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Improving the Quality of Burn Care Through Implementation of the American Burn Association Competencies

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A DNP project submitted in partial fulfillment of the requirements for

the degree of Doctor of Nursing Practice

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Abstract

Background and Significance: Specialty certification is an important method to demonstrate that nurses possess training, expert knowledge, and skill in a specialty field. The American Burn Association (ABA) and the Burn Nurse Competency Initiative (BNCI) developed 11 competencies that specify the training, expert knowledge, and skills that nurses require for all aspects of burn nursing practice. The ABA and Board of Certification of Emergency Nurses are in the process of developing a burn certification for nurses. They suggest that all burn units begin to adopt these competencies to ensure consistent and competent care.

Purpose: To adopt the ABA burn competencies in the Bridgeport Hospital Connecticut Burn Center (BH-CBC) and to develop and pilot a process for nurses to achieve these competencies. The specific aim is to improve burn nursing competency in the initial management and physiological support of burn patients.

Setting: The BH-CBC, a nine-bed adult inpatient unit, is the only burn center in Connecticut. The population consists of nurses who work in the BH-CBC.

Methods: The Iowa Model Revised was used to develop and pilot a process for nurses to achieve the ABA competencies. Education modules were created using the book, Total Burn Care (5th ed.). Pre-module and post-module knowledge assessments and self-perceived competency surveys for each module were administered using an online forum. Verbal and observed competency skills were verified using a skills competency checklist.

Outcome: A total of 12 nurses participated. All nurses obtained a score of 80% or higher on the post-module knowledge assessments. None of the nurses required a second attempt or one-on-one debriefing. All nurses completed the education program and achieved competency. All nurses demonstrated improved knowledge, with the mean knowledge score increasing from

74% ± 5.77 to 94% ±4.32 for initial management and 79%±13.33% to 94%±5.88% for physiological support. All nurses perceived improved competency for initial management and 92% (n=11) of nurses perceived improved competency for physiological support.

Discussion: Burn nurse competency can be achieved using education modules and a skills checklist. A nursing workforce that meets the ABA competencies will facilitate consistent and competent care for burn patients and may improve health outcomes.

Keywords: American Burn Association, burn nursing, clinical competence, certification.

Contents

Problem Identification, Development of Clinical Question, and Evidence Review

Background and Significance of Problem

Specialty certification is an important method to demonstrate that nurses have additional training, expert knowledge, and skill in a specialty field (Kitto et al., 2017). Nurse certification is associated with better health outcomes for patients (Hickey et al., 2014). Additionally, the Joint Commission, the Yale New Haven Health System, and other verifying practice organizations (i.e., American Burn Association [ABA]) (Carrougher et al., 2020) expect nurses to have certain nursing practice competencies. Common certifications for registered nurses in acute care settings include the Critical Care Nursing Certification (CCRN), Medical-Surgical Nursing Certification (CMSRN), Nurse Executive Certification (NE-BC), Oncology Nursing Certification (ONC), and Wound Care Nursing Certification (CWCN; RegisteredNursing.org, 2020). Recently, the ABA and the Burn Nurse Competency Initiative (BNCI) developed 11 competencies that specify the specialized training, expert knowledge, and skills that nurses require for all aspects of burn nursing practice (ABA, 2017; Carrougher et al., 2018). The ABA and Board of Certification of Emergency Nurses are in the process of developing a burn certification for nurses and suggest that all ABA-verified burn units in the United States begin to adopt these competencies to ensure consistent and competent care (Carrougher et al., 2020).

Description of Local Problem

Throughout the United States, several burn centers have adopted the new ABA competencies (Carrougher et al., 2020). The Bridgeport Hospital Connecticut Burn Center (BH-CBC) is an ABA-verified burn unit that has yet to adopt the competencies. The ABA's Burn Center Verification Review Program is used to validate whether a burn center is meeting the highest standards of care for burn-injured patients. To receive ABA verification, an organization

must provide burn-specific competency-based training and continued education for all of its nurses (ABA, 2019). In 2022, ABA re-verification has been contingent upon the implementation of burn-specific quality improvement initiatives (J. Laird, personal communication, August 2, 2021). This quality improvement project may help secure ABA verification.

The BH-CBC currently requires all nurses to obtain the Advanced Burn Life Support (ABLS) certification within one year of hire. ABLS training is designed to provide prehospital and referring hospital care for critically ill burn patients from the time of injury to their arrival at a burn center. The ABLS certification focuses on triage, burn survivability, prioritizing patient transport, and initial patient treatment (ABA, 2017). Thus, the proposed ABA competencies, which are displayed in Appendix A, are additive and not repetitive.

Organizational Priority

This project is a priority for BH-CBC staff. Providing consistent and competent care to adults who need specialty burn care in Connecticut is congruent with the mission and vision of the Yale New Haven Health System. Additionally, implementing the ABA competencies accords with the Nursing Strategic Business Plan to inspire a culture of excellence and ensure patient-centered care. Establishing an educational program based on the ABA competencies may facilitate the achievement of unit-wide certification in the future. Bridgeport Hospital is seeking Magnet recognition, and the percentage of staff who are certified in their respective specialty is a reportable Magnet metric (J. Laird, personal communication, January 7, 2020). The orientation process currently lacks burn-specific standardized education, and ABLS certification only addresses the first of 11 domains (see Appendix A).

Focused Search Question

In burn nurses (P) how do the ABA competencies (I) compared to usual practice (C) affect knowledge and skill (O)?

Evidence Search

External Evidence

A search of the following databases was completed: CINAHL, PubMed, and the Cochrane Database of Systematic Reviews. Keywords that were searched included American Burn Association, ABA, nurse, burn nurse, competenc*, and certification. No limits or filters were applied. To meet the inclusion criteria, the articles needed to discuss ABA burn nurse competencies. The databases, key terms, articles included in the sample, purpose, outcomes, and worth to practice are presented in Appendix B.

Internal Evidence

At the BH-CBC, preceptors do not consistently teach new nurses burn-specific competencies. The education that nurses receive during the orientation process is nonstandardized and stems from experiences. New burn nurses may not gain clinical exposure to all competencies during the orientation period; some report feeling unprepared once the orientation period is complete.

For the purpose of this quality improvement (QI) project, ABLS course instructors, who are BH-CBC nurses with more than 10 years of burn nursing experience, completed a self-perceived ABA burn competency survey for competencies one and two (initial management and physiological support) using a 5-point Likert scale (Appendix C). The pre-self-perceived competency survey results suggest that even experienced burn nurses believe that competency can be improved (Appendix D).

Evidence Appraisal, Summary, and Recommendations

A total of four articles were reviewed. Other burn centers have adopted ABA competencies via online learning modules (Burton-Williams et al., 2019; Gauthier et al., 2019), annual nursing skills days, orientation skills checklists (Burton-Williams et al., 2019), orientation manuals (Gloger, 2019), and didactic sessions (Yukon et al., 2019). The evidence supports adopting the competencies for training and educational programs, the onboarding process, and orientation for new burn nurses at burn centers (Carrougher et al., 2018).

Project Plan

Project Goals

1. Verify ABA competencies are evidence-based by November 30, 2020.
2. 50% of the ABA competencies will be in the BH-CBC documentation by April 2022 and the other 50% by August 2022.
3. Develop and pilot an evidence-based process for BH-CBC nurses to achieve minimum level competence by November 2021.
4. Provide education modules 1 and 2 (initial management and physiological support) for ABA burn care as evidenced by scores 80% or higher in post-module knowledge assessments.
5. Evaluate nurse competence on a quarterly basis using the pilot process.

Project Design and Methodology

Framework

This QI project uses the Iowa Model Revised (Buckwalter et al., 2017) to develop and pilot a process for nurses to achieve these competencies and disseminate project results. The model uses evidence-based practice and QI processes to promote excellence in healthcare. The model features several steps, including identifying a triggering issue; stating the purpose of a project; forming a team; assembling, appraising, and synthesizing the evidence; designing and piloting the practice change; integrating and sustaining the practice change; and disseminating the results.

Identify triggering issues/opportunities

See the Background and Significance of Problem and Description of Local Problem sections.

Is this topic a priority

See the Organizational Priority section.

Form a team

See the Project Team Members and Roles section.

Design the practice change

Activities related to designing the practice change include assembling the team, creating education modules and videos, module review and approval, submitting modules to be published in the LMS, creating knowledge assessments and the competency-based skills checklist, developing a self-perceived competency assessment survey, and establishing funding. See Appendix E for a full outline of activities that are related to designing the practice change.

Integrate and sustain the practice change

Staff at the BH-CBC verbally agree to several conditions upon being hired. These conditions include attending a burn conference every two years, spending a minimum of two hours engaging in burn-specific continuing education per year, and obtaining ABLS certification. Requirements are evaluated at yearly performance reviews, and staff receive raises for obtaining certification (J. Laird, personal communication, October 12, 2020).

The education modules will be uploaded to Bridgeport Hospital's LMS. The modules will be assigned for all burn nurses to complete; newly hired burn nurses will have a designated completion date of six months while existing burn nurses will have three months to complete the training. Management will notify newly hired nurses and existing staff of expectations and deadlines for the completion of the education modules. Competencies will be maintained through Bridgeport Hospital's annual Skills Day.

Context

The setting is the BH-CBC, which is the only ABA-verified burn center in Connecticut. The BH-CBC is an adult nine-bed unit that treats approximately 200 adult and pediatric inpatients annually (Yale New Haven Health, n.d.). The facility features a treatment room that is reserved for pediatric burn care and emergency department burn patients who receive outpatient treatment and are discharged to their homes. Pediatric inpatients receive burn care in the treatment room and stay in the pediatric unit. There are six intensive care unit beds for burn patients who have sustained total body surface area (TBSA) burns of 28% or greater and who are hemodynamically unstable. There are three non-critical beds for patients who have sustained TBSA burns of less than 28% and who are hemodynamically stable. The nurse-to-patient ratio is

1:2 for critical burn patients and 1:4 for non-critical burn patients. The population for this project consists of nurses who work in the BH-CBC.

Project Team Members and Roles

Laura Ritter BSN, RN is the project manager and Doctor of Nursing Practice student at Sacred Heart University. The ABLS-certified course instructors and practice mentors are also nurses from BH-CBC; they will pilot the modules, knowledge assessments, and surveys. An expert review panel, which is responsible for the final review of the education modules and knowledge assessments, will include the BH-CBC Physician Assistant; Medical Director; nurse manager; assistant nurse manager; and manager of staff education. The former nurse educator and clinical nurse at the University of Utah Health Burn Center is a project consultant. She recently stepped down from a position as a nurse educator in the Burn Trauma Intensive Care Unit. In her former role, she led the development and piloting of the ABA burn competencies.

The BH-CBC nurse manager and assistant nurse manager will submit the education modules to the education department for review, approval, and incorporation into the organization's learning management system (LMS). The director of e-learning education and manager of staff education will be consulted prior to submission. The manager of staff education and the critical care nurse educator will be responsible for the review and approval of the competency-based skills checklist.

The BH-CBC multidisciplinary team will review and provide feedback on modules that pertain to their respective disciplines. The BH-CBC pharmacist will review the pain, agitation, and delirium management modules. The BH-CBC Registered Dietician will review the nutritional support module. The BH-CBC social worker will review the psychosocial support module. The occupational therapy and physical therapy department will review the rehabilitation

module. The BH-CBC palliative care APRN will review the end-of-life module. The outpatient wound healing center Registered Nurses and the burn survivor support group, The CT Friends of the Phoenix, will review the discharge planning and aftercare support modules. The BH-CBC Physician's Assistant will review the wound management module.

Key Stakeholders and Buy-in

The BH-CBC staff (i.e., nurse manager, director, physicians, physician's assistants, ABLS course instructors, nurses, and the multidisciplinary team) are key stakeholders in this project. The stakeholders' engagement will be sought in the early stages of the project to develop a sense of shared ownership and build momentum. All stakeholders will be invited to the DNP project proposal meeting and subsequent meetings to promote open dialogue. BH-CBC staff are highly supportive of adopting the ABA competencies.

Barriers and Facilitators to Implementation

Barriers to implementation may include the time associated with the development and pilot of modules and expert panel review of the modules. A team of nurse educators at the University of Utah took approximately one year to complete learning modules and quizzes for all 11 competencies (Project consultant, personal communication, November 6, 2020). Plans to address these barriers include piloting the process to achieve the first two of 11 competencies – initial management and physiological support – which may make implementation more feasible. Email reminders will be sent to the expert review panel with the deadline completion date.

Sustainment

See the Integrate and Sustain the Practice Change section.

Dissemination

A one-page executive project summary will be distributed to all staff associated with the BH-CBC and the Yale New Haven Health System (YNHHS) Nursing Scientific Review Committee (NSRC). The NSRC will also be given the project abstract. An abstract will be submitted for a poster presentation at the ABA's 54th annual burn meeting in April 2022. The poster will include the project title, team members, purpose statement, framework, implementation strategies, results, and implications for practice. The journal considered for publication is the *Journal of Burn Care and Research*, the only US journal that is dedicated exclusively to the treatment and research of burn patients.

Estimated Timeline

The YNHHS NSRC approved the project in February 2022. See Appendix F for the full proposed timeline.

Resources

The project manager will use PowerPoint to create the education modules. It may take up to two hours to address each of the 38 items for modules one and two, totaling 76 hours. The LMS requirements will be confirmed with the director of e-learning education for the healthcare system. BH-CBC nurses will be paid their hourly rate to complete the education modules, knowledge assessments, and surveys. It may take approximately two hours to complete the modules, knowledge assessments, and surveys. Additionally, ABLS-certified instructors will be paid their hourly rate for piloting the process and providing feedback. It may take approximately four hours per module to pilot the process and obtain feedback. It may take two hours per module for the project manager to update modules and quiz questions from feedback, which accumulates to 88 hours in total for the project manager. This project will be funded through the

BH-CBC burn nurse education fund (Nurse Manager BH-CBC, personal communication, February 7, 2021).

Review for Ethical Considerations

As noted above, the YNHHS NSRC approved this project (see Appendix G). This QI project does not require Sacred Heart University Institutional Review Board approval (see Appendix H). Approval to implement the project was obtained from the medical director of the BH-CBC, and the nurse manager.

Data Collection Plan

Process Measures

A report on the module completion time and pre-module and post-module self-perceived competency for each nurse will be requested from LMS staff (see Appendix C). The project manager will enter the data for each nurse on the unit tracking form. All data will then be entered into an excel spreadsheet.

Outcome Measures

A report on the pre-module and post-module knowledge assessments (see Appendix I) will be requested from the LMS staff. The project manager with the help of the Assistant Nurse Manager will record the observed and verbal competency skills on the burn nurse competency checklist and the DNP student will enter the data into an excel spreadsheet.

Data Management Plan

The project manager will receive data from the LMS with the nurse's name. The nurses will be coded in an Excel file using identification numbers starting with 1 (see Appendix J). The nurse manager will keep a copy of the master list locked in her office. The Sacred Heart

University DNP project faculty advisor, site preceptor, and scholarly project mentor will have access to the deidentified data.

Project Implementation, Data Collection, Evaluation, Return on Investment

Project Implementation: Piloting the Practice Change

Education module 1 was piloted with the ABLS course instructors on November 17, 2021. On November 27, 2021, the ABLS course instructors attended a meeting to obtain feedback on module content and question clarity. Education module 2 was piloted with the ABLS course instructors on January 17, 2022, and on January 25, 2022, the instructors attended a meeting to provide feedback. The modules and questions were updated according to the feedback they offered. The final modules were submitted on February 28, 2022 to an expert review panel consisting of the BH-CBC manager, assistant nurse manager, physician's assistant, and medical director. The expert review panel did not make any changes to the module content or knowledge assessments.

A two-week implementation period began on March 25, 2022, running until April 8, 2022. The BH-CBC nurse manager approved the implementation date. An announcement was made on March 16, 2022, at the unit staff meeting. An email was sent to BH-CBC nurses that detailed the instructions for completing the knowledge assessments, surveys, and education modules (see Appendix K). The email was posted to the burn unit's group-messaging application (GroupMe) on March 24, 2022, which was the day prior to implementation.

The skills competency checklist (see Appendix L) was adapted to the YNHHS competency-based orientation format and approved by the former critical care nurse educator on November 5, 2022. This version of the checklist will be utilized for all new burn nurses. The

project manager verified verbal and observed skills of existing burn nurses via an Excel skills checklist (Appendix M).

Barriers to Implementation

Cost and Publication in the LMS. Barriers to implementation included the high cost associated with publication in the LMS and making educational videos. Publishing the education modules into the LMS may cost up to $25,000 (Director of e-learning education, personal communication, October 15, 2021). The BH-CBC's manager obtained permission from the BH-CBC's medical director to utilize the burn education fund to publish the material in the LMS.

Other barriers include that there is limited staff available to publish material into the LMS and material published is prioritized by the urgency of the material. The burn unit consists of only 15 nurses, which is small in comparison to the entire nursing workforce at Bridgeport Hospital; it is likely that other organizational priorities that pertain to the entire workforce may take precedence (Director of e-learning education, personal communication, October 15, 2021).

Resources and Time. The actual timeline for implementation varied from the proposed timeline (see Appendix N). Creating the modules and knowledge assessments, piloting the project with ABLS instructors, and updating the ABLS instructors based on feedback took more time than was initially projected. For example, it took four months longer than was proposed in the timeline to read the *Total Burn Care* textbook and create the modules, ensuring that each competency was met and the content was sufficient to answer knowledge assessment questions. The chapters in *Total Burn Care* take time to read and are challenging to comprehend in some cases. In addition, only one chapter in the book is specific to burn nursing (Herndon, 2018). Therefore, the initial plan to include PDFs of chapters from *Total Burn Care* was omitted from education modules (see Appendix O).

