



# A National Job Analysis Study of the Wound Specialist

## Conducted for the

## **American Board of Wound Management**

Prepared by

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## **Executive Summary**

The purpose of this study was to identify the knowledge requirements (topics) and responsibilities (tasks) of wound specialists as a first step in the development of a job-related certification examination. The American Board of Wound Management (ABWM) requested the services of AMP, a PSI business (PSI/AMP) to design and conduct a study that would provide the support necessary to develop specifications upon which a content valid certification examination could be built. The ABWM identified the need to ensure that the Examination Specifications would be representative of wound specialists.

The ABWM appointed a Job Analysis Study Advisory Committee (AC) to conduct the activities necessary to identify responsibilities of wound management practitioners and develop Examination Specifications. The diversity of this group was reflective of the specialty areas practiced throughout the United States, and all AC members had demonstrated expertise in their respective areas of specialization.

The study involved development of a web-based job analysis survey, distribution of the survey to target practitioners, and an analysis of their responses. The survey was designed to include three job analyses for wound care associates, wound specialists, and wound specialist physicians. Examination Specifications for wound specialists were developed only on the basis of wound specialist data.

The AC met in January 2016 to initiate the following six tasks:

- 1. Develop a sampling plan
- 2. Identify topics and tasks for the survey instrument
- 3. Identify content categories
- 4. Determine the rating scales
- 5. Determine the relevant demographic variables of interest
- 6. Integrate demographics, rating scales, topics and tasks into a survey instrument

A total of 8,352 survey invitations containing a link to the online job analysis study were e-mailed to wound management practitioners. After adjusting for undeliverable addresses (n=976) and opt outs (n=4), it was determined that approximately 16% of the sample provided usable responses (n=1,184). Among 1,184 respondents, 672 respondents identified themselves as wound specialists and completed the wound specialist part of the survey. The responses to the demographic questions indicated that there were sufficient numbers of respondents in relevant groups for subsequent analysis. Approximately 95% of the respondents felt that the job analysis study at least adequately addressed the responsibilities of wound management practitioners. In addition, respondents used all rating scales with an acceptable level of reliability.

During a second meeting of the AC in September 2016, decision rules were adopted and used to determine which topics and tasks were appropriate for assessment, and therefore for inclusion in the final Detailed Content Outline (DCO). Application of the decision rules and revision based on candidate comments resulted in 52 topics and 45 tasks. It was determined that a total of 125 multiple-choice items would be sufficient to assess these topics and tasks.

## Introduction

The purpose of this study was to identify the knowledge requirements (topics) and responsibilities (tasks) of wound specialists as a first step in the development of a job-related certification examination. The American Board of Wound Management (ABWM) requested the services of AMP, a PSI business (PSI/AMP) to design and conduct a study that would provide the support necessary to develop specifications upon which a content valid certification examination could be built.

The ABWM appointed a Job Analysis Study Advisory Committee (AC) to conduct the activities necessary to identify topics and tasks of wound management practitioners and develop Examination Specifications. The AC was reflective of the wound management professions in all relevant respects, for example: geographic, professional area, level of responsibility, educational background, gender, and work setting. All AC members had demonstrated expertise in their respective areas of specialization. The composition of the AC is shown in Table 1. This AC was responsible for guiding the job analysis for the Certified Wound Specialist® (CWS®) examination, as well as the other examinations offered by ABWM. The ABWM considered it to be important to have an oversight committee with expertise applicable to all three programs, and to have that group work together to provide an integrated approach to the development of examination specifications. PSI/AMP is grateful to these committee members for their guidance and expertise, as well as the time committed to this project. Without the AC's effort and expertise across the various specialty areas, this project would not have been accomplished. In addition, special mention should be made of the valuable contributions of ABWM staff, especially Executive Director, Christopher M. Murphy.

**Table 1. Advisory Committee Members** 

Name and Credentials	Location
Ed Mahoney, DPT, CWS - Chair	Shreveport, LA
Barbara Aung, PT, DPT, CWS	Tucson, AZ
Dawn Franceschina, PT, DPT, CWS	Bloomingdale, IN
Genelle Garcia, PT, DPT, CWS	Norwalk, CT
Uri Gedalia, MD	Houston, TX
Libby Ketchem, BSN, MS, CWS	Evansville, IN
Eric Lullove, DPM, CWS	Boca Raton, FL
Dave Mahon, MD, CWSP	Arlington Heights, IL
Joseph McCulloch, PhD, PT, CWS	Shreveport, LA
Yvette Monteleon, RN, CWS	Lafayette, LA
Dereck Ruvalcaba, CRT, CHT, CWCA	Sheppard AFB, TX
Christopher M. Murphy, ABWM Executive Director, Ex Officio	Washington, DC

In the next section of this final report, the methodology of the study is discussed. In particular, the design of the survey instrument is described, including the method of defining topics, tasks, rating scales, and demographic questions. Also discussed in the methodology section is the sampling plan and distribution of the web-based survey. The results section of this report discusses the respondents and their demographics, the adequacy of the instrument, and a summary of the responses. The final section of this report discusses the development of the Examination Specifications based on these data. Several appendices provide details used to substantiate the discussion.

## Methodology

The AC considered various resource materials that could be useful in understanding the topics and tasks of wound specialists. The primary resource was the previous job analysis survey and the Detailed Content Outline (DCO) developed on the basis of previous job analysis conducted in 2012. Other materials assembled prior to the first meeting of the AC included orientation materials, a draft of rating scales for the survey, and a timeline for conducting the study. Background information was provided regarding both the job analysis process (and its relationship to the examination development process) and ABWM's role in the continuing development of the CWS certification examination. Six major tasks were initiated during the AC meeting held in January 2016. These steps included:

- 1. Developing a sampling plan
- 2. Identifying topics and tasks for the survey instrument
- 3. Identifying content categories
- 4. Determining the rating scales
- 5. Determining the relevant demographic variables of interest
- 6. Integrating demographics, rating scales, topics and tasks into a survey instrument

A summary of each activity follows.

### 1. Developing a sampling plan

The AC considered various methods of identifying individuals who consider themselves to be practitioners in wound management, or who would be knowledgeable about the duties of practitioners in wound management. In selecting individuals to be sampled, an effort was made to ensure an appropriate sampling of all three groups of wound care associates, wound specialists, and wound specialist physicians, with the primary sample of interest of the wound management practitioners currently certified by ABWM. E-mail invitations were sent to a combined list of ABWM credential holders and prospectives for potential wound specialist respondents.

#### 2. Identifying topics and tasks for the survey instrument

The draft list was thoroughly discussed during the meeting held in January 2016. Topics of knowledge required in the wound management profession and tasks representing individual job responsibilities of each job covered in the survey were modified, added, and removed. All topics and tasks were verified as being appropriately linked to the associated content category (e.g., Wound Healing Environment). At the conclusion of this meeting, a draft list that included 54 topics of knowledge, 59 tasks of wound care associates, 46 tasks of wound specialists, and 45 tasks of wound specialist physicians were developed for review by the AC. After review of the draft list, the AC authorized development of the final survey, as shown in Appendix A.

#### 3. Identifying content categories

The AC identified five content categories, under which the 54 topics were categorized into subcategories. The AC unanimously agreed on the linkage of each topic to the respective content category. The categories were as follows:

- 1. Wound Healing Environment
- 2. Assessment and Diagnosis
- 3. Patient Management
- 4. Etiological Considerations
- 5. Professional Issues

Forty-six (46) wound care associate tasks were also categorized into the following subcategories:

- 1. History and Physical Examination
- 2. Evaluation and Diagnosis
- 3. Treatment
- 4. Follow-up Care
- 5. Professional Practice

### 4. Determining the rating scales

The AC discussed the advantages and disadvantages of various rating scales that could be used in responding to the topics and tasks. PSI/AMP suggested the use of a single importance scale. This single scale is intended to solicit judgments on the importance of topics or tasks after first considering the extent to which it is necessary to the performance in practice. The importance scale adopted by the AC is shown below; the instructions for respondents for use of the scale are included in the directions section of the survey instrument, as shown in Appendix A.

How important is this topic/task to your practice as a wound specialist?

0 = Not applicable

1 = Not very important

2 = Important

3 = Very important

4 = Essential

#### 5. Determining the relevant demographic variables of interest

The AC identified 15 relevant and important demographic survey variables. Since this was a national study, it was important to identify the respondents' geographic regions of employment. Other demographic questions were written to assess characteristics of the representativeness of the respondents, including level of education, primary professional designation, specialty area, board certifications, years of experience, percentage of work that involves wound management, primary place of practice/employment, other practice settings, certifications, gender, age, and ethnicity. The full list of demographic questions is located in Appendix A, the survey instrument.

#### 6. Integrating demographics, rating scales, topics and tasks into a survey instrument

After the first meeting, all components of the survey (demographics, rating scales, 54 topics, 59 wound care associate tasks, 46 wound specialist tasks, and 45 wound specialist physician tasks) were combined into a draft survey instrument. The survey was designed to direct respondents to complete the topic portion and only the relevant task portion. As a pilot test, this draft was distributed to the AC and other individual content experts via an e-mail message, which included a link to the survey. Following a review of the comments, the final survey with minor edits was prepared and distributed via an e-mail invitation. A copy of the survey instrument can be found in Appendix A.

## **Results**

The survey was accessible via the Internet through the response deadline of May 6, 2016. Of the 8,352 e-mail invitations distributed, 976 e-mails were returned due to undeliverable addresses and 4 replied to opt out the study. A total of 1,276 respondents accessed the survey, providing a raw response rate of approximately 17%. After reducing the sample size for participants who completed 0% of the survey (no ratings provided for any topics or tasks) and duplicates (n=92), a total of 1,184 responses were considered to be valid responses, for a corrected response rate of 16%.

## **Demographic Information**

Out of 1,138 respondents who responded to the certification qualification question, 672 respondents (59.1%) identified themselves as those who would qualify for the CWS certification examination (as shown in *Figure 1*). Summaries of the percentage of these respondents to the demographic questions are shown in this section. Frequency distributions for the demographic responses are included in Appendix B. Based on discussion with the AC, the demographic data were as expected, and judged to be representative of the profession. In addition to ensuring that the respondent group was representative, it was important to evaluate whether responses were received in appropriate numbers from relevant subgroups. The AC determined that a sufficient response was received from relevant subgroups for subsequent analysis.

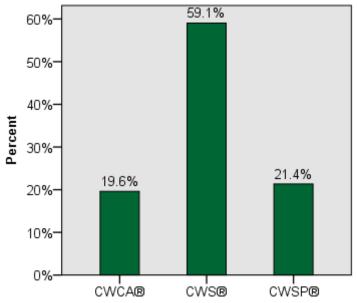


Figure 1. The highest ABWM certification that you would qualify for or already hold

#### Qualifications:

- CWCA® Certified Wound Care Associate® -- associate degree or diploma RNs, LPNs, LVNs, PTAs, OTAs, all certified
  healthcare assistants, healthcare administrators, dietitians, sales and marketing professionals, educator, and academic
  researchers.
- CWS® Certified Wound Specialist® -- a Bachelor's degree or higher, and a license or certification as one of these: RN, NP, CNS, PA, PT, OT, DMD, DVM.
- CWSP® Certified Wound Specialist Physician® -- MD, DO, or DPM

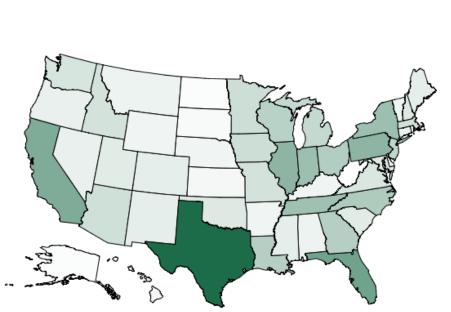


Figure 2. In which state do you primarily practice?

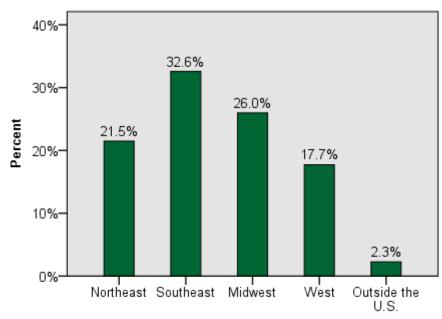


Figure 3. In which state do you primarily practice? (Recoded into region)

- •Northeast: CT, DC, DE, MA, MD, ME, NH, NJ, NY, PA, RI, VA, VT
- Southeast: AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, TX, WV
- Midwest: IA, IL, IN, KS, MI, MN, MO, ND, NE, OH, OK, SD, WI
- West: AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, WY

Survey respondents were asked to indicate in which state they practice. Distribution in the U.S. is shown in *Figure 2*. States were then grouped into geographic regions. As shown in *Figure 3*, the largest group of respondents (32.6%) was from the Southeast.

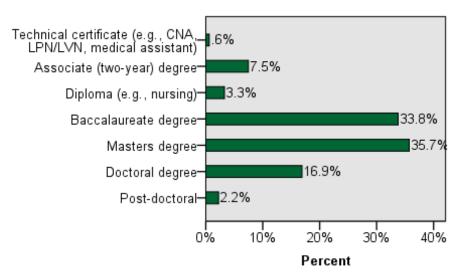


Figure 4. Which of the following best describes your highest level of education (or equivalent)?

Figure 4 shows that the largest group (35.7%) of respondents reported a Master's Degree as the highest level of education; followed closely by those whose highest level of education is a Baccalaureate Degree (33.8%).

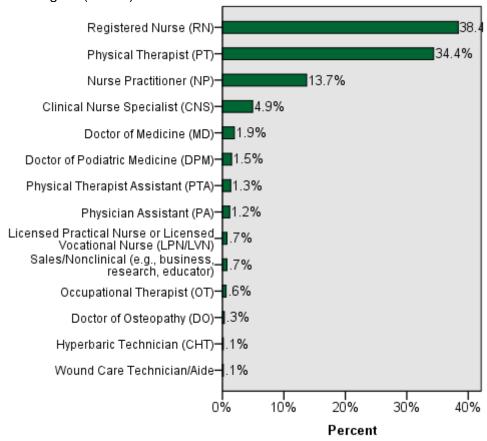


Figure 5. Which of these best describes your primary professional designation?

As shown in Figure 5, the majority of respondents were RN (38.4%) or Physical Therapist (34.4%).

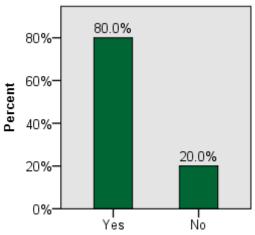


Figure 6. Do you have a specialty area outside of wound care?

Figure 6 shows that the majority of respondents (80.0%) indicated they had a specialty outside of wound care. For those who indicated another specialty, they were followed up with openended questions on their special area(s) and their specialty board certification(s). Responses are shown in Appendix C.

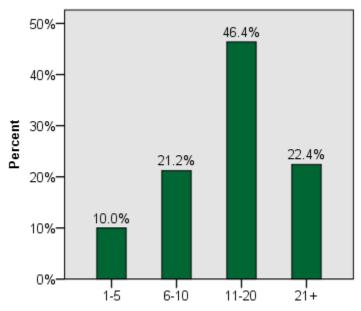


Figure 7. How many years of experience do you have in the field of Wound Management? (Recoded)

Survey respondents were asked to indicate their years of experience in the field of Wound Management. As shown in *Figure* 7, professionals with various years of experience were represented.

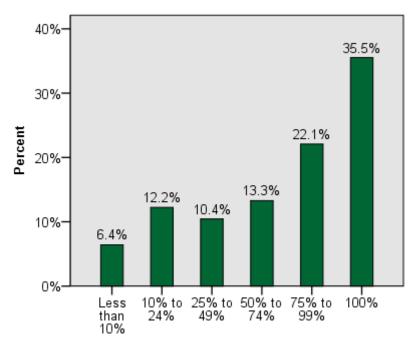


Figure 8. What percentage of your work involves wound management?

Survey respondents were then asked to indicate the percentage of their work that involved wound management. As shown in *Figure 8*, the largest group (35.5%) of respondents indicated 100% of their work involved wound management.

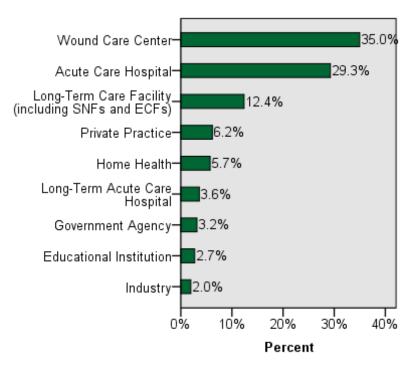


Figure 9. What is your primary place of practice/employment?

Survey respondents were then asked to indicate their primary place of practice/employment and possibly other settings. *Figure 9* shows 35.0% of respondents primarily worked in wound care centers. Approximately 27.7% of respondents worked only in one setting. Among the 72.3% who worked in more than one setting, 30.9% indicated that they also worked in acute care hospitals, as can be seen in Table 2.

Table 2. In which of these other settings do you also practice? (Select all that apply.) (N=563)

	Frequency	Percent
Acute Care Hospital	174	30.9
None	156	27.7
Wound Care Center	116	20.6
Long-Term Care Facility (including SNFs and ECFs)	80	14.2
Home Health	69	12.3
Long-Term Acute Care Hospital	39	6.9
Private Practice	38	6.7
Educational Institution	27	4.8
Government Agency	21	3.7
Industry	9	1.6
Total	729	129.5

\*Note. Because respondents were allowed to choose more than one answer, percentages may not sum to 100.

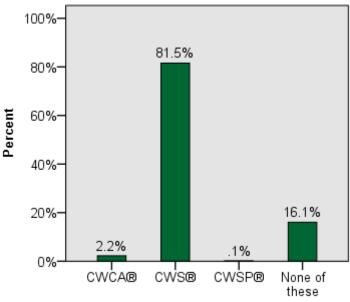


Figure 10. Which of these certifications do you hold?

Figures 10 and 11 summarize the certifications survey respondents held. Approximately 81.5% of respondents held the CWS certification while 18.5% would qualify but did not hold the certification. A small group of respondents (19.7%) also held another certification in wound care.

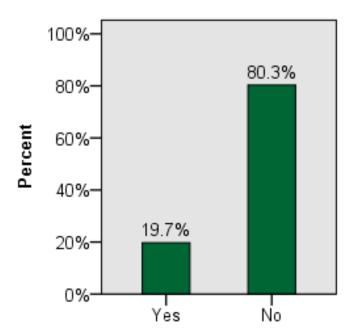


Figure 11. Do you currently hold another certification in wound care?

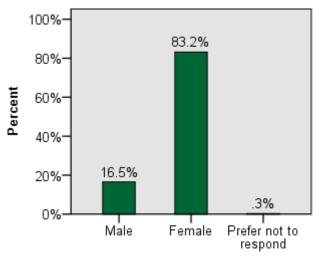


Figure 12. Gender

The gender of survey respondents is shown in *Figure 12*. The majority of respondents (83.2%) were female.

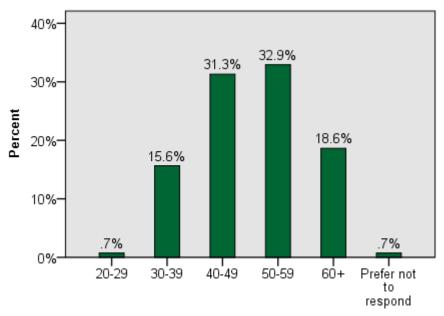


Figure 13. Age

The age distribution of survey respondents is shown in *Figure 13*. The largest group of respondents (32.9%) were in their 50s. However, all age groups were represented.

As shown in Table 3, the majority of respondents (84.9%) described themselves as non-Hispanic White, which the AC judged to be reflective of the population of wound specialists.

Table 3. Ethnicity (Select all that apply.) (N=667)

	Not Hispanic		Hispanic	
	Frequency	Percent	Frequency	Percent
White	566	84.9	33	4.9
Black or African American	27	4.0	1	0.1
American Indian or Alaska Native	12	1.8	1	0.1
Asian	49	7.3	3	0.4
Native Hawaiian or Other Pacific	6	0.9	2	0.3
Islander				
Total	660	98.9	40	5.8

\*Note. Because respondents were allowed to choose more than one answer, percentages may not sum to 100.

In summary, the demographic results were generally as expected. Although some of the analyses documented later in this report will investigate differences among various demographic groups, a description of the typical respondent may be of interest. This individual could generally be described as follows:

The typical respondent is a non-Hispanic, white female in her 50s, who works in a wound care center in the Southwest. She is a Registered Nurse who holds a Master's Degree and CWS certification with 11-20 years of experience in the field of wound management. Her current work only involves wound management.

The AC concluded that this information is consistent with the population of wound specialists, and that a sufficient number of responses in relevant subgroups was received to facilitate subsequent analysis.

## **Adequacy of the Instrument**

Among 671 respondents who would qualify for the CWS certification and responded to the question shown in *Figure 14*, which appeared at the end of the survey, 95% felt that the job analysis study at least adequately addressed the knowledge required to perform critical tasks as a wound specialist. Another aspect of the adequacy of the instrument relates to its reliability.

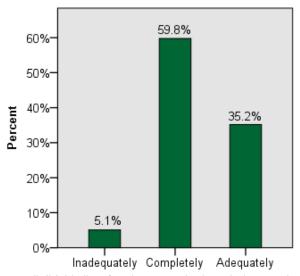


Figure 14. How well did this list of topics cover the knowledge required to perform critical tasks in your role as a CWS?

