A survey-based study on the professional opinion of the Medicare Functional Classification Level and the utilization of outcome measures in K-level assignment

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Abstract

The Medicare Functional Classification Level (K-level) was implemented to classify functional level for persons with lower limb amputation (LLA). Outcome measures have the potential to bring objectivity and consistency to the commonly subjective and imprecise method of K-level assignment. The purpose of this study is to determine the professional opinion on the K-level assignment process, possible limitations to this process, and the practicalities involved with the integration of outcome measures into clinical practice.

A survey was administered online via the US-based professional orthotics and prosthetics emailing list, OandP-L. The survey consisted of 20 questions regarding professional opinion on the K-level system and the use of clinically-relevant outcome measures.

Data was collected on 234 respondents. Regarding responsibility for K-level assignment, 42% of respondents indicated that they were the sole determinate in the assignment process, while 39% indicated that it was a collaborative process. Importantly, 67% of respondents did not believe the K-level system is sufficient to accurately assign a level of rehabilitation potential for persons with LLA, with 76% agreeing that incorporating outcome measures into clinical practice would enhance objectivity of the assignment process.

Outcome measure scores should be used to demonstrate and define the relationships between the K-levels as they are currently described to create a more objective assignment process. Additionally, these outcome measures could be used to re-evaluate the content validity of the individual K-levels. It is also possible that the K-level system could benefit from modification to its classification strata, either by the addition of more levels or the transition to a continuous scale. The K-level system is a valid step in improving the way mobility is measured.
and recorded in persons with lower-limb amputation, but further refinement and diligence will be
necessary to achieve a more objective and useful system.

**Key Words:** Medicare Functional Classification Level, K-level, Outcome Measure
Introduction

The Medicare Functional Classification Level (MFCL) is an index of functional mobility originally implemented by Medicare in 1995 to define the functional level of lower-limb prosthetics patients. This system was designed with the goal of aiding in the prosthetic component selection and reimbursement process by classifying a patient’s rehabilitation potential and selecting components suitable for supporting that level of functional mobility\(^1\). Even though the original intent for developing the K-level system was to appropriately match a patient with a prosthesis of a comparable level, certain characteristics of the MFCL have led to questions about the validity of this system.

The MFCL consists of five discrete levels (K0-K4) that broadly define levels of patient mobility. The precise wording of the level descriptors along with recommended components for each level can be found in Table 1. To optimize the function and safety for a prosthesis user, it is necessary that some system exists that has the capability to accurately and precisely measure a patient’s mobility and provides a metric for prescribing components of a compatible level. By objectively classifying components and assigning K-level, the process of matching a patient’s functional level to a proper component becomes easier and more consistent. Furthermore, third-party payers are placing increased scrutiny on documentation to justify prosthetic component recommendations, in part due to reports by Medicare of questionable billing practices by prosthetics practitioners\(^2\). These factors support the use of such a system to ensure that prosthesis users are not receiving components that are too unstable or restrict their activity level.
Table 1. Descriptors of the Medicare Functional Classification Level and Recommended Components for Each K-level

<table>
<thead>
<tr>
<th>K-level</th>
<th>Descriptor</th>
<th>Foot/Ankle</th>
<th>Knee</th>
</tr>
</thead>
<tbody>
<tr>
<td>K0</td>
<td>This patient does not have the ability or potential to ambulate or transfer safely with or without assistance and a prosthesis does not enhance their quality of life or mobility.</td>
<td>Not eligible for prosthesis</td>
<td>Not eligible for prosthesis</td>
</tr>
<tr>
<td>K1</td>
<td>This patient has the ability or potential to use a prosthesis for transfers or ambulation on level surfaces at fixed cadence - a typical limited or unlimited household ambulator.</td>
<td>External keel, SACH feet or single axis ankle/feet</td>
<td>Single-axis, constant friction knee</td>
</tr>
<tr>
<td>K2</td>
<td>This patient has the ability or potential for ambulation with the ability to traverse low-level environmental barriers such as curbs, stairs, or uneven surfaces - a typical community ambulator.</td>
<td>Flexible-keel feet and multi-axial ankle/feet</td>
<td>Single-axis, constant friction knee</td>
</tr>
<tr>
<td>K3</td>
<td>The patient has the ability or potential for ambulation with variable cadence - a typical community ambulator with the ability to traverse most environmental barriers and may have vocational, therapeutic, or exercise activity that demands prosthetic use beyond simple locomotion.</td>
<td>Flex foot and flex-walk systems, energy storing feet, multi-axial ankle/feet, or dynamic response feet</td>
<td>Fluid and pneumatic control knees</td>
</tr>
<tr>
<td>K4</td>
<td>The patient has the ability or potential for prosthetic ambulation that exceeds basic ambulation skills, exhibiting high impact, stress, or energy levels - typical of the prosthetic demands of the child, active adult, or athlete.</td>
<td>Any ankle foot system appropriate</td>
<td>Any ankle knee system appropriate</td>
</tr>
</tbody>
</table>