The extra time required at this stage delayed module submission and publication in the LMS. Therefore, an alternative method of implementation was used to achieve the competencies. An online forum, Qualtrics, was used to perform knowledge assessments and administer perceived competencies surveys. PowerPoint presentations and individualized links from Qualtrics for the knowledge assessments and surveys were emailed to the BH-CBC nurses.

Data Collection

Data were collected in real time via Qualtrics. On April 8, 2022, at the end of the data collection period, data were exported from Qualtrics to an Excel spreadsheet. Personal links to the knowledge assessments and perceived competency surveys were sent to each nurse to track their individual responses. Data with the nurses' names were coded in the Excel file using identification numbers beginning with 1. An electronic copy of the master list was emailed to the BH-CBC manager.

Mean time could not be accurately tracked via Qualtrics. After completing the educational modules, nurses used the BH-CBC logbook to record the time it took them to complete all of the modules. A unit tracking form was kept for each nurse to record the mean time for completion of the modules from the logbook (Appendix P). The data were transferred from the logbook to the unit tracking form and entered into an Excel spreadsheet. The observed and verbal competency skills were recorded via an Excel skills competency checklist.

Process Measures

Module completion was tracked using Qualtrics, which made it possible to track the nurses' progress in real-time. A 5-point Likert scale (Appendix C) was used to measure the nurses' self-perceived competency levels before and after completion of each module. Self-perceived competency was scored using a 5-point Likert scale (1 point = poor competency, 2

points = fair competency, 3 points = good competency, 4 points = very good competency, and 5 points = excellent competency).

Concerning initial management, a total of 23 essential performance criteria statements (i.e., for competency 1.1 describes normal skin anatomy) were measured on a 5-point Likert scale for a maximum potential score of 115 points. In regard to physiological support, a total of 15 essential performance criteria statements were measured on the 5-point Likert scale for a maximum potential total score of 75 points.

The nurses' survey responses about their self-perceived competency were entered into Excel spreadsheets. Surveys from the pilot with the ABLS certified course instructors were reviewed manually and entered into the Excel spreadsheet. A total of 12 pre-module and post-module surveys were included in the final dataset.

Outcomes Measures

The knowledge assessment scores from Qualtrics were entered into Excel spreadsheets. Regarding initial management, one point was received for each correct answer for a potential total score of 61 points. Concerning physiological support, one point was received for each correct answer for a potential total of 30 points. Knowledge assessment scores from the pilot with the two ABLS certified course instructors were reviewed manually and entered into the Excel spreadsheet. A total of 12 pre-module and post-module knowledge assessments and were included in the final dataset.

Evaluation

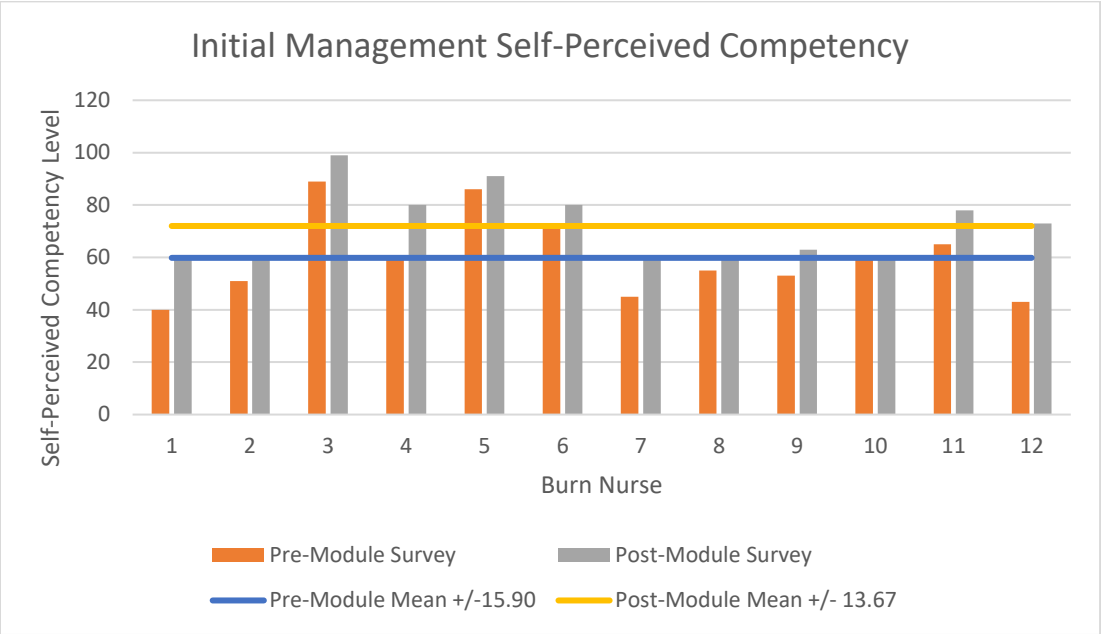
Process Measurement

Regarding module one, initial management, the mean self-perceived competency (pre-module) was 60%±15.90%, improving to 72%±13.67% (post-module). Figure 1 displays the pre-

module and post-module self-perceived competency and all 12 nurses reported improved self-perceived competency.

Figure 1

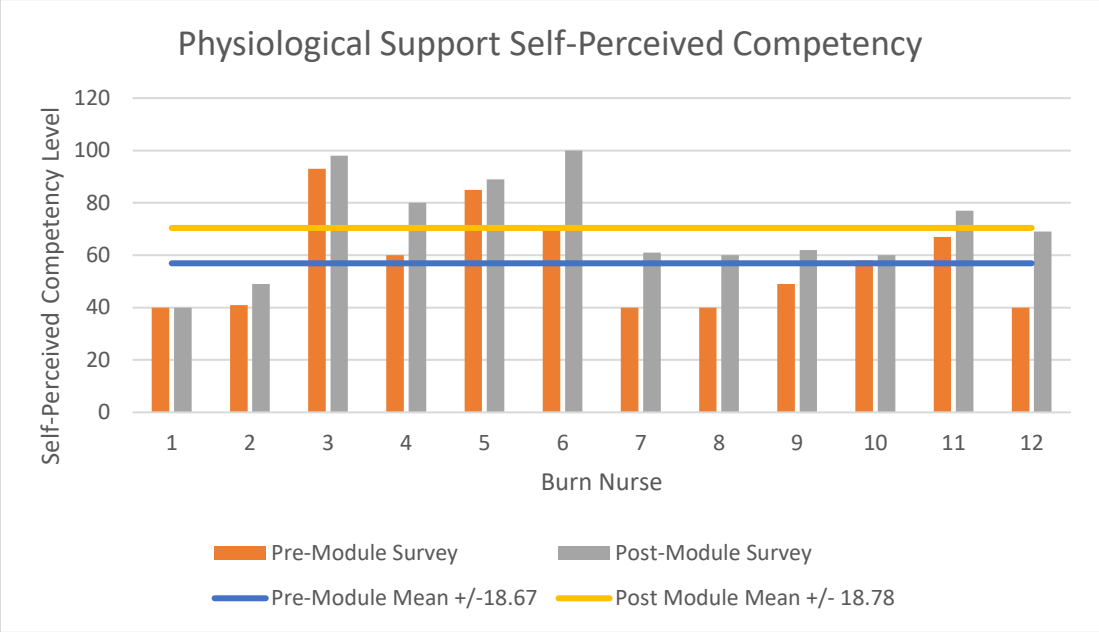
Initial Management Self-Perceived Competency Survey Pre-Module and Post-Module Results



Concerning module two, physiological support, the mean self-perceived competency improved from 57% ±18.67 (pre-module) to 70% ±18.78 (post-module). Figure 2 displays the pre-module and post-module self-perceived competency levels; 92% (n=11) perceived improved competency.

Figure 2

Physiological Support Self-Perceived Competency Survey Pre-Module and Post-Module Results



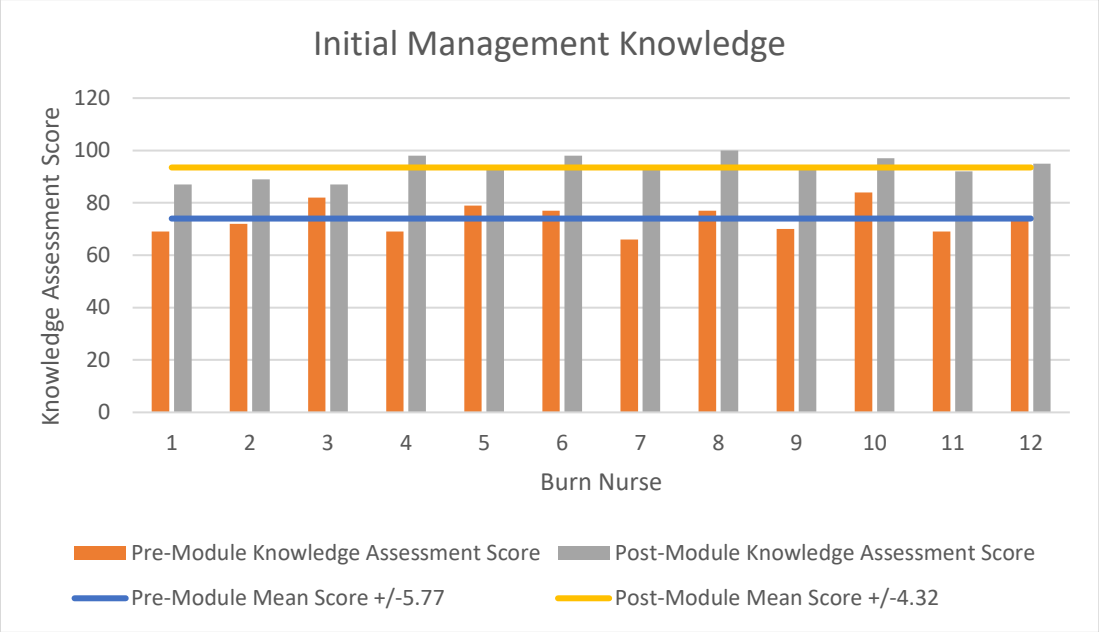
Outcome Measurements

A total of 12 nurses participated. All nurses obtained a score of 80% or higher on the post-module knowledge assessments. None of the nurses required a second attempt or one-on-one debriefing. All nurses completed the education program and achieved competency.

All 12 nurses demonstrated improved knowledge after completing the first education module, initial management. The mean pre-module knowledge assessment score was 74% ± 5.77, while the mean post-module knowledge assessment score was 94% ± 4.32. Figure 3 displays the initial management pre-module and post-module knowledge assessments.

Figure 3

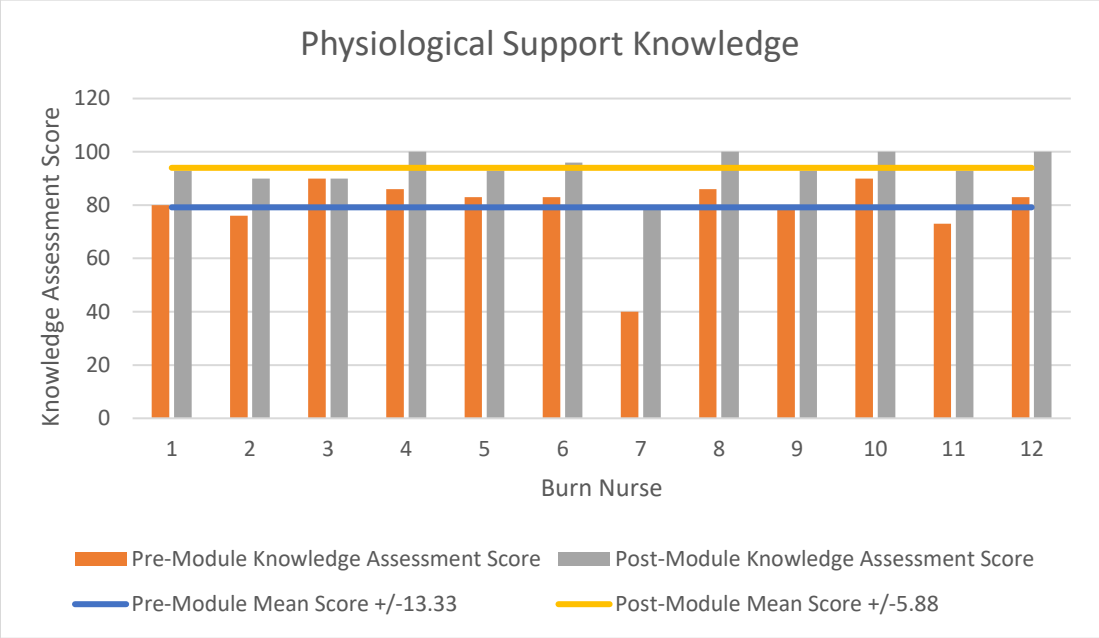
Initial Management Pre-Module and Post-Module Knowledge Assessment Results



After completing the second education module, physiological support, all 12 nurses (100%) showed improved knowledge. The mean pre-module knowledge assessment score was 79% ±13.33, which improved to 94% ±5.88 upon module completion. Figure 4 displays the physiological support pre-module and post-module knowledge assessment results.

Figure 4

Physiological Support Pre-Module and Post-Module Knowledge Assessment Results



Return on Investment

Access to Qualtrics was provided by Sacred Heart University. The ABLS course instructors took approximately one hour to complete each module, surveys, and knowledge assessments. ABLS course instructors were also taking notes during this time to provide feedback. Meetings to obtain feedback took approximately two hours per module. The total pilot time was approximately six hours per person. BH-CBC nurse average completion time for modules one and two was 112 minutes. BH-CBC nurses spent 22.33 hours on the education modules, knowledge assessments, and surveys.

The project manager spent 204 hours in total reading through *Total Burn Care* and creating education modules. An additional four hours were spent updating the education module content and knowledge assessment questions based on ABLS course instructor feedback. Entering the knowledge assessments and surveys into Qualtrics and distributing them took

approximately eight hours. Lastly, four hours were spent adapting the skills checklist. The total time for the project manager was 220 hours. Table 1 displays the final project expenses.

Table 1

Final Project Expenses

Expenses	
Qualtrics cost per year	$1, 500
BH-CBC nurse time	$915
ABLS Course Instructor time	$328
Project Manager time	$9,020
Total Estimated Cost	**$11, 763**

Return on investment (ROI) cannot be calculated at this time because only two of the 11 competencies have been adapted. Future ROI possibilities include patient outcomes such as patient satisfaction.

Dissemination

A one-page executive project summary (see Appendix Q) was distributed to all staff associated with the BH-CBC and NSRC. The NSRC was given the project abstract. The December 2021 deadline was not met for poster submission at the ABA conference in April 2022. However, an abstract will be submitted to the Northeast Regional Burn Conference in November 2022. In addition, this project will be presented at the YNHHS Nursing Grand Rounds on June 8, 2022.

Implications of Project Results to Organization and Practice Community

Specialty certification can improve patient outcomes, patient satisfaction, nursing knowledge, and competency (Coelho et al., 2020; Whitehead et al., 2019). The results suggest that adapting the ABA competencies into burn nursing practice using education modules and a skills competency checklist can improve knowledge, competency, and skill. Ensuring that all nurses complete ABA competency-based education may facilitate unit-wide certification by July 2023. A nursing workforce that meets the ABA competencies will facilitate consistent and competent care for burn patients and may improve health outcomes.

Key Lessons

The amount of time required for module development and piloting may affect the ability to create and implement the remaining education modules (modules 3–11). The critical care nurse educator role at Bridgeport Hospital is currently vacant, and the BH-CBC does not have a dedicated educator. Therefore, it may be necessary to involve team members in the development and piloting process, especially in small settings such as the BH-CBC. Since this QI project has involved educational interventions, input from stakeholders in the education department throughout the process was necessary.

The ABLS course instructor pilot project provided valuable feedback that was used to improve knowledge assessment questions and the clarity of education module content prior to the implementation of the program with BH-CBC's nursing staff. The expert panel review did not result in any changes to the modules or questions. The process of completing the education modules and knowledge assessments may be more effective in identifying areas for improvement than simply manually reviewing them without completing them.

The benefit of using Qualtrics versus the LMS was that the project manager had the choice of how to score the knowledge assessments and surveys. In addition, the project manager was responsible for the data collection process, which was a valuable experience. Qualtrics can generate personal links that are tied to specific survey recipients which was useful for tracking each nurse's progress in real time. However, the personal links can only be accessed once and although nurses were made aware of this, one nurse clicked the link and attempted to re-access it later. A new personal link had was generated and emailed to her in a separate email. Had this occurred in more than 1 occurrence, it may have been a barrier to nurses completing the education.

Support from the BH-CBC manager and making the education modules mandatory was essential in order for the nurses to complete the education modules within the two-week time frame. Nurses were given the option to complete the education at home or during a scheduled shift with the project mentor covering the nurse's patient assignment. After one week, only four nurses had completed the education. Of the remaining nurses, three required relief during their scheduled shift. It was possible for the project manager to provide shift relief due to the small number nurses in the BH-CBC.