In Tables 4 and 5, the reliability estimates of both the ratings and the raters (or respondents) are shown for topics and tasks. Topic/task reliability estimates show to what extent each scale "hangs together." A high topic/task reliability value may indicate that the scale represents a consistent collection. Rater reliability estimates are more important and indicate the degree to which raters agree on the importance of an item. Overall, the calculated reliability estimates are quite acceptable.

**Table 4. Reliability Estimates of Topics** 

	Reliability (consistency)			
Survey Subsection	N	Between Topics (Coefficient Alpha)	Between Respondents (Intraclass Correlation)	# of Topics
Wound Healing Environment	650	0.912	0.994	9
II. Assessment and Diagnosis	660	0.885	0.993	8
III. Patient Management	629	0.893	0.998	15
IV. Etiological Considerations	657	0.932	0.998	14
V. Professional Issues	665	0.888	0.992	8
Total	581	0.964	0.997	54

<sup>\*</sup> Only those who responded to every topic within the section were included for these analyses.

**Table 5. Reliability Estimates of Tasks** 

	Reliability (consistency)			
Survey Subsection	N	Between Tasks (Coefficient Alpha)	Between Respondents (Intraclass Correlation)	# of Tasks
History and Physical Examination	646	0.867	0.994	9
2. Evaluation and Diagnosis	633	0.846	0.998	12
3. Treatment	632	0.907	0.996	16
4. Follow-up Care	650	0.835	0.994	5
5. Professional Practice	655	0.784	0.995	4
Total	577	0.958	0.996	46

<sup>\*</sup> Only those who responded to every task within the section were included for these analyses.

## **Topic and Task Ratings**

Descriptive data for each of the 54 topics and 46 tasks are presented in Appendices C and D. While relative comparisons of the data are appropriate (e.g., when comparing topics, the topic with the higher mean rating could be said to be more important to practice), it is important to consider the absolute meaning of the ratings. The reader should bear in mind that the response options (also known as anchors) for the importance scale were: 0) Not applicable, 1) Not very important, 2) Important, 3) Very important, and 4) Essential.

The mean of the ratings is based on all ratings of importance and does not include the zero (i.e., not applicable) ratings. Therefore, the mean importance ratings shown in Appendices C and D represent the level of importance judged by the respondents who believed that the topic or the task was necessary to practice.

The mean importance ratings for topics ranged from 1.97 (for topic 27: 3. Patient Management G. Biophysical technologies 3. Laser therapy) to 3.85 (for topic 12: 2. Assessment and Diagnosis C. Wound and skin assessment). The mean rating of importance, calculated across all 54 topics, was 3.29, with a standard deviation of 0.43. A grouped frequency distribution of the overall mean ratings for the 54 topics is shown in Table 6.

**Table 6. Distribution of Mean Topic Ratings** 

Mean Rating	N	%
<i>3.50 - 4.00</i>	19	35.2%
3.00 - 3.49	26	48.1%
2.50 - 2.99	5	9.3%
2.00 - 2.49	2	3.7%
Less than 2.00	2	3.7%
Total	54	100.0%

The mean importance ratings for tasks ranged from 2.20 (for task 15: Evaluate wounds using the following standardized grading systems: 15. University of Texas system) to 3.68 (for task 1: 1. Obtain history of present illness (e.g., wound duration, etiology, previous treatments, medication reconciliation, and comorbidities)). The mean rating of importance, calculated across all 46 tasks, was 3.23, with a standard deviation of 0.38. A grouped frequency distribution of the overall mean ratings for the 46 tasks is shown in Table 7.

**Table 7. Distribution of Mean Task Ratings** 

Mean Rating	N	%
3.50 - 4.00	16	34.8%
3.00 - 3.49	19	41.3%
2.50 - 2.99	9	19.6%
2.00 - 2.49	2	4.3%
Less than 2.00	0	0.0%
Total	46	100.0%

## **Ratings of Various Demographic Groups**

The demographic questions were included in the survey to provide descriptive information about the respondents. For some demographic questions, however, it is important to ensure that individuals from different subgroups view the topics of knowledge required for wound specialists similarly, and that the ratings exceed a level of importance sufficient to warrant inclusion on a national examination. Means, standard errors, and number of respondents providing ratings from each subgroup for the 54 topics are included in Appendix E. In addition, the final column (labeled C) shows the number of subgroups with a mean rating below 2.5, or below average importance.

## **Examination Specifications**

In developing Examination Specifications (or a DCO), committee judgment must be used in interpreting the data gathered through the job analysis study. For purposes of this report, the Examination Specifications will be defined as the confidential document that is used to guide the examination development process, and includes sufficient detail to ensure the development of comparable examination forms. The DCO can be defined as a subset of the Examination Specifications; it is a document that includes a detailed listing of content available in outline form for candidates and item writers. For this examination, the DCO includes topics with a supplemental task list. Every examination item must be linked to the DCO as a first step in meeting the Examination Specifications during the examination development process.

Of particular importance to a national certification examination program is that the Examination Specifications must appropriately reflect the knowledge requirements and responsibilities of all groups who will participate in the certification program. Therefore, it is important to ensure that neither the Examination Specifications nor the resulting examinations include topics or tasks that are not considered to be important for whom the examination is intended.

Shown in Appendix C are the mean importance ratings for each topic and task summarized for the total group. Several decision rules were proposed for consideration by the AC in determining criteria by which topics or tasks should be considered *ineligible* for assessment, and therefore excluded from the DCO. The general areas for consideration were discussed by the AC during a meeting held in September 2016, and for topics particularly, the areas for consideration were also based on a variety of the demographic characteristics included in the survey.

The decision rules adopted by the AC, the order in which they were applied, and their impact on exclusion of topics are discussed in detail in the following section and summarized in Tables 8 through 11. Applying the decision rules ensures that the resulting examination reflects the topics and tasks of wound specialists, as judged by a demographically representative group of wound specialists.

## **Application of Decision Rules and Criteria to Topics**

1. Is the topic part of practice?

Based on responses from those who would qualify for CWS certification examination, a topic is eligible for assessment if 67% or more of the respondents report that it is part of practice (i.e., provided a non-zero rating). Application of this decision rule did not eliminate any topics.

2. Is the topic important to practice?

Based on responses, a topic is eligible for assessment if the overall mean rating is at least 2.5. Ratings at this level clearly indicate that a topic was judged to be important by respondents. Application of this decision rule eliminated Topics 26 and 27. Topics 24 and 25 were retained by unanimous committee agreement.

3. Is the topic important throughout the United States and outside the U.S.? Subgroups: Northeast; Southeast; Midwest; West; Outside the U.S.

The AC determined that for a topic to remain eligible for assessment by this decision rule, it should have received a mean rating of at least 2.5 from all four U.S. regions and those outside

the U.S. Application of this decision rule eliminated no additional topics which had not been eliminated by the previous decision rules.

4. Is the topic important for wound specialists regardless of educational preparation? Subgroups: Technical certificate; Associate degree; Diploma; Baccalaureate degree; Masters degree; Doctoral degree; Post-doctoral

It was decided a topic should remain eligible if it received a mean rating of at least 2.5 from all 4 subgroups. Application of this decision rule did not eliminate any additional topics. Topic 30 was eliminated by the decision rule, but retained by unanimous committee agreement.

5. Is the topic important for wound specialists regardless of years of experience? Subgroups: 1-5 years; 6-10 years; 11-20 years; 21 years or more

It was decided a topic should remain eligible if it is considered important by wound specialists with various years of experience. A topic was included if it received a mean rating of at least 2.5 from all 4 subgroups. Application of this decision rule did not eliminate any additional topics.

6. Is the topic important regardless of percentage of work involved wound management? Subgroups: 0-24%; 25-74%; 75-100%

A topic should be included for assessment if it is considered important regardless of what percentage of their work involves wound management. A topic was retained if it received a mean rating of at least 2.5 from all 3 subgroups. Application of this decision rule did not eliminate any additional topics.

7. Is the topic important regardless of CWS certification status? Subgroups: certified; not certified

A topic should be included for assessment if it is considered important regardless of CWS certification status. A topic was retained if it received a mean rating of at least 2.5 from both subgroups. Application of this decision rule did not eliminate any additional topics.

**Table 8. Decision Rules and Criteria to Remove Topics** 

	<b>Decision Rule</b> The topic must be:	Criteria	Topics Eliminated
•	part of practice	At least 67% of the respondents reporting a non-zero rating	None
•	important to practice	Overall mean rating at least 2.5	26, 27, 24*, 25*
•	important throughout the United States and outside the U.S.	Mean rating at least 2.5 in all 4 U.S. regions and outside the U.S.	No additional topics
•	important regardless of educational preparation	Mean rating at least 2.5 in all 4 subgroups	30*
•	important for regardless of years of experience	Mean rating at least 2.5 in all 4 subgroups	No additional topics
•	important regardless of what percentage of their work involves wound management	Mean rating at least 2.5 in all 3 subgroups	No additional topics
•	important for regardless of CWS certification status	Mean rating at least 2.5 in both subgroups	No additional topics

<sup>\*</sup> Topic retained by unanimous committee agreement.

After all decision rules were applied, the committee was asked again if each of the topics identified for elimination should be deleted. The committee agreed unanimously on the application of all decision rules. As a result of implementing the decision rules, 2 topics (i.e., 26, 27) were removed from the topic list, as listed in Tables 8 and 9.

In addition, the AC reviewed the comments offered by the survey respondents; in particular, those comments that suggested that additional topics would be appropriate to practice. Following discussion, it was decided that no additional topics were needed to appropriately reflect practice or would be needed to construct CWS examination forms. However, one topic was edited to better reflect the practice.

In summary, application of the decision rules and review of the topic list resulted in a total of 52 topics out of the original 54 topics (96.3%) remaining eligible for assessment, from which a DCO and Examination Specifications could be generated.

Table 9. Topics Eliminated by Decision Rules

No. Topic	Topic Eliminated
26	3. Patient Management G. Biophysical technologies 3. Light therapy
27	3. Patient Management G. Biophysical technologies 4. Laser therapy

## **Application of Decision Rules and Criteria to Tasks**

#### 1. Is the task part of practice?

Based on responses from those who would qualify for CWS certification examination, a task is eligible for assessment if 67% or more of the respondents report that it is part of practice (i.e., provided a non-zero rating). Application of this decision rule eliminated Task 15.

### 2. Is the task important to practice?

Based on responses, a task is eligible for assessment if the overall mean rating is 2.5 or higher. Ratings at this level clearly indicate that a task was judged to be important by respondents. Task 18 was eliminated by the decision rule, but retained by unanimous committee agreement.

Table 10. Decision Rules and Criteria to Remove Tasks

<b>Decision Rule</b> The task must be:	Criteria	Tasks Eliminated
• part of practice	At least 67% of the respondents reporting a non-zero rating	15
• important to practice	Overall mean rating at least 2.5	18*

<sup>\*</sup> Task retained by unanimous committee agreement.

After all decision rules were applied, the committee was asked again if each of the tasks identified for elimination should be deleted. The committee agreed unanimously on the application of all decision rules. As a result of implementing the decision rules, one task (i.e., 15) was removed from the task list, as listed in Tables 10 and 11.

In addition, the AC reviewed the comments offered by the survey respondents, in particular, those comments that suggested that additional tasks would be appropriate to practice. Following discussion, it was decided that no additional tasks were needed to appropriately reflect practice or would be needed to construct CWS examination forms.

In summary, application of the decision rules and review of the task list resulted in 45 tasks remaining from the original 46 tasks (97.8%). The task list will be used as a supplement of topic-based DCO.

Table 11. Tasks Eliminated by Decision Rules

No. Task	Task Eliminated
15	Evaluate wounds using the following standardized grading systems: 15. University of Texas system

## Confirmation of the Link between Topics/Tasks and Content Categories

When developing the survey, the AC determined that each topic and task was clearly linked to the associated content category. During the meetings in September 2016, the AC reconfirmed that linkage. Item writers will be instructed to classify items according to a specific topic and to ensure that the item is associated with the major content category. When approving items, the Examination Development Committee (EDC) will similarly confirm that linkage.

## **Development of Final Detailed Content Outline and Examination Specifications**

For the CWS examination, a DCO can be defined as a detailed listing of content available in outline form for candidates and item writers. The final 52 topics and 45 tasks were organized into the DCO, which may be used by candidates for preparation for the examination. The Examination Specifications based on topics remain confidential and are only used for examination development purposes. As shown in Appendix F, Examination Specifications incorporate the detailed content of the DCO, and also include other information needed to ensure the development of comparable examination forms, as discussed in this section.

The AC determined that the remaining 52 topics could be appropriately assessed by way of a total of 125 multiple-choice examination items to ensure appropriate content coverage. Item writers will be advised that any knowledge area underlying a topic may be appropriate for assessment, and that the item should be directly related to the topic, at an appropriate level of cognitive performance.

The AC determined that all items would be classified as requiring recall, application, or analysis on the part of the candidate. For purposes of such classification, the AC adopted the definitions shown in Table 12.

**Table 12. Cognitive Level Definitions** 

Level	Definition	
Recall	Requires recall or recognition of specific facts or concepts which generally does not vary relative to the situation.	
Application	Requires the comprehension, interpretation, or manipulation of concepts or information to a given situation.	
Analysis	Requires integration or synthesis of a variety of concepts or information to problem solve, integrate or make judgments about a situation (i.e., evaluating and rendering judgments on complex problems with many situational variables).	

After agreeing on the number of items on the examination, the AC discussed how these items should be distributed across the content categories. Based on the importance of the topic ratings, the breadth of content within each major content category, and the numbers recommended by survey respondents, the committee members used an iterative process to determine the number of items for each content category, as shown in Table 13.

During the present study, a variety of approaches were considered to establish the cognitive level distributions within the minor categories. The last column in Table 13 shows the unanimous agreement of the AC reached during the September 2016 meeting regarding the cognitive level distribution targets adopted for the Examination Specifications.

**Table 13. Overview of Examination Specifications** 

Content Category	Number of Items	Distribution (Recall-Application-Analysis)
1. Wound Healing Environment	20	12-6-2
2. Assessment and Diagnosis	33	7-16-10
3. Patient Management	30	4-15-11
4. Etiological Considerations	32	4-15-13
5. Professional Issues	10	3-6-1
Total Scored Items	125	30-58-37

## **Appendix A. Job Analysis Survey**

Welcome	
	Welcome to the Job Analysis Survey for Wound Management Practitioners
examinations. You vasked to rate knowled	used to help define the content for the CWCA, CWS, and CWSP certification will be asked demographic questions about your background and practice, and then edge and tasks that may be applicable to your practice. Your ratings will provide ne requirements related to the effective job performance as a CWCA, CWS, or CWSP.
All respondents wi Sport!	ho complete the survey will be entered into a drawing for a 38mm Apple Watch
•	take approximately 20 minutes to complete. You will be able to close the survey and you left off if you do not complete the survey in one session.
If you experience an	ny technical difficulties, send an email to: <u>ABWMJAsurvey@goAMP.com</u> .
This sur	rvey is being conducted by American Board of Wound Management (ABWM)
	Please click 'Next' below to begin the survey.

Demographics		
Please answer the following questions about your will be used only to analyze the data across different professional designation; respondents w	ent (	groups of respondents (e.g., respondents with
In which state do you primarily practice?		
If "Outside the U.S." is selected, where do you	pra	ctice?
Which of the following best describes your highest lev	el of	f education (or equivalent)?
High school	$\bigcirc$	Baccalaureate degree
Technical certificate (e.g., CNA, LPN/LVN, medical assistant)	$\bigcirc$	Master's degree
Associate (two-year) degree	$\bigcirc$	Doctoral degree
Diploma (e.g., nursing)	$\bigcirc$	Post-doctoral Post-doctoral

Demographics			
* Which of these best describes your primary profess	ional designation?		
Clinical Nurse Specialist (CNS)	Nursing Assistant (e.g., CNA)		
Dietitian (i.e., RD)	Occupational Therapist (OT)		
Doctor of Medical Dentistry (DMD)	Occupational Therapist Assistant (OTA)		
Octor of Medicine (MD)	Physical Therapist (PT)		
Doctor of Osteopathy (DO)	Physical Therapist Assistant (PTA)		
Doctor of Podiatric Medicine (DPM)	Physician Assistant (PA)		
Doctor of Veterinary Medicine (DVM)	Registered Nurse (RN)		
Hyperbaric Technician (CHT)	Respiratory Therapist (RT)		
Licensed Practical Nurse or Licensed Vocational Nurse (LPN/LVN)	Wound Care Technician/Aide		
Medical Assistant (e.g., CMA)	Sales/Nonclinical (e.g., business, research, educator)		
Nurse Practitioner (NP)			

Demographics	
Do you have a specialty area outside of wound care?	
◯ Yes ◯ No	

hat is your specialty area?	
nat is your specialty area?	
ease list your specialty board certifications:	

Demographics		
How many years of experience do you have in the field of Wound Management?		
What percentage of your work involves wound management?  Less than 10%  10% to 24%		
25% to 49% 50% to 74% 75% to 99% 100%		

Demographics
What is your primary place of practice/employment?
Acute Care Hospital
Cong-Term Acute Care Hospital
Long-Term Care Facility (including SNFs and ECFs)
Home Health
Wound Care Center
Private Practice
Educational Institution
Industry
Government Agency
In which of these other settings do you also practice?  Select all that apply.
Acute Care Hospital
Long-Term Acute Care Hospital
Long-Term Care Facility (including SNFs and ECFs)
Home Health
Wound Care Center
Private Practice
Educational Institution
Industry
Government Agency
None

Demographics
Which of these certifications do you hold?
○ CWCA®
○ cws®
○ cwsp®
None of these
Do you currently hold another certification in wound care?
No
Yes (Please specify)

Demographics - Option	al	
What is your gender?		
Male		
Female		
Prefer not to respond		
What is your age?		
20-29		
30-39		
40-49		
50-59		
60+		
Prefer not to respond		
Which of the following bes Select all that apply.	Not Hispanic	? Hispanic
White		
Black or African American		
American Indian or Alaska Native		
Asian		
Native Hawaiian or Other Pacific Islander		

Ratings of Wound Management Knowledge
Topics that may be important to your wound management practice will follow. Use the scale below to express your judgment of the significance of each topic as it applies to your current practice. Please note that this is a two-part scale. First consider whether you need to have that knowledge as a wound care practitioner; if you do not, answer "Not applicable." If you need to have that knowledge, indicate how important it is by selecting the appropriate response.
Not applicable Not very important Important
Very important Essential

Wound Healing Environment					
	Not applicable	Not very important	Important	Very important	Essential
A. Anatomy 1. Integumentary	$\circ$	0	0	0	$\circ$
2. Musculoskeletal	$\circ$	$\circ$	$\circ$	0	$\circ$
3. Vascular	$\circ$	$\circ$			
4. Neurological	$\circ$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
5. Lymphatic	$\circ$	$\circ$		$\circ$	
6. Other systems (e.g., endocrine, renal, respiratory, immunologic)	$\circ$	$\bigcirc$	$\bigcirc$	$\circ$	$\bigcirc$
B. Wound Healing 1. Phases	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$
Cell function (e.g., signaling proteins, cellular mediators)	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
3. Acute vs. chronic	$\circ$				

Vound Management Knowle	edge				
. Assessment and Diagnosis		Not very			
A Listan	Not applicable	important	Important	Very important	Essential
A. History     B. Physical examination		0	0	0	0
C. Wound and skin assessment	0	0		0	0
D. Pain assessment					0
E. Risk assessment		0		0	0
F. Functional assessment	0	0	0	0	0
G. Laboratory/Imaging	0	0	0	0	0
H. Nutrition	0	0		0	0

III. Patient Management  Not very important  Important  Not very important  Important  Very important  A. Wound bed preparation/debridement  B. Dressings  C. Cellular and/or tissue products for wounds  D. Topical agents  C. Complications in healing (including local and systemic factors)  F. Nutrition  G. Biophysical technologies  1. Electrical stimulation	Essential  O O O O
A. Wound bed preparation/debridement  B. Dressings  C. Cellular and/or tissue products for wounds  D. Topical agents  E. Complications in healing (including local and systemic factors)  F. Nutrition  G. Biophysical technologies 1. Electrical stimulation	0 0 0 0
B. Dressings  C. Cellular and/or tissue products for wounds  D. Topical agents  E. Complications in healing (including local and systemic factors)  F. Nutrition  G. Biophysical technologies 1. Electrical stimulation	0 0 0
wounds  D. Topical agents  E. Complications in healing (including local and systemic factors)  F. Nutrition  G. Biophysical technologies 1. Electrical stimulation	0
E. Complications in healing (including local and systemic factors)  F. Nutrition  G. Biophysical technologies 1. Electrical stimulation	0
Iocal and systemic factors)  F. Nutrition  G. Biophysical technologies 1. Electrical stimulation	0
G. Biophysical technologies 1. Electrical stimulation	
1. Electrical stimulation	$\bigcirc$
	$\circ$
2. Ultrasound	$\bigcirc$
3. Light therapy	$\circ$
4. Laser therapy	$\bigcirc$
H. Compression therapy	$\circ$
I. Negative pressure wound therapy	$\circ$
J. Hyperbaric oxygen therapy	0
K. Pressure redistribution (i.e., offloading)	$\bigcirc$
L. Surgical closure or tissue transfer	$\circ$