The current process of assigning K-level relies heavily upon the experience and opinions of the practitioner making the assignment. Additionally, the individual K-levels and their descriptors are not scientifically validated. The current five-level system was created arbitrarily, and thus, it is possible that five levels do not provide enough resolution to accurately assign a level of mobility. A large range of factors have an impact on the mobility level of a lower-limb
prosthesis user, but the K-level system only takes a narrow range of variable into account, such as the ability to ambulate at variable cadences and traverse environmental barriers.

Outcome measures provide a tool for clinicians to objectively and consistently assign levels of mobility and ambulation potential to their patients, and by recording validated outcome measure scores for patients, practitioners can improve documentation and strengthen arguments for component justification. A wide variety of validated outcome measures capable of assessing the mobility domain of the International Classification of Functioning, Disability and Health (ICF) are available for practitioners in lower-limb prosthetics. These include performance-based instruments, self-reported questionnaires, and even wearable devices. Other outcome measures can also assess factors related to K-level, such as comorbidity. Despite the increasing use of these measures, many aspects of clinical prosthetics practice, including K-level assignment, still stand to significantly benefit from the standardized use of outcome measures.

The practice of using outcome measures to aid in assigning K-level has not been thoroughly studied. However, there is some evidence to suggest that outcome measures such as the Amputee Mobility Predictor, the Prosthesis Evaluation Questionnaire, and even wearable devices have the potential to accurately measure patient function as categorized by K-level.

A similar movement toward objectivity and scientific validation is occurring in the realm of device classification. The AOPA Prosthetic Foot Project aims to improve the consistency and accuracy of prosthetic foot coding. By using mechanical testing procedures in a methodical process, the subjectivity previously seen in prosthetic foot classification can be minimized. Much in the same way, if outcome measures can be used to accurately and precisely assign a functional level to a patient in the form of a K-level, subjectivity and variability can be removed from the process, and device prescription and justification becomes much simpler.
However, before this goal is obtained, further investigation is required to understand what issues, if any, are faced by clinicians who use the K-level system and how these issues may be resolved, either by incorporating outcome measures into clinical practice or by other means. The purpose of this study is to determine the professional opinion on the K-level assignment process, possible limitations to this process, and the practicalities involved with the integration of outcome measures into the clinical practice framework.

**Methods**

The primary investigation of this research project consisted of a survey-style questionnaire. The link to the survey was made available by email distribution on the Academy of American Orthotist and Prosthetist’s O and P Listserv on October 22\textsuperscript{nd} of 2014 and was closed on December 1\textsuperscript{st}. The survey was targeted at practitioners actively involved in prosthetics practice, including both certified prosthetists and prosthetics residents. In order to ensure the survey questions delivered answers suited to the research question, the survey was thoroughly reviewed by two experienced prosthetists, who gave recommendations on improving the questions. IRB approval was waived due to the anonymity of the survey takers and the nature of the questions.

The survey included 20 questions and was hosted on the survey website Survey Monkey. The types of questions involved multiple choice, multiple answer, and Likert scale answers. The following Likert-type scale was used in three questions: 1 – Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 – Strongly Agree. In addition, the survey included built-in logic to reveal certain questions based on previous answers (a full version of the survey with logic is included in Appendix A). Only respondents practicing within the U.S. were asked about certification.
On question #8, respondents who indicated that they collaborated in K-level assignment were asked who they collaborated with, and those who indicated that K-level was not assigned in their clinic were automatically directed to Question #16. Respondents who indicated they did not use one of the types of outcome measures listed in Question #12 were directed to Question #17.

Additionally, the survey was broken down into three main sections. The first section asks questions involving basic demographic information about the survey-taker. The main purpose of this section is to gain an understanding of the type of practitioner taking the survey and demographics about the entire population of survey-takers. The second and largest section of the survey asks about outcome measures and K-level in practice. Answers to the questions in this section provided valuable information on how and why clinicians assign K-level in their practice and what percentage of them regularly use outcome measures in this process. The survey also recorded which outcome measures, if any, they use in K-level assignment and what other factors they consider when initially assigning a K-level to a patient. The third and final section enquired about potential issues the survey-takers have with the current standard of K-level assignment, and asked their opinion on the limitations of the K-level system in clinical practice.