Sustainability Plan

Publishing the modules in the LMS is integral to sustainability. Assigning nurses to the education modules via the LMS will ensure that they complete the modules within a time frame of 3 months or 6 months for existing and newly hired burn nurses, respectively. The modules, knowledge assessments, surveys, and e-learning project development request form will be emailed to the manager of staff education and the director of e-learning education for final review. After obtaining feedback, they will be submitted for publication to the LMS. The

remaining modules (3–11) will be created by the project manager as part of their paid employment (Nurse Manager, personal communication, October 15, 2021). Modules will be updated and maintained by the project manager and ABLS course instructors. In addition, all materials will be provided to the critical care nurse educator in the event the position is filled.

Conclusion

The Iowa Method Revised guided the implementation of two of the 11 ABA burn nurse competencies in the BH-CBC. Implementing the competencies via education modules and a skills competency checklist was effective. Plans to implement the remaining modules using a similar format are underway. Having nurses in the BH-CBC that meet the ABA competencies should facilitate consistent and competent care for burn patients improve health outcomes.

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Appendix A

American Burn Association Burn Nurse Competencies

Burn Nurse Competencies

Domain Name	General Burn Nurse Competency Statement	Essential Performance Criteria
1. Initial Management	1.1 *Explains the pathophysiology of an acute burn injury: thermal injury; chemical injury; and electrical injury.*	a. Describes normal skin anatomy. b. Describes the Jackson's zones of injury. c. Differentiates pathophysiology related to etiology of injury .
	1.2 *Stabilizes patient in the initial resuscitation phase according to Advanced Burn Life Support (ABLS) primary and secondary surveys: airway, breathing, circulation, disability and exposure.*	a. Performs the Advanced Burn Life Support (ABLS) primary and secondary survey. b. Initiates appropriate care related to etiology of injury.
	1.3 *Assesses severity of burn injury: etiology, depth, extent and location.*	a. Describes the impact that injury etiology has on extent/depth of injury. b. Describes the ABA criteria for minor, moderate and major burn injuries. c. Performs complete physical exam. d. Documents accurate burn extent using appropriate burn diagram. e. Differentiates burn depth characteristics. f. Determines care priorities based on location of injury .
	1.4 *Manages fluid resuscitation to achieve hemodynamic stability and end-organ perfusion.*	a. Calculates fluid resuscitation requirements according to protocol. b. Titrates fluid administration to maintain hemodynamic stability and end-organ perfusion. c. Utilizes resuscitation adjuncts per institutional protocol. d. Anticipates complications associated with fluid resuscitation.
	1.5*Maintains optimal oxygenation and acid-base balance for patients with inhalation injury.*	a. Differentiates between the 3 categories of inhalation injury based on mechanism of injury. b. Explains the specifics of pathophysiology for each injury category. c. Anticipates airway compromise from early signs/symptoms. d. Maintains optimal oxygenation and acid-base balance. e. Performs appropriate interventions for inhalation injury management and airway integrity. f. Interprets arterial blood gas (ABG) results accurately. g. Anticipates potential complications associated with endotracheal intubation.

	1.6*Maintains thermoregulation during the acute phase.*	a. Lists risk factors and causes for the development of hypothermia. b. Predicts consequences of hypothermia during the acute phase ofrecovery.

		a. Utilizes warming interventions and adjuncts.
	1.7 *Intervenes to avoid and manage compartment syndrome during the acute phase.*	a. Identify patients at risk for compartment syndrome. b. Describes signs/symptoms of compartment syndrome. c. Completes focused assessment techniques to identify compartment syndrome. d. Plans interventions to alleviate compartment syndrome.
	1.8 *Recognizes signs of non-accidental trauma, abuse or neglect in the burn patient.*	a. Describes common presentations and at-risk groups associated with non-accidental trauma. b. Identifies the presence of non-accidental injury or neglect through history of injury, developmental status or other indications. c. Intervenes appropriately for non-accidental trauma, abuse or neglect. d. Completes documentation of reporting as per protocol.
	1.9 *Explains the pathophysiology of an acute dermatologic disease process.**	a. Describes pathophysiology of common dermatologic diseases cared for in burn centers. b. Correlates diagnostic techniques for differentiation of disease processes. c. Implements appropriate plan of care for patients with dermatologic diseases per protocol.

* When applicable

Domain Name	**General Burn Nurse Competency Statement**	**Essential Performance Criteria**
2. Physiologic Support	2.1 *Performs a thorough review of systems based on the unique physiologic response of burn injury and possible underlying medical conditions.*	a. Describes the unique physiologic response to burn injury. b. Performs thorough serial physical assessments. c. Adapts nursing interventions to specific injury and/or deteriorating conditions.
	2.2 *Provides physiologic support for all body systems based on the unique needs of the burn patient.*	a. Describes potential complications for all body systems. b. Assesses patients appropriately based on injury or pre-existing conditions. c. Prevents potential complications based on injury, patient responses and co-morbidities. d. Educates patient/family regarding interventions, medications and treatments.
	2.3 *Maintains thermoregulation.*	a. Describes the pathophysiology of chronic thermo-dysregulation in severe burn injury. b. Explains situations associated with risk for hypothermia.

		a. Measures core body temperature routinely. b. Maintains room temperature per institutional protocol. c. Performs interventions to maintain core body temperature.
	2.4 *Employs appropriate infection prevention practices.*	*a.* Explains the significance of infection prevention measures for the burn patient. b. Identifies reasons for increased infection risk. c. Outlines infection prevention guidelines per institutional and American Burn Association (ABA) protocols. d. Considers the role of the patient's gastrointestinal, skin, and burn wound microbes and burn center microbes.
	2.5 *Recognizes the unique signs and symptoms of sepsis in the burn patient.*	a. Explains the pathophysiology and unique signs/symptoms of burn sepsis. b. Assesses routinely for development of burn sepsis. c. Engages prompt interventions when sepsis symptoms arise.
	2.6 *Employs interventions to reduce secondary complications associated with burn injury.*	a. Describes common secondary complications by body systems. b. Initiates interventions to prevent or mitigate complications.
	2.7 *Engages post-operative care that adapts to significant physiologic changes associated with burn surgery.*	a. Describes physiologic response to excision and grafting procedures that impact post-operative recovery. b. Anticipates common post-operative complications associated with major burn surgery. c. Ensures post-operative stabilization and recovery.

Domain Name	**General Burn Nurse Competency Statement**	**Essential Performance Criteria**
3. Wound Management	3.1 *Assesses wound status: stage of healing, evidence of infection, skin integrity.*	a. Identifies characteristics of burn wound types and stages of wound healing. b. Anticipates complications associated with burn wound healing (e.g., infection, skin integrity). c. Documents comprehensive wound assessment and management. d. Provides education to patient/family for therapeutic treatment.
	3.2 *Explains various therapeutic burn wound treatments: topical agents, dressings, skin substitutes.*	a. Verbalizes topical agent indications and properties. b. Describes indications and properties for various burn wound dressings and skin substitutes.
	3.3 *Provides burn wound care as planned by interdisciplinary care team.*	a. Performs burn wound cleansing and debridement per protocol.

		a. Completes complex dressing change per institutional protocols. b. Anticipates complications and plans for prevention. c. Collaborates with burn therapists with scheduling wound care to optimize mobilization. d. Ensures adequate analgesia during burn wound care.
	3.4 *Ensures donor site care that maximizes healing and patient comfort.*	a. Describes normal donor site healing progression and common donor site complications. b. Manages donor site per protocol. c. Anticipates potential donor site complications.
	3.5 *Describes common surgical interventions to achieve burn wound closure.*	a. Describes common surgical burn wound interventions (e.g., split-thickness/full-thickness/CEA autograft, flap, allograft). b. Differentiates between different autograft techniques. c. Intervenes to prevent common complications of surgical burn wound closure.
	3.6 *Preserves the integrity of post-operative surgical wounds.*	a. Describes protocol for management of post-operative surgical wounds. b. Assesses post-operative wound and dressings. c. Anticipates possible complications associated with surgical intervention. d. Coordinates with burn therapists for post-operative positioning, splinting and mobility.
	3.7 *Establishes care for dermatologic skin disorders to maximize healing.**	a. Describes the healing trajectory for common dermatologic skin disorders. b. Performs appropriate wound care as per institutional protocol.

Domain Name	**General Burn Nurse Competency Statement**	**Essential Performance Criteria**
4. Pain, Agitation and Delirium Management	4.1 *Employs strategies to improve comfort related to the unique needs of the burn patient (to include dermatologic skin disorders*).*	a. Describes the multifactorial causes of discomfort. b. Explains the indications and side effects of medications and other agents to assist with comfort. c. Engages specific assessment techniques for: pain, agitation, and delirium. d. Engages appropriate interventions for procedural, background, and breakthrough pain/agitation. e. Utilizes validated assessment tools to complete an accurate comfort assessment.

		a. Implements collaborative plan using pharmacologic/non-pharmacologic interventions to maximize comfort. b. Administers interventions proactively to alleviate discomfort. c. Provides education to patient/family for therapeutic treatment specific to pain, agitation, and delirium.
	4.2 *Develops preventive strategies to reduce the incidence of delirium in the burn patient.*	a. Identifies risk factors for delirium. b. Assesses for delirium onset using appropriate tools per institutional protocol. c. Initiates preventive interventions to prevent onset and reduce duration of delirium (e.g., A-F Bundle interventions). d. Collaborates with burn therapists for early mobilization.
	4.3 *Alleviates post-burn pruritus and other patient discomfort as issues arise.*	a. Identifies risk factors for post-burn pruritus. b. Assesses for pruritus using appropriate tools per institutional protocol. c. Initiates preventive interventions to prevent onset and reduce duration of pruritus. d. Provides education to patient/family for therapeutic treatment specific to post-burn pruritus.

Domain Name	**General Burn Nurse Competency Statement**	**Essential Performance Criteria**
5. Nutritional Support	5.1 *Explains nutritional requirements due to the unique hypermetabolic state of the burn patient.*	a. Describes hypermetabolic demands inherent to burn injury and healing. b. Completes assessment of metabolic demands for burn patient. c. Collaborates with dietician to ensure appropriate dietary management.
	5.2 *Optimizes delivery of prescribed nutrition.*	a. Minimizes interruptions in delivery of enteral nutrition. b. Provides education to patient/family for treatment specific to meeting nutritional requirements.

Domain Name	**General Burn Nurse Competency Statement**	**Essential Performance Criteria**
6. Psychosocial Support	6.1 *Provides support and resources for the unique emotional, spiritual, cultural and social needs of burn patients and family members.*	a. Collaborates with multidisciplinary team in the development of an individualized plan of care to support patient and family. b. Identifies internal, local and national resources for support.

	6.2 *Recognizes signs and symptoms of stress and depression of burn patients and family members.*	a. Screens for acute stress disorder (ASD) and post-traumatic stress disorder (PTSD). b. Identifies patients at risk for intentional injury or self-harm. c. Initiates behavioral health consult based on patient assessment.
	6.3 *Supports patient and family members who exhibit signs and symptoms of emotional distress.*	a. Promotes resiliency in patient and family.
	6.4 *Facilitates access to peer-to-peer and burn survivor resources for patient and family support.*	a. Provides information on peer support programs and referral process (e.g., Phoenix Society for Burn Survivors).

Domain Name	**General Burn Nurse Competency Statement**	**Essential Performance Criteria**
7. Rehabilitation	7.1 *Explains the unique rehabilitation needs of the burn patient for return to optimal function.*	a. Describes burn scar pathophysiology. b. Describes interventions to prevent common rehabilitation complications. c. Verbalizes functional outcome goals for burn rehabilitation.
	7.2 *Optimizes prescribed rehabilitation interventions to maximize return to function.*	a. Collaborate with burn therapists in development of individualized plan of care. b. Intervenes to prevent complications and maximize function. c. Employs appropriate patient positioning and application of splints and devices. d. Provides education to patient/family for treatment specific to meeting rehabilitation goals.
	7.3 *Integrates early mobility in routine care to reduce complications associated with burn injury.*	a. Describes the contribution of early mobilization. b. Collaborates with burn therapists in integration of early mobilization in the plan of care. c. Ensures patient safety.

Domain Name	**General Burn Nurse Competency Statement**	**Essential Performance Criteria**
8. Discharge Planning and Aftercare Support	8.1 *Facilitates interdisciplinary discharge preparation for patient and family.*	a. Describes burn center outpatient and aftercare program. a. Describes the comprehensive discharge planning process. b. Defines aftercare support for enhancing quality of life.

		• Collaborates with the multidisciplinary team in discharge planning and aftercare.
	8.2 *Empowers patient and family for community re-integration.*	1. Describes internal, local, and national resources for community re-integration. 2. Encourages patient and family to participate in aftercare programs.

Domain Name	**General Burn Nurse Competency Statement**	**Essential Performance Criteria**
9. End of Life Care	9.1 *Participates in interdisciplinary discussions when faced with potentially futile medical care.*	1. Differentiates between palliative care and end of life concepts. 2. Advocates on behalf of the patient and family regarding the desired level of care in face of clinical deterioration.
	9.2 *Supports patient and family during end of life.*	1. Participates in patient/family conferences. 2. Provides comfort measures. 3. Supports psychosocial/spiritual needs of patient/family. 4. Imparts dignity and respect for patient choice, family members, cultural, and religious beliefs. 5. Ensures optimal environmental conditions that respect end of life.
	9.3 *Engages resources for family support after their loved one has passed.*	1. Verbalizes protocol for social work and case management interventions. 2. Facilitates closure for family/support persons. 3. Provides community referrals to bereavement services.

Domain Name	**General Burn Nurse Competency Statement**	**Essential Performance Criteria**
10. Team Collaboration	10.1 *Engages all members of the interdisciplinary burn team in the delivery of care.*	1. Describes the roles of multidisciplinary burn team members. 2. Collaborates with team members on the comprehensive plan of care. 3. Involves the patient/family in the plan of care. 4. Participates in multidisciplinary patient rounds. 5. Engages in respectful communication with all burn team members. 6. Provides professional peer feedback for colleagues within the interdisciplinary burn team.

	10.2 *Collaborates in quality improvement processes to improve burn care delivery and related patient outcomes.*	• Defines common quality improvement processes (e.g., FOCUS-PDCA, Iowa Model for Evidence Based Practice). • Participates in burn center quality improvement projects. • Utilizes evidence-based practice in delivery of care for the burn patient. • Supports clinical research initiatives to advance burn care knowledge asapplicable.
	10.3 *Facilitates resiliency for self and team members given the challenges of burn care.*	• Describes effective techniques to promote effective self-care and resiliency. • Mentors team members in both team process and burn caremanagement. • Resolves team conflict with respect for diverse opinions and beliefs. • Offers feedback to team members related to participation in effectivedelivery of care and collaboration. • Manages work place stress by fostering a positive climate.

Domain Name	**General Burn Nurse Competency Statement**	**Essential Performance Criteria**
11. Burn Care Education	11.1 *Advocates burn injury prevention awareness to patients and families.*	• Describes burn injury prevention strategies. • Educates patient/family on burn injury prevention.
	11.2 *Participates in community outreach and/or community provider education.**	• Completes ABLS provider course. • Provides burn education to first responders and referral agencies. • Participates in community burn awareness and prevention programs.

* When applicable

Appendix B

Evidence Search

Table 1B.

Search Terms and Search Results by Database [CINAHL]

Search Terms	Number of hits	Number of title & abstract reviewed	Number of full-text articles reviewed	Number of articles selected for this review without duplicates	Duplicates
American Burn Association OR ABA and nurse OR burn nurse	980	8	6	6	0
American Burn Association OR ABA and nurse OR burn nurse and Competenc*	653	7	6	0	6
American Burn Association OR ABA and nurse OR burn nurse and certification	640	6	5	0	6

Table 2B.

Search Terms and Search Results by Database [PubMed]

Search Terms	Number of hits	Number of title & abstract reviewed	Number of full-text articles reviewed	Number of articles selected for this review without duplicates	Duplicates
American Burn Association OR ABA and nurse OR burn nurse	1073	3	2	0	2
American Burn Association OR ABA and nurse OR burn nurse and Competenc*	610	3	2	0	2

American Burn Association OR ABA and nurse OR burn nurse and certification	573	3	2	0	2

Table 3B.

Search Terms and Search Results by Database [Cochrane Database of Systematic Reviews]

Search Terms	Number of hits	Number of title & abstract reviewed	Number of full-text articles reviewed	Number of articles selected for this review without duplicates	Duplicates
American Burn Association OR ABA and nurse OR burn nurse	0	0	0	0	0
American Burn Association OR ABA and nurse OR burn nurse and Competenc*	0	0	0	0	0
American Burn Association OR ABA and nurse OR burn nurse and certification	0	0	0	0	0

Table 4B.

Keeper Articles

Reference	Purpose	Outcome measures	Outcome	Worth to practice/project
Burton-Williams et al. (2019) Carrougher et al. (2020)	Implementation of ABA competencies using skills day, online learning modules, and orientation skills checklist	5-point Likert scale	Knowledge gap in wound management, nutritional support, psychosocial support, and discharge planning and aftercare support	Survey needs assessment may be useful in determining knowledge gaps
Gauthier et al. (2020) Carrougher et al. (2020)	Implementation of ABA competencies using online learning modules and preceptor workshop	Knowledge-based quizzes Preassessment and post assessment	66 nurses (88%) scored an average of 75% on the preassessment quiz	Preassessment indicates a need for burn-specific education. Online modules can help burn

				nurses achieve competency and may ultimately facilitate certification.
Gloger (2019) Carrougher et al. (2020)	Implementation of ABA competencies using burn unit nursing orientation manual	N/A	N/A	Manual ensures nurses have an evidence-based resource available that meets ABA competency standards.
Yukon & Cyrulik, 2019 Carrougher et al. (2020)	Implementation of ABA competencies using annual competency session And competency checklist	N/A	Validation of 17 of 45 competency statements	Checklist can be useful to verify method in which competencies are met (exam, observed, etc.)