	Not applicable	Not very important	Important	Very important	Essential
A. Neuropathy	0		0	0	$\circ$
3. Diabetes	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
C. Venous insufficiency	$\circ$		$\bigcirc$	$\circ$	
). Ischemia	$\bigcirc$		$\bigcirc$	$\bigcirc$	$\bigcirc$
. Pressure ulcers	$\circ$	$\circ$	$\circ$	$\circ$	
Edema (i.e., systemic vs. local)	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
S. Lymphedema	$\circ$		$\circ$	$\circ$	
H. Trauma	$\bigcirc$		$\bigcirc$	$\bigcirc$	
Surgical	$\circ$		$\circ$	$\circ$	
. Atypical wounds (e.g., malignancy)	$\bigcirc$			$\bigcirc$	$\bigcirc$
C. Dermatological	$\circ$		$\circ$	$\circ$	
Infectious	$\bigcirc$		$\bigcirc$	$\bigcirc$	$\bigcirc$
1. Burns	$\circ$		$\bigcirc$	$\circ$	
I. Neonatal and Pediatric Issues	0	0		0	0

	Not applicable	Not very important	Important	Very important	Essential
A. Documentation	O O			O	Cosertial
B. Patient adherence	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$
C. Legal concepts			$\circ$	$\circ$	
D. Reimbursement and medical economics	$\bigcirc$	$\circ$	$\circ$	$\bigcirc$	$\bigcirc$
E. Medical ethics (e.g., palliative care, reasonable expectation of outcomes)	0	0	0	0	$\circ$
F. Multidisciplinary teams	$\bigcirc$	$\bigcirc$		$\bigcirc$	$\bigcirc$
G. Epidemiology	$\circ$	0	$\circ$	0	$\circ$

	ation programs for practitioners with wound management experience.
Please select the highest certific	cation that you would qualify for (or already hold):
	associate® associate degree or diploma RNs, LPNs, LVNs, PTAs, OTAs, all certified administrators, dietitians, sales and marketing professionals, educator, and academic
CWS® - Certified Wound Specialis PA, PT, OT, DMD, DVM.	st® a Bachelor's degree or higher, and a license or certification as one of these: RN, NP, CNS,
CWSP® - Certified Wound Special	list Physician <sup>®</sup> MD, DO, or DPM
How well did this list of topics co	over the knowledge required to perform critical tasks in your role as a
Completely	
Adequately	
Inadequately - Please specify wha	at topics were missing.
areas:	/ CWS / CWSP examination should be included in each of the following
Do not use percentage sign. Re	sponses snould sum up to 100.
I. Wound Healing Environment	
II. Assessment and Diagnosis	
III. Patient Management	
IV. Etiological Considerations	
V. Professional Issues	

You indicated that you would qualify for (or a	already hold) the CWCA certification.
Which category best describes you?	
Associate Degree RN	Healthcare Assistant
Diploma RN	Healthcare Administrator
LPN	Dietitians
LVN	Sales and Marketing
O PTA	Academic Researcher



Patient Preparation  Not applicable important Important Very important Essential  1. Perform safe patient handling techniques  2. Assist in obtaining health and medication history  3. Obtain recent nutritional history and needs  4. Take and monitor vital signs  5. Prepare and/or photograph the wound  6. Assist with ensuring asseptic or starile techniques  7. Set up equipment for procedures (e.g., cleansing, removing dressings)  9. Ensure proper cleaning of examination rooms between patients	CWCA Task List					
Not applicable important Important Very important Essential  1. Perform safe patient handling techniques  2. Assist in obtaining health and medication history  3. Obtain recent nutritional history and needs  4. Take and monitor vital signs  5. Prepare and/or photograph the wound  6. Assist with ensuring aseptic or sterile techniques  7. Set up equipment for procedures  8. Prepare wound for procedures (e.g., cleansing, removing dressings)  9. Ensure proper cleaning of examination rooms						
Not applicable important Important Very important Essential  1. Perform safe patient handling techniques  2. Assist in obtaining health and medication history  3. Obtain recent nutritional history and needs  4. Take and monitor vital signs  5. Prepare and/or photograph the wound  6. Assist with ensuring aseptic or sterile techniques  7. Set up equipment for procedures  8. Prepare wound for procedures (e.g., cleansing, removing dressings)  9. Ensure proper cleaning of examination rooms	Patient Preparation					
2. Assist in obtaining health and medication history  3. Obtain recent nutritional history and needs  4. Take and monitor vital signs  5. Prepare and/or photograph the wound  6. Assist with ensuring aseptic or sterile techniques  7. Set up equipment for procedures  8. Prepare wound for procedures (e.g., cleansing, removing dressings)  9. Ensure proper cleaning of examination rooms		Not applicable		Important	Very important	Essential
3. Obtain recent nutritional history and needs  4. Take and monitor vital signs  5. Prepare and/or photograph the wound  6. Assist with ensuring aseptic or sterile techniques  7. Set up equipment for procedures  8. Prepare wound for procedures (e.g., cleansing, removing dressings)  9. Ensure proper cleaning of examination rooms	Perform safe patient handling techniques	$\circ$			$\circ$	
4. Take and monitor vital signs  5. Prepare and/or photograph the wound  6. Assist with ensuring aseptic or sterile techniques  7. Set up equipment for procedures  8. Prepare wound for procedures (e.g., cleansing, removing dressings)  9. Ensure proper cleaning of examination rooms	2. Assist in obtaining health and medication history	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
5. Prepare and/or photograph the wound  6. Assist with ensuring aseptic or sterile techniques  7. Set up equipment for procedures  8. Prepare wound for procedures (e.g., cleansing, removing dressings)  9. Ensure proper cleaning of examination rooms	3. Obtain recent nutritional history and needs			$\circ$		$\bigcirc$
6. Assist with ensuring aseptic or sterile techniques  7. Set up equipment for procedures  8. Prepare wound for procedures (e.g., cleansing, removing dressings)  9. Ensure proper cleaning of examination rooms	4. Take and monitor vital signs	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$
7. Set up equipment for procedures   8. Prepare wound for procedures (e.g., cleansing, removing dressings)  9. Ensure proper cleaning of examination rooms	5. Prepare and/or photograph the wound	0	$\circ$	0	0	0
8. Prepare wound for procedures (e.g., cleansing, removing dressings)  9. Ensure proper cleaning of examination rooms	6. Assist with ensuring aseptic or sterile techniques	0	0	0	0	0
removing dressings)  9. Ensure proper cleaning of examination rooms		0		0	0	0
		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
		$\circ$	$\circ$	$\circ$	0	$\circ$

III. Patient Assessment    Not very important   Important   Very important   Essential	A Task List					
Assess, or assist with assessing: 10. blood flow (e.g., perform Doppler, check pulses, ABI)  11. for risk of pressure ulcer development 12. level of pain 13. edema (e.g., limb circumference, volume) 14. functional status 15. skin (e.g., for color, swelling, and temperature) 16. wound and periwound characteristics (e.g., stage, tissue type) 17. sensory function (e.g., monofilament testing, vibration testing) 18. Identify psychosocial barriers (e.g., cognitive, financial) 19. Identify and measure wound tunneling and/or undermining 20. Measure wound dimensions – length, width, depth						
Assess, or assist with assessing: 10. blood flow (e.g., perform Doppler, check pulses, ABI)  11. for risk of pressure ulcer development 12. level of pain 13. edema (e.g., limb circumference, volume) 14. functional status 15. skin (e.g., for color, swelling, and temperature) 16. wound and periwound characteristics (e.g., stage, tissue type) 17. sensory function (e.g., monofilament testing, vibration testing) 18. Identify psychosocial barriers (e.g., cognitive, financial) 19. Identify and measure wound tunneling and/or undermining 20. Measure wound dimensions – length, width, depth						
Assess, or assist with assessing: 10. blood flow (e.g., perform Doppler, check pulses, ABI)  11. for risk of pressure ulcer development  12. level of pain  13. edema (e.g., limb circumference, volume)  14. functional status  15. skin (e.g., for color, swellling, and temperature)  16. wound and periwound characteristics (e.g., stage, tissue type)  17. sensory function (e.g., monofilament testing), vibration testing)  18. Identify psychosocial barriers (e.g., cognitive, financial)  19. Identify and measure wound tunneling and/or undermining  20. Measure wound dimensions – length, width, depth	tient Assessment		Network			
10. blood flow (e.g., perform Doppler, check pulses, ABI)  11. for risk of pressure ulcer development		Not applicable		Important	Very important	Essential
12. level of pain  13. edema (e.g., limb circumference, volume)  14. functional status  15. skin (e.g., for color, swelling, and temperature)  16. wound and periwound characteristics (e.g., stage, tissue type)  17. sensory function (e.g., monofilament testing, vibration testing)  18. Identify psychosocial barriers (e.g., cognitive, financial)  19. Identify and measure wound tunneling and/or undermining  20. Measure wound dimensions – length, width, depth	0. blood flow (e.g., perform Doppler, check	0	0	0	$\circ$	0
13. edema (e.g., limb circumference, volume)  14. functional status  15. skin (e.g., for color, swelling, and temperature)  16. wound and periwound characteristics (e.g., stage, tissue type)  17. sensory function (e.g., monofilament testing, vibration testing)  18. Identify psychosocial barriers (e.g., cognitive, financial)  19. Identify and measure wound tunneling and/or undermining  20. Measure wound dimensions – length, width, depth	1. for risk of pressure ulcer development	$\circ$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
14. functional status  15. skin (e.g., for color, swelling, and temperature)  16. wound and periwound characteristics (e.g., stage, tissue type)  17. sensory function (e.g., monofilament testing, vibration testing)  18. Identify psychosocial barriers (e.g., cognitive, financial)  19. Identify and measure wound tunneling and/or undermining  20. Measure wound dimensions – length, width, depth	2. level of pain	$\circ$			$\circ$	
15. skin (e.g., for color, swelling, and temperature)  16. wound and periwound characteristics (e.g., stage, tissue type)  17. sensory function (e.g., monofilament testing, vibration testing)  18. Identify psychosocial barriers (e.g., cognitive, financial)  19. Identify and measure wound tunneling and/or undermining  20. Measure wound dimensions – length, width, depth	3. edema (e.g., limb circumference, volume	) (	0	$\circ$	0	$\circ$
temperature)  16. wound and periwound characteristics (e.g., stage, tissue type)  17. sensory function (e.g., monofilament testing, vibration testing)  18. Identify psychosocial barriers (e.g., cognitive, financial)  19. Identify and measure wound tunneling and/or undermining  20. Measure wound dimensions – length, width, depth	4. functional status	$\circ$	$\circ$	0	$\circ$	$\circ$
stage, tissue type)  17. sensory function (e.g., monofilament testing, vibration testing)  18. Identify psychosocial barriers (e.g., cognitive, financial)  19. Identify and measure wound tunneling and/or undermining  20. Measure wound dimensions – length, width, depth		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
testing, vibration testing)  18. Identify psychosocial barriers (e.g., cognitive, financial)  19. Identify and measure wound tunneling and/or undermining  20. Measure wound dimensions – length, width, depth		g.,	$\circ$	0	0	0
financial)  19. Identify and measure wound tunneling and/or undermining  20. Measure wound dimensions – length, width, depth		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
undermining  20. Measure wound dimensions – length, width, depth			0	0	0	0
depth		or	$\bigcirc$	$\bigcirc$	$\circ$	$\bigcirc$
21. Measure the wound using digital methods		$\circ$	$\circ$	0	0	$\circ$
	leasure the wound using digital methods	$\circ$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$

CWCA Task List					
III. Treatment					
	Not applicable	Not very important	Important	Very important	Essential
Apply and/or remove: 22. dressings	0	$\circ$	$\circ$	$\circ$	$\circ$
23. compression wraps and stockings	0	0	0	0	0
24. barrier products	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$
25. staples or sutures	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$
26. offloading systems			$\circ$	$\circ$	
Assist with: 27. application of cellular and/or tissue products	$\circ$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
28. wound biopsy			$\circ$	$\circ$	$\circ$
Assist with or perform: 29. negative pressure wound therapy application and removal	$\circ$	$\bigcirc$	$\bigcirc$	$\circ$	$\circ$
30. debridement	0		$\circ$	0	$\circ$
31. culture/aspiration	$\circ$	$\circ$	$\circ$	$\circ$	$\bigcirc$
32. pulsed lavage treatment			$\circ$	$\circ$	
33. whirlpool therapy	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
34. ultrasound treatment		$\circ$	$\circ$	$\circ$	
35. ultraviolet light treatment	0	$\circ$	0	$\circ$	$\circ$
36. electrical stimulation	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$
37. vasopneumatic compression pump procedures	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
38. wound irrigation or cleansing			$\bigcirc$	$\circ$	$\bigcirc$
39. laser therapy	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$

Not applicable	Not very important	Important	Very important	Essential
0	0	0	0	0
$\circ$	$\circ$	$\circ$	$\circ$	$\circ$
	0	0	0	0
$\bigcirc$	$\bigcirc$	$\circ$	$\circ$	$\circ$
n,	0	$\circ$	0	$\circ$
$\circ$	$\circ$	$\circ$	$\circ$	$\circ$
$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
$\circ$	$\circ$	$\circ$	$\circ$	
0	0	0	0	0
0	$\circ$	$\circ$	$\circ$	
		Not applicable important  Not applicable important  I I I I I I I I I I I I I I I I I I I	Not applicable important Important    O	Not applicable important Important Very important    O

CWCA Task List					
V. Administration					
	Not applicable	Not very important	Important	Very important	Essential
51. Document patient information (e.g., medications, progress, billing, photographs)	0	0	0	0	0
52. Coordinate wound care with supervisor and other team members	$\circ$	$\circ$	$\circ$	$\circ$	0
53. Order and maintain equipment and supplies	$\circ$		$\bigcirc$	$\circ$	
54. Disinfect equipment	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
55. Follow confidentiality and security regulations	$\circ$		$\circ$	$\circ$	
56. Read current literature on wound care trends	0	0	0	0	0
57. Recognize strength of evidence related to research	0	$\circ$	$\circ$	0	$\circ$
58. Recognize aspects of research methodology	$\circ$	$\circ$	$\circ$	$\circ$	
59. Adhere to professional ethical guidelines	$\circ$				



CWS Task List					
. History and Physical Examination					
	Not applicable	Not very important	Important	Very important	Essential
Obtain history of present illness (e.g., wound duration, etiology, previous treatments, medication reconciliation, and comorbidities)	$\circ$	0	0	0	0
2. Obtain vital signs	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$
Assess: 3. circulatory system	0	0	$\circ$	$\circ$	$\circ$
4. integumentary system		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
5. musculoskeletal system	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$
6. neurological system	$\circ$	$\circ$	$\circ$	$\bigcirc$	$\circ$
7. limb volume	0	$\circ$		$\circ$	$\circ$
8. pain level	$\circ$		$\bigcirc$		$\circ$
9. tissue oxygenation					

CWS Task List					
II. Evaluation and Diagnosis					
	Not applicable	Not very important	Important	Very important	Essential
Assess: 10. wound healing status	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$
11. factors related to delayed wound healing	$\circ$	$\circ$	$\circ$	$\circ$	0
12. barriers to the plan of care and expected outcomes (e.g., psychosocial, financial)	0	$\circ$	$\circ$	$\circ$	$\circ$
13. wound characteristics	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$
Evaluate wounds using the following standardized grading systems:  14. Wagner scale	0	0	0	0	0
15. University of Texas system	$\circ$	0	$\circ$	$\circ$	0
16. NPUAP (e.g., Stages I-IV, unstageable, suspected deep tissue injuries)	$\circ$	0	$\circ$	$\circ$	0
17. Rule of Nines	$\circ$	$\circ$	$\circ$	$\circ$	0
18. CEAP classification	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$
19. Perform risk assessment	0	0	0	0	0
<ol> <li>Review or interpret laboratory and imaging test results</li> </ol>	$\circ$	0	$\circ$	$\circ$	$\circ$
21. Determine the etiology of the wound	$\circ$	$\circ$	$\circ$	$\circ$	0

III. Treatment    Not applicable   Important   Very important   Essential	Not very important lens lens lens lens lens lens lens lens	CWS Task List					
Not applicable important important legislated legislated important legislated	Not very important lens lens lens lens lens lens lens lens						
Not applicable important important Very important 2 Essential 22. Establish goals	Not applicable   Important   Important   Very important   Essential	II. Treatment					
23. Perform techniques to cleanse the wound and reduce bioburden  24. Debride the wound  25. Apply dressings to the wound  26. Manage at-risk skin and periwound  27. Apply compression therapy  28. Use advanced therapeutic adjunctive treatments (e.g., negative pressure wound therapy, ultrasound, hyperbaric oxygen)  29. Apply offloading device for the lower extremity  30. Use support surface for pressure relief/reduction  31. Address the nutritional needs of the patient  32. Address psychosocial or financial barriers  Assist with or apply: 33. cellular and/or tissue products  34. tissue grafts and flaps  Manage: 35. cellular and/or tissue products  36. tissue grafts and flaps  37. Use advanced topical therapeutic agents (e.g.,	23. Perform techniques to cleanse the wound and reduce bioburden  24. Debride the wound  25. Apply dressings to the wound  26. Manage at-risk skin and periwound  27. Apply compression therapy  28. Use advanced therapeutic adjunctive treatments (e.g., negative pressure wound therapy, ultrasound, hyperbaric oxygen)  29. Apply offloading device for the lower extremity  30. Use support surface for pressure relief/reduction  31. Address the nutritional needs of the patient  32. Address psychosocial or financial barriers  Assist with or apply: 33. cellular and/or tissue products  34. tissue grafts and flaps  Manage: 35. cellular and/or tissue products  36. tissue grafts and flaps  37. Use advanced topical therapeutic agents (e.g.,		Not applicable	-	Important	Very important	Essential
reduce bioburden  24. Debride the wound  25. Apply dressings to the wound  26. Manage at-risk skin and periwound  27. Apply compression therapy  28. Use advanced therapeutic adjunctive treatments (e.g., negative pressure wound therapy, ultrasound, hyperbaric oxygen)  29. Apply offloading device for the lower extremity  30. Use support surface for pressure relief/reduction  31. Address the nutritional needs of the patient  32. Address psychosocial or financial barriers  Assist with or apply: 33. cellular and/or tissue products  34. tissue grafts and flaps  Manage: 35. cellular and/or tissue products  36. tissue grafts and flaps  37. Use advanced topical therapeutic agents (e.g.,	reduce bioburden  24. Debride the wound  25. Apply dressings to the wound  26. Manage at-risk skin and periwound  27. Apply compression therapy  28. Use advanced therapeutic adjunctive treatments (e.g., negative pressure wound therapy, ultrasound, hyperbaric oxygen)  29. Apply offloading device for the lower extremity  30. Use support surface for pressure relief/reduction  31. Address the nutritional needs of the patient  32. Address psychosocial or financial barriers  Assist with or apply: 33. cellular and/or tissue products  34. tissue grafts and flaps  Manage: 35. cellular and/or tissue products  36. tissue grafts and flaps  37. Use advanced topical therapeutic agents (e.g.,	22. Establish goals					$\circ$
25. Apply dressings to the wound	25. Apply dressings to the wound		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
26. Manage at-risk skin and periwound	26. Manage at-risk skin and periwound	24. Debride the wound			$\circ$	$\circ$	$\circ$
27. Apply compression therapy  28. Use advanced therapeutic adjunctive treatments (e.g., negative pressure wound therapy, ultrasound, hyperbaric oxygen)  29. Apply offloading device for the lower extremity  30. Use support surface for pressure relief/reduction  31. Address the nutritional needs of the patient  32. Address psychosocial or financial barriers  Assist with or apply: 33. cellular and/or tissue products  34. tissue grafts and flaps  Manage: 35. cellular and/or tissue products  36. tissue grafts and flaps  37. Use advanced topical therapeutic agents (e.g.,	27. Apply compression therapy	25. Apply dressings to the wound	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
28. Use advanced therapeutic adjunctive treatments (e.g., negative pressure wound therapy, ultrasound, hyperbaric oxygen)  29. Apply offloading device for the lower extremity  30. Use support surface for pressure relief/reduction  31. Address the nutritional needs of the patient  32. Address psychosocial or financial barriers  Assist with or apply: 33. cellular and/or tissue products  34. tissue grafts and flaps  Manage: 35. cellular and/or tissue products  36. tissue grafts and flaps	28. Use advanced therapeutic adjunctive treatments (e.g., negative pressure wound therapy, ultrasound, hyperbaric oxygen)  29. Apply offloading device for the lower extremity  30. Use support surface for pressure relief/reduction  31. Address the nutritional needs of the patient  32. Address psychosocial or financial barriers  Assist with or apply: 33. cellular and/or tissue products  34. tissue grafts and flaps  Manage: 35. cellular and/or tissue products  36. tissue grafts and flaps	26. Manage at-risk skin and periwound	$\circ$			$\circ$	$\circ$
treatments (e.g., negative pressure wound therapy, ultrasound, hyperbaric oxygen)  29. Apply offloading device for the lower extremity  30. Use support surface for pressure relief/reduction  31. Address the nutritional needs of the patient  32. Address psychosocial or financial barriers  Assist with or apply: 33. cellular and/or tissue products  34. tissue grafts and flaps  Manage: 35. cellular and/or tissue products  36. tissue grafts and flaps  37. Use advanced topical therapeutic agents (e.g.,	treatments (e.g., negative pressure wound therapy, ultrasound, hyperbaric oxygen)  29. Apply offloading device for the lower extremity  30. Use support surface for pressure relief/reduction  31. Address the nutritional needs of the patient  32. Address psychosocial or financial barriers  Assist with or apply: 33. cellular and/or tissue products  34. tissue grafts and flaps  Manage: 35. cellular and/or tissue products  36. tissue grafts and flaps  37. Use advanced topical therapeutic agents (e.g.,	27. Apply compression therapy	0	0	0	$\circ$	0
30. Use support surface for pressure relief/reduction  31. Address the nutritional needs of the patient  32. Address psychosocial or financial barriers  Assist with or apply: 33. cellular and/or tissue products  34. tissue grafts and flaps  Manage: 35. cellular and/or tissue products  36. tissue grafts and flaps  37. Use advanced topical therapeutic agents (e.g.,	30. Use support surface for pressure relief/reduction  31. Address the nutritional needs of the patient  32. Address psychosocial or financial barriers  Assist with or apply: 33. cellular and/or tissue products  34. tissue grafts and flaps  Manage: 35. cellular and/or tissue products  36. tissue grafts and flaps  37. Use advanced topical therapeutic agents (e.g.,	treatments (e.g., negative pressure wound therapy,	0	0	0	0	0
relief/reduction  31. Address the nutritional needs of the patient  32. Address psychosocial or financial barriers  Assist with or apply: 33. cellular and/or tissue products  34. tissue grafts and flaps  Manage: 35. cellular and/or tissue products  36. tissue grafts and flaps  37. Use advanced topical therapeutic agents (e.g.,	relief/reduction  31. Address the nutritional needs of the patient  32. Address psychosocial or financial barriers  Assist with or apply: 33. cellular and/or tissue products  34. tissue grafts and flaps  Manage: 35. cellular and/or tissue products  36. tissue grafts and flaps  37. Use advanced topical therapeutic agents (e.g.,	29. Apply offloading device for the lower extremity	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
32. Address psychosocial or financial barriers  Assist with or apply: 33. cellular and/or tissue products  34. tissue grafts and flaps  Manage: 35. cellular and/or tissue products  36. tissue grafts and flaps  37. Use advanced topical therapeutic agents (e.g.,	32. Address psychosocial or financial barriers  Assist with or apply: 33. cellular and/or tissue products  34. tissue grafts and flaps  Manage: 35. cellular and/or tissue products  36. tissue grafts and flaps  37. Use advanced topical therapeutic agents (e.g.,		0	0	0	0	$\circ$
Assist with or apply: 33. cellular and/or tissue products  34. tissue grafts and flaps  Manage: 35. cellular and/or tissue products  36. tissue grafts and flaps  37. Use advanced topical therapeutic agents (e.g.,	Assist with or apply: 33. cellular and/or tissue products  34. tissue grafts and flaps  Manage: 35. cellular and/or tissue products  36. tissue grafts and flaps  37. Use advanced topical therapeutic agents (e.g.,	31. Address the nutritional needs of the patient	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
33. cellular and/or tissue products  34. tissue grafts and flaps  Manage: 35. cellular and/or tissue products  36. tissue grafts and flaps  37. Use advanced topical therapeutic agents (e.g.,	33. cellular and/or tissue products  34. tissue grafts and flaps  Manage: 35. cellular and/or tissue products  36. tissue grafts and flaps  37. Use advanced topical therapeutic agents (e.g.,	32. Address psychosocial or financial barriers	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$
Manage: 35. cellular and/or tissue products  36. tissue grafts and flaps  37. Use advanced topical therapeutic agents (e.g.,	Manage: 35. cellular and/or tissue products  36. tissue grafts and flaps  37. Use advanced topical therapeutic agents (e.g.,		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\circ$	$\bigcirc$
35. cellular and/or tissue products  36. tissue grafts and flaps  37. Use advanced topical therapeutic agents (e.g.,	35. cellular and/or tissue products  36. tissue grafts and flaps  37. Use advanced topical therapeutic agents (e.g.,	34. tissue grafts and flaps					$\bigcirc$
37. Use advanced topical therapeutic agents (e.g.,	37. Use advanced topical therapeutic agents (e.g.,	*	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
		36. tissue grafts and flaps					$\bigcirc$
			0	0	0	0	0