**Results**

*Demographics*

In total, data was collected on 236 respondents. Due to the logic built into the survey, certain questions were not answered by every respondent. Of the 236 total respondents, 90.3% indicated that they were currently practicing in the United States, and 9.7% indicated that they
practiced internationally, in countries such as Canada, Australia, Pakistan, Israel, and Hong Kong.

In regard to certification, 95.7% of the domestic respondents indicated they had received ABC national certification, and 6.6% reported receiving BOC certification. The two most common types of certification were Certified Prosthetist (35.2% of respondents) and Certified Prosthetist-Orthotist (54.2%). Additionally, 6.2% of respondents indicated they were Prosthetics Residents.

The amount of clinical experience for the respondents and a breakdown of their clinical practice settings are shown in Figures 1 and 2. In regard to education, over half (54.2%) of the respondents reported that they had attended a post-baccalaureate certificate program for their prosthetics training. The remaining respondents reported receiving a bachelor’s degree (30.8%), a master’s program (10.6%), or other type of education (4.4%) for their prosthetics training.

Figure 1. Number of years of clinical prosthetics experience among respondents grouped into 5 year strata
K-level Assignment Process

When asked who was responsible for determining K-level in their clinical setting, 47.1% of respondents indicated they primarily and solely assigned K-level, and 42.3% indicated that it was a collaborative effort between themselves and other clinical care providers. Only 7.5% of respondents indicated that the physician was the sole determinate of their patients’ K-levels. It is worth noting that three respondents indicated in the “other” category that the Physical Therapist was the sole determinate of K-level. For those respondents who indicated that K-level assignment was a collaborative process, Figure 3 displays the frequency of clinical care providers involved in this collaboration. Figure 4 outlines the frequency of patient factors considered by the practitioner when assigning K-level. Write-in responses to this question
include presence of pain, family and social support, patient motivation, balance, and ability to ambulate at multiple cadences.

![Collaborators in K-level assignment](image)

Figure 3. Primary collaborators in the process of K-level assignment

![Patient factors considered by respondents when assigning K-level](image)

Figure 4. Patient factors considered by respondents when assigning K-level
Figure 5 summarizes the levels of agreement among respondents on the utility of K-level assignment in clinical practice. Regarding the use of outcome measures to assign K-level, 69.2% of respondents indicated that they used some type of outcome measure to assign K-level (Figure 6). For those respondents who indicated that they use outcome measures for K-level assignment, the frequency of specific outcome measures are displayed in Figure 7. Examples of responses in the “other” category include the Socket Comfort Score, the Four-Square Step Test, and the Tinetti Performance Oriented Mobility Assessment. When asked how often they used these outcome measures to assist in K-level assignment, 54.2% of these 142 respondents indicated they used outcome measures in K-level assignment very often (>75% of the time), 21.8% indicated they used outcome measures somewhat often (50-75% of the time), and only 23.9% indicated that they used outcome measures less than 50% of the time when assigning K-level.
Figure 6. Type of outcome measure used in K-level assignment process in clinical practice

Figure 7. Specific outcome measures used in the K-level assignment process in clinical practice
Figure 8 outlines the levels of agreement among the respondents on the various factors involved in the use of outcome measures in clinical practice.
In regard to justification, 60.7% of respondents reported that, at least once in the past, they had been required by a reimbursement agency to present documentation of a patient’s activity level as measured by some outcome. Additionally, 67.2% of respondents indicated that they did not believe the current K-level classification system is sufficient to accurately assign a level of rehabilitation potential for lower-limb prosthetics patients. Figure 9 summarizes the levels of agreement among the respondents in regard to several different aspects of the K-level system in general.

Figure 9. Levels of agreement among the respondents in regard to several different limitations and uses of the K-level system

Professional Opinion of K-level System

- Incorporating outcome measures into common clinical practice would make K-level assignment more objective
- The overall process of K-level assignment is too subjective
- K-level classification system limits the type of prosthetic components that can be recommended for a patient
- Level of rehabilitation potential should be measured on a continuous scale rather than being grouped together into 5 categories
- Each K-level includes too wide of a patient mobility range
- The descriptors can be interpreted differently depending on who is making the assignment
- K-level descriptors are too vague

Frequency (Number of Responses)
Respondents were given the option to list additional patient factors or outcome measures that they believed would make K-level assignment more objective and consistent. The responses can be categorized into four broad groups:

- standardized methods and definitions for measuring “variable cadence”
- video documentation
- patient compliance
- the ability of the patient to tolerate the weight of potential components.

Respondents were once again given the option to comment on the K-level system and prosthetic component recommendation in general. The comments can be categorized into the following themes:

- the lack of knowledge of the prescribing physician and the concurrent lack of importance placed upon the prosthetist