Appendix C

Self-perceived Competency Surveys

Rate your self-perceived competency as it relates to each essential performance criteria statement:

1=Poor 2=Fair 3=Good 4=Very good 5=Excellent						
	Essential Performance Criteria Statements: Initial Management	**1**	**2**	**3**	**4**	**5**
1.1	Describes normal skin anatomy					
1.1	Describes the Jackson's zones of injury					
1.1	Differentiates pathophysiology related to etiology of injury					
1.3	Describes the impact that injury etiology has on extent/depth of injury					
1.3	Differentiates burn depth characteristics					
1.3	Determines care priorities based on location of injury					
1.5	Differentiates between the 3 categories of inhalation injury based on mechanism of injury					
1.5	Explains the specifics of pathophysiology for each injury category					
1.5	Anticipates airway compromise from early signs/symptoms					
1.5	Anticipates potential complications associated with endotracheal intubation					
1.6	Lists risk factors and causes for the development of hypothermia					

1.6	Predicts consequences of hypothermia during the acute phase of recovery					
1.6	Utilizes warming interventions and adjuncts					
1.7	Identify patients at risk for compartment syndrome					
1.7	Describes signs/symptoms of compartment syndrome					
1.7	Completes focused assessment techniques to identify compartment syndrome					
1.7	Plans interventions to alleviate compartment syndrome					
1.8	Describes common presentations and at-risk groups associated with non-accidental trauma					
1.8	Identifies the presence of non-accidental injury or neglect through history of injury, developmental status or other indications					
1.8	Intervenes appropriately for non-accidental trauma, abuse or neglect					
1.9	Describes pathophysiology of common dermatologic diseases cared for in burn centers					
1.9	Correlates diagnostic techniques for differentiation of disease processes					
1.9	Implements appropriate plan of care for patients with dermatologic diseases per protocol					

Rate your self-perceived competency as it relates to each essential performance criteria statement:

1=Poor 2=Fair 3=Good 4=Very good 5=Excellent						
	Essential Performance Criteria Statements: Physiological Support	**1**	**2**	**3**	**4**	**5**
2.1	Describes the unique physiologic response to burn injury					
2.2	Describes potential complications for all body systems					
2.3	Describes the pathophysiology of chronic thermo-dysregulation in severe burn injury					
2.3	Explains situations associated with risk for hypothermia					
2.3	Performs interventions to maintain core body temperature					
2.4	Explains the significance of infection prevention measures for the burn patient					
2.4	Identifies reasons for increased infection risk					
2.4	Outlines infection prevention guidelines per institutional and American Burn Association (ABA) protocols					
2.4	Considers the role of the patient's gastrointestinal, skin, and burn wound microbes and burn center microbes					
2.5	Explains the pathophysiology and unique signs/symptoms of burn sepsis					
2.5	Engages prompt interventions when sepsis symptoms arise					
2.6	Describes common secondary complications by body systems					
2.6	Initiates interventions to prevent or mitigate complications					

2.7	Describes physiologic response to excision and grafting procedures that impact post-operative recovery					
2.7	Anticipates common post-operative complications associated with major burn surgery					

Appendix D

ABLS-Certified Course Instructors Self-Perceived Competency Survey Results

Table D1. ABLS-Certified Course Instructor Self-Perceived Competency Survey Results

ABLS Instructor (N=2)	Initial Management Pre-Module	Initial Management Post-Module	Physiological Support Pre-Module	Physiological Support Post-Module
ABLS Instructor 1	86	91	85	89
ABLS Instructor 2	89	99	93	98

Appendix E

Design and Pilot the Practice Change Outline

a. Assemble project team

    1. Members and roles are described in previous section, “Form a Team”.

b. Create modules

    1. Obtain permission to download and use electronic chapters of Total Burn Care 5th edition from Clinical Key.

    2. Create topic outline for the 11 modules, a module for each ABA burn competency.

    3. Develop modules for competency 1: Initial Management and 2: Physiological Support

        1. Create PowerPoint slides addressing each competency domain.

        2. Link PDF of Clinical Key module to the relative slide.

        3. Identify the organizational policies and procedures relevant to each competency domain.

        4. Identify Mosby’s nursing skills relevant to each competency domain.

        5. Identify the needed videos to include in each module.

a. Module review and approval

    1. Assemble a panel of 3-5 experts to review the modules for content accuracy and scope, content match with competencies, and clarity and engagement of content presentation.

    2. Experts will include Kathy Morris, Manager of Nursing Education

b. Add modules to the learning management system (LMS) (i.e., HealthStream)

1. Submit videos, slides, and test questions to the education department for approval/to be published into the LMS.
2. Confirm requirements for adding content to LMS with Russell Hullstrong.

c. Create knowledge assessments and passing criteria

1. Review module-related pre-test and post-test questions provided from the University of Utah. Remove questions that reflect their organizational policies or questions that are unit-specific.
2. Determine questions to be added.
3. Create additional questions.
4. Use test questions to create pre-test and post-test.
5. Staff nurses have 2 attempts to obtain 80% or greater on post-test.
6. Staff nurses who receive a score below 80% on the post-test will receive 1:1 debriefing and education from the assistant nurse manager.
7. May share knowledge assessment data with national burn organization to conduct item analysis.

d. Create skills checklist

1. Adopt checklist used by the University of Utah to include unit-specific competencies.
2. Submit checklist to critical care nurse educator (Jennifer Sather) for approval.
3. The checklist includes verbal and observed competencies in clinical practice.

e. Develop formative evaluation to obtain feedback from nurses

f. Funding for burn education will be provided from the burn foundation at Bridgeport Hospital.

Appendix F

Implementation Plan Timeline

Table F1.

Implementation Timeline for DNP Project: Improving the Quality of Burn Care Through Implementation of the American Burn Association Competencies

PICOT Question: In burn nurses (P) how does the ABA competencies (I) compared to usual practice (C) affect knowledge and skill (O)?
Team Leader: Laura Ritter
Team Members: Kerry Milner, DNSc, RN; DNP Project Faculty Advisor; Claudine Cody RN, BSN; Practice Mentor; Jason Bresky RN, ASN; Practice Mentor; Jaqueline Laird, BSN, RN; Practice Expert
Pilot site: Connecticut Burn Center in Bridgeport Hospital, 267 Grant Street Bridgeport, CT 06601

Pre-Implementation	Topic	Notes	Actions	Outcome/Status
A	Approval from the Yale New Haven Health System Nursing Scientific	Reviewed by Carolyn Bradely and Dr. Milner	Submit letter of intent and scholarly project endorsement application to NSRC	Approved 02/2021 by NSRC

	Review Committee (NSRC)			
B	DNP project proposal presentation	Meeting with nurse manager, Jaqueline Laird, and assistant nurse manager, Melissa Emanuel	Invite sent to key stakeholders	Complete DNP project proposal by 04/2021
C	Meeting with Director of eLearning and manager of education at Bridgeport Hospital	Nurse manager Jaqueline Laird, director of elearning education Russell Hullstrung and manager of the department of education, Kathleen Morris	Review process, cost, and barriers to implementation using the LMS	05/2021 Complete meeting

D	Meeting with the critical care nurse educator to adapt skills competency checklist	Jaqueline Laird, Melissa Emanuel, Jennifer Sather present for the meeting and involved in decision making	Adapt skills competency checklist based on feedback from nurse educator and submit to Kathleen Morris for final approval	06/2021 Finalize and submit skills competency checklist
E	Create education modules and knowledge assessments adapted for pilot with ABLS course instructors	PowerPoint used to create modules from Total Burn Care 5th edition textbook	Create education modules and adapt knowledge assessments	07/21 Education modules and knowledge assessments complete and ready for pilot
F	Pilot Modules with ABLS course instructors	Pre/post self-perceived competency survey, module, and	Meeting with ABLS course instructors to pilot	07/21 Complete pilot

		pre/post knowledge assessments		
G	Obtain feedback/ review modules, knowledge assessments, competency surveys with ABLS course instructors	Utilize feedback to improve content and clarity of questions	Update modules and knowledge assessments from feedback	08/21 Obtain feedback and update modules
H	Submit modules to expert panel	Receive notes from expert panel	Update modules and knowledge assessments	08/21 Review by expert panel
I	Submit modules 1 & 2, knowledge assessments, surveys to Kathleen Morris and	Update modules prior to submission	Submit elearning project development request form, modules, knowledge assessments, and self-perceived	11/21 Submit for publishing to the LMS

	Russel Hullstrung for review		competency assessments	
J	Submit PowerPoint, knowledge assessments, and self-perceived competency assessments for implementation into LMS	Determine time frame for publishing into the LMS	Announcement to staff via GroupMe and email	11/21 Modules 1 and 2 published into LMS
Implementation				
A	Modules 1 & 2 published in LMS	Give staff mandatory completion date 01/2022	Process measures: Unit tracking form to determine the mean time for completion of all modules and track nurse progress in real-time	12/21 Modules 1 and 2 completed by BH CBC nurses

			A 5-point Likert scale will be used to measure nurse self-perceived competency levels before and after completion of each module Outcome measures: Evaluation of post-test knowledge assessments 1:1 debriefing/education for individuals who score <80% # of nurses scoring>80% in 2 attempts/total number of nurses educated	

			# of nurses needing debriefing & education/total number of nurses educated # of nurses competent/total number of nurses educated	
B	Skills competency checklist will be completed by all BH CBC nurses: For domains 1 & 2 and verbal, observed criteria for all 11 domains		Creation of burn competency checklist binder for all existing staff Will be added to orientation binder for all new staff nurses All nurses will be signed off by project	12/21 All nurses will be competent in all observed/verbal skills and education for modules 1&2 of 11.

			manager/DNP student All new nurses will be signed off by preceptor and project manager Outcome measures: Observed and verbal competency skills will be directly monitored using the burn nurse competency checklist	

Appendix G

NSRC Endorsement

TO: Laura Ritter, RN, BSN

FROM: Janet Parkosewich, DNSc, RN, FAHA, Nursing Scientific Review Sub-Committee Chair (On behalf of the Yale New Haven Health System Nursing Research and Evidence-Based Practice Committee)

DATE: 2/24/20212/24/2021

RE: Improving the Quality of Burn Care through Implementation of American Burn Association Competencies

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Thank you for submitting your Scholarly Project Application.

On behalf of the Nursing Scientific Review Sub-Committee of Yale New Haven Health Nursing Research and Evidence-Based Practice Steering Committee, your scholarly has been reviewed and endorsed.

After committee review, the main purpose of the project was determined to improve the quality of care. Given the nature of the project, it is not seeking to generalize knowledge, generate new knowledge, or create a scientific inquiry. The project is not considered human subjects research. Your application will be entered into the Yale New Haven Health System Office of Privacy and Corporate Compliance database. Your approval will expire in 12 months from the date of this letter.

Please remember to inform me (janet.parkosewich@ynhh.org) when you begin work on your project and conclude work at Yale New Haven Health. We also ask for an abstract upon completion of the project.

Please let me know if you have any questions.

CC:
File
Student Faculty Advisor
Scholarly Mentor

Appendix H

Differentiating Quality Improvement and Research Tool

Differentiating Quality Improvement and Research Activities Tool

Question	Yes	No
a. Is the project designed to bring about immediate improvement in patient care?	X	
b. Is the purpose of the project to bring new knowledge to daily practice?	X	
c. Is the project designed to sustain the improvement?	X	
d. Is the purpose to measure the effect of a process change on delivery of care?	X	
e. Are findings specific to this hospital?	X	
f. Are all patients who participate in the project expected to benefit?	X	
g. Is the intervention at least as safe as routine care?	X	
h. Will all participants receive at least usual care?	X	
i. Do you intend to gather just enough data to learn and complete the cycle?	X	
j. Do you intend to limit the time for data collection in order to accelerate the rate of improvement?	X	
k. Is the project intended to test a novel hypothesis or replicate one?		X
l. Does the project involve withholding any usual care?		X
m. Does the project involve testing interventions/practices that are not usual or standard of care?		X
n. Will any of the 18 identifiers according to the HIPAA Privacy Rule be		X

included?

Adapted from Foster, J. (2013). Differentiating quality improvement and research activities. Clinical Nurse Specialist, 27(1), 10–3. https://doi.org/10.1097/NUR.0b013e3182776db5

Appendix I

Knowledge Assessments

Initial Management Competency Quiz

1. (Competency 1.7) What patients are at risk for abdominal compartment syndrome? Choose all that apply.
    a. Greater than 40% TBSA burns (Chapter 32 page 349)
    b. Sepsis (Chapter 37 page 389)
    c. Aggressive fluid resuscitation (Chapter 37 page 389)

2. (Competency 1.7) What are the signs and symptoms of abdominal compartment syndrome? Choose all that apply.
    a. Tense and distended abdomen (Chapter 37 page 389)
    b. Decreased tidal volumes (Chapter 37 page 389)
    c. Bounding pulses

3. (Competency 1.7) What are focused assessment techniques to identify abdominal compartment syndrome? Choose all that apply.
    a. Measuring intra-abdominal pressures (Chapter 8 page 76)
    b. Measuring peak inspiratory pressures (Chapter 8 page 76)
    c. Monitoring urine output (Chapter 37 page 389)

4. (Competency 1.7) What are interventions to alleviate abdominal compartment syndrome? Choose all that apply.
    a. Avoiding over-resuscitation (Chapter 32 page 349)
    b. Avoiding a nasogastric tube (Chapter 37 page 389)
    c. Positioning (Chapter 37 page 389)

5. (Competency 1.1) Normal skin functions include: Choose all that apply.
    a. Protects from environmental radiation, mechanical irritation, and trauma (Chapter 13 page 132)
    b. Thermoregulation (Chapter 13 page 132)
    c. Fluid and electrolyte imbalance (Chapter 13 page 132)

6. (Competency 1.1) What are the Jackson's three zones of injury?
    a. Zone of coagulopathy, zone of systemic injury, and the zone of hyperemia
    b. Zone of coagulation, zone of stasis, and the zone of hyperemia (Chapter 10 page 88)
    c. Zone of circulation, zone of stasis, and the zone of erythema

7. (Competency 1.1) Initial management of all chemical burns (chemical powders and liquids) consists of diluting the agent with copious amounts of fluid
    a. True
    b. False
    c. It depends on the agent (Chapter 10 page 91)

8. (Competency 1.1) A hydrofluoric acid burn may:
    a. Cause progressive deep tissue destruction by cell liquefaction (Chapter 10 page 92)
    b. May be life threatening due to systemic hypercalcemia (Chapter 10 page 92)
    c. May require urgent surgical wound debridement and/or infusions of calcium gluconate (Chapter 10 page 92)

9. (Competency 1.1) In a high voltage electrical injury muscle may appear uninjured when deep necrosis may have taken place, making TBSA difficult to determine. True or False?
    a. True (Chapter 10 page 92)
    b. False

10. (Competency 1.1) Indications for procedural or surgical interventions for electrical injuries include: Choose all that apply
    a. Severe acidosis (Chapter 10 page 92)
    b. Myoglobinuria (Chapter 10 page 92)
    c. Compartment syndrome (Chapter 10 page 92)

11. (Competency 1.1) The most common type of burn injury is:
    a. Scald burn
    b. Flame/flash burn (Chapter 10 page 92)
    c. Work related chemical burns

12. (Competency 1.3) The extent and depth of injury and etiology may impact care in the following ways. Choose all that apply
    a. Most full thickness burns should undergo early excision and grafting to minimize infection and hypertrophic scarring. (Chapter 10 page 88-89)
    b. Etiology doesn't matter. A patient needs to be resuscitated before determining appropriate intervention
    c. The most difficult management decisions involve intermediate partial thickness burns (Chapter 10 page 88-89)

13. (Competency 1.3) Superficial burns are
    a. Always included in TBSA calculations

b. Painful but do not develop blisters (Chapter 10 page 88-89)
c. The most common type of thermal injury seen in medical facilities

14. (Competency 1.3) Superficial partial thickness burns: (Choose all that apply)
    a. Extend into the papillary dermis (Chapter 10 page 88-89)
    b. Does not form blisters
    c. Need surgery to heal (Chapter 10 page 88-89)

15. (Competency 1.3) Which is true about deep partial thickness burns?
    a. Always heal without surgery
    b. They usually appear pink and moist after the blister is removed
    c. The wound bed usually appears white or mottled (Chapter 10 page 88-89)

16. (Competency 1.3) Partial thickness burns are called indeterminate because
    a. It takes at least 6 months to determine wound depth
    b. The wound's healing potential becomes evident over time (Chapter 10 page 88-89)
    c. Initial assessment is never accurate

17. (Competency 1.3) According to ABA guidelines, burns involving hands, feet, face, genitalia, perineum, and those that cross major joints should be treated in a burn center. Other ABA specific considerations include: Choose all that apply
    a. Circumferential deep partial thickness burn (Chapter 6 page 51)
    b. A homeless person
    c. Any burn patient with concomitant trauma (Chapter 10 page 88-89)

18. (Competency 1.3) When doing a complete physical exam upon admission, what things are important to assess? Choose all that apply
    a. Respiratory effort and breath sounds (Chapter 7 page 58-59)
    b. The patient's ability to pay
    c. Uncovering the complete body and assessing for circumferential burns (Chapter 7 page 58-59)