CWS Task List					
IV. Follow-up Care					
	Not confinelle	Not very	Important	Voca important	Essential
38. Discuss and review the plan of care	Not applicable	important	Important	Very important	Essential
39. Educate patient/family/caregiver on disease management and prevention	0	0	0	0	0
40. Monitor laboratory values	0	0		0	0
41. Refer patients to consultants/specialists	0	0	0	0	0
42. Perform complete wound care documentation	0	$\circ$			$\circ$
W B . f					
V. Professional Practice		Not very			
	Not applicable	important	Important	Very important	Essential
43. Coordinate wound care continuum of care	$\circ$	$\circ$	0	$\circ$	
44. Interpret research methodology and strength of evidence	$\circ$	$\circ$	$\circ$	0	$\circ$
45. Follow confidentiality and security requirements			$\circ$		
46. Adhere to guidelines and regulations (e.g., professional, governmental, reimbursement, credentials)	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$



CWSP Task List					
. Assessment & Diagnosis					
	Not applicable	Not very important	Important	Very important	Essential
1. Obtain patient history	$\circ$		$\circ$	$\circ$	$\bigcirc$
2. Perform physical examination	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
3. Order and interpret laboratory tests and imaging studies	$\circ$	$\circ$	$\circ$	0	$\circ$
Assess: 4. wound healing status	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
5. factors related to delayed wound healing	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$
6. wound characteristics	$\circ$	0	$\circ$	$\circ$	$\circ$
Evaluate wounds using the following standardized grading systems: 7. Wagner scale	0	$\circ$	0	0	0
8. University of Texas system	0	0	0	0	0
NPUAP (e.g., Stages I-IV, unstageable, suspected deep tissue injuries)	0	0	0	0	$\circ$
10. Rule Of Nines	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$
11. CEAP classification	$\circ$		$\circ$	$\circ$	$\bigcirc$
12. Determine etiology of the wound	0	0	0	0	0

	Not applicable	Not very important	Important	Very important	Essential
Manage treatment of wounds using: 13. Debridement	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$
14. Hyperbaric oxygen therapy	0	0	$\circ$	$\circ$	$\circ$
15. Electrical stimulation	$\circ$			0	$\circ$
16. Contact and non-contact ultrasound	$\circ$	$\bigcirc$	$\circ$	$\circ$	$\circ$
17. Negative pressure wound therapy			$\circ$	$\circ$	$\circ$
18. Compression therapy	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
19. Dressings and topical agents	$\circ$			$\bigcirc$	$\circ$
20. Surgical procedures (e.g., tissue grafts and flaps, cellular and/or tissue products)	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
21. Offloading measures (e.g., beds, special shoes)	0	0	$\circ$	$\circ$	0
22. Light therapy	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$
23. Laser therapy			$\circ$	$\bigcirc$	

CWSP Task List					
II. Treatment (Continued)	Not applicable	Not very important	Important	Very important	Essential
Prescribe or manage: 24. analgesic medications	0		0	0	$\circ$
25. antimicrobial therapy	0	0	0	0	0
26. systemic therapies (e.g., glucose control, transfusions)	0	$\circ$	0	0	0
Manage the following complications: 27. Bleeding	$\circ$	$\circ$	$\bigcirc$	$\circ$	$\bigcirc$
28. Allergic reactions	$\circ$	$\circ$	$\circ$	$\circ$	
29. Adverse events	0	0	0	0	
30. Scarring	$\circ$	$\circ$	$\circ$	$\circ$	
31. Infection	0	0	0	0	0
32. Address and manage nutritional deficits	0	0	0	0	0
33. Address psychosocial aspects of patient care	0	0	0	0	0
34. Identify the need for consultations and make referrals			$\bigcirc$		

III. Wound Prevention    Not very   Important   Important   Very important   Essential					
Not applicable important legislated very important lessential very important very important lessential very important lessential very important very important lessential very important legislated very important legislated very important very impo					
Not applicable important legislated very important lessential very important very important lessential very important lessential very important very important lessential very important legislated very important legislated very important very impo					
35. Identify and manage patient risk factors (e.g., obesity, diabetes, vascular disease)  36. Educate patients, families, and caregivers  37. Recommend and prescribe preventive measures  IV. Professional Issues  INDITIONAL Important Importan					
35. Identify and manage patient risk factors (e.g., obesity, diabetes, vascular disease)  36. Educate patients, families, and caregivers  37. Recommend and prescribe preventive measures  IV. Professional Issues    Not applicable   Not very important   Important   Very important   Essential	Not applicable		Important	Very important	Essential
37. Recommend and prescribe preventive measures  Not very important largoritant levels of care (e.g., inpatient vs. outpatient)  41. Determine appropriate levels of care (e.g., inpatient vs. outpatient)  42. Incorporate a critical evaluation of literature to practice  43. Apply principles of evidence-based medicine  44. Adhere to guidelines and regulations (e.g., professional, governmental, credentials)	0	0	0	0	0
IV. Professional Issues    Not very important   Important   Important   Very important   Essential	$\circ$	$\bigcirc$	$\bigcirc$	$\circ$	$\bigcirc$
Not applicable important limportant Very important Essential  38. Comply with documentation requirements (e.g., legal, reimbursement)  39. Identify and respond to issues related to medical ethics (e.g., off label use, patient competency)  40. Identify and respond to issues related to medical economics (e.g., costs, accountable care)  41. Determine appropriate levels of care (e.g., inpatient vs. outpatient)  42. Incorporate a critical evaluation of literature to practice  43. Apply principles of evidence-based medicine  44. Adhere to guidelines and regulations (e.g., professional, governmental, credentials)	0	0	0	0	$\circ$
Not applicable important Important Very important Essential  38. Comply with documentation requirements (e.g., legal, reimbursement)  39. Identify and respond to issues related to medical ethics (e.g., off label use, patient competency)  40. Identify and respond to issues related to medical economics (e.g., costs, accountable care)  41. Determine appropriate levels of care (e.g., inpatient vs. outpatient)  42. Incorporate a critical evaluation of literature to practice  43. Apply principles of evidence-based medicine  44. Adhere to guidelines and regulations (e.g., professional, governmental, credentials)					
legal, reimbursement)  39. Identify and respond to issues related to medical ethics (e.g., off label use, patient competency)  40. Identify and respond to issues related to medical economics (e.g., costs, accountable care)  41. Determine appropriate levels of care (e.g., inpatient vs. outpatient)  42. Incorporate a critical evaluation of literature to practice  43. Apply principles of evidence-based medicine  44. Adhere to guidelines and regulations (e.g., professional, governmental, credentials)	Not applicable	•	Important	Very important	Essential
medical ethics (e.g., off label use, patient competency)  40. Identify and respond to issues related to medical economics (e.g., costs, accountable care)  41. Determine appropriate levels of care (e.g., inpatient vs. outpatient)  42. Incorporate a critical evaluation of literature to practice  43. Apply principles of evidence-based medicine  44. Adhere to guidelines and regulations (e.g., professional, governmental, credentials)	. 0	$\circ$	$\circ$	0	$\circ$
medical economics (e.g., costs, accountable care)  41. Determine appropriate levels of care (e.g., inpatient vs. outpatient)  42. Incorporate a critical evaluation of literature to practice  43. Apply principles of evidence-based medicine  44. Adhere to guidelines and regulations (e.g professional, governmental, credentials)	$\bigcirc$	$\circ$	$\circ$	$\circ$	$\bigcirc$
inpatient vs. outpatient)  42. Incorporate a critical evaluation of literature to practice  43. Apply principles of evidence-based medicine  44. Adhere to guidelines and regulations (e.g professional, governmental, credentials)	, 0	0	$\circ$	0	$\circ$
43. Apply principles of evidence-based medicine  44. Adhere to guidelines and regulations (e.g., professional, governmental, credentials)	$\circ$	$\bigcirc$	$\bigcirc$	$\circ$	$\bigcirc$
44. Adhere to guidelines and regulations (e.g., professional, governmental, credentials)	0	0	$\circ$	0	$\circ$
professional, governmental, credentials)	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$
45. Follow confidentiality and security regulations	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$
	$\circ$	$\circ$	$\circ$	$\circ$	$\circ$
	)	Not applicable	Not applicable important  Not very important  Not very important  Not very important	Not applicable important Important  Not applicable Not very important  Not applicable important Important  O O O O O O O O O O O O O O O O O O O	Not applicable important Important Very important  Not applicable Not very important  Not applicable important Important Very important  Not applicable important Important Very important  O O O O

CWCA Additional Tasks	
Please list any important CWCA tasks that were not covered in this survey:	
The same and the s	

CWS Additional Tasks	
Please list any important CWS tasks that were not covered in this survey:	1

Please list any important CWSP tasks that were not covered in this survey:	

Drawing Registration	
For completing the survey, you are eligible to register for a drawing for a 38mm Apple Watch Sport!  To be entered into the drawing, please provide the following contact information.	
Your individual survey responses will remain anonymous.	
First Name	
Last Name	
E-mail	
Phone number	

# Thank you for completing the Job Analysis Survey for Wound Management Practitioners!

If you left some questions unanswered you may continue to use the 'Prev' button below to move through the survey.

To leave the survey and submit your results, click on the 'Done' button at the bottom of the screen.

If you have any additional questions or comments about this survey, please e-mail:

Lily Chuang, Research Associate

Applied Measurement Professionals, Inc.

ABWMJAsurvey@goAMP.com

(you will be redirected to www.abwmcertified.org)

#### **Appendix B. Demographic Frequency Summary**

# **ABWM Wound Management Practitioner Job Analysis Study 2016 Demographics**

#### All Respondents (N=1184)

Table 1. In which state do you primarily practice?

Table 1. III Willeli S	Frequency	Percent
TX	108	9.2
FL	92	7.9
NY	60	5.1
PA	60 50	5.1
CA	59	5.0
IL OLL	58	5.0
OH	40	3.4
NC	38	3.2
GA	37	3.2
IN	32	2.7
TN	32	2.7
MI	31	2.6
NJ	29	2.5
LA	28	2.4
MO	27	2.3
AZ	24	2.0
WI	23	2.0
MD	22	1.9
MA	21	1.8
IA	19	1.6
WA	19	1.6
AL	18	1.5
MN	18	1.5
VA	18	1.5
CO	17	1.5
ID	17	1.5
NH	14	1.2

	Frequency	Percent
OK	14	1.2
MS	13	1.1
NM	13	1.1
NV	13	1.1
SC	13	1.1
CT	11	0.9
UT	11	0.9
KY	10	0.9
ME	10	0.9
AR	8	0.7
OR	8	0.7
KS	6	0.5
MT	6	0.5
DC	5	0.4
DE	5	0.4
HI	5	0.4
NE	5	0.4
RI	5	0.4
VT	5	0.4
WY	5	0.4
SD	4	0.3
AK	2 2	0.2
WV		0.2
ND	1	0.1
Outside the U.S.	30	2.6
Total	1171	100.0

Table 2. Region

	Frequency	Percent
Northeast	265	22.6
Southeast	399	34.1
Midwest	278	23.7
West	199	17.0
Outside the U.S.	30	2.6
Total	1171	100.0

Table 3. Which of the following best describes your highest level of education (or equivalent)?

	Frequency	Percent
Technical certificate (e.g., CNA, LPN/LVN, medical assistant)	63	5.3
Associate (two-year) degree	176	14.9
Diploma (e.g., nursing)	51	4.3
Baccalaureate degree	260	22.0
Master's degree	254	21.5
Doctoral degree	298	25.2
Post-doctoral	79	6.7
Total	1181	100.0

Table 4. Which of these best describes your primary professional designation?

	Frequency	Percent
Registered Nurse (RN)	395	33.4
Physical Therapist (PT)	236	19.9
Doctor of Medicine (MD)	146	12.3
Doctor of Podiatric Medicine (DPM)	109	9.2
Nurse Practitioner (NP)	97	8.2
Licensed Practical Nurse or Licensed Vocational Nurse (LPN/LVN)	73	6.2
Clinical Nurse Specialist (CNS)	48	4.1
Doctor of Osteopathy (DO)	22	1.9
Physical Therapist Assistant (PTA)	16	1.4
Sales/Nonclinical (e.g., business, research, educator)	11	.9
Physician Assistant (PA)	10	.8
Wound Care Technician/Aide	7	.6
Medical Assistant (e.g., CMA)	5	.4
Occupational Therapist (OT)	4	.3
Hyperbaric Technician (CHT)	2	.2
Respiratory Therapist (RT)	2	.2
Nursing Assistant (e.g., CNA)	1	.1
Total	1184	100.0

Table 5. If MD, DO, DPM --- Do you have a specialty area outside of wound care?

	Frequency	Percent
Yes	221	79.8
No	56	20.2
Total	277	100.0

Table 6. How many years of experience do you have in the field of Wound Management? Mean: 14.4 years

SD: 8.3 years

Cumulative				
	Frequency	Percent	Percent	
1	7	0.7	0.7	
2	16	1.5	2.2	
3	33	3.2	5.4	
4	42	4.0	9.4	
5	58	5.6	15.0	
6	55	5.3	20.3	
7	33	3.2	23.4	
8	45	4.3	27.8	
9	22	2.1	29.9	
10	99	9.5	39.4	
11	30	2.9	42.3	
12	41	3.9	46.2	
13	41	3.9	50.1	
14	28	2.7	52.8	
15	89	8.5	61.4	
16	44	4.2	65.6	
17	23	2.2	67.8	
18	27	2.6	70.4	
19	15	1.4	71.9	
20	94	9.0	80.9	
21	23	2.2	83.1	
22	18	1.7	84.8	

			Cumulative
	Frequency	Percent	Percent
23	16	1.5	86.4
24	10	1.0	87.3
25	34	3.3	90.6
26	19	1.8	92.4
27	8	0.8	93.2
28	3	0.3	93.5
29	6	0.6	94.0
30	25	2.4	96.4
31	2	0.2	96.6
32	3	0.3	96.9
33	3	0.3	97.2
34	3	0.3	97.5
35	10	1.0	98.5
36	3	0.3	98.8
38	2	0.2	98.9
40	7	0.7	99.6
41	1	0.1	99.7
44	1	0.1	99.8
46	1	0.1	99.9
48	1	0.1	100.0
Total	1041	100.0	

Table 7. What percentage of your workday involves wound management?

	Frequency	Percent	Cumulative Percent
Less than 10%	74	6.3	6.3
10% to 24%	161	13.6	19.9
25% to 49%	150	12.7	32.6
50% to 74%	164	13.9	46.5
75% to 99%	223	18.9	65.4
100%	409	34.6	100.0
Total	1181	100.0	

Table 8. What is your primary place of practice/employment?

	Frequency	Percent
Wound Care Center	363	31.1
Acute Care Hospital	290	24.9
Long-Term Care Facility (including SNFs and ECFs)	183	15.7
Private Practice	134	11.5
Home Health	60	5.1
Long-Term Acute Care Hospital	51	4.4
Government Agency	43	3.7
Educational Institution	24	2.1
Industry	19	1.6
Total	1167	100.0

Table 9. In which of these other settings do you also practice? (Select all that apply) (N=1009)

	Frequency	Percent
Acute Care Hospital	328	32.5
Wound Care Center	250	24.8
Long-Term Care Facility (including SNFs and ECFs)	167	16.6
Home Health	109	10.8
Private Practice	108	10.7
Long-Term Acute Care Hospital	99	9.8
Educational Institution	52	5.2
Government Agency	31	3.1
Industry	17	1.7
None	256	25.4
Total	1417	140.4

Table 10. Which of these certifications do you hold?

	Frequency	Percent
CWCA®	211	17.8
CWS <sup>®</sup>	644	54.4
CWSP <sup>®</sup>	113	9.6
None of these	215	18.2
Total	1183	100.0

Table 11. CWCA/CWS/CWSP classification: The ABWM offers three certification programs for practitioners with wound management experience. Please select the highest certification that you would qualify for (or already hold):

	Frequency	Percent
CWCA <sup>®</sup>	223	19.6
CWS®	672	59.1
CWSP®	243	21.4
Total	1138	100.0

Table 12. Crosstab

		would qualify for (or already hold)			
		CWCA	cws	CWSP	Total
certification	CWCA	185	15	0	200
currently	CWS	2	548	81	631
	CWSP	1	1	111	113
hold	None of these	35	108	51	194
	Total	223	672	243	1138

Table 13. Do you currently hold another certification in wound care?

	Frequency	Percent
Yes (Please specify)	205	17.4
No 17	973	82.6
Total	1178	100.0

Table 14. Gender

	Frequency	Percent
Male	318	26.9
Female	863	73.0
Prefer not to respond	2	0.2
Total	1183	100.0

Table 15. Age

	Frequency	Percent
20-29	12	1.0
30-39	190	16.1
40-49	363	30.7
50-59	387	32.7
60+	223	18.9
Prefer not to respond	8	0.7
Total	1183	100.0

Table 16. Ethnicity (N=1172)

,				
	Not Hispanic		Hispanic	
	Frequency	Percent	Frequency	Percent
White	963	82.2	72	6.1
Black or African American	58	4.7	2	0.2
American Indian or Alaska Native	23	1.9	1	0.1
Asian	94	7.6	3	0.2
Native Hawaiian or Other Pacific Islander	14	1.1	2	0.2
Total	1152	97.5	80	6.8

#### CWS (n=672)

Table 17. In which state do you primarily practice?

