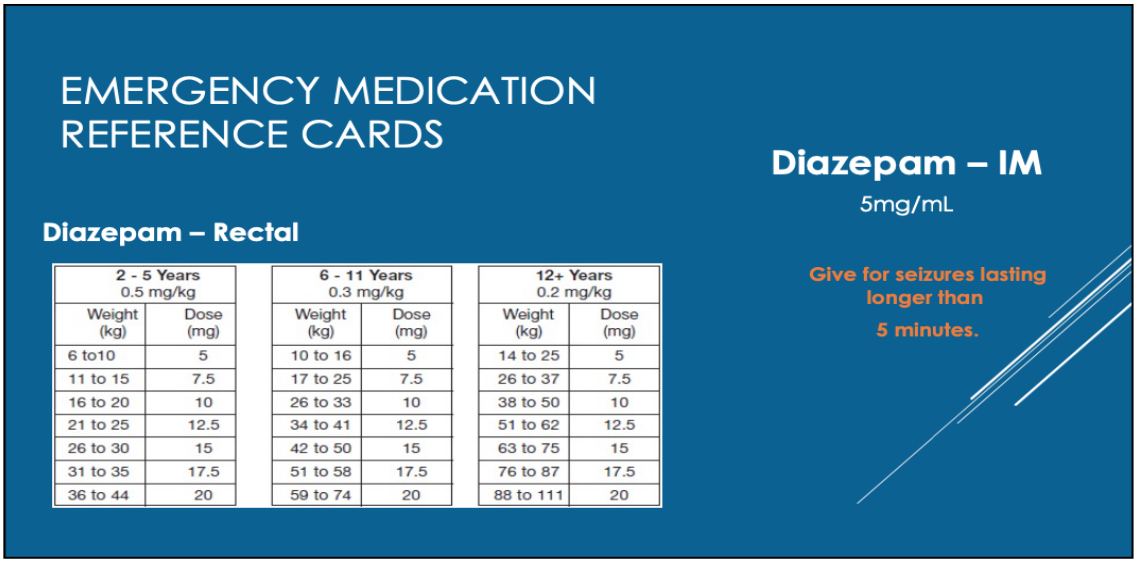

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