19. (Competency 1.3) What is the estimated TBSA of a patient with burns to circumferential legs and thighs, neck and face?
    a. 36%
    b. 54%
    c. 41% (Chapter 7 page 60, Chapter 13 page 134)

20. (Competency 1.5) What are the three basic classes of inhalation injury?

a. Smoke inhalation, chemical inhalation and thermal injury
b. Thermal injury, inhaled chemical irritants, systemic effects of inhaled toxins (Chapter 17 page 184)
c. Nasal and oral singing, upper airway edema, rales and rhonchi

21. (Competency 1.5) Direct thermal lung injury
    a. Never Involves the lower airway
    b. Is always diagnosed by bronchoscopy
    c. Rarely involves subglottic structures (Chapter 17 page 184)

22. (Competency 1.5) Inhalation of chemical irritants can cause (Choose all that apply)
    a. Airway edema (Chapter 17 page187)
    b. Bronchoconstriction (Chapter 17 page187)
    c. Increased secretions (Chapter 17 page187)

23. (Competency 1.5) Pulmonary changes from inhalation injury may progress over time. Which tools are useful in the recognition of these changes? Choose all that apply
    a. Chest x-ray (Chapter 17 page 185)
    b. CO2 monitoring (Chapter 17 page 185)
    c. ABG results (Chapter 17 page 185)

24. (Competency 1.5) Appropriate interventions for inhalation injury and airway integrity include which of the following?
    a. Impaired gas exchange is an ominous sign and should be immediately corrected (Chapter 17 page 188)
    b. Patients with soot around their mouth and nares should be intubated on the scene
    c. Patients with inhalations injuries will not need as much fluid resuscitation (Chapter 17 page 190)

25. Competency 1.5) Complications of endotracheal intubation include (Choose all that apply)
    a. Improved gas exchange (Chapter 17 page 189)
    b. Laryngeal injury (Chapter 17 page 189)
    c. Impaired communication with the patient (Chapter 17 page 189)

26. Competency 1.6) What are risk factors for developing hypothermia in burn patients (Choose all that apply)
    a. TBSA (Chapter 13 page 142)
    b. Heat loss through evaporation (Chapter 13 page 142)
    c. Changes to the thermoregulatory system (Chapter 13 page 141)

27. (Competency 1.6) What are the consequences of hypothermia during the acute phase of recovery?
    a. Improved peripheral oxygenation (Chapter 35 page 378)
    b. Respiratory depression (Chapter 35 page 378)
    c. Vasodilation

28. (Competency 1.6) True or false: Warming measures such as layering a burn patient, increasing ambient air temperature, and fluid warmers should be provided when patients are going to the OR
    True Chapter 13 page 143
    False

29. What target body temperature should be maintained in burn patients?
    a. 35-38◦C (95-100.4˚F)
    b. 36-37◦C (96.8-98.6 ˚F)
    c. 37-38 ◦C (98.6-100.4˚F) Chapter 13 page 155

30. (Competency 1.9) Choose all that apply in regard to the pathophysiology of toxic epidermal necrolysis (TEN)
    a. Genetic predisposition Chapter 42, page 423 Etiology
    b. Inflammatory mediators Chapter 42, page 423 Etiology
    c. Environmental triggers Chapter 42, page 423 Etiology

31. (Competency 1.9) Necrotizing fasciitis is typically caused by:
    a. Clostridia &/or gas gangrene
    b. Staphylococcus, streptococcus, &/or enterococcus Chapter 42 page 431
    c. Pseudomonas, acinetobacter, &/or MRSA

32. (Competency 1.9) The only true way to diagnose necrotizing fasciitis is:
    a. Debriding the wound
    b. The presence of vesicles and large bullae
    c. Skin biopsy Chapter 42, page 426

33. Competency 1.8) Which is an atypical presentation of an intentional burn?
    a. Splash pattern with a scald injury Chapter 62, pg 664
    b. Story and timeline that don't match
    c. Functional caregivers with good coping strategies

34. Which age group is at highest risk for intentional burn injury?

a. Children ages 5-7
b. Children younger than 4 years old Ch. 62. Pg 660
c. The elderly

35. Skeletal surveys should be routine in burn patients older than 5 y/o presenting to the ED. True or False?
    a. True
    b. False Ch. 62, pg 667

36. Which is true about geriatric intentional burn injury?
    a. It is much more prevalent in developing countries
    b. It is much more prevalent in developed countries Ch 62, pg 662
    c. It is much more prevalent in educated populations

37. Which one is not a risk group of intentional trauma?
    a. Lack of financial self sufficiency
    b. Very busy over-achiever Ch 62, pg 664
    c. Dependent caregiver

38. Which is not an indicator of intentional scald burn?
    a. Symmetrical
    b. Bilateral
    c. Splash pattern Ch 62, pg 664

39. Which of the following is not typical of an intentional contact burn?
    a. Cluster of small round burns
    b. Wound that is long, narrow, and deep
    c. Pediatric with bilateral knee abrasions Ch 62, pg 668
40. It is a state mandate that suspicion of intentional injury be reported to the appropriate authorities. True or False?
    a. True Ch 62, pg 670
    b. False

Physiological Support Competency Quiz

1. (Comp 2.2) Which of the following is not true of inhalation injuries?
    a. Lung injury can be caused by inflammation and exudates
    b. Inhalation injury increases vascular leakage in airways
    c. Is never affected by high Fi02 or high tidal volumes (pg 449)

2. (Comp 2.2) Which is true about the effect of burns on the cardiovascular system?
   a. Bacterial endocarditis happens in most burn victims
   b. Cardiac hypertrophy is a common finding in large burns (pg 451)
   c. Heart lesions caused by sepsis is not preventable

3. (Comp 2.2) Which is true concerning the effects of a large burn on the patient's digestive system?
   a. Septic hypotension and hypoxia commonly cause bowel ischemia (pg 451)
   b. Acute pancreatitis is common in burn victims
   c. Bowel perforation is common in large burns

4. (Comp 2.1) There are multiple adjuncts to clinical evaluation of a burn wound. Which is the best one?
   a. Serial thermography imaging
   b. Serial clinical assessment by an experienced burn provider (pg 89)
   c. Doppler pulse checks of edematous extremities

5. (Comp 2.2) True or False: Comorbidities such as diabetes, coronary artery disease, or asthma are not generally exacerbated by burn injuries.
   a. True
   b. False (pg 52)

6. (Competency 2.1) What is the physiological response to a burn injury?
   a. Decreased metabolic rate (Chapter 13 page 141)
   b. Decreased CO2 production (Chapter 13 page 141)
   c. Temperature threshold is increased (Chapter 13 page 142)

7. (Competency 2.1) True or False. As a result of the hypermetabolic response, the acutely burned patient has an increased O2 consumption along with an increased CO2 production that demands a higher respiratory effort. (Chapter 13 page 141)

8. (Competency 2.3) Why are burn patients at risk for impaired thermoregulation?
   a. Alterations in the afferent system (Chapter 13 page 141)
   b. The threshold set point is lower (Chapter 13 page 142)
   c. Impaired cutaneous vasodilation (Chapter 13 page 141)

9. (Competency 2.4) Why is the burn wound at high risk of getting infected?
   a. There is increased blood supply to the wound
   b. It has a nutrient rich environment for bacteria to grow (Chapter 11 page 93)
   c. There is a decreased secretion of glucocorticoids (Chapter 44 page 445)

10. (Competency 2.4) True or False. As an infection prevention measure, patient rooms should be under negative pressure to minimize the spread of bacterial contamination?(Chapter 11 page 93)

11. (Competency 2.4) Which infection prevention measure should be maintained with large burns?
    a. The use of contact precautions (Chapter 11 page 93)
    b. The use of droplet precautions
    c. Frequent room changes for terminal cleanings

12. (Competency 2.4) (True or False) Burn are customarily colonized by pathogens from the environment such as the patient's gut, or the naso-oropharygeal tract. Chapter 11 page 93

13. (Competency 2.5) According to the ABA, burn sepsis includes at least three of the following triggers?
    a. Temperature >38 ˚C (100.4 ˚F) or <36.5 ˚C (97.7 ˚F), hyperventilation, hyperglycemia
    b. Temperature >38 C ˚(100.4˚F), thrombocytopenia, hyperglycemia
    c. Temperature >39 C ˚(102.2 ˚F) or <36.5 (97.7˚F), hyperventilation, thrombocytopenia (Chapter 11 page 98)

14. (Competency 2.5) Which of the following are interventions to prevent sepsis in a burn patient?
    a. Delaying burn excision until after patient has stabilized
    b. Culture directed antibiotic administration (Chapter 30 page 315)
    c. Providing a high calorie low protein diet

15. (Competency 2.6) Which of the following is considered a complication of an inhalation injury?
    a. Increased surfactant production Chapter 13 page 187)
    b. Pneumonia Chapter 13 page 185)
    c. Pulmonary vasodilation Chapter 13 page 187)

16. (Competency 2.6) True or False. Acute kidney injury can still develop in the thermally-injured patient despite aggressive fluid resuscitation and a normal urine output.
Chapter 31 page 318)

17. (Competency 2.6) True or False. Abdominal Compartment Syndrome (ACS) is defined as an intra-abdominal pressure (IAP) of greater than 12 mm Hg with associated new organ dysfunction or failure. Chapter 31 page 318)

18. (Competency 2.6) What potential complications could arise in the liver with a burn injury?
    a. Fatty liver Chapter 24 page 260)
    b. Hypoglycemia Chapter 24 page 262)
    c. Increased Vitamin D production Chapter 24 page 265)

19. (Competency 2.6) True or False. Patients suffering burns greater than 50% total body surface area are subject to decreased cardiac output, increased myocardial workload, and myocardial ischemia. Chapter 31 page 320)

20. (Competency 2.6) How can you avoid renal dysfunction in a burn patient? Choose all that apply.
    a. Treat underlying burn shock Chapter 31 page 327)
    b. Maintain adequate renal perfusion Chapter 31 page 327)
    c. Use vancomycin as antibiotic because it is gentle on the kidneys Chapter 31 page 321)

21. (Competency 2.3) True or False. The hypothalamus plays an important role in temperature regulation. Chapter 13 page 142

22. (Competency 2.3) Which of the following equipment should be used to help regulate a burn patient's temperature? Choose all that apply. Chapter 13 page 143
    a. Utilizing radiant heat sources
    b. Applying warm blankets
    c. Fluid warmers

23. (Competency 2.3) True or False. The afferent system senses changes in core body temperature and transmits this information the brain. Chapter 13 page 141

24. (Competency 2.7, 3.6) Which diagnostic test is indicated post-op to confirm position of tubes and lines that are placed in the OR?
    a. Ultrasound
    b. Chest radiograph Ch. 13, pg 156
    c. Blood chemistry

25. (Competency 2.7, 3.6) Blood loss is a common post-op complication. Which are not symptoms of blood loss?
    a. Hypovolemia and hypotension
    b. Low CVP and low urine output
    c. Bradycardia and peaked T waves Ch. 13, pg 157

26. (Competency 2.7, 3.6) Complications of post-op hypothermia include:
    a. Vasodilation
    b. Metabolic acidosis Ch. 13, pg 157
    c. Hyperperfusion

27. (Competency 2.7, 3.6) Which of the following is not a component of effective anesthetic management?
    a. A team approach with open communication
    b. Monitoring pathophysiological changes that cause hypermetabolism
    c. Anesthesia relies on specialized care rather than a multidisciplinary approach Ch. 13, pg 157

Appendix J

Master List of Nurse Names and Coded Numbers

Project Code	Staff Nurse Name
1	
2	
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12	

Appendix K

Email with Instructions

Hello everyone,

I am excited that my DNP project focus is on improving the quality of burn care through implementation of the American Burn Association (ABA) competencies. The ABA developed competencies that specify specialty training, expert knowledge, and skills for all aspects of burn nursing practice. Burn nursing national certification is under development and the ABA recommends that burn units in the United States begin to adopt their competencies to ensure consistent and competent care. Some of these competencies will be met through education and others through clinical practice.

Below are instructions for completing the first two competencies: Initial Management and Physiological Support. The total time is approximately 2 hours but you may wish to take more time to study. **Each link is personalized so do not share your link with anyone**. Personal details will be removed from the data, so it is not possible to recognize you. Each link to the quizzes can only be accessed once so do not click it until you plan to take it. Jackie has made these education requirements mandatory. You may complete the education at work or at home. You will be paid for your time spent on these competencies, so record the time spent in the log book. **Take the quizzes alone and do not use notes or look up answers.** Deadline to complete is 4/8/22. If you cannot complete the education outside of your scheduled shift, text me (203-240-5945) so that I can assist with coverage for you to complete the education during your scheduled shift.

Thank you,

Laura

Step 1: PRE-QUIZ (approximately 10 minutes)
Click the link to complete the "Initial Management" pre-quiz

Step 2: READ/STUDY EDUCATION POWER POINTS (approximately 40 minutes)
Click the link to complete the "Initial Management" PowerPoint
https://1drv.ms/p/s!AsNEp8hQxNqtk1FbzCGgzSzYObUA?e=tqHl1y

Step 3: POST-QUIZ (approximately 10 minutes)
Click the link to complete the "Initial Management" post-quiz

Step 4: PRE-QUIZ (approximately 10 minutes)
Click the link to complete the “Physiological Support” pre-quiz

Step 5: READ/STUDY EDUCATION POWER POINTS (approximately 40 minutes)

Click the link to complete “Physiological Support” PowerPoint
https://1drv.ms/p/s!AsNEp8hQxNqtk1Ozq84INQ_ms20p?e=WkMtvt

Step 6: POST-QUIZ (approximately 10 minutes)
Click the link to complete the “Physiological Support” post-quiz

Appendix L

Skills Checklist

Domain: Initial Management				
COMPETENCY 1.1 Explains the pathophysiology of an acute burn injury: thermal injury; chemical injury; and electrical injury	❒ N ❒ B ❒ C	• *Describes normal skin anatomy* • *Describes the Jackson's zones of injury* • *Differentiates pathophysiology related to etiology of injury*	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
COMPETENCY 1.2 Stabilizes patient in the initial resuscitation phase according to Advanced Burn Life Support (ABLS) primary and secondary surveys: airway, breathing, circulation, disability and exposure	❒ N ❒ B ❒ C	• Performs the Advanced Burn Life Support (ABLS) primary and secondary survey • Initiates appropriate care related to etiology of injury	❒ CS ❒ D ❒ DO ❒ E ❒ PP ❒ SIM ❒ **ABLS**	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
COMPETENCY 1.3 Assesses severity of burn injury: etiology, depth, extent and location	❒ N ❒ B ❒ C	• *Describes the impact that injury etiology has on extent/depth of injury* • Describes the ABA criteria for minor, moderate and major burn injuries • Performs complete physical exam • Documents accurate burn extent using appropriate burn diagram • *Differentiates burn depth characteristics* • *Determines care priorities based on location of injury*	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM ❒ **ABLS**	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
COMPETENCY 1.4 Manages fluid resuscitation to achieve hemodynamic	❒ N ❒ B	• Calculates fluid resuscitation requirements according to protocol • Titrates fluid administration to maintain hemodynamic stability and	❒ CS ❒ D	**Orientee:** _____

stability and end-organ perfusion	❒ C	end-organ perfusion • Utilizes resuscitation adjuncts per institutional protocol • Anticipates complications associated with fluid resuscitation	❒ DO ❒ E ❒ PP ❒ SIM	**Preceptor:** _____ **Date:** _____/_____/_____
COMPETENCY 1.5 Maintains optimal oxygenation and acid-base balance for patients with inhalation injury	❒ N ❒ B ❒ C	• *Differentiates between the 3 categories of inhalation injury based on mechanism of injury* • *Explains the specifics of pathophysiology for each injury category* • *Anticipates airway compromise from early signs/symptoms* • Maintains optimal oxygenation and acid-base balance • Performs appropriate interventions for inhalation injury management and airway integrity • Interprets arterial blood gas (ABG) results accurately • *Anticipates potential complications associated with endotracheal intubation*	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
COMPETENCY 1.6 Maintains thermoregulation during the acute phase	❒ N ❒ B ❒ C	• *Lists risk factors and causes for the development of hypothermia* • *Predicts consequences of hypothermia during the acute phase of recovery* • *Utilizes warming interventions and adjuncts*	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
COMPETENCY 1.7 Intervenes to avoid and manage compartment syndrome during the acute phase	❒ N ❒ B ❒ C	• *Identify patients at risk for compartment syndrome* • *Describes signs/symptoms of compartment syndrome* • *Completes focused assessment techniques to identify compartment syndrome* • *Plans interventions to alleviate compartment syndrome*	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____

COMPETENCY 1.8 Recognizes signs of non-accidental trauma, abuse or neglect in the burn patient	❒ N ❒ B ❒ C	• *Describes common presentations and at-risk groups associated with non-accidental trauma* • *Identifies the presence of non-accidental injury or neglect through history of injury, developmental status or other indications* • *Intervenes appropriately for non-accidental trauma, abuse or neglect* • Completes documentation of reporting as per protocol	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
COMPETENCY 1.9 Explains the pathophysiology of an acute dermatologic disease process	❒ N ❒ B ❒ C	• *Describes pathophysiology of common dermatologic diseases cared for in burn centers* • *Correlates diagnostic techniques for differentiation of disease processes* • *Implements appropriate plan of care for patients with dermatologic diseases per protocol*	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
Domain: Physiological Support				
COMPETENCY 2.1 Performs a thorough review of systems based on the unique physiologic response of burn injury and possible underlying medical conditions	❒ N ❒ B ❒ C	• *Describes the unique physiologic response to burn injury* • Performs thorough serial physical assessments • Adapts nursing interventions to specific injury and/or deteriorating conditions	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____