	Frequency	Percent
TX	62	9.3
FL	39	5.9
CA	35	5.3
IL	31	4.7
PA	31	4.7
IN	27	4.1
NY	27	4.1
TN	26	3.9
NC	22	3.3
OH	21	3.2
GA	20	3.0
LA	20	3.0
WI	19	2.9
NJ	17	2.6
MI	16	2.4
IA	14	2.1
MN	14	2.1
AZ	13	2.0
MA	13	2.0
ID	12	1.8
MO	12	1.8
WA	11	1.7
VA	10	1.5
MD	9	1.4
NH	9	1.4
OK	9	1.4

	Frequency	Percent
SC	8	1.2
UT	8 7	1.2
CO	7	1.1
ME	7	1.1
MS	7	1.1
NM	7	1.1
NV	6	0.9
OR	6	0.9
AL	5	0.8
CT	5 5	0.8
MT	5	0.8
AR	4	0.6
DE	4	0.6
KY	4	0.6
NE	4	0.6
RI	4	0.6
VT	4	0.6
WY	4	0.6
DC	3	0.5
HI	3 3 3 2 1	0.5
KS	3	0.5
SD	2	0.3
AK		0.2
ND	.1	0.2
Outside the U.S.	15	2.3
Total	666	100.0

Table 18. Region

	Frequency	Percent
Northeast	143	21.5
Southeast	217	32.6
Midwest	173	26.0
West	118	17.7
Outside the U.S.	15	2.3
Total	666	100.0

Table 19. Which of the following best describes your highest level of education (or equivalent)?

	Frequency	Percent
Technical certificate (e.g., CNA, LPN/LVN, medical assistant)	4	0.6
Associate (two-year) degree	50	7.5
Diploma (e.g., nursing)	22	3.3
Baccalaureate degree	226	33.8
Master's degree	239	35.7
Doctoral degree	113	16.9
Post-doctoral	15	2.2
Total	669	100.0

Table 20. Which of these best describes your primary professional designation?

	Frequency	Percent
Registered Nurse (RN)	258	38.4
Physical Therapist (PT)	231	34.4
Nurse Practitioner (NP)	92	13.7
Clinical Nurse Specialist (CNS)	33	4.9
Doctor of Medicine (MD)	13	1.9
Doctor of Podiatric Medicine (DPM)	10	1.5
Physical Therapist Assistant (PTA)	9	1.3
Physician Assistant (PA)	8	1.2
Licensed Practical Nurse or Licensed Vocational Nurse (LPN/LVN)	5	.7
Sales/Nonclinical (e.g., business, research, educator)	5	.7
Occupational Therapist (OT)	4	.6
Doctor of Osteopathy (DO)	2	.3
Hyperbaric Technician (CHT)	1	.1
Wound Care Technician/Aide	1	.1
Total	672	100.0

Table 21. If MD, DO, DPM --- Do you have a specialty area outside of wound care?

	Frequency	Percent
Yes	20	80.0
No	5	20.0
Total	25	100.0

Table 22. How many years of experience do you have in the field of Wound Management? Mean: 15.5 years

SD: 7.9 years

			Cumulative
	Frequency	Percent	Percent
1	3	0.5	0.5
2	7	1.2	1.7
3	11	1.9	3.6
4	13	2.2	5.9
5	24	4.1	10.0
6	29	5.0	15.0
7	12	2.1	17.1
8	24	4.1	21.2
9	10	1.7	22.9
10	48	8.3	31.2
11	17	2.9	34.1
12	18	3.1	37.2
13	27	4.7	41.9
14	19	3.3	45.2
15	50	8.6	53.8
16	32	5.5	59.3
17	16	2.8	62.1
18	24	4.1	66.2
19	10	1.7	67.9
20	56	9.7	77.6

			-
			Cumulative
	Frequency	Percent	Percent
21	18	3.1	80.7
22	11	1.9	82.6
23	8	1.4	84.0
24	9	1.6	85.5
25	27	4.7	90.2
26	15	2.6	92.8
27	4	0.7	93.4
28	1	0.2	93.6
29	4	0.7	94.3
30	13	2.2	96.6
32	2	0.3	96.9
33	2	0.3	97.2
34	3	0.5	97.8
35	5	0.9	98.6
36	2	0.3	99.0
38	1	0.2	99.1
40	3	0.5	99.7
46	1	0.2	99.8
48	1	0.2	100.0
Total	580	100.0	

Table 23. What percentage of your workday involves wound management?

			Cumulative
	Frequency	Percent	Percent
Less than 10%	43	6.4	6.4
10% to 24%	82	12.2	18.7
25% to 49%	70	10.4	29.1
50% to 74%	89	13.3	42.4
75% to 99%	148	22.1	64.5
100%	238	35.5	100.0
Total	670	100.0	

Table 24. What is your primary place of practice/employment?

	Frequency	Percent
Wound Care Center	232	35.0
Acute Care Hospital	194	29.3
Long-Term Care Facility (including SNFs and ECFs)	82	12.4
Private Practice	41	6.2
Home Health	38	5.7
Long-Term Acute Care Hospital	24	3.6
Government Agency	21	3.2
Educational Institution	18	2.7
Industry	13	2.0
Total	663	100.0

Table 25. In which of these other settings do you also practice? (Select all that apply) (N=563)

	Frequency	Percent
Acute Care Hospital	174	30.9
None	156	27.7
Wound Care Center	116	20.6
Long-Term Care Facility (including SNFs and ECFs)	80	14.2
Home Health	69	12.3
Long-Term Acute Care Hospital	39	6.9
Private Practice	38	6.7
Educational Institution	27	4.8
Government Agency	21	3.7
Industry	9	1.6
Total	729	129.5

Table 26. Which of these certifications do you hold?

	Frequency	Percent
CWCA®	15	2.2
CWS®	548	81.5
CWSP®	1	0.1
None of these	108	16.1
Total	672	100.0

Table 27. CWCA/CWS/CWSP classification: The ABWM offers three certification programs for practitioners with wound management experience. Please select the highest certification that you would qualify for (or already hold):

	Frequency	Percent
CWCA®	0	0.0
CWS <sup>®</sup>	672	100.0
CWSP®	0	0.0
Total	672	100.0

Table 28. Do you currently hold another certification in wound care?

	Frequency	Percent
Yes (Please specify)	132	19.7
No	538	80.3
Total	670	100.0

Table 29. Gender

	Frequency	Percent
Male	111	16.5
Female	558	83.2
Prefer not to respond	2	0.3
Total	671	100.0

Table 30. Age

	Frequency	Percent
20-29	5	0.7
30-39	105	15.6
40-49	210	31.3
50-59	221	32.9
60+	125	18.6
Prefer not to respond	5	0.7
Total	671	100.0

Table 31. Ethnicity (N=667)

	Not His	oanic	Hispar	nic	
	Frequency	equency Percent Frequency			
White	566	84.9	33	4.9	
Black or African American	27	4.0	1	0.1	
American Indian or Alaska Native	12	1.8	1	0.1	
Asian	49	7.3	3	0.4	
Native Hawaiian or Other Pacific Islander	6	0.9	2	0.3	
Total	660	98.9	40	5.8	

#### **Demographic Questions (Open-ended Question Responses)**

#### If "Outside the U.S." is selected, where do you practice?

- Alberta, Canada
- British Columbia, Canada
- Does not practice as wound consultant
- Ontario, Canada
- Philippines
- Puerto Rico (4)
- St. Thomas United States Virgin Islands
- Togo West Africa
- University Hospital of the West Indies

#### If MD, DO, DPM --- What is your specialty area?

- Breast Surgery Trauma Surgery
- Emergency medicine
- Family Medicine
- Family Practice
- FP
- Gen surgery
- Hyperbaric medicine
- Internal Medicine
- Pm&r
- Podiatric Surgery (2)
- PODIATRIC surgery
- Podiatrist
- Podiatry
- Surgery
- SURGERY
- vascular and thoracic surgery

#### If MD, DO, DPM --- Please list your specialty board certifications:

- ABFAS
- ABFM
- Abpm
- ABPOM CWS
- ABPS
- ACFAS ABPM
- American Board of Family Medicine
- American Board of Foot and Ankle Surgery American Board of Podiatric Medicine
- American Board of Internal Medicine
- American board of pm&r
- American board of wound management Philippine board of emergency medicine Philippine academy of emergency medicine
- Emergency Medicine Undersea and Hyperbaric medicine
- FACWCS
- FP
- Gen Surgery
- Thoracic Surgery Preventive Medicine (HBO)

#### Do you currently hold another certification in wound care? Yes (Please specify)

- ACCWS
- APTA Advanced proficiency in Integumentary
- APWCA
- AWHPA
- Board Cerfied in geriatrics via ANCC
- Board certified in geriatrics via the ANCC
- CCCN, COCN
- Certification in Puerto Rico- sunrise college
- Certified Lymphedema Wound Therapist (2)
- CHRN (5)
- CHRN, COMS
- CHT
- CLWT, MBS
- COCN
- CWCN (15)
- CWCN CFCN
- CWCN with WOCB
- CWCN-AP (2)
- CWCN, CFCN
- CWOCN (16)
- CWOCN CFCN
- CWOCN-AP, CFCN
- CWOCN, CFCN
- CWOCN, WCC, OMS
- CWON (11)
- CWON CFCN
- CWS (2)
- diabetic wound certified, certified lymphedema therapist
- diabetic wound specialist
- DWC
- FACCWS (3)
- FCCWS
- former CHRN
- hope to be certified soon
- Hyperbaric Tech
- I am preparing for CWS exam -- will take in May but have not received certification yet.
- IIWCC
- IIWCC (Univ. of Toronto); cert. of completion first year of MSc in Wound Management and Tissue Repair (Cardiff Univ., UK)
- Osteomy nurse
- VOHRA wound certification
- WCC (22)
- WCC from WCEI
- WCC, FACCWS
- WCS (2)
- Wound, Ostomy, Continence Certification

#### **Comments – Missing Knowledge Statements**

#### Please specify what topics were missing.

- Assessment and treatment of edema including lymphedema treatment
- Atypical ulcers
- Billing icd10 case management
- Biotherapy such as magget debridement and leeches for circulation, alternative therapies
- Debridement, psychosocial, medications, age related issues, comorbid related issues
- Decision making on debridement or biopsy
- Don't remember
- Good
- I have a unique position in that I make house calls to homebound patients and perform wound care in the home. All of the standards are facility based. Would like to see more info/guidance on risks/benefits/treatments of wound in the home setting.
- I work primarily with hospice/palliative care. Most studies and information is based on wound healing. I need more information on containment and teaching chronic care/ pain management
- It would be helpful to add more information on end of life wounds
- M
- My role is really focused more on the outcomes and statistical tracking of improvements in wound healing/rates of PU within our organization. Quality focused
- N/a
- need to include functional mobility awareness
- Obesity/ Lifestyle /ETOH / Recreational Drug Use/ Cultural perspectives
- Offloading neuropathic foot ulcer, total contact casing
- ostomy care and teaching
- patient as team member, patient responsibility. types of debridement, levels of debridement0
- Patient education and motivation
- Patient/family/caregiver education
- Plan of care: Assessment, Wound bed preparation, granulation tissue formation, facilitation
  of closure. Treating the wound with consideration for the phase of healing it is in.
- Prevention
- Professional issues harder to call a testable skill at times
- Psychosocial issues can also impact--financial problems can impact nutrition, ability to pay for offloading footwear. Living conditions impact wound healing.
- Quite comprehensive
- Social issues.
- Social/cultural influences
- socioeconomic, mental health issues
- some other modality applications- ie electromagnetic therapy, closed pulsed irrigation, etc
- The topics covered the required skills to perform the critical task of my role. I would like to see more discuss around wound healing and pediatric oncology patients.
- Topic information on test did not match class information.

#### **Comments – Missing Tasks**

#### Please list any important CWS tasks that were not covered in this survey:

- \*Educating staff \*Dressing supply cost analysis & management \*Community outreach
- Act as a resource for general nursing in acute, home health and long-term settings.
- addressing special population like homeless, uninsured.
- again I would include more on care of chronic wounds and SCALE skin changes at end of life. Education in SNF, hospice facilities and home care with expectations for full system breakdown as a person moves towards death. I also would like more information on skin diseases not found in the US. I often do wound clinics in Subsahara Africa and had to learn jigger removal in the field
- All covered (2)
- All of topics were covered
- Antibiotics usage and abuses; how to get meaningful cultures, osteomyelitis, management
  of pain in environment of percocet seekers, who needs to be hospitalised?, importance of
  tissue biopsy
- Attend Wound Care conference regularly to update self on any new changes in Wound Care
- be able to explain how pain and inflammation influence soft tissue injury progression and wound healing Know a variety of ways to manage pain and inflammation, including nonpharmacological methods Have a working knowledge of research study design in order to be able to weigh the evidence (recognize when a design would produce overly biased results)
- Billing? I do not know if it's required, but I'm waiting to take the exam until I take some training in billing.
- can not think of any more.
- Can't think of any (2)
- care for colostomy/ urostomy and teach new pt care of product, also fistula management
- Case management ordering supplies for patients
- changes in guidelines in Medicare and other health insurance that prevents optimum choices to maximize healing of wounds
- Clarifying limitations in scope of practice. (Surgical wounds, conditions requiring intervention by another more qualified specialist ie dermatologist, vascular service, podiatric orthotist etc...) or need for acute intervention (ER or admission to hospital).
- Clinic Management
- Co morbid wound conditions such as lupus, IBD, RA etc.
- community education. consult with home health agencies and education of their wound care providers
- Compliance important, but was mentioned
- Conflict between wound Care professionals e.g. Physical Therapists and RN's. Especially in regards to "turf" considerations.
- Consultation out of your normal practice, Serving as a legal expert
- Critical review of products research and safety Ethics, ethics, ethics Payor systems for their region IT - new world of communication and HIPPA
- Determine if a wound is avoidable or not avoidable under NPUAP guidelines.
- Develop, Trend and report internal and national guidelines.
- don't forget NP's when looking at certification above the CWS level . I see the majority of patients in my wound care center as an NP

- Don't know
- Educating nurses and CNAs about wounds, wound care, wound prevention.
- Education of clinicians with whom we share patients who may not know or understand wound management.
- Education of other non wound specialist staff involved in patient's care.
- Education of professional staff and colleagues to proper evidence based wound healing concepts.
- Education of staff (2)
- Education of staff, assessment and recommendations for wound care inventory, establishing protocols for wound care
- Education of staff.
- Emotional and spiritual needs.
- Every thing covered
- EVERYTHING IS COVERED
- Fistula management
- Focus on acute wounds, not just chronic wounds.
- I believe all essential and prudent information needed was covered
- I believe most of the general topics are covered
- I can think of nothing not already included
- I don't believe that DPM should be classified with CWSP. They are not Physicians any more that doctorate level education of PT/OT/NP, etc. Why even separate CWSP out in general? Why can't everyone who is a provider be CWS?
- Identifying patients who are high risk for pressure ulcer and initiating careplan with appropriate prevention interventions
- Im not a CWS but a CWOCN. Not sure how I got this survey?
- instructing patient on self-care, teaching
- Knowledge of insurance coverage and regulations (such as requirements for obtaining
  pressure redistribution surfaces, shoe bill, wound center appointments-what is covered and
  what not, etc) Knowledge of community and other resources available to patients (for
  assistance with care, dressing changes in wound center, etc)
- Light debridement.
- Look at the entire patient and environment of care. Offer therapies and wound care
  measures that are effective yet COST effective.. I use more medihoney because of
  ridiculous cost of collagenase santyl ... Teaching the care giver /the person changing the
  dressing along with patient compliance results in the best outcomes..
- Looks really comprehensive
- Lymphedema
- Measure and fit for compression garments for follow-up care.
- Methods of sharps debridement
- NA (15)
- None (22)
- · none every facet was covered
- None identified
- Nothing
- Outcomes monitoring of data and statistics
- Overview regarding peristomal wounds, treatment, and plan of care. Types of offloading shoes for charcot foot. Overview of different types of restrains during wound care. Overview regarding wound care for trache sites.
- Patient advocacy when inappropriate protocols are ordered.

- Patient barriers to learning, at risk populations and bariatrics
- Perform teaching to generalists and students that wish to learn more about the practice of wound healing
- Perhaps some guidelines regarding referrals to appropriate specialists when an atypical diagnosis is made via biopsy. For example Non-uremic calciphylaxis, vasculitis, pyoderma gangrenosum.
- photo documentation
- Photography. At times, the pictures used during examination is not very clear.
- Policy and wound photography
- postoperative complications
   End of live care insurance health policies
- prevention
- Products interchangeability
- Professional management tasks such as ICD-10 coding and reimbursement considerations
- Provide education, rationale for care, and evidence based Best Practice Standards to the Nursing staff, to facilitate continuity of care in the acute care, long-term care, and home care environments.
- PT modalities unfortunately not as widely used due to reimbursement. HBO & skin subs more important. Outline is otherwise excellent and applicable.
- Recommend advanced wound treatments and products to appropriate hospital committees for consideration. Ex: SAGE Turn assist and reposition system for the prevention of pressure ulcers. MIST therapy in the in-patient care setting etc.
- Reimbursement
- Reimbursement from insurance
- Reimbursement is always an issue in the outpatient setting.
- Risk management, Quality Excellence
- Staff education
- Teaching plan of care to the patient/family/caregivers
- Team interaction.
- The setting I work in is acute rehab IRF. I selected acute care as my setting because we
  are not SNF or LTACH but we are post acute care and the services we provide are different
  than traditional acute care or trauma center
- This survey thoroughly covered the physical aspects of wound assessment, care and treatment. More attention needs to be paid to the psychological and social issues.
   Frequently the patient's do not have insurance to cover the most appropriate dressings.
   Also families are not equipped to manage the treatment between professional visits.
- This was a good survey, I have not heard of CEAP and I was able to look this up and learn what it is.
- thorough list
- Total contact casting
- Triage all new referrals.
- types of debridement
- understanding of what type of imaging is appropriate understanding of aerobic/anerobic bacteria culturing methods total contact casting contraindications/interactions of dressings/topicals
- understanding the need to refer to rehab: PT/OT, early in the process of wound healing, consider discharge from wound care clinic at the first visit, plan for this, work to prevent reoccurrence

- Understanding the ongoing healthcare changes related to managed care and bundling and how a wound care team including a CWS should be understanding of these items as well stay on top of any specific changes in their geographic region.
- Very thorough. I believe with diabetic patients that that random glucose levels should be part of their vitals, this has been a bone of contention in my facility (DOD hospital.)
- When is ABWM going to have incontinence, ostomy certifications?
- Where applicable have open, efficient lines of communication between inpatient, outpatient, and home care agency wound care staffs for continuity of care for wounds and ostomies (often seen together in one patient).
- Working in rural environment with little support and little interest in improving knowledge or skill level beyond basic
- working on insurance approval for treatment
- wound photography, total contact casting, ther ex, gait re-ed prn
- You named them all

### **Appendix C. Topic Importance Ratings**

# Survey Order Descending Percent Not Performing Order Ascending Mean Importance Order

	Topic Ratings in Survey Order								
No.	Topic	N	Mean	SD	SE	# Zeros	% Not Perform		
K01	Wound Healing Environment A. Anatomy and     Physiology 1. Integumentary	671		0.66	0.03		0.00		
K02	Wound Healing Environment A. Anatomy and Physiology 2. Musculoskeletal	670	3.32	0.80	0.03	0	0.00		
K03	Wound Healing Environment A. Anatomy and Physiology 3. Vascular	670	3.64	0.62	0.02	0	0.00		
K04	Wound Healing Environment A. Anatomy and Physiology 4. Neurological	667	3.12	0.85	0.03	3	0.45		
K05	Wound Healing Environment A. Anatomy and     Physiology 5. Lymphatic	668	3.23	0.80	0.03	1	0.15		
K06	Wound Healing Environment A. Anatomy and     Physiology 6. Other systems (e.g., endocrine, renal, respiratory, immunologic)	665	2.97	0.81	0.03	3	0.45		
K07	Wound Healing Environment B. Wound Healing 1.     Phases	669	3.54	0.73	0.03	0	0.00		
K08	Wound Healing Environment B. Wound Healing 2.     Cell function (e.g., signaling proteins, cellular mediators)	670	3.10	0.89	0.03	2	0.30		
K09	Wound Healing Environment B. Wound Healing 3.     Acute vs. chronic	671	3.54	0.71	0.03	0	0.00		
K10	2. Assessment and Diagnosis A. History	671	3.63	0.62	0.02	0	0.00		
K11	2. Assessment and Diagnosis B. Physical examination	671	3.67	0.59	0.02	1	0.15		
K12	2. Assessment and Diagnosis C. Wound and skin assessment	672	3.85	0.42	0.02	0	0.00		
K13	2. Assessment and Diagnosis D. Pain assessment	668	3.42	0.71	0.03	0	0.00		
K14	Assessment and Diagnosis E. Risk assessment	672	3.41	0.71	0.03	2	0.30		
K15	Assessment and Diagnosis F. Functional assessment	671	3.35	0.72	0.03	1	0.15		
K16	2. Assessment and Diagnosis G. Laboratory/Imaging	671	3.15	0.79	0.03	3	0.45		
K17	2. Assessment and Diagnosis H. Nutrition	667	3.45	0.68	0.03	0	0.00		
K18	Patient Management A. Wound bed preparation/debridement	671	3.75	0.53	0.02	2	0.30		
K19	3. Patient Management B. Dressings	670	3.55	0.65	0.03	1	0.15		
K20	3. Patient Management C. Cellular and/or tissue products for wounds	670	3.05	0.88	0.03	11	1.64		
K21	3. Patient Management D. Topical agents	672	3.29	0.76	0.03	1	0.15		
K22	Patient Management E. Complications in healing (including local and systemic factors)	671	3.58	0.63	0.02	1	0.15		
K23	3. Patient Management F. Nutrition	666	3.41	0.69	0.03	1	0.15		