COMPETENCY 2.2 Provides physiologic support for all body systems based on the unique needs of the burn patient	❒ N ❒ B ❒ C	• *Describes potential complications for all body systems* • Assesses patients appropriately based on injury or pre-existing conditions • Prevents potential complications based on injury, patient responses and co-morbidities • Educates patient/family regarding interventions, medications and treatments	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
COMPETENCY 2.3 Maintains thermoregulation	❒ N ❒ B ❒ C	• *Describes the pathophysiology of chronic thermo-dysregulation in severe burn injury* • *Explains situations associated with risk for hypothermia* • Measures core body temperature routinely • Maintains room temperature per institutional protocol • *Performs interventions to maintain core body temperature*	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
COMPETENCY 2.4 Employs appropriate infection prevention practices	❒ N ❒ B ❒ C	• *Explains the significance of infection prevention measures for the burn patient* • *Identifies reasons for increased infection risk* • *Outlines infection prevention guidelines per institutional and American Burn Association (ABA) protocols* • *Considers the role of the patient's gastrointestinal, skin, and burn wound microbes and burn center microbes*	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
COMPETENCY 2.5 Recognizes the unique signs and symptoms of sepsis in the burn patient	❒ N ❒ B ❒ C	• *Explains the pathophysiology and unique signs/symptoms of burn sepsis* • Assesses routinely for development of burn sepsis • *Engages prompt interventions when sepsis symptoms arise*	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____

COMPETENCY 2.6 Employs interventions to reduce secondary complications associated with burn injury	❒ N ❒ B ❒ C	• *Describes common secondary complications by body systems* • *Initiates interventions to prevent or mitigate complications*	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
COMPETENCY 2.7 Engages post-operative care that adapts to significant physiologic changes associated with burn surgery	❒ N ❒ B ❒ C	• *Describes physiologic response to excision and grafting procedures that impact post-operative recovery* • *Anticipates common post-operative complications associated with major burn surgery* • Ensures post-operative stabilization and recovery	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
Domain: Wound Management				
COMPETENCY 3.1 Assesses wound status: stage of healing, evidence of infection, skin integrity	❒ N ❒ B ❒ C	• *Identifies characteristics of burn wound types and stages of wound healing* • *Anticipates complications associated with burn wound healing (e.g., infection, skin integrity)* • *Documents comprehensive wound assessment and management* • Provides education to patient/family for therapeutic treatment	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
COMPETENCY 3.2 Explains various therapeutic burn wound treatments: topical agents, dressings, skin substitutes	❒ N ❒ B ❒ C	• *Verbalizes topical agent indications and properties* • *Describes indications and properties for various burn wound dressings and skin substitutes*	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____

COMPETENCY 3.3 Provides burn wound care as planned by interdisciplinary care team	❒ N ❒ B ❒ C	• Performs burn wound cleansing and debridement per protocol • Completes complex dressing change per institutional protocols • *Anticipates complications and plans for prevention* • *Collaborates with burn therapists with scheduling wound care to optimize mobilization* • *Ensures adequate analgesia during burn wound care*	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
COMPETENCY 3.4 Ensures donor site care that maximizes healing and patient comfort	❒ N ❒ B ❒ C	• *Describes normal donor site healing progression and common donor site complications* • Manages donor site per guideline • *Anticipates potential donor site complications*	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
COMPETENCY 3.5 Describes common surgical interventions to achieve burn wound closure	❒ N ❒ B ❒ C	• *Describes common surgical burn wound interventions (e.g., split-thickness/full-thickness/CEA autograft, flap, allograft)* • *Differentiates between different autograft techniques* • *Intervenes to prevent common complications of surgical burn wound closure*	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
COMPETENCY 3.6 Preserves the integrity of post-operative surgical wounds	❒ N ❒ B ❒ C	• *Describes protocol for management of post-operative surgical wounds* • Assesses post-operative wound and dressings • *Anticipates possible complications associated with surgical intervention* • *Coordinates with burn therapists for post-operative positioning, splinting and mobility*	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____

3.7 Establishes care for dermatologic skin disorders to maximize healing	❒ N ❒ B ❒ C	• *Describes the healing trajectory for common dermatologic skin disorders* • Performs appropriate wound care as per institutional protocol	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
Domain: Pain, Agitation, and Delirium Management				
COMPETENCY 4.1 Employs strategies to improve comfort related to the unique needs of the burn patient (to include dermatologic skin disorders)	❒ N ❒ B ❒ C	• *Describes the multifactorial causes of discomfort* • *Explains the indications and side effects of medications and other agents to assist with comfort* • *Engages specific assessment techniques for: pain, agitation, and delirium* • *Engages appropriate interventions for procedural, background, and breakthrough pain/agitation* • *Utilizes validated assessment tools to complete an accurate comfort assessment* • *Implements collaborative plan using pharmacologic/non-pharmacologic interventions to maximize comfort* • Administers interventions proactively to alleviate discomfort • Provides education to patient/family for therapeutic treatment specific to pain, agitation, and delirium	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
COMPETENCY 4.2 Develops preventive strategies to reduce the incidence of delirium in the burn patient	❒ N ❒ B ❒ C	• *Identifies risk factors for delirium* • Assesses for delirium onset using appropriate tools per institutional protocol • *Initiates preventive interventions to prevent onset and reduce duration of delirium* • Collaborates with burn therapists for early mobilization	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____

COMPETENCY 4.3 Alleviates post-burn pruritus and other patient discomfort as issues arise	❒ N ❒ B ❒ C	• *Identifies risk factors for post-burn pruritus* • Assesses for pruritus using appropriate tools per institutional protocol • *Initiates preventive interventions to prevent onset and reduce duration of pruritus* • Provides education to patient/family for therapeutic treatment specific to post-burn pruritus	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
Domain: Nutritional Support				
COMPETENCY 5.1 Explains nutritional requirements due to the unique hypermetabolic state of the burn patient	❒ N ❒ B ❒ C	• *Describes hypermetabolic demands inherent to burn injury and healing* • *Completes assessment of metabolic demands for burn patient* • Collaborates with dietician to ensure appropriate dietary management	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
COMPETENCY 5.2 Optimizes delivery of prescribed nutrition	❒ N ❒ B ❒ C	• Minimizes interruptions in delivery of enteral nutrition • Provides education to patient/family for treatment specific to meeting nutritional requirements	❒ CS ❒ D ❒ DO ❒ E ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
Domain: Psychosocial Support				

COMPETENCY 6.1 Provides support and resources for the unique emotional, spiritual, cultural and social needs of burn patients and family members	❒ N ❒ B ❒ C	• *Collaborates with multidisciplinary team in the development of an individualized plan of care to support patient and family* • *Identifies internal, local and national resources for support*	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
COMPETENCY 6.2 Recognizes signs and symptoms of stress and depression of burn patients and family members	❒ N ❒ B ❒ C	• *Screens for acute stress disorder (ASD) and post-traumatic stress disorder (PTSD)* • *Identifies patients at risk for intentional injury or self-harm* • *Initiates behavioral health consult based on patient assessment*	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
COMPETENCY 6.3 Supports patient and family members who exhibit signs and symptoms of emotional distress	❒ N ❒ B ❒ C	• Promotes resiliency in patient and family	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
COMPETENCY 6.4 Facilitates access to peer-to-peer and burn survivor resources for patient and family support	❒ N ❒ B ❒ C	• *Provides information on peer support programs and referral process (e.g., Phoenix Society for Burn Survivors)*	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____

Domain: Rehabilitation				
COMPETENCY 7.1 Explains the unique rehabilitation needs of the burn patient for return to optimal function	❒ N ❒ B ❒ C	• *Describes burn scar pathophysiology* • *Describes interventions to prevent common rehabilitation complications* • *Verbalizes functional outcome goals for burn rehabilitation*	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
COMPETENCY 7.2 Optimizes prescribed rehabilitation interventions to maximize return to function	❒ N ❒ B ❒ C	• *Collaborate with burn therapists in development of individualized plan of care* • *Intervenes to prevent complications and maximize function* • Employs appropriate patient positioning and application of splints and devices • Provides education to patient/family for treatment specific to meeting rehabilitation goals	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
COMPETENCY 7.3 Integrates early mobility in routine care to reduce complications associated with burn injury	❒ N ❒ B ❒ C	• *Describes the contribution of early mobilization* • Collaborates with burn therapists in integration of early mobilization in the plan of care • Ensures patient safety	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
Domain: Discharge Planning and Aftercare Support				

COMPETENCY 8.1 Facilitates interdisciplinary discharge preparation for patient and family	❒ N ❒ B ❒ C	• *Describes burn center outpatient and aftercare program* • *Describes the comprehensive discharge planning process* • *Defines aftercare support for enhancing quality of life* • Collaborates with the multidisciplinary team in discharge planning and aftercare	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
COMPETENCY 8.2 Empowers patient and family for community re-integration	❒ N ❒ B ❒ C	• *Describes internal, local, and national resources for community re-integration* • Encourages patient and family to participate in aftercare programs	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
Domain: End of Life Care				
COMPETENCY 9.1 Participates in interdisciplinary discussions when faced with potentially futile medical care	❒ N ❒ B ❒ C	• *Differentiates between palliative care and end of life concepts* • Advocates on behalf of the patient and family regarding the desired level of care in face of clinical deterioration	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____

COMPETENCY 9.2 Supports patient and family during end of life	❒ N ❒ B ❒ C	• Participates in patient/family conferences • Provides comfort measures • Supports psychosocial/spiritual needs of patient/family • Imparts dignity and respect for patient choice, family members, cultural, and religious beliefs • Ensures optimal environmental conditions that respect end of life	❒ CS ❒ D ❒ DO ❒ E ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
COMPETENCY 9.3 Engages resources for family support after their loved one has passed	❒ N ❒ B ❒ C	• *Verbalizes protocol for social work and case management interventions* • Facilitates closure for family/support persons • Provides community referrals to bereavement services	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
Domain: Team Collaboration				
COMPETENCY 10.1 Engages all members of the interdisciplinary burn team in the delivery of care	❒ N ❒ B ❒ C	• *Describes the roles of multidisciplinary burn team members* • Collaborates with team members on the comprehensive plan of care • Involves the patient/family in the plan of care • Participates in multidisciplinary patient rounds • Engages in respectful communication with all burn team members • Provides professional peer feedback for colleagues within the interdisciplinary burn team	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____

COMPETENCY 10.2 Collaborates in quality improvement processes to improve burn care delivery and related patient outcomes	❒ N ❒ B ❒ C	• *Defines common quality improvement processes (e.g., FOCUS-PDCA, Iowa Model for Evidence Based Practice)* • Participates in burn center quality improvement projects • Utilizes evidence-based practice in delivery of care for the burn patient • Supports clinical research initiatives to advance burn care knowledge as applicable	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
10.3 Facilitates resiliency for self and team members given the challenges of burn care	❒ N ❒ B ❒ C	• *Describes effective techniques to promote effective self-care and resiliency* • Mentors team members in both team process and burn care management • Resolves team conflict with respect for diverse opinions and beliefs • Offers feedback to team members related to participation in effective delivery of care and collaboration • Manages work place stress by fostering a positive climate	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____
Domain: Burn Care Education				
COMPETENCY 11.1 Advocates burn injury prevention awareness to patients and families	❒ N ❒ B ❒ C	• Describes burn injury prevention strategies • Educates patient/family on burn injury prevention	❒ CS ❒ D ❒ DO ❒ **E** ❒ PP ❒ SIM	**Orientee:** _____ **Preceptor:** _____ **Date:** _____/_____/_____

COMPETENCY 11.2 Participates in community outreach and/or community provider education*	❒ N ❒ B ❒ C	• Completes ABLS provider course • Provides burn education to first responders and referral agencies • Participates in community burn awareness and prevention programs	❒ CS ❒ D ❒ DO ❒ E ❒ PP ❒ SIM ❒ **ABLS**	**Orientee:** _____ **ABLS Instructor:** _____ **ABLS Date Taken:** _____/_____/_____

Appendix M

Skills Checklist for BH-CBC Existing Nurses

Preceptor Name/Initials:_____Date:_____		
O = Observed V = Verbal		
Assessment/Learning Category	**Method of Assessment**	**Preceptor Initials/Date**
DOMAIN: INITIAL MANAGEMENT		
COMPETENCY 1.1 Explains the pathophysiology of an acute burn injury: thermal injury; chemical injury; and electrical injury		
Describes normal skin anatomy	Learning Unit: Initial Management	
Describes the Jackson's zones of injury	Learning Unit: Initial Management	
Differentiates pathophysiology related to etiology of injury	Learning Unit: Initial Management	
COMPETENCY 1.2 Stabilizes patient in the initial resuscitation phase according to Advanced Burn Life Support (ABLS) primary and secondary surveys: airway, breathing, circulation, disability and exposure		
Performs the Advanced Burn Life Support (ABLS) primary and secondary survey	ABLS Course	Date taken:

Initiates appropriate care related to etiology of injury	O V	
Assessment/Learning Category	**Method of Assessment**	**Preceptor Initials/Date**
COMPETENCY 1.3 Assesses severity of burn injury: etiology, depth, extent and location		
Describes the impact that injury etiology has on extent/depth of injury	Learning Unit: Initial Management	
Describes the ABA criteria for minor, moderate and major burn injuries	ABLS Course	Date taken:
Performs complete physical exam	O V	
Documents accurate burn extent using appropriate burn diagram	O V	
Differentiates burn depth characteristics	Learning Unit: Initial Management	
Determines care priorities based on location of injury	Learning Unit: Initial Management	
COMPETENCY 1.4 Manages fluid resuscitation to achieve hemodynamic stability and end-organ perfusion		
Calculates fluid resuscitation requirements according to protocol	O V	
Titrates fluid administration to maintain hemodynamic stability and end-organ perfusion.	O V	

Utilizes resuscitation adjuncts per institutional protocol	O V	
Anticipates complications associated with fluid resuscitation	O V	
COMPETENCY 1.5 Maintains optimal oxygenation and acid-base balance for patients with inhalation injury		
Differentiates between the 3 categories of inhalation injury based on mechanism of injury	Learning Unit: Initial Management	
Explains the specifics of pathophysiology for each injury category	Learning Unit: Initial Management	
Anticipates airway compromise from early signs/symptoms	Learning Unit: Initial Management	
Maintains optimal oxygenation and acid-base balance	O V	
Performs appropriate interventions for inhalation injury management and airway integrity	O V	
Assessment/Learning Category	**Method of Assessment**	**Preceptor Initials/Date**
Interprets arterial blood gas (ABG) results accurately	O V	

Anticipates potential complications associated with endotracheal intubation	Learning Unit: Initial Management
COMPETENCY 1.6 Maintains thermoregulation during the acute phase	
Lists risk factors and causes for the development of hypothermia	Learning Unit: Initial Management
Predicts consequences of hypothermia during the acute phase of recovery	Learning Unit: Initial Management
Utilizes warming interventions and adjuncts	Learning Unit: Initial Management
COMPETENCY 1.7 Intervenes to avoid and manage compartment syndrome during the acute phase	
Identify patients at risk for compartment syndrome	Learning Unit: Initial Management
Describes signs/symptoms of compartment syndrome	Learning Unit: Initial Management
Completes focused assessment techniques to identify compartment syndrome	Learning Unit: Initial Management
Plans interventions to alleviate compartment syndrome	Learning Unit: Initial Management
COMPETENCY 1.8 Recognizes signs of non-accidental trauma, abuse or neglect in the burn patient	

Describes common presentations and at-risk groups associated with non-accidental trauma	Learning Unit: Initial Management	
Identifies the presence of non-accidental injury or neglect through history of injury, developmental status or other indications	Learning Unit: Initial Management	
Intervenes appropriately for non-accidental trauma, abuse or neglect	Learning Unit: Initial Management	
Completes documentation of reporting as per protocol	O V	
Assessment/Learning Category	**Method of Assessment**	**Preceptor Initials/Date**
COMPETENCY 1.9 Explains the pathophysiology of an acute dermatologic disease process		
Describes pathophysiology of common dermatologic diseases cared for in burn centers	Learning Unit: Initial Management	
Correlates diagnostic techniques for differentiation of disease processes	Learning Unit: Initial Management	
Implements appropriate plan of care for patients with dermatologic diseases per protocol	Learning Unit: Initial Management	

DOMAIN: PHYSIOLOGICAL SUPPORT		
COMPETENCY 2.1 Performs a thorough review of systems based on the unique physiologic response of burn injury and possible underlying medical conditions		
Describes the unique physiologic response to burn injury	Learning Unit: Physiological Support	
Performs thorough serial physical assessments	O V	
Adapts nursing interventions to specific injury and/or deteriorating conditions	O V	
COMPETENCY 2.2 Provides physiologic support for all body systems based on the unique needs of the burn patient		
Describes potential complications for all body systems	Learning Unit: Physiological Support	
Assesses patients appropriately based on injury or pre-existing conditions	O V	
Prevents potential complications based on injury, patient responses and co-morbidities	O V	
Educates patient/family regarding interventions, medications and treatments	O V	
COMPETENCY 2.3 Maintains thermoregulation		

Describes the pathophysiology of chronic thermo-dysregulation in severe burn injury	Learning Unit: Physiological Support	
Explains situations associated with risk for hypothermia	Learning Unit: Physiological Support	
Measures core body temperature routinely	O V	
Assessment/Learning Category	**Method of Assessment**	**Preceptor Initials/Date**
Maintains room temperature per institutional protocol	O V	
Performs interventions to maintain core body temperature	Learning Unit: Physiological Support	
COMPETENCY 2.4 Employs appropriate infection prevention practices		
Explains the significance of infection prevention measures for the burn patient	Learning Unit: Physiological Support	
Identifies reasons for increased infection risk	Learning Unit: Physiological Support	
Outlines infection prevention guidelines per institutional and American Burn Association (ABA) protocols	Learning Unit: Physiological Support	

Considers the role of the patient's gastrointestinal, skin, and burn wound microbes and burn center microbes	Learning Unit: Physiological Support	
COMPETENCY 2.5 Recognizes the unique signs and symptoms of sepsis in the burn patient		
Explains the pathophysiology and unique signs/symptoms of burn sepsis	Learning Unit: Physiological Support	
Assesses routinely for development of burn sepsis	O V	
Engages prompt interventions when sepsis symptoms arise	Learning Unit: Physiological Support	
COMPETENCY 2.6 Employs interventions to reduce secondary complications associated with burn injury		
Describes common secondary complications by body systems	Learning Unit: Physiological Support	
Initiates interventions to prevent or mitigate complications	Learning Unit: Physiological Support	
COMPETENCY 2.7 Engages post-operative care that adapts to significant physiologic changes associated with burn surgery		
Describes physiologic response to excision and grafting procedures that impact post-operative recovery	Learning Unit: Physiological Support	

Anticipates common post-operative complications associated with major burn surgery	Learning Unit: Physiological Support	
Ensures post-operative stabilization and recovery	O V	
Assessment/Learning Category	**Method of Assessment**	**Preceptor Initials/Date**
DOMAIN: WOUND MANAGEMENT		
COMPETENCY 3.1 Assesses wound status: stage of healing, evidence of infection, skin integrity		
Identifies characteristics of burn wound types and stages of wound healing	Learning Unit: Burn Wound Care	
Anticipates complications associated with burn wound healing (e.g., infection, skin integrity)	Learning Unit: Burn Wound Care	
Documents comprehensive wound assessment and management	Learning Unit: Documentation	
Provides education to patient/family for therapeutic treatment	O V	
COMPETENCY 3.2 Explains various therapeutic burn wound treatments: topical agents, dressings, skin substitutes		

Verbalizes topical agent indications and properties	Learning Unit: Burn Wound Care	
Describes indications and properties for various burn wound dressings and skin substitutes	Learning Unit: Burn Wound Care	
COMPETENCY 3.3 Provides burn wound care as planned by interdisciplinary care team		
Performs burn wound cleansing and debridement per protocol	O V	
Completes complex dressing change per institutional protocols	O V	
Anticipates complications and plans for prevention	Learning Unit: Burn Wound Care	
Collaborates with burn therapists with scheduling wound care to optimize mobilization	Learning Unit: Burn Therapy	
Ensures adequate analgesia during burn wound care	Learning Unit: Pain, Agiation, and Delirium Managment	
COMPETENCY 3.4 Ensures donor site care that maximizes healing and patient comfort		
Describes normal donor site healing progression and common donor site complications	Learning Unit: Burn Wound Care	

Manages donor site per guideline	O V	
Anticipates potential donor site complications	Learning Unit: Burn Wound Care	
Assessment/Learning Category	**Method of Assessment**	**Preceptor Initials/Date**
COMPETENCY 3.5 Describes common surgical interventions to achieve burn wound closure		
Describes common surgical burn wound interventions (e.g., split-thickness/full-thickness/CEA autograft, flap, allograft)	Learning Unit: Burn Wound Care	
Differentiates between different autograft techniques	Learning Unit: Burn Wound Care	
Intervenes to prevent common complications of surgical burn wound closure	Learning Unit: Burn Wound Care	
COMPETENCY 3.6 Preserves the integrity of post-operative surgical wounds		
Describes protocol for management of post-operative surgical wounds	Learning Unit: Burn Wound Care and Documentation	
Assesses post-operative wound and dressings	O V	
Anticipates possible complications associated with surgical intervention	Learning Unit: Burn Wound Care	

Coordinates with burn therapists for post-operative positioning, splinting and mobility	Learning Unit: Burn Therapy	
3.7 Establishes care for dermatologic skin disorders to maximize healing		
Describes the healing trajectory for common dermatologic skin disorders	Learning Unit: Burn Wound Care	
Performs appropriate wound care as per institutional protocol	O V	
DOMAIN: PAIN, AGITATION, AND DELIRIUM MANAGEMENT		
COMPETENCY 4.1 Employs strategies to improve comfort related to the unique needs of the burn patient (to include dermatologic skin disorders)		
Describes the multifactorial causes of discomfort	Learning Unit: Pain, Agitation, and Delirium Managment	
Explains the indications and side effects of medications and other agents to assist with comfort	Learning Unit: Pain, Agitation, and Delirium Managment	
Engages specific assessment techniques for: pain, agitation, and delirium	Learning Unit: Pain Agitation, and Delirium Management	
Engages appropriate interventions for procedural, background, and breakthrough pain/agitation	Learning Unit: Pain, Agitation, and Delirium Managment	

Assessment/Learning Category	**Method of Assessment**	**Preceptor Initials/Date**
Utilizes validated assessment tools to complete an accurate comfort assessment	Learning Unit: Pain, Agitation, and Delirium Managment	
Implements collaborative plan using pharmacologic/non-pharmacologic interventions to maximize comfort	Learning Unit: Pain, Agitation, and Delirium Managment	
Administers interventions proactively to alleviate discomfort	O V	
Provides education to patient/family for therapeutic treatment specific to pain, agitation, and delirium	O V	
COMPETENCY 4.2 Develops preventive strategies to reduce the incidence of delirium in the burn patient		
Identifies risk factors for delirium	Learning Unit: Pain, Agitation and Delirium	
Assesses for delirium onset using appropriate tools per institutional protocol	O V	
Initiates preventive interventions to prevent onset and reduce duration of delirium	Learning Unit: Pain, Agitation and Delirium	

Collaborates with burn therapists for early mobilization	O V	Learning Unit: Burn Therapy
COMPETENCY 4.3 Alleviates post-burn pruritus and other patient discomfort as issues arise		
Identifies risk factors for post-burn pruritus	Learning Unit: Pain, Agitation and Delirium	
Assesses for pruritus using appropriate tools per institutional protocol	O V	
Initiates preventive interventions to prevent onset and reduce duration of pruritus	Learning Unit: Pain, Agitation and Delirium	
Provides education to patient/family for therapeutic treatment specific to post-burn pruritus	O V	
DOMAIN: NUTRITIONAL SUPPORT		
COMPETENCY 5.1 Explains nutritional requirements due to the unique hypermetabolic state of the burn patient		
Describes hypermetabolic demands inherent to burn injury and healing	Learning Unit: Nutrition	
Completes assessment of metabolic demands for burn patient	Learning Unit: Nutrition	

Assessment/Learning Category	**Method of Assessment**	**Preceptor Initials/Date**
Collaborates with dietician to ensure appropriate dietary management	O V	
COMPETENCY 5.2 Optimizes delivery of prescribed nutrition		
Minimizes interruptions in delivery of enteral nutrition	O V	
Provides education to patient/family for treatment specific to meeting nutritional requirements	O V	
DOMAIN: PSYCHOSOCIAL SUPPORT		
COMPETENCY 6.1 Provides support and resources for the unique emotional, spiritual, cultural and social needs of burn patients and family members		
Collaborates with multidisciplinary team in the development of an individualized plan of care to support patient and family	Learning Unit: Psychosocial Support	
Identifies internal, local and national resources for support	Learning Unit: Psychosocial Support	
COMPETENCY 6.2 Recognizes signs and symptoms of stress and depression of burn patients and family members		

Screens for acute stress disorder (ASD) and post-traumatic stress disorder (PTSD)	Learning Unit: Psychosocial Support	
Identifies patients at risk for intentional injury or self-harm	Learning Unit: Psychosocial Support	
Initiates behavioral health consult based on patient assessment	Learning Unit: Psychosocial Support	
COMPETENCY 6.3 Supports patient and family members who exhibit signs and symptoms of emotional distress		
Promotes resiliency in patient and family	Learning Unit: Psychosocial Support	
COMPETENCY 6.4 Facilitates access to peer-to-peer and burn survivor resources for patient and family support		
Provides information on peer support programs and referral process (e.g., Phoenix Society for Burn Survivors)	Learning Unit: Psychosocial Support	
Assessment/Learning Category	**Method of Assessment**	**Preceptor Initials/Date**
DOMAIN: REHABILITATION		
COMPETENCY 7.1 Explains the unique rehabilitation needs of the burn patient for return to optimal function		
Describes burn scar pathophysiology	Learning Unit: Burn Therapy	

Describes interventions to prevent common rehabilitation complications	Learning Unit: Burn Therapy	
Verbalizes functional outcome goals for burn rehabilitation	Learning Unit: Burn Therapy	
COMPETENCY 7.2 Optimizes prescribed rehabilitation interventions to maximize return to function		
Collaborate with burn therapists in development of individualized plan of care	Learning Unit: Burn Therapy	
Intervenes to prevent complications and maximize function	Learning Unit: Burn Therapy	
Employs appropriate patient positioning and application of splints and devices	O V	
Provides education to patient/family for treatment specific to meeting rehabilitation goals	O V	
COMPETENCY 7.3 Integrates early mobility in routine care to reduce complications associated with burn injury		
Describes the contribution of early mobilization	Learning Unit: Burn Therapy	
Collaborates with burn therapists in integration of early mobilization in the plan of care	O V	

Ensures patient safety	O V	
DOMAIN: DISCHARGE PLANNING AND AFTERCARE SUPPORT		
COMPETENCY 8.1 Facilitates interdisciplinary discharge preparation for patient and family		
Describes burn center outpatient and aftercare program	Learning Unit: Discharge Planning and Aftercare Support	
Describes the comprehensive discharge planning process	Learning Unit: Discharge Planning and Aftercare Support	
Defines aftercare support for enhancing quality of life	Learning Unit: Discharge Planning and Aftercare Support	
Collaborates with the multidisciplinary team in discharge planning and aftercare	O V	
Assessment/Learning Category	**Method of Assessment**	**Preceptor Initials/Date**
COMPETENCY 8.2 Empowers patient and family for community re-integration		
Describes internal, local, and national resources for community re-integration	Learning Unit: Psychosocial Support and Discharge Planning and Aftercare Support	
Encourages patient and family to participate in aftercare programs	O V	
DOMAIN: END OF LIFE CARE		
COMPETENCY 9.1 Participates in interdisciplinary discussions when faced with potentially futile medical care		

Differentiates between palliative care and end of life concepts	Learning Unit: Psychosocial Support	
Advocates on behalf of the patient and family regarding the desired level of care in face of clinical deterioration	O V	
COMPETENCY 9.2 Supports patient and family during end of life		
Participates in patient/family conferences	O V	
Provides comfort measures	O V	
Supports psychosocial/spiritual needs of patient/family	O V	
Imparts dignity and respect for patient choice, family members, cultural, and religious beliefs	O V	
Ensures optimal environmental conditions that respect end of life	O V	
COMPETENCY 9.3 Engages resources for family support after their loved one has passed		
Verbalizes protocol for social work and case management interventions	Learning Unit: Psychosocial Support	
Facilitates closure for family/support persons	O V	

Provides community referrals to bereavement services	O V	
Assessment/Learning Category	**Method of Assessment**	**Preceptor Initials/Date**
DOMAIN: TEAM COLLABORATION		
COMPETENCY 10.1 Engages all members of the interdisciplinary burn team in the delivery of care		
Describes the roles of multidisciplinary burn team members	Learning Unit: Team Collaboration	
Collaborates with team members on the comprehensive plan of care	O V	
Involves the patient/family in the plan of care	O V	
Participates in multidisciplinary patient rounds	O V	
Engages in respectful communication with all burn team members	O V	
Provides professional peer feedback for colleagues within the interdisciplinary burn team	O V	
COMPETENCY 10.2 Collaborates in quality improvement processes to improve burn care delivery and related patient outcomes		

Defines common quality improvement processes (e.g., FOCUS-PDCA, Iowa Model for Evidence Based Practice)	Learning Unit: Team Collaboration	
Participates in burn center quality improvement projects	O V	
Utilizes evidence-based practice in delivery of care for the burn patient	O V	
Supports clinical research initiatives to advance burn care knowledge as applicable	O V	
10.3 Facilitates resiliency for self and team members given the challenges of burn care		
Describes effective techniques to promote effective self-care and resiliency	Learning Unit: Psychosocial Care	
Mentors team members in both team process and burn care management	O V	
Resolves team conflict with respect for diverse opinions and beliefs	O V	
Offers feedback to team members related to participation in effective delivery of care and collaboration	O V	

Manages work place stress by fostering a positive climate	O V	
Assessment/Learning Category	**Method of Assessment**	**Preceptor Initials/Date**
DOMAIN: BURN CARE EDUCATION		
COMPETENCY 11.1 Advocates burn injury prevention awareness to patients and families		
Describes burn injury prevention strategies	Learning Unit: Burn Care Education	
Educates patient/family on burn injury prevention	O V	
COMPETENCY 11.2 Participates in community outreach and/or community provider education*		
Completes ABLS provider course	ABLS Course	Date taken:
Provides burn education to first responders and referral agencies	O V	
Participates in community burn awareness and prevention programs	O V	

Appendix N

Actual Project Timeline

Table #.

Implementation Timeline for DNP Project: Improving the Quality of Burn Care Through Implementation of the American Burn Association Competencies

PICOT Question: In burn nurses (P) how does the ABA competencies (I) compared to usual practice (C) affect knowledge and skill (O)?
Team Leader: Laura Ritter
Team Members: Kerry Milner, DNSc, RN; DNP Project Faculty Advisor; Claudine Cody RN, BSN; Practice Mentor; Jason Bresky RN, ASN; Practice Mentor; Jaqueline Laird, BSN, RN; Practice Expert
Pilot site: Connecticut Burn Center in Bridgeport Hospital, 267 Grant Street Bridgeport, CT 06601

Pre-Implementation	Topic	Notes	Actions	Outcome/Status
A	Approval from the Yale New Haven Health System Nursing	Reviewed by Carolyn Bradely and Dr. Milner	Submit letter of intent and scholarly project endorsement application to NSRC	Approved 02/2021 by NSRC

	Scientific Review Committee (NSRC)			
B	Meeting with Director of eLearning and manager of education at Bridgeport Hospital	Nurse manager Jaqueline Laird, director of elearning education Russell Hullstrung and manager of the department of education, Kathleen Morris	Reviewed process, cost, and barriers to implementation using the LMS	Meeting completed 10/15/21
C	Approval from Director of the BH CBC, Alisa Savetamal, MD to utilize burn center nursing	Jaqueline Laird responsible for seeking approval to utilize funds	Project proposal shared with Dr. Savetamal	11/22/2022 Received approval to utilize funds

	education funds for LMS			
D	Meeting with the critical care nurse educator to determine how to adapt skills competency checklist into YNHHS competency-based orientation format	Jaqueline Laird, Melissa Emanuel, Jennifer Sather present for the meeting and involved in decision making	Skills competency checklist adapted to YNHHS format and given to Kathleen Morris for final approval	11/6/21 Finalized skills competency checklist submitted to Kathleen Morris
E	Education modules created and knowledge assessments adapted for	PowerPoint used to create modules from Total Burn Care 5th edition textbook	Education modules created and knowledge assessments adapted	11/1/21 Education modules and knowledge assessments

	pilot with ABLS course instructors			complete and ready for pilot
F	Pilot Module 1 with ABLS course instructors	Included pre/post self-perceived competency survey, module, and pre/post knowledge assessments	Meeting with ABLS course instructors to pilot	11/17/21 pilot complete for Module 1
G	Meeting to obtain feedback/ review modules, knowledge assessments, competency surveys with ABLS course instructors	Notes taken on feedback to improve content and clarity of questions	Modules and quizzes updated from feedback provided	11/27/21 feedback obtained 12/20/21 Module and knowledge assessment update complete

H	Pilot Module 2 with ABLS course instructors	Included pre/post self-perceived competency survey, module, and pre/post knowledge assessments	Meeting with ABLS course instructors to pilot	1/26/22 pilot complete for Module 2
I	Meeting to obtain feedback/ review modules, knowledge assessments, competency surveys with ABLS course instructors	Notes taken on feedback to improve content and clarity of questions	Modules and knowledge assessments updated from feedback provided	2/4/22 feedback obtained 2/7/22 Module and knowledge assessment update complete
J	Modules submitted to expert panel for review	Notes received from expert panel	Modules and knowledge assessments updated	3/7/22 Review by expert panel complete

			from feedback provided	
K	PowerPoint, knowledge assessments, and self-perceived competency assessments uploaded to Qualtrics	Reviewed by faculty mentor, Dr. Milner	Announcement to staff via GroupMe and email Flyers made for staff break room Coffee and snacks provided in break room	3/16/22 Uploaded to Qualtrics and ready for implementation
Implementation				
A	Modules 1 & 2 emailed to staff	Staff given mandatory completion date by 3/20/22 (14 days)	Process measures: Unit tracking form to determine the mean time for completion of all modules and track nurse progress in real-time	3/25/22 Implementation Modules 1 & 2 with BH CBC nurses

			A 5-point Likert scale will be used to measure nurse self-perceived competency levels before and after completion of each module Outcome measures: Evaluation of post-test knowledge assessments 1:1 debriefing/education for individuals who score <80% # of nurses scoring>80% in 2 attempts/total number of nurses educated	

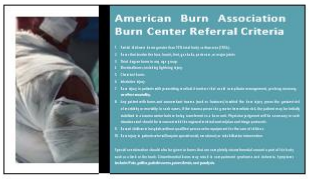
			# of nurses needing debriefing & education/total number of nurses educated # of nurses competent/total number of nurses educated	
B	Email modules 1 & 2, knowledge assessments, surveys to Kathleen Morris and Russel Hullstrung for review	Actions will be completed based on recommendations prior to submission	Submit elearning project development request form, modules, knowledge assessments, and self-perceived competency assessments	04/10/22 All interventions complete for module submission into the LMS
C	Skills competency checklist will		Creation of burn competency	04/10/22 All nurses competent in all

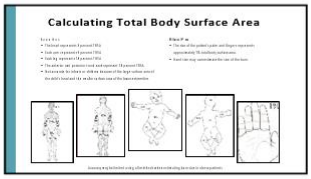
	be completed by all BH CBC nurses: For domains 1 & 2 and verbal, observed criteria for all 11 domains		checklist binder for all existing staff Will be added to orientation binder for all new staff nurses All nurses will be signed off by project manager/DNP student All new nurses will be signed off by preceptor and project manager/DNP student Outcome measures: Observed and verbal competency skills	observed/verbal skills and education for modules 1&2 of 11.