	Topic Ratings in Survey	Ord	er				
No.	Topic	N	Mean	SD	SE	# Zeros	% Not Perform
K24	<ol> <li>Patient Management G. Biophysical technologies</li> <li>Electrical stimulation</li> </ol>	663	2.27	0.99	0.04	62	9.35
K25	<ol> <li>Patient Management G. Biophysical technologies</li> <li>Ultrasound</li> </ol>	669	2.25	0.98	0.04	62	9.27
K26	<ul><li>3. Patient Management G. Biophysical technologies</li><li>3. Light therapy</li></ul>	668	1.99	0.96	0.04	95	14.22
K27	<ol> <li>Patient Management G. Biophysical technologies</li> <li>Laser therapy</li> </ol>	664	1.97	0.95	0.04	103	15.51
K28	3. Patient Management H. Compression therapy	667	3.51	0.72	0.03	0	0.00
K29	Patient Management I. Negative pressure wound therapy	669	3.40	0.76	0.03	5	0.75
K30	3. Patient Management J. Hyperbaric oxygen therapy	669	2.68	0.96	0.04	68	10.16
K31	<ol><li>Patient Management K. Pressure redistribution (i.e., offloading)</li></ol>	670	3.69	0.60	0.02	3	0.45
K32	Patient Management L. Surgical closure or tissue transfer	671	2.86	0.88	0.04	33	4.92
K33	4. Etiological Considerations A. Neuropathy	670	3.52	0.68	0.03	0	0.00
K34	4. Etiological Considerations B. Diabetes	670	3.69	0.57	0.02	1	0.15
K35	4. Etiological Considerations C. Venous insufficiency	670	3.70	0.55	0.02	2	0.30
K36	4. Etiological Considerations D. Ischemia	670	3.70	0.55	0.02	1	0.15
K37	4. Etiological Considerations E. Pressure ulcers	670	3.70	0.56	0.02	1	0.15
K38	4. Etiological Considerations F. Edema (i.e., systemic vs. local)	670	3.59	0.61	0.02	0	0.00
K39	4. Etiological Considerations G. Lymphedema	672	3.42	0.73	0.03	2	0.30
K40	4. Etiological Considerations H. Trauma	670	3.37	0.75	0.03	1	0.15
K41	4. Etiological Considerations I. Surgical	669	3.37	0.75	0.03	2	0.30
K42	4. Etiological Considerations J. Atypical wounds (e.g., malignancy)	671	3.35	0.77	0.03	3	0.45
K43	4. Etiological Considerations K. Dermatological	670	3.13	0.81	0.03	6	0.90
K44	4. Etiological Considerations L. Infectious	672	3.49	0.69	0.03	2	0.30
K45	4. Etiological Considerations M. Burns	670	3.18	0.89	0.03	13	1.94
K46	4. Etiological Considerations N. Pediatric Issues	670	2.67	1.01	0.05		25.67
K47	<ol><li>Professional Issues A. Documentation</li></ol>	672	3.62	0.63	0.02	0	0.00
K48	5. Professional Issues B. Patient adherence	669	3.44	0.67	0.03	0	0.00
K49	5. Professional Issues C. Legal concepts	672	3.21	0.78	0.03	2	0.30
K50	5. Professional Issues D. Reimbursement and medical economics	670	3.02	0.89	0.03	13	1.94
K51	<ol> <li>Professional Issues E. Medical ethics (e.g., palliative care, reasonable expectation of outcomes)</li> </ol>	670	3.28	0.78	0.03	3	0.45
K52	5. Professional Issues F. Multidisciplinary teams	672	3.35	0.74	0.03	3	0.45
	5. Professional Issues G. Epidemiology	672			0.03		1.64
K54	Professional Issues H. Evidence-based practice and research	672		0.72	0.03		0.30

	Topic Ratings in Percent Not Performir	ng (De	escendi	ng) Or	der		
N.a	<u>·</u>					# Zero	% Not
No.	Topic	N	Mean	SD	SE	S	Perform
K46	Etiological Considerations N. Neonatal and Pediatric Issues	670	2.67	1.01	0.05	172	25.67
K27	<ol> <li>Patient Management G. Biophysical technologies</li> <li>Laser therapy</li> </ol>	664	1.97	0.95	0.04	103	15.51
K26	Patient Management G. Biophysical technologies     Light therapy	668	1.99	0.96	0.04	95	14.22
K30	3. Patient Management J. Hyperbaric oxygen therapy	669	2.68	0.96	0.04	68	10.16
K24	Patient Management G. Biophysical technologies     Lectrical stimulation	663	2.27	0.99	0.04		9.35
K25	Patient Management G. Biophysical technologies     Ultrasound (contact and non-contact)	669	2.25	0.98	0.04	62	9.27
K32	Patient Management L. Surgical closure or tissue transfer	671	2.86	0.88	0.04	33	4.92
K45	4. Etiological Considerations M. Burns	670	3.18	0.89	0.03	13	1.94
K50	5. Professional Issues D. Reimbursement and medical economics	670	3.02	0.89	0.03	13	1.94
K20	Patient Management C. Cellular and/or tissue products for wounds	670	3.05	0.88	0.03	11	1.64
K53	5. Professional Issues G. Epidemiology	672	2.95	0.83	0.03	11	1.64
	4. Etiological Considerations K. Dermatological	670	3.13	0.81	0.03	6	0.90
K29	Patient Management I. Negative pressure wound therapy	669	3.40	0.76	0.03	5	0.75
K04	Wound Healing Environment A. Anatomy and     Physiology 4. Neurological	667	3.12	0.85	0.03	3	0.45
K06	Wound Healing Environment A. Anatomy and     Physiology 6. Other systems (e.g., endocrine, renal, respiratory, immunologic)	665	2.97	0.81	0.03	3	0.45
K16	2. Assessment and Diagnosis G. Laboratory/Imaging	671	3.15	0.79	0.03	3	0.45
K31	3. Patient Management K. Pressure redistribution (i.e., offloading)	670	3.69	0.60	0.02	3	0.45
K42	Etiological Considerations J. Atypical wounds (e.g., malignancy)	671	3.35	0.77	0.03	3	0.45
K51	<ol> <li>Professional Issues E. Medical ethics (e.g., palliative care, reasonable expectation of outcomes)</li> </ol>	670	3.28	0.78	0.03	3	0.45
K52	5. Professional Issues F. Multidisciplinary teams	672	3.35	0.74	0.03	3	0.45
K08	Wound Healing Environment B. Wound Healing 2.     Cell function (e.g., signaling proteins, cellular mediators)	670	3.10	0.89	0.03	2	0.30
K14	2. Assessment and Diagnosis E. Risk assessment	672	3.41	0.71	0.03	2	0.30
K18	Patient Management A. Wound bed preparation/debridement	671	3.75	0.53	0.02	2	0.30
K35	4. Etiological Considerations C. Venous insufficiency	670	3.70	0.55	0.02	2	0.30
	4. Etiological Considerations G. Lymphedema	672	3.42	0.73	0.03		0.30

	Tamia Batin wa in Banaant Nat Banfarmin w (Basaan din a) Ondan							
	Topic Ratings in Percent Not Performing	ıg (De	escendi	ng) Or	der	1	T	
						# Zero	% Not	
No.	<u>Topic</u>	N	Mean	SD	SE	S	Perform	
K41	4. Etiological Considerations I. Surgical	669	3.37	0.75	0.03	2	0.30	
	4. Etiological Considerations L. Infectious	672	3.49	0.69	0.03	2	0.30	
K49	5. Professional Issues C. Legal concepts	672	3.21	0.78	0.03	2	0.30	
K54	<ol><li>Professional Issues H. Evidence-based practice and research</li></ol>	672	3.46	0.72	0.03	2	0.30	
K05	Wound Healing Environment A. Anatomy and Physiology 5. Lymphatic	668	3.23	0.80	0.03	1	0.15	
K11	2. Assessment and Diagnosis B. Physical examination	671	3.67	0.59	0.02	1	0.15	
K15	Assessment and Diagnosis F. Functional assessment	671	3.35	0.72	0.03	1	0.15	
K19	3. Patient Management B. Dressings	670	3.55	0.65	0.03	1	0.15	
	Patient Management D. Topical agents	672	3.29	0.76	0.03	1	0.15	
K22	Patient Management E. Complications in healing (including local and systemic factors)	671	3.58	0.63	0.02	1	0.15	
K23	3. Patient Management F. Nutrition	666	3.41	0.69	0.03	1	0.15	
	4. Etiological Considerations B. Diabetes	670	3.69	0.57	0.02	1	0.15	
	4. Etiological Considerations D. Ischemia	670	3.70	0.55	0.02	1	0.15	
K37	4. Etiological Considerations E. Pressure ulcers	670	3.70	0.56	0.02	1	0.15	
K40	4. Etiological Considerations H. Trauma	670	3.37	0.75	0.03	1	0.15	
K01	Wound Healing Environment A. Anatomy and     Physiology 1. Integumentary	671	3.65	0.66	0.03	0	0.00	
K02	Wound Healing Environment A. Anatomy and     Physiology 2. Musculoskeletal	670	3.32	0.80	0.03	0	0.00	
K03	Wound Healing Environment A. Anatomy and Physiology 3. Vascular	670	3.64	0.62	0.02	0	0.00	
K07	Wound Healing Environment B. Wound Healing 1.     Phases	669	3.54	0.73	0.03	0	0.00	
K09	<ol> <li>Wound Healing Environment B. Wound Healing 3.         Acute vs. chronic     </li> </ol>	671	3.54	0.71	0.03	0	0.00	
K10	2. Assessment and Diagnosis A. History	671	3.63	0.62	0.02	0	0.00	
K12	Assessment and Diagnosis C. Wound and skin assessment	672	3.85	0.42	0.02	0	0.00	
K13	2. Assessment and Diagnosis D. Pain assessment	668	3.42	0.71	0.03	0	0.00	
	Assessment and Diagnosis H. Nutrition	667	3.45	0.68	0.03	0	0.00	
	3. Patient Management H. Compression therapy	667	3.51	0.72	0.03	0	0.00	
	4. Etiological Considerations A. Neuropathy	670	3.52	0.68	0.03	0	0.00	
K38	Etiological Considerations F. Edema (i.e., systemic vs. local)	670	3.59	0.61	0.02	0	0.00	
K47	5. Professional Issues A. Documentation	672	3.62	0.63	0.02	0	0.00	
	5. Professional Issues B. Patient adherence	669		0.67	0.03	0	0.00	

	Topic Ratings in Mean Significance	(Asc	ending	) Orde	er		
No.	Торіс	N	Mean	SD	SE	# Zeros	% Not Perform
K27	<ol> <li>Patient Management G. Biophysical technologies</li> <li>Laser therapy</li> </ol>	664	1.97	0.95	0.04	103	15.51
K26	<ul><li>3. Patient Management G. Biophysical technologies</li><li>3. Light therapy</li></ul>	668	1.99	0.96	0.04	95	14.22
K25	<ol> <li>Patient Management G. Biophysical technologies</li> <li>Ultrasound (contact and non-contact)</li> </ol>	669	2.25	0.98	0.04	62	9.27
K24	Patient Management G. Biophysical technologies     Lectrical stimulation	663	2.27	0.99	0.04	62	9.35
K46	Etiological Considerations N. Neonatal and Pediatric Issues	670	2.67	1.01	0.05	172	25.67
K30	3. Patient Management J. Hyperbaric oxygen therapy	669	2.68	0.96	0.04	68	10.16
K32	Patient Management L. Surgical closure or tissue transfer	671	2.86	0.88	0.04	33	4.92
K53	5. Professional Issues G. Epidemiology	672	2.95	0.83	0.03	11	1.64
K06	Wound Healing Environment A. Anatomy and     Physiology 6. Other systems (e.g., endocrine, renal, respiratory, immunologic)	665	2.97	0.81	0.03	3	0.45
K50	5. Professional Issues D. Reimbursement and medical economics	670	3.02	0.89	0.03	13	1.94
K20	Patient Management C. Cellular and/or tissue products for wounds	670	3.05	0.88	0.03	11	1.64
K08	Wound Healing Environment B. Wound Healing     Cell function (e.g., signaling proteins, cellular mediators)	670	3.10	0.89	0.03	2	0.30
K04	Wound Healing Environment A. Anatomy and     Physiology 4. Neurological	667	3.12	0.85	0.03	3	0.45
K43	4. Etiological Considerations K. Dermatological	670	3.13	0.81	0.03	6	0.90
K16	2. Assessment and Diagnosis G. Laboratory/Imaging	671	3.15	0.79	0.03	3	0.45
K45	4. Etiological Considerations M. Burns	670	3.18	0.89	0.03	13	1.94
K49	5. Professional Issues C. Legal concepts	672	3.21	0.78	0.03	2	0.30
K05	<ol> <li>Wound Healing Environment A. Anatomy and Physiology 5. Lymphatic</li> </ol>	668	3.23	0.80	0.03	1	0.15
K51	<ol><li>Professional Issues E. Medical ethics (e.g., palliative care, reasonable expectation of outcomes)</li></ol>	670	3.28	0.78	0.03	3	0.45
K21	3. Patient Management D. Topical agents	672	3.29	0.76	0.03	1	0.15
K02	Wound Healing Environment A. Anatomy and     Physiology 2. Musculoskeletal	670		0.80	0.03		0.00
K15	Assessment and Diagnosis F. Functional assessment	671	3.35	0.72	0.03	1	0.15
K42	Etiological Considerations J. Atypical wounds (e.g., malignancy)	671	3.35	0.77	0.03	3	0.45
K52	5. Professional Issues F. Multidisciplinary teams	672	3.35	0.74	0.03	3	0.45
	4. Etiological Considerations H. Trauma	670		0.75	0.03		0.15
K41	4. Etiological Considerations I. Surgical	669	3.37	0.75	0.03	2	0.30

	Topic Ratings in Mean Significance (Ascending) Order								
	Topic Ratings in Mean digitificance	(A30		) Orac	<i>-</i> 1	#	% Not		
No.	Topic	N	Mean	SD	SE		Perform		
K29	Patient Management I. Negative pressure wound therapy	669	3.40	0.76	0.03	5	0.75		
K14	Assessment and Diagnosis E. Risk assessment	672	3.41	0.71	0.03	2	0.30		
K23	3. Patient Management F. Nutrition	666	3.41	0.69	0.03	1	0.15		
K13	2. Assessment and Diagnosis D. Pain assessment	668	3.42	0.71	0.03	0	0.00		
K39	4. Etiological Considerations G. Lymphedema	672	3.42	0.73	0.03	2	0.30		
K48	5. Professional Issues B. Patient adherence	669	3.44	0.67	0.03	0	0.00		
K17	Assessment and Diagnosis H. Nutrition	667	3.45	0.68	0.03	0	0.00		
K54	<ol><li>Professional Issues H. Evidence-based practice and research</li></ol>	672	3.46	0.72	0.03	2	0.30		
K44	4. Etiological Considerations L. Infectious	672	3.49	0.69	0.03	2	0.30		
K28	3. Patient Management H. Compression therapy	667	3.51	0.72	0.03	0	0.00		
K33	4. Etiological Considerations A. Neuropathy	670	3.52	0.68	0.03	0	0.00		
K07	Wound Healing Environment B. Wound Healing     Phases	669	3.54	0.73	0.03	0	0.00		
K09	<ol> <li>Wound Healing Environment B. Wound Healing</li> <li>Acute vs. chronic</li> </ol>	671	3.54	0.71	0.03	0	0.00		
K19	3. Patient Management B. Dressings	670	3.55	0.65	0.03	1	0.15		
K22	Patient Management E. Complications in healing (including local and systemic factors)	671	3.58	0.63	0.02	1	0.15		
K38	4. Etiological Considerations F. Edema (i.e., systemic vs. local)	670	3.59	0.61	0.02	0	0.00		
K47	5. Professional Issues A. Documentation	672	3.62	0.63	0.02	0	0.00		
K10	Assessment and Diagnosis A. History	671	3.63	0.62	0.02	0	0.00		
K03	Wound Healing Environment A. Anatomy and Physiology 3. Vascular	670	3.64	0.62	0.02	0	0.00		
K01	Wound Healing Environment A. Anatomy and Physiology 1. Integumentary	671	3.65	0.66	0.03	0	0.00		
K11	2. Assessment and Diagnosis B. Physical examination	671	3.67	0.59	0.02	1	0.15		
K31	Patient Management K. Pressure redistribution (i.e., offloading)	670	3.69	0.60	0.02	3	0.45		
K34	4. Etiological Considerations B. Diabetes	670	3.69	0.57	0.02	1	0.15		
K35	4. Etiological Considerations C. Venous insufficiency	670	3.70	0.55	0.02	2	0.30		
K36	4. Etiological Considerations D. Ischemia	670	3.70	0.55	0.02	1	0.15		
K37	4. Etiological Considerations E. Pressure ulcers	670	3.70	0.56	0.02	1	0.15		
K18	Patient Management A. Wound bed preparation/debridement	671	3.75	0.53	0.02	2	0.30		
K12	Assessment and Diagnosis C. Wound and skin assessment	672	3.85	0.42	0.02	0	0.00		

### **Appendix D. Task Importance Ratings**

# Survey Order Descending Percent Not Performing Order Ascending Mean Importance Order

	Task Ratings in Survey Order									
No.	Task	N	Mean	SE	SD	# Zeros	% Not Performed			
S01	Obtain history of present illness (e.g., wound duration, etiology, previous treatments, medication reconciliation, and comorbidities)	662	3.68	0.59	0.02	5	0.76			
S02	2. Obtain vital signs	661	2.71	0.95	0.04	29	4.39			
S03	Assess: 3. circulatory system	667	3.48	0.73	0.03	7	1.05			
S04	Assess: 4. integumentary system	668	3.60	0.64	0.02	8	1.20			
S05	Assess: 5. musculoskeletal system	667	3.14	0.81	0.03	12	1.80			
S06	Assess: 6. neurological system	664	3.08	0.83	0.03	11	1.66			
S07	Assess: 7. limb volume	666	2.92	0.95	0.04	50	7.51			
S08	Assess: 8. pain level	668	3.26	0.80	0.03	4	0.60			
S09	Assess: 9. tissue oxygenation	665	3.16	0.88	0.04	50	7.52			
S10	Assess: 10. wound healing status	662	3.60	0.62	0.02	1	0.15			
S11	Assess: 11. factors related to delayed wound healing	664	3.63	0.60	0.02	2	0.30			
S12	Assess: 12. barriers to the plan of care and expected outcomes (e.g., psychosocial, financial)	664	3.38	0.71	0.03	3	0.45			
S13	Assess: 13. wound characteristics	658	3.60	0.63	0.02	1	0.15			
S14	Evaluate wounds using the following standardized grading systems: 14. Wagner scale	661	2.81	1.02	0.04	73	11.04			
S15	Evaluate wounds using the following standardized grading systems: 15. University of Texas system	662	2.20	1.01	0.05	218	32.93			
S16	Evaluate wounds using the following standardized grading systems: 16. NPUAP (e.g., Stages I-IV, unstageable, suspected deep tissue injuries)	662	3.42	0.81	0.03	8	1.21			
S17	Evaluate wounds using the following standardized grading systems: 17. Rule of Nines	660	2.59	1.04	0.04	116	17.58			
S18	Evaluate wounds using the following standardized grading systems: 18. CEAP classification	663	2.30	1.01	0.05	175	26.40			
S19	19. Perform risk assessment	659	3.09	0.87	0.03	17	2.58			
S20	20. Review or interpret laboratory and imaging test results	662	3.06	0.85	0.03	23	3.47			
S21	21. Determine the etiology of the wound	657	3.51	0.70	0.03	13	1.98			
S22	22. Establish goals	658	3.38	0.75	0.03	8	1.22			
S23	23. Perform techniques to cleanse the wound and reduce bioburden	658	3.61	0.63	0.02	7	1.06			

	Task Ratings in Su	rvey C	Order				
No.	Task	N	Mean	SE	SD	# Zeros	% Not Performed
S24	24. Debride the wound	657	3.64	0.62	0.02	43	6.54
S25	25. Apply dressings to the wound	658	3.58	0.67	0.03	8	1.22
S26	26. Manage at-risk skin and periwound	658	3.56	0.66	0.03	4	0.61
S27	27. Apply compression therapy	658	3.51	0.70	0.03	9	1.37
S28	28. Use advanced therapeutic adjunctive treatments [e.g., negative pressure wound therapy, (contact and non-contact) ultrasound, hyperbaric oxygen]	658	3.30	0.82	0.03	16	2.43
S29	29. Apply offloading device for the lower extremity	659	3.49	0.77	0.03	19	2.88
S30	30. Use support surface for pressure relief/reduction	657	3.58	0.67	0.03	11	1.67
S31	31. Address the nutritional needs of the patient	657	3.31	0.78	0.03	12	1.83
S32	32. Address psychosocial or financial barriers	653	3.03	0.83	0.03	16	2.45
S33	Assist with or apply: 33. cellular and/or tissue products	655	2.78	0.96	0.04	120	18.32
S34	Assist with or apply: 34. tissue grafts and flaps	658	2.67	0.96	0.04	171	25.99
S35	Manage: 35. cellular and/or tissue products	657	2.81	0.95	0.04	86	13.09
S36	Manage: 36. tissue grafts and flaps	659	2.83	0.94	0.04	97	14.72
S37	37. Use advanced topical therapeutic agents (e.g., becaplermin, collagenase)	656	3.11	0.89	0.04	34	5.18
S38	38. Discuss and review the plan of care	655	3.46	0.72	0.03	2	0.31
S39	39. Educate patient/family/caregiver on disease management and prevention	655	3.59	0.66	0.03	1	0.15
S40	40. Monitor laboratory values	656	3.01	0.85	0.03	20	3.05
S41	41. Refer patients to consultants/specialists	656	3.28	0.77	0.03	18	2.74
S42	42. Perform complete wound care documentation	655	3.64	0.64	0.03	3	0.46
S43	43. Coordinate wound care continuum of care	656	3.38	0.74	0.03	14	2.13
S44	44. Interpret research methodology and strength of evidence	656	2.87	0.90	0.04	40	6.10
S45	45. Follow confidentiality and security requirements	656	3.51	0.73	0.03	5	0.76
S46	46. Adhere to guidelines and regulations (e.g., professional, governmental, reimbursement, credentials)	657	3.50	0.74	0.03	5	0.76