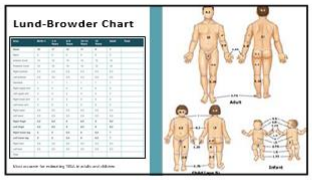
			will be directly monitored using the burn nurse competency checklist	

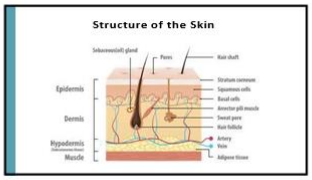
Appendix O

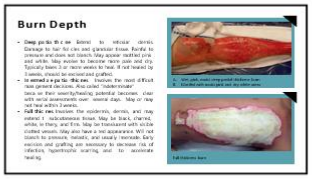
Education Modules







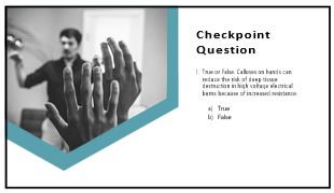




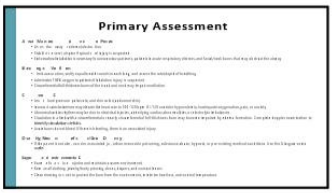

Mechanisms of Injury

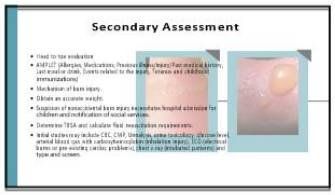

Checkpoint Questions
1. Which is not true about chemical burns?
a) Immediately dilute an acid burn with copious amounts of water
b) Immediately dilute a burn from dry concrete powder with copious amounts of water
c) Immediately dilute an alkali burn with copious amounts of water

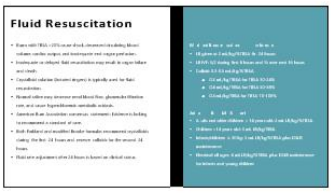

Answer
Answer


Checkpoint Question
1. True or False. Calluses on hands can reduce the risk of deep tissue destruction in high voltage electrical burns because of increased resistance.
a) True
b) False

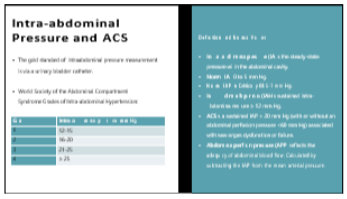

Answer
Answer
A. True


Primary Assessment

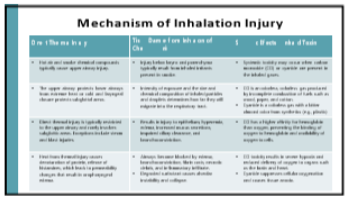

Secondary Assessment


Fluid Resuscitation

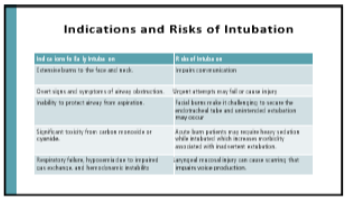

Abdominal Compartment Syndrome (ACS)


Intra-abdominal Pressure and ACS
• The gold standard of intraabdominal pressure measurement involve urinary bladder catheter.
• World Society of the Abdominal Compartment Syndrome Grades of Intra-abdominal Hypertension

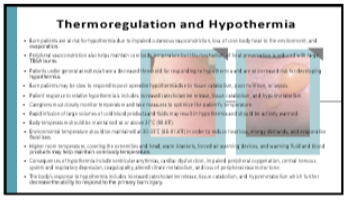

ACS Management

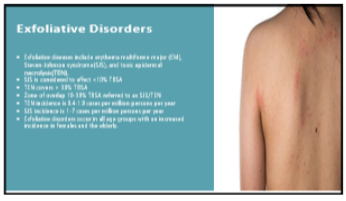

Mechanism of Inhalation Injury

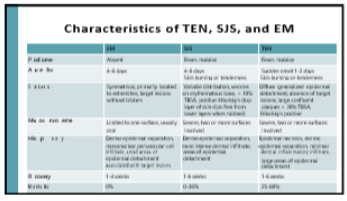

Diagnosis of Inhalation Injury


Indications and Risks of Intubation


Treatment for Inhalation Injury

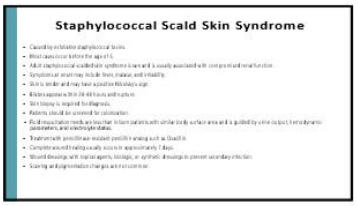

Thermoregulation and Hypothermia


Exfoliative Disorders


Characteristics of TEN, SJS, and EM

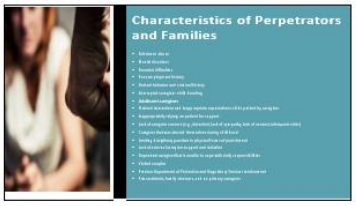

TEN


TEN Treatment


Staphylococcal Scald Skin Syndrome


Necrotizing Fasciitis

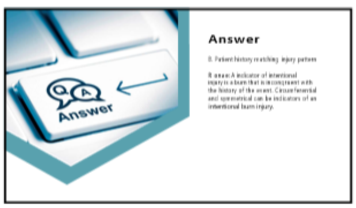

Intentional Burn Injury

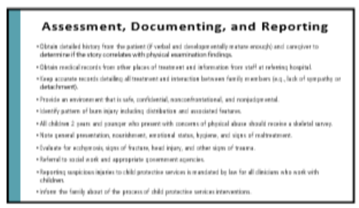

Characteristics of Perpetrators and Families

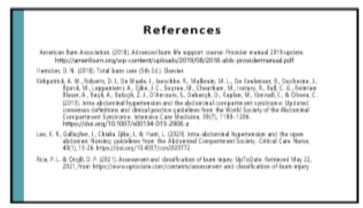

Indicators of Intentional Injury


Indicators of Intentional Injury: History

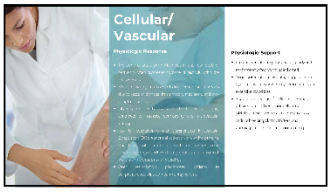

Checkpoint Questions

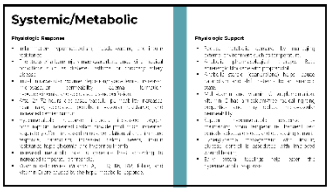

Answer
Answer
B. Patient history matching injury pattern
Rationale: A indicator of intentional injury is a burn that is incongruent with the history of the event. Circumferential and symmetrical can be indicators of an intentional burn injury.

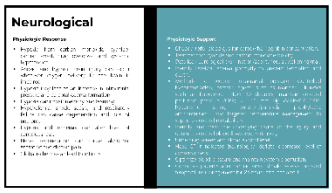

Assessment, Documenting, and Reporting
• Obtain detailed history from the patient (if verbal and developmentally mature enough) and caregiver to determine if the story correlates with physical examination findings.
• Obtain medical records from other places of treatment and information from staff at referring hospital.
• Keep accurate records detailing all treatment and interaction between family members (e.g., lack of sympathy or detachment).
• Provide an environment that is safe, confidential, nonconfrontational, and nonjudgmental.
• Identify pattern of burn injury including distribution and associated features.
• All children 2 years and younger who present with concerns of physical abuse should receive a skeletal survey.
• Note general presentation, nourishment, emotional status, hygiene, and signs of maltreatment.
• Evaluate for ecchymosis, signs of fracture, head injury, and other signs of trauma.
• Referral to social work and appropriate government agencies.
• Reporting suspicious injuries to child protective services is mandated by law for all clinicians who work with children.
• Inform the family about of the process of child protective services interventions.

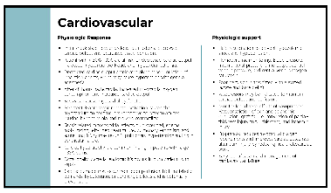

References
American Burn Association. (2018). Advanced burn life support course: Provider manual 2018 update. http://ameriburn.org/wp-content/uploads/2019/08/2018-abls-providermanual.pdf
Herndon, D. N. (2018). Total burn care (5th Ed.). Elsevier.
(2013). Intra-abdominal hypertension and the abdominal compartment syndrome: Updated consensus definitions and clinical practice guidelines from the World Society of the Abdominal Compartment Syndrome. Intensive Care Medicine, 39(7), 1190-1206. https://doi.org/10.1007/s00134-013-2906-z
Lee, K. R., Gallagher, J., Chiaka Ejike, J., & Hunt, L. (2020). Intra-abdominal hypertension and the open abdomen: Nursing guidelines from the Abdominal Compartment Society. Critical Care Nurse, 40(1), 13-26. https://doi.org/10.4037/ccn2020772
Rice, P. L., & Orgill, D. P. (2021). Assessment and classification of burn injury. UpToDate. Retrieved May 22, 2021, from https://www.uptodate.com/contents/assessment-and-classification-of-burn-injury

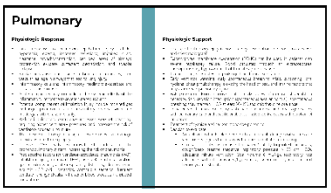

Physiological
Support

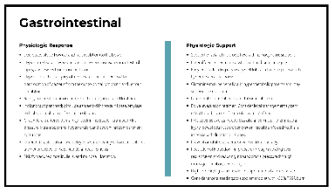

Cellular/
Vascular

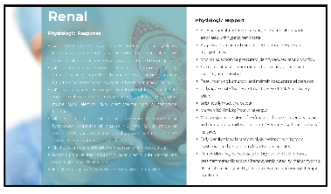

Systemic/Metabolic

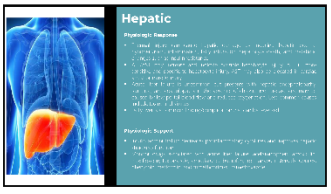

Neurological

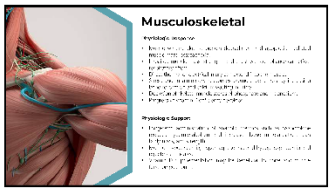

Cardiovascular

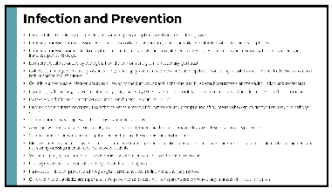

Pulmonary

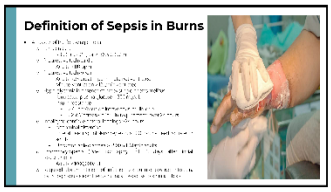

Gastrointestinal

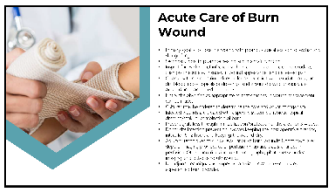

Renal

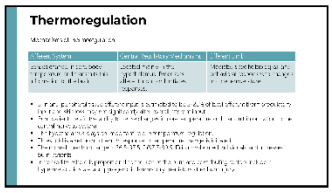

Hepatic

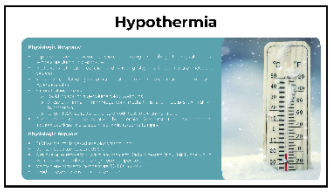

Musculoskeletal

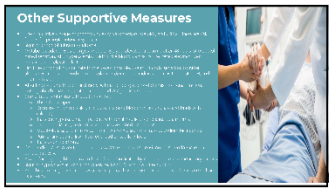

Infection and Prevention

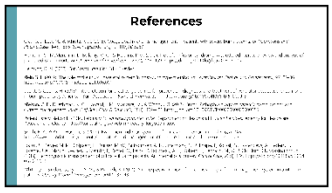

Definition of Sepsis in Burns


Acute Care of Burn Wound


Thermoregulation


Hypothermia


Other Supportive Measures


References

Appendix P

Learning Unit Tracking Form

Name_____

Date Started_____ **Date Completed**_____

Time Spent	Completed?	Initial Management (Competencies 1.1-1.9)
		Initial Management Education
Time Spent	**Completed?**	**Physiologic Support (Competencies 2.1-2.7)**
		Physiological Support Education
Time Spent	**Completed?**	**Wound Management (Competencies 3.1-3.7)**
		Wound Care Education
Time Spent	**Completed?**	**Pain, Agitation, and Delirium Management (Competencies 4.1-4.3)**
		Pain, Agitation, and Delirium Management Education
Time Spent	**Completed?**	**Nutritional Support (Competencies 5.1- 5.2)**
		Nutrition Education
Time Spent	**Completed?**	**Psychosocial Support (Competencies 6.1-6.4)**
		Psychosocial Support Education
Time Spent	**Completed?**	**Rehabilitation (Competencies 7.1-7.3)**
		Burn Therapy Education
Time Spent	**Completed?**	**Discharge Planning and Aftercare Support (Competencies 8.1-8.2)**

		Discharge Planning and Aftercare Education
Time Spent	**Completed?**	**End of Life Care (Competencies 9.1-9.3)**
		Psychosocial Education
Time Spent	**Completed?**	**Team Collaboration (Competencies 10.1-10.3)**
		Team Collaboration Education
Time Spent	**Completed?**	**Burn Care Education (Competencies 11.1-11.2)**
		Burn Care Education

Appendix Q

Executive Summary

Specialty certification is an important method to demonstrate that nurses possess training, expert knowledge, and skill in a specialty field. Specialty certification can improve patient outcomes, patient satisfaction, nursing knowledge, and competency (Coelho et al., 2020; Whitehead et al., 2019). The American Burn Association (ABA) and the Burn Nurse Competency Initiative (BNCI) developed 11 competencies that specify the training, expert knowledge, and skills that nurses require for all aspects of burn nursing practice. The ABA and Board of Certification of Emergency Nurses are in the process of developing a burn certification for nurses and suggest that all burn units begin to adopt these competencies to ensure consistent and competent care (Carrougher et al., 2020).

Throughout the United States, several burn centers have adopted the new ABA competencies (Carrougher et al., 2020). The Bridgeport Hospital Connecticut Burn Center (BH-CBC) is an ABA-verified burn unit that has yet to adopt the competencies. The ABA's Burn Center Verification Review Program is used to establish whether a burn center is meeting the highest standards of care for burn-injured patients. Verification criteria requires burn-specific competency-based training and continued education for all of its nurses (ABA, 2019). The evidence supports adopting the competencies for training and educational programs, the onboarding process, and orientation for new burn nurses at burn centers (Carrougher et al., 2018).

Project objectives include adopting the ABA burn competencies in the Bridgeport Hospital Connecticut Burn Center (BH-CBC), piloting a process for nurses to achieve these

competencies, and improving nursing competency in the initial management and physiological support of burn patients.

The Iowa Model Revised was used to develop and pilot a process for nurses to achieve the ABA competencies. Education modules were created using the book, Total Burn Care (5th ed.). Pre-module and post-module knowledge assessments and self-perceived competency surveys for each module were administered using an online forum. Verbal and observed competency skills were verified using a skills competency checklist.

A total of 12 nurses from the BH CBC participated. All nurses obtained a score of 80% or higher on the post-module knowledge assessments. None of the nurses required a second attempt or one-on-one debriefing. All nurses completed the education program and achieved competency. All 12 nurses demonstrated improved knowledge after completing the first education module, initial management. The mean pre-module knowledge assessment score was 74% ± 5.77, while the mean post-module knowledge assessment score was 94% ± 4.32. All 12 nurses reported improved self-perceived competency. The mean pre-module survey for self-perceived competency was 60% ± 15.90, improving to 72% ± 13.67 on the post-module survey. All 12 nurses reported improved self-perceived competency.

After completing the second education module, physiological support, all 12 nurses showed improved knowledge. The mean pre-module knowledge assessment score was 79% ± 13.33, which improved to 94% ± 5.88 upon module completion. The mean self-perceived competency improved from 57% ± 18.67 to 70% ± 18.78 and 92% (n=11) perceived improved competency after completing the education module.

The results suggest that adapting the ABA competencies into burn nursing practice using education modules and a skills competency checklist can improve knowledge, competency, and

skill. Ensuring that all nurses complete ABA competency-based education may facilitate unit-wide certification by July 2023. A nursing workforce that meets the ABA competencies will facilitate consistent and competent care for burn patients and may improve health outcomes.