	Task Ratings in Percent Not Perfor	ming	(Desce	nding)	Order		
No.	Tasks	N	Mean	SE	SD	# Zeros	% Not Performed
S15	Evaluate wounds using the following standardized grading systems: 15. University of Texas system	662	2.20	1.01	0.05	218	32.93
S18	Evaluate wounds using the following standardized grading systems: 18. CEAP classification	663	2.30	1.01	0.05	175	26.40
S34	Assist with or apply: 34. tissue grafts and flaps	658	2.67	0.96	0.04	171	25.99
S33	Assist with or apply: 33. cellular and/or tissue products	655	2.78	0.96	0.04	120	18.32
S17	Evaluate wounds using the following standardized grading systems: 17. Rule of Nines	660	2.59	1.04	0.04	116	17.58
S36	Manage: 36. tissue grafts and flaps	659	2.83	0.94	0.04	97	14.72
S35	Manage: 35. cellular and/or tissue products	657	2.81	0.95	0.04	86	13.09
S14	Evaluate wounds using the following standardized grading systems: 14. Wagner scale	661	2.81	1.02	0.04	73	11.04
S09	Assess: 9. tissue oxygenation	665	3.16	0.88	0.04	50	7.52
S07	Assess: 7. limb volume	666	2.92	0.95	0.04	50	7.51
S24	24. Debride the wound	657	3.64	0.62	0.02	43	6.54
S44	44. Interpret research methodology and strength of evidence	656	2.87	0.90	0.04	40	6.10
S37	37. Use advanced topical therapeutic agents (e.g., becaplermin, collagenase)	656	3.11	0.89	0.04	34	5.18
S02	2. Obtain vital signs	661	2.71	0.95	0.04	29	4.39
S20	20. Review or interpret laboratory and imaging test results	662	3.06	0.85	0.03	23	3.47
S40	40. Monitor laboratory values	656	3.01	0.85	0.03	20	3.05
S29	29. Apply offloading device for the lower extremity	659	3.49	0.77	0.03	19	2.88
S41	41. Refer patients to consultants/specialists	656	3.28	0.77	0.03	18	2.74
S19	19. Perform risk assessment	659	3.09	0.87	0.03	17	2.58
S32	32. Address psychosocial or financial barriers	653	3.03	0.83	0.03	16	2.45
S28	28. Use advanced therapeutic adjunctive treatments [e.g., negative pressure wound therapy, (contact and non-contact) ultrasound, hyperbaric oxygen]	658	3.30	0.82	0.03	16	2.43
S43	43. Coordinate wound care continuum of care	656	3.38	0.74	0.03	14	2.13
S21	21. Determine the etiology of the wound	657	3.51	0.70	0.03	13	1.98
S31	31. Address the nutritional needs of the patient	657	3.31	0.78	0.03	12	1.83
S05	Assess: 5. musculoskeletal system	667	3.14	0.81	0.03	12	1.80
S30	30. Use support surface for pressure relief/reduction	657	3.58	0.67	0.03	11	1.67
S06	Assess: 6. neurological system	664	3.08	0.83	0.03	11	1.66
S27	27. Apply compression therapy	658	3.51	0.70	0.03	9	1.37
S22	22. Establish goals	658	3.38	0.75	0.03	8	1.22
S25	25. Apply dressings to the wound	658	3.58	0.67	0.03	8	1.22

	Task Ratings in Percent Not Perform	ming	(Desce	nding)	Order		
No.	Tasks	N	Mean	SE	SD	# Zeros	% Not Performed
S16	Evaluate wounds using the following standardized grading systems: 16. NPUAP (e.g., Stages I-IV, unstageable, suspected deep tissue injuries)	662	3.42	0.81	0.03	8	1.21
S04	Assess: 4. integumentary system	668	3.60	0.64	0.02	8	1.20
S23	23. Perform techniques to cleanse the wound and reduce bioburden	658	3.61	0.63	0.02	7	1.06
S03	Assess: 3. circulatory system	667	3.48	0.73	0.03	7	1.05
S01	Obtain history of present illness (e.g., wound duration, etiology, previous treatments, medication reconciliation, and comorbidities)	662	3.68	0.59	0.02	5	0.76
S45	45. Follow confidentiality and security requirements	656	3.51	0.73	0.03	5	0.76
S46	46. Adhere to guidelines and regulations (e.g., professional, governmental, reimbursement, credentials)	657	3.50	0.74	0.03	5	0.76
S26	26. Manage at-risk skin and periwound	658	3.56	0.66	0.03	4	0.61
S08	Assess: 8. pain level	668	3.26	0.80	0.03	4	0.60
S42	42. Perform complete wound care documentation	655	3.64	0.64	0.03	3	0.46
S12	Assess: 12. barriers to the plan of care and expected outcomes (e.g., psychosocial, financial)	664	3.38	0.71	0.03	3	0.45
S38	38. Discuss and review the plan of care	655	3.46	0.72	0.03	2	0.31
S11	Assess: 11. factors related to delayed wound healing	664	3.63	0.60	0.02	2	0.30
S10	Assess: 10. wound healing status	662	3.60	0.62	0.02	1	0.15
S13	Assess: 13. wound characteristics	658	3.60	0.63	0.02	1	0.15
S39	39. Educate patient/family/caregiver on disease management and prevention	655	3.59	0.66	0.03	1	0.15

	Task Ratings in Mean Significa	nce (A	Ascendi	ing) Ord	der		
No.	Tasks	N	Mean	SEM	SD	# Zeros	% Not Performed
S15	Evaluate wounds using the following standardized grading systems: 15. University of Texas system	662	2.20	1.01	0.05	218	32.93
S18	Evaluate wounds using the following standardized grading systems: 18. CEAP classification	663	2.30	1.01	0.05	175	26.40
S17	Evaluate wounds using the following standardized grading systems: 17. Rule of Nines	660	2.59	1.04	0.04	116	17.58
S34	Assist with or apply: 34. tissue grafts and flaps	658	2.67	0.96	0.04	171	25.99
S02	2. Obtain vital signs	661	2.71	0.95	0.04	29	4.39
S33	Assist with or apply: 33. cellular and/or tissue products	655	2.78	0.96	0.04	120	18.32
S14	Evaluate wounds using the following standardized grading systems: 14. Wagner scale	661	2.81	1.02	0.04	73	11.04
S35	Manage: 35. cellular and/or tissue products	657	2.81	0.95	0.04	86	13.09
S36	Manage: 36. tissue grafts and flaps	659	2.83	0.94	0.04	97	14.72
S44	44. Interpret research methodology and strength of evidence	656	2.87	0.90	0.04	40	6.10
S07	Assess: 7. limb volume	666	2.92	0.95	0.04	50	7.51
S40	40. Monitor laboratory values	656	3.01	0.85	0.03	20	3.05
S32	32. Address psychosocial or financial barriers	653	3.03	0.83	0.03	16	2.45
S20	20. Review or interpret laboratory and imaging test results	662	3.06	0.85	0.03	23	3.47
S06	Assess: 6. neurological system	664	3.08	0.83	0.03	11	1.66
S19	19. Perform risk assessment	659	3.09	0.87	0.03	17	2.58
S37	37. Use advanced topical therapeutic agents (e.g., becaplermin, collagenase)	656	3.11	0.89	0.04	34	5.18
S05	Assess: 5. musculoskeletal system	667	3.14	0.81	0.03	12	1.80
S09	Assess: 9. tissue oxygenation	665	3.16	0.88	0.04	50	7.52
S08	Assess: 8. pain level	668	3.26	0.80	0.03	4	0.60
S41	41. Refer patients to consultants/specialists	656	3.28	0.77	0.03	18	2.74
S28	28. Use advanced therapeutic adjunctive treatments [e.g., negative pressure wound therapy, (contact and non-contact) ultrasound, hyperbaric oxygen]	658	3.30	0.82	0.03	16	2.43
S31	31. Address the nutritional needs of the patient	657	3.31	0.78	0.03	12	1.83
S12	Assess: 12. barriers to the plan of care and expected outcomes (e.g., psychosocial, financial)	664	3.38	0.71	0.03	3	0.45
S22	22. Establish goals	658	3.38	0.75	0.03	8	1.22
S43	43. Coordinate wound care continuum of care	656	3.38	0.74	0.03	14	2.13
S16	Evaluate wounds using the following standardized grading systems: 16. NPUAP (e.g., Stages I-IV, unstageable, suspected deep tissue injuries)	662	3.42	0.81	0.03	8	1.21
S38	38. Discuss and review the plan of care	655	3.46	0.72	0.03	2	0.31

	Task Ratings in Mean Significa	nce (A	Ascendi	ing) Or	der		
No.	Tasks	N	Mean	SEM	SD	# Zeros	% Not Performed
S03	Assess: 3. circulatory system	667	3.48	0.73	0.03	7	1.05
S29	29. Apply offloading device for the lower extremity	659	3.49	0.77	0.03	19	2.88
S46	46. Adhere to guidelines and regulations (e.g., professional, governmental, reimbursement, credentials)	657	3.50	0.74	0.03	5	0.76
S21	21. Determine the etiology of the wound	657	3.51	0.70	0.03	13	1.98
S27	27. Apply compression therapy	658	3.51	0.70	0.03	9	1.37
S45	45. Follow confidentiality and security requirements	656	3.51	0.73	0.03	5	0.76
S26	26. Manage at-risk skin and periwound	658	3.56	0.66	0.03	4	0.61
S25	25. Apply dressings to the wound	658	3.58	0.67	0.03	8	1.22
S30	30. Use support surface for pressure relief/reduction	657	3.58	0.67	0.03	11	1.67
S39	39. Educate patient/family/caregiver on disease management and prevention	655	3.59	0.66	0.03	1	0.15
S04	Assess: 4. integumentary system	668	3.60	0.64	0.02	8	1.20
S10	Assess: 10. wound healing status	662	3.60	0.62	0.02	1	0.15
S13	Assess: 13. wound characteristics	658	3.60	0.63	0.02	1	0.15
S23	23. Perform techniques to cleanse the wound and reduce bioburden	658	3.61	0.63	0.02	7	1.06
S11	Assess: 11. factors related to delayed wound healing	664	3.63	0.60	0.02	2	0.30
S24	24. Debride the wound	657	3.64	0.62	0.02	43	6.54
S42	42. Perform complete wound care documentation	655	3.64	0.64	0.03	3	0.46
S01	1. Obtain history of present illness (e.g., wound duration, etiology, previous treatments, medication reconciliation, and comorbidities)	662	3.68	0.59	0.02	5	0.76

### **Appendix E. Topic Importance Ratings by Subgroup**

					7	opic	Ratir	ngs by	Regi	on						
	N	ortheas	st	So	outhea	st	Λ	/lidwes	it		West		Οι	ıtside	US	
Task	N	Mean	SE	N	Mean	SE	N	Mean	SE	N	Mean	SE	N	Mean	SE	C*
K01	142	3.64	.06	217	3.67	.05	173	3.65	.05	118	3.65	.06	15	3.47	.22	0
K02	143	3.29	.07	216	3.32	.05	173	3.32	.06	117	3.37	.07	15	3.27	.23	0
K03	142	3.63	.05	217	3.63	.04	173	3.66	.05	117	3.64	.05	15	3.60	.19	0
K04	143	3.14	.07	212	3.10	.06	171	3.09	.06	118	3.12	.07	14	3.43	.20	0
K05	141	3.30	.07	215	3.16	.06	172	3.26	.06	118	3.18	.07	15	3.53	.19	0
K06	139	3.09	.07	214	2.93	.06	171	2.95	.06	117	2.90	.08	15	3.07	.25	0
K07	143	3.55	.06	215	3.52	.05	173	3.54	.05	117	3.56	.07	15	3.53	.19	0
K08	143	3.08	.07	215	3.06	.06	171	3.13	.07	118	3.08	.08	15	3.27	.23	0
K09	143	3.59	.06	216	3.48	.05	173	3.53	.05	118	3.62	.06	15	3.47	.19	0
K10	143	3.66	.05	216	3.62	.04	173	3.66	.05	118	3.60	.06	15	3.53	.17	0
K11	141	3.67	.05	217	3.68	.04	173	3.71	.04	118	3.64	.05	15	3.53	.17	0
K12	143	3.86	.03	217	3.84	.03	173	3.88	.03	118	3.86	.04	15	3.60	.16	0
K13	142	3.41	.06	217	3.43	.05	170	3.46	.05	118	3.31	.07	15	3.47	.17	0
K14	143	3.46	.06	215	3.42	.05	173	3.37	.06	118	3.38	.07	15	3.47	.17	0
K15	142	3.40	.06	216	3.38	.05	173	3.34	.06	118	3.25	.07	15	3.33	.16	0
K16	143	3.17	.06	215	3.10	.05	173	3.16	.06	117	3.20	.08	14	3.21	.19	0
K17	142	3.51	.05	215	3.45	.05	172	3.40	.05	118	3.45	.07	15	3.40	.16	0
K18	143	3.78	.04	216	3.73	.04	172	3.78	.04	118	3.76	.04	15	3.40	.19	0
K19	142	3.55	.06	216	3.55	.04	173	3.61	.05	117	3.51	.06	15	3.47	.17	0
K20	142	3.08	.07	211	3.08	.06	169	3.07	.07	116	2.96	.09	15	3.00	.22	0
K21	143	3.34	.06	216	3.30	.05	173	3.31	.06	118	3.21	.07	15	3.20	.20	0
K22	143	3.64	.05	216	3.56	.04	173	3.62	.05	118	3.52	.06	15	3.40	.16	0
K23	141	3.44	.06	216	3.45	.05	169	3.37	.05	118	3.32	.07	15	3.47	.19	0
K24	129	2.38	.09	184	2.22	.07	161	2.29	.08	107	2.14	.09	14	2.29	.24	5
K25	130	2.37	.09	189	2.23	.07	162	2.30	.08	106	2.08	.09	14	2.21	.24	5
K26	123	2.04	.09	177	2.01	.07	151	2.03	.08	103	1.86	.08	14	1.86	.23	5
K27	120	2.09	.09	174	1.94	.07	146	2.01	.08	102	1.86	.08	14	1.71	.22	5
K28	143	3.56	.06	216	3.43	.05	171	3.64	.04	117	3.44	.07	14	3.36	.20	0
K29	143	3.38	.06	213	3.39	.06	170	3.42	.06	117	3.42	.07	15	3.33	.19	0
K30	129	2.79	.09	195	2.71	.07	152	2.62	.08	106	2.54	.09	13	2.77	.23	0
K31	141	3.75	.04	214	3.66	.04	173	3.72	.05	118	3.69	.06	15	3.47	.19	0
K32	138	2.88	.07	205	2.84	.06	163	2.87	.07	112	2.81	.08	14	3.00	.21	0
K33	143	3.59	.05	216	3.50	.05	173	3.52	.05	118	3.47	.07	15	3.47	.17	0
K34	143	3.69	.05	216	3.70	.04	172	3.73	.04	118	3.64	.06	15	3.53	.17	
K35	143	3.70	.05	215	3.70	.04	172	3.76	.04	118	3.66	.05	15	3.47	.17	0
K36	143	3.71	.04	215	3.71	.04	173	3.72	.04	118	3.67	.05	15	3.53	.17	0
K37	143	3.69	.05	216	3.70	.04	172	3.71	.04	118	3.69	.05	15	3.53	.17	0
K38	143	3.59	.05	216	3.56	.04	173	3.64	.04	118	3.58	.06	15	3.47	.17	0
K39	143	3.48	.06	217	3.37	.05	172	3.47	.05	117	3.35	.08	15	3.47	.17	0
K40	142	3.36	.07	216	3.37	.05	172	3.37	.06	118	3.35	.07	15	3.33	.19	0

					7	Горіс	Ratir	ngs by	Regi	on						
	N	orthea	st	S	outhea	st	N	lidwes	it		West		Οι	ıtside	US	
Task	N	Mean	SE	Ν	Mean	SE	N	Mean	SE	N	Mean	SE	N	Mean	SE	C*
K41	141	3.40	.07	216	3.42	.05	171	3.31	.06	118	3.31	.08	15	3.20	.22	0
K42	143	3.39	.06	215	3.33	.05	171	3.30	.06	118	3.37	.07	15	3.33	.19	0
K43	141	3.17	.07	213	3.11	.06	172	3.12	.06	117	3.11	.07	15	3.33	.19	0
K44	143	3.48	.06	216	3.50	.05	172	3.47	.05	118	3.51	.06	15	3.53	.17	0
K45	138	3.12	.08	213	3.17	.06	168	3.14	.07	117	3.25	.08	15	3.40	.16	0
K46	101	2.64	.10	160	2.78	.08	125	2.53	.10	94	2.63	.10	13	3.08	.24	0
K47	143	3.62	.06	217	3.63	.04	173	3.62	.05	118	3.58	.06	15	3.60	.16	0
K48	142	3.46	.06	217	3.39	.05	171	3.54	.05	118	3.39	.07	15	3.40	.16	0
K49	143	3.24	.07	216	3.20	.05	172	3.24	.06	118	3.14	.07	15	3.20	.17	0
K50	140	3.09	.07	213	3.01	.06	168	3.15	.06	117	2.80	.09	13	2.69	.31	0
K51	143	3.31	.06	215	3.30	.06	171	3.27	.06	117	3.16	.07	15	3.20	.20	0
K52	143	3.36	.06	215	3.36	.05	173	3.37	.05	117	3.28	.07	15	3.27	.21	0
K53	142	2.96	.07	213	2.92	.06	170	2.95	.07	115	2.96	.07	15	3.07	.21	0
K54	142	3.52	.06	216	3.37	.05	173	3.51	.05	118	3.48	.06	15	3.40	.19	0

<sup>\*</sup>Note. C indicates the number of groups with mean ratings below 2.5.

			То	pic Ra	tings b	y Educ	ationa	I Prepar	ation				
		echnica ertificate											
		iate De Diploma	_	Bac	calaure	eate	N	/laster's			octoral ost-Do		
Task	N	Mean	SE	N	Mean	SE	N	Mean	SE	N	Mean	SE	C*
K01	76	3.70	.07	226	3.57	.05	238	3.70	.04	128	3.67	.06	_
K02	76	3.42	.08	225	3.24	.06	239	3.36	.05	127	3.36	.07	
K03	76	3.70	.07	226	3.57	.04	238	3.69	.04	127	3.65	.06	
K04	75	3.23	.09	223	3.05	.06	237	3.14	.05	127	3.12	.08	
K05	76	3.37	.09	224	3.21	.05	238	3.24	.05	126	3.18	.07	0
K06	75	3.05	.09	221	2.88	.05	235	3.06	.05	128	2.91	.07	0
K07	76	3.54	.08	224	3.50	.05	239	3.59	.04	127	3.53	.07	
K08	76	3.12	.11	225	3.04	.06	237	3.17	.05	127	3.05	.08	
K09	76	3.63	.08	225	3.45	.05	239	3.58	.04	128	3.59	.06	0
K10	76	3.58	.08	226	3.60	.04	238	3.67	.04	128		.05	0
K11	76	3.68	.07	224	3.66	.04	239	3.69	.04	128		.05	
K12	76	3.88	.05	226	3.85	.03	239	3.87	.02	128	3.83	.04	_
K13	75	3.61	.08	226	3.39	.05	238	3.42	.05	126	3.37	.07	0
K14	76	3.55	.07	226	3.40	.05	237	3.42	.05	128		.07	
K15	76	3.49	.07	225	3.34	.05	238	3.36	.05	128	3.28	.07	
K16	76	3.37	.08	224	3.22	.05	238	3.13	.05	127	2.96	.07	0
K17	75	3.64	.07	223	3.52	.04	239	3.45	.04	127	3.23	.06	
K18	76	3.80	.06	224	3.74	.04	238	3.75	.03	128	3.77	.04	
K19	76	3.61	.07	225	3.59	.04	238	3.53	.04	127	3.52	.06	0
K20	74	3.14	.10	220	3.09	.06	236	3.05	.06	126	2.96	.08	_
K21	76	3.38	.08	226	3.31	.05	238	3.30	.05	128	3.18	.07	0
K22	76	3.71	.06	226	3.55	.04	238	3.59	.04	127	3.55	.06	
K23	75	3.60	.07	222	3.48	.05	237	3.38	.04	128	3.23	.06	0
K24	65	2.14	.12	191	2.17	.07	220	2.36	.07	122	2.31	.09	4
K25	64	2.11	.12	195	2.16	.07	223	2.34	.07	122	2.31	.09	4
K26	63	1.98	.12	183	1.91	.07	209	2.03	.07	115	2.03	.09	4
K27	61	1.95	.12	179	1.90	.07	206	2.04	.07	112	1.96	.09	4
K28	76	3.62	.07	224	3.49	.05	238	3.53	.05	126	3.46	.07	0
K29	76	3.55	.07	226		.05	236	3.36	.05	123		.07	
K30	68	2.79	.11	197	2.80	.07	217	2.65	.07	116	2.45	.09	1
K31	76	3.79	.05	224	3.73	.04	237	3.64	.04	127	3.69	.05	
K32	75	3.09	.10	210	2.84	.06	227	2.81	.06	123	2.82	.08	0
K33	75	3.63	.07	226	3.46	.05	239	3.54	.04	127	3.54	.06	0
K34	75	3.73	.06	225	3.65	.04	239	3.74	.03	127	3.67	.05	
K35	75	3.75	.06	225	3.69	.04	238	3.74	.04	127	3.65	.05	0
K36	76	3.76	.06	225	3.66	.04	238	3.72	.04	127	3.72	.05	0
K37	76	3.78	.05	226	3.67	.04	237	3.70	.04	127	3.69	.05	
K38	76	3.67	.06	226	3.56	.04	239	3.64	.04	126	3.53	.05	
K39	76	3.54	.07	224		.05	239	3.46	.05	128	3.29	.07	0
K40	76	3.49	.08	225	3.36	.05	237	3.37	.05	128	3.30	.07	
K41	76	3.57	.06	225	3.36	.05	236	3.36	.05	127	3.29	.07	
K42	76	3.49	.07	224		.05	238	3.36	.05	127	3.28	.07	0
K43	76	3.24	.09	222	3.10	.05	236	3.19	.05	127	3.02	.08	

			To	pic Ra	itings b	y Educ	ationa	l Prepai	ation				
	Co Assoc	echnica ertificat ciate De	e, egree,	Dee				<b>1</b> 1			octora	•	
Task	N	Diploma Mean	SE	N	calaure Mean	SE	N N	/laster's Mean	SE	N	ost-Do Mean	SE	C*
K44	76		.08	225	3.46	.04	238	3.56	.04	128		.07	0
K45	74	3.32	.09	221	3.14	.06	231	3.22	.06	128		.08	0
K46	59	2.56	.14	159	2.65	.07	175	2.71	.08	102	2.70	.10	0
K47	76	3.75	.06	226	3.61	.04	239	3.60	.04	128	3.59	.06	0
K48	75	3.56	.07	226	3.46	.05	237	3.41	.04	128	3.43	.06	0
K49	76	3.33	.08	226	3.22	.05	237	3.23	.05	128	3.13	.07	0
K50	75	3.00	.10	220	3.00	.06	234	3.07	.05	125	2.99	.08	0
K51	75	3.49	.08	225	3.28	.05	236	3.23	.05	128	3.23	.07	0
K52	75	3.47	.08	225	3.35	.05	238	3.34	.05	128	3.31	.06	0
K53	76	3.12	.09	219	3.00	.06	236	2.94	.06	127	2.80	.07	0
K54	76	3.42	.08	225	3.49	.05	238	3.50	.04	128	3.38	.07	0

<sup>\*</sup>Note. C indicates the number of groups with mean ratings below 2.5.

	Тор	ic Rati	ngs b	y Ye	ars of E	Exper	ienc	e in Wo	ound	Mana	ageme	nt	
		1-5			6-10			11-20			21+		
Task	N	Mean	SE	N	Mean	SE	N	Mean	SE	N	Mean	SE	C*
K01	58	3.59	.10	123	3.59	.06	268	3.71	.04	130	3.71	.05	0
K02	58	3.26	.11	123	3.28	.07	269	3.35	.05	130	3.41	.07	0
K03	58	3.52	.09	123	3.59	.06	268	3.69	.03	130	3.65	.05	0
K04	56	3.02	.12	123	3.04	.08		3.10	.05	129		.07	0
K05	58	3.17	.11	123	3.12	.08	268	3.24	.05	126	3.33	.07	0
K06	54	2.89	.12	123	2.95	.08	267	2.97	.05	128	2.98	.07	0
K07	57	3.42	.10	123	3.48	.07	268	3.58	.04	129		.06	0
K08	57	3.09	.13	122	3.02	.09	268	3.10	.05	129		.08	0
K09	58	3.48	.10	123		.07	268	3.59	.04	130	3.59	.06	0
K10	58	3.57	.07	123	3.57	.06		3.69	.03	130		.06	0
K11	57	3.72	.07	123		.06		3.69	.03	129		.05	0
K12	58	3.86	.05	123		.04	269	3.89	.02	130		.03	0
K13	58	3.34	.10	122	3.36	.07	268	3.46	.04	129		.06	0
K14	58	3.34	.09	122	3.35	.07	269	3.43	.04	129		.06	0
K15	58	3.26	.10	121	3.38	.07	269	3.33	.04	130		.06	0
K16	57	3.09	.12	121	3.12	.07	268	3.18	.05	130		.07	0
K17	57	3.42	.10	123		.07	267	3.46	.04	129		.06	0
K18	58	3.64	.07	123		.06		3.78	.03	127	3.83	.04	0
K19	58	3.59	.08	123		.06		3.59	.04	129		.06	0
K20	55	3.22	.11	122	2.95	.08		2.98	.05	126		.08	0
K21	58	3.36	.09	123	3.16	.08		3.29	.05	129		.06	0
K22	58	3.59	.09	122	3.46	.06		3.61	.04	129		.05	0
K23	58	3.38	.10	122		.07	268	3.43	.04	128		.06	0
K24	51	2.41	.15	105	2.21	.10	241	2.23	.06	121	2.30	.09	4
K25	52	2.38	.14	109		.09	240	2.25	.06	122		.09	4
K26	48	2.15	.15	101	1.89	.09	234	1.99	.06	110	1	.09	4
K27	46	2.04	.15	99	1.89	.09	229	1.96	.06	109		.09	4
K28	57	3.35	.11	122	3.42	.07	268	3.58	.04	129		.06	0
K29	56	3.39	.10	122	3.39	.07	268	3.44	.04	129		.07	0
K30	52	2.92	.13	105		.10		2.60	.06	119		.08	0
K31	58	3.62	.08	121			267	3.73	.04			.04	0
K32	52	2.90	.13	119			259	2.87	.05	123		.08	0
K33	58	3.47	.10	122		.07	269	3.57	.04	130		.05	0
K34	58	3.60	.09	122	3.61		269	3.74	.03	129		.04	0
K35	58	3.69	.07	122			269	3.74	.03	128		.04	0
K36	58	3.66	.07	122	3.62		269	3.74	.03	128		.04	0
K37	58	3.72	.06	122			268	3.74	.03	129		.04	0
K38	58	3.64	.07	121	3.50		269	3.62	.04	130		.05	0
K39	58	3.50	.10	122			269	3.41	.04	129		.06	0
K40	58	3.34	.10	123			267	3.39	.04	129		.06	0
K41	58	3.36	.09	122	3.22		266	3.39	.04	129		.06	0
K42	57	3.33	.10	123			268	3.35	.04	128		.07	0
K43	57	3.18	.12	123	3.04		265	3.14	.05	127	3.19	.07	0
K44	58	3.53	.09	123			269	3.52	.04	128		.06	0
K45	57	3.16	.12	122		.09		3.13	.05	127		.07	0

	Тор	ic Rati	ngs b	y Ye	ars of E	Exper	ienc	e in Wo	und	Mana	ageme	nt	
		1-5			6-10			11-20			21+		
Task	N	Mean	SE	N	Mean	SE	N	Mean	SE	N	Mean	SE	C*
K46	47	2.85	.15	78	2.77	.11	205	2.60	.07	101	2.65	.10	0
K47	58	3.55	.09	123	3.59	.06	269	3.65	.04	130	3.66	.05	0
K48	58	3.48	.09	123	3.47	.06	266	3.41	.04	130	3.48	.05	0
K49	58	3.17	.10	123	3.16	.08	268	3.22	.04	129	3.33	.06	0
K50	55	2.93	.13	119	3.01	.09	264	3.03	.05	129	3.08	.08	0
K51	58	3.33	.09	122	3.22	.08	268	3.25	.05	129	3.37	.06	0
K52	58	3.43	.09	122	3.26	.07	269	3.35	.04	128	3.40	.06	0
K53	56	3.13	.11	120	2.86	.08	268	2.94	.05	126	2.98	.07	0
K54	57	3.53	.09	123	3.50	.06	269	3.43	.04	129	3.54	.06	0

<sup>\*</sup>Note. C indicates the number of groups with mean ratings below 2.5.

	To	pic Rat			centage Manage		ork In	volved		
		0-24%			25-74%		7	5-100%	6	
Task	N	Mean	SE	N	Mean	SE	N	Mean	SE	C*
K01	125	3.62	.06	159	3.62	.05	385	3.66	.03	0
K02	124	3.39	.08	159	3.28	.06	385	3.32	.04	0
K03	124	3.60	.05	159	3.62	.05	385	3.66	.03	0
K04	122	3.14	.08	158	3.09	.07	382	3.13	.04	0
K05	122	3.20	.07	159	3.21	.07	384	3.24	.04	0
K06	123	2.91	.07	157	2.94	.07	380	2.99	.04	0
K07	123	3.52	.07	158	3.43	.06	386	3.59	.04	0
K08	124	3.06	.08	156	3.06	.07	386	3.12	.05	0
K09	125	3.55	.06	158	3.47	.06	386	3.56	.04	0
K10	125	3.54	.06	158	3.62	.05	386	3.67	.03	0
K11	125	3.66	.05	157	3.71	.04	386	3.67	.03	0
K12	125	3.79	.04	159	3.85	.03	386	3.87	.02	0
K13	124	3.49	.06	159	3.45	.05	383	3.39	.04	0
K14	124	3.44	.06	159	3.43	.05	385	3.40	.04	0
K15	125	3.36	.07	158	3.35	.06	385	3.35	.04	0
K16	125	2.94	.07	158	3.11	.07	383	3.24	.04	0
K17	125	3.33	.06	158	3.36	.06	382	3.52	.03	0
K18	123	3.67	.05	159	3.72	.04	385	3.79	.03	0
K19	123	3.49	.06	159	3.49	.05	385	3.60	.03	0
K20	120	3.00	.08	157	3.04	.07	380	3.08	.05	0
K21	124	3.22	.07	159	3.19	.06	386	3.35	.03	0
K22	123	3.46	.06	159	3.55	.05	386	3.64	.03	0
K23	124	3.29	.06	158	3.32	.06	381	3.48	.03	0
K24	114	2.45	.10	144	2.38	.08	341	2.16	.05	3
K25	112	2.33	.10	146	2.40	.08	347	2.16	.05	3
K26	110	2.10	.10	138	2.40	.08	323	1.90	.05	3
K27	105	2.04	.10	135	2.11	.09	319	1.90	.05	3
K28					3.47					
	123	3.27	.07	156		.06	386	3.60	.03	0
K29	121	3.12	.08	158	3.41	.06	383	3.48	.04	0 1
K30	107	2.38	.09	138	2.66	.08	354	2.77	.05	
K31	124	3.52	.07	159	3.70	.05	382	3.75	.03	0
K32	114	2.74	.08	153	2.88	.07	369	2.88	.05	0
K33	124	3.38	.07	158	3.48	.06	386	3.59	.03	0
K34	123	3.58	.06	158	3.64	.05	386	3.75	.03	0
K35	122	3.57	.06	158	3.65	.04	386	3.76	.03	0
K36	123	3.59	.06	159	3.68	.04	385	3.75	.03	0
K37	122	3.61	.06	159	3.65	.04	386	3.74	.03	0
K38	123	3.46	.06	159	3.57	.05	386	3.64	.03	0
K39	124	3.24	.07	159	3.40	.06	385	3.49	.04	
K40	122	3.21	.07	159	3.36	.06	386	3.42	.04	0
K41	122	3.19	.07	157	3.39	.06	386	3.42	.04	0
K42	122	3.16	.07	158	3.28	.07	386	3.43	.04	0
K43	120	3.00	.07	158	3.12	.07	384	3.18	.04	0
K44	123	3.38	.06	159	3.42	.06	386	3.56	.03	0

	То	pic Rat	_	•	centag /lanage		ork In	volved		
	0-24%			25-74%			7			
Task	N	Mean	SE	N	Mean	SE	Ν	Mean	SE	C*
K45	119	3.05	.09	155	3.18	.07	381	3.22	.04	0
K46	95	2.66	.11	118	2.62	.10	284	2.70	.06	0
K47	125	3.54	.06	159	3.57	.05	386	3.66	.03	0
K48	125	3.41	.06	156	3.37	.06	386	3.49	.03	0
K49	124	3.12	.07	158	3.16	.06	386	3.27	.04	0
K50	121	2.92	.08	154	2.95	.07	380	3.08	.05	0
K51	123	3.20	.07	159	3.26	.06	383	3.31	.04	0
K52	124	3.25	.07	159	3.33	.06	384	3.39	.04	0
K53	121	2.84	.08	156	2.90	.07	382	3.01	.04	0
K54	124	3.26	.08	158	3.46	.06	386	3.53	.03	0

<sup>\*</sup>Note. C indicates the number of groups with mean ratings below 2.5.

Topic	Rating	gs by C	cws (	Certif	ication	Stat	us
	C	ertifie	d	No	t certifi	ed	
Task	N	Mean	SE	N	Mean	SE	C*
K01	547	3.66	.03	124	3.59	.06	0
K02	547	3.32	.03	123	3.34	.07	0
K03	547	3.66	.03	123	3.54	.06	0
K04	541	3.14	.04	123	3.03	.08	0
K05	546	3.25	.03	121	3.12	.07	0
K06	541	2.98	.03	121	2.91	.08	0
K07	546	3.55	.03	123	3.47	.07	0
K08	545	3.11	.04	123	3.05	.08	0
K09	547	3.56	.03	124	3.45	.07	0
K10	547	3.65	.03	124	3.55	.06	0
K11	546	3.67	.03	124	3.69	.05	0
K12	548	3.85	.02	124	3.85	.04	0
K13	544	3.41	.03	124	3.47	.06	0
K14	546	3.41	.03	124	3.44	.06	0
K15	547	3.36	.03	123	3.32	.07	0
K16	545	3.16	.03	123	3.11	.07	0
K17	545	3.43	.03	122	3.52	.06	0
K18	546		.02	123	3.65	.06	0
K19	545	3.56	.03	124	3.55	.06	0
K20	541	3.04	.04	118	3.13	.08	0
K21	547	3.30	.03	124	3.23	.07	0
K22	546		.03	124	3.48	.06	0
K23	543	3.39	.03	122	3.52	.06	0
K24	488	2.27	.05	113	2.27	.09	2
K25	491	2.25	.04	116	2.25	.09	2
K26	464		.04	109	2.11	.10	2
K27	452	1.94	.04	109	2.06	.10	2
K28	543	3.53	.03	124	3.41	.06	0
K29	542	3.42	.03	122	3.29	.07	0
K30	491	2.63	.04	110	2.88	.09	0
K31	545	3.70	.03	122	3.66	.05	0
K32	521	2.85	.04	117	2.89	.08	0
K33	546	3.54	.03	124	3.44	.07	0
K34	546	3.71	.02	123	3.63	.06	0
K35	545	3.71	.02	123	3.67	.05	0
K36	545	3.72	.02	124	3.63	.05	0
K37	545	3.70	.02	124	3.66	.05	0
K38	546		.03	124	3.60	.05	0
K39	548		.03	122	3.46	.07	0
K40	547	3.36	.03	122	3.38	.06	0
K41	545		.03	122	3.35	.07	0
K42	545		.03	123	3.36	.06	0
K43	543		.03	121	3.18	.07	0
K44	547	3.49	.03	123	3.49	.06	0

Topic Ratings by CWS Certification Status							
	Certified			No			
Task	N	Mean	SE	Ν	Mean	SE	C*
K45	536	3.15	.04	121	3.30	.07	0
K46	401	2.60	.05	97	2.97	.10	0
K47	548	3.62	.03	124	3.60	.06	0
K48	545	3.43	.03	124	3.51	.06	0
K49	546	3.19	.03	124	3.31	.07	0
K50	538	3.01	.04	119	3.09	.08	0
K51	544	3.27	.03	123	3.32	.07	0
K52	545	3.34	.03	124	3.40	.06	0
K53	539	2.92	.04	122	3.10	.08	0
K54	546	3.46	.03	124	3.46	.07	0

<sup>\*</sup>Note. C indicates the number of groups with mean ratings below 2.5.

### **Appendix F. Examination Specifications**

### - Confidential -

For Test Development Use Only

Effective Date: 01-2018

			gniti Level		
	American Board of Wound Management Certified Wound Specialist (CWS) Examination Specifications*	Recall	Application	Analysis	Total
1. Wo	ound Healing Environment	12	6	2	20
А.	<ol> <li>Integumentary</li> <li>Musculoskeletal</li> <li>Vascular</li> <li>Neurological</li> <li>Lymphatic</li> <li>Other systems (e.g., endocrine, renal, respiratory, immunologic)</li> </ol>				
2. As	sessment and Diagnosis	7	16	10	33
A. B. C. D. E. F. G.	Physical examination Wound and skin assessment Pain assessment Risk assessment Functional assessment Laboratory/Imaging				
3. Pa	tient Management	4	15	11	30
A. B. C. D. E. F. G. H. J. K.	Dressings Cellular and/or tissue products for wounds Topical agents Complications in healing (including local and systemic factors) Nutrition Biophysical technologies 1. Electrical stimulation 2. Ultrasound Compression therapy Negative pressure wound therapy Hyperbaric oxygen therapy Pressure redistribution (i.e., offloading)				

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Effective Date: 01-2018

		gniti Leve		
American Board of Wound Management Certified Wound Specialist (CWS) Examination Specifications*	Recall	Application	Analysis	Total
4. Etiological Considerations	4	15	13	32
A. Neuropathy B. Diabetes C. Venous insufficiency D. Ischemia E. Pressure ulcers F. Lymphedema G. Trauma H. Surgical I. Atypical wounds (e.g., malignancy) J. Dermatological K. Infectious L. Burns M. Edema (i.e., systemic vs. local) N. Pediatric issues				
5. Professional Issues	3	6	1	10
<ul> <li>A. Documentation</li> <li>B. Patient adherence</li> <li>C. Legal concepts</li> <li>D. Reimbursement and medical economics</li> <li>E. Medical ethics (e.g., palliative care, reasonable expectation of outcomes)</li> <li>F. Multidisciplinary teams</li> <li>G. Epidemiology</li> <li>H. Evidence-based practice and research</li> </ul>				
Total Scored Items	30	58	37	125

<sup>\*</sup>Each test form will include 25 unscored pretest items in addition to the 125 scored items. 3.5 hours of testing time.

Initial base form passing point by Angoff method to be approved by ABWM.

Future passing points established through pre-equating.

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Effective Date: 01-2018

### In addition to classifying by topic (above) items will be classified by task. Tasks that are eligible for assessment include:

#### **History and Physical Examination**

- S1 Obtain history of present illness (e.g., wound duration, etiology, previous treatments, medication reconciliation, and comorbidities)
- S2 Obtain vital signs

#### Assess:

S3 circulatory system
S4 integumentary system
S5 musculoskeletal system
S6 neurological system
S7 limb volume
S8 pain level

S9 tissue oxygenation

#### **Evaluation and Diagnosis**

#### Assess:

S10 wound healing status

S11 factors related to delayed wound healing

barriers to the plan of care and expected outcomes (e.g., psychosocial,

S12 financial)

S13 wound characteristics

Evaluate wounds using the following standardized grading systems:

S14 Wagner scale

NPUAP (e.g., stages, unstageable, suspected deep tissue injuries)

S16 Rule of Nines S17 CEAP classification

S18 Perform risk assessment

S19 Review or interpret laboratory and imaging test results

S20 Determine the etiology of the wound

#### **Treatment**

- S21 Establish goals
- S22 Perform techniques to cleanse the wound and reduce bioburden
- S23 Debride the wound
- S24 Apply dressings to the wound
- S25 Manage at-risk skin and periwound
- S26 Apply compression therapy
- S27 Use advanced therapeutic adjunctive treatments (e.g., negative pressure wound therapy, ultrasound, hyperbaric oxygen)
- S28 Apply offloading device for the lower extremity
- S29 Use support surface for pressure relief/reduction
- S30 Address the nutritional needs of the patient
- S31 Address psychosocial or financial barriers

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Effective Date: 01-2018

Assist with or apply:
cellular and/or tissue products
tissue grafts and flaps
Manage:
cellular and/or tissue products
tissue grafts and flaps
Use advanced topical therapeutic agents (e.g., becaplermin, collagenase)

#### Follow-up Care

S37	Discuss and review the plan of care
S38	Educate patient/family/caregiver on disease management and prevention
S39	Monitor laboratory values
S40	Refer patients to consultants/specialists
S41	Perform complete wound care documentation

#### **Professional Practice**

S42 Coordinate wound care continuum of care

S43	Interpret research methodology and strength of evidence
S44	Follow confidentiality and security requirements
S45	Adhere to guidelines and regulations (e.g., professional, governmental,
	reimbursement, credentials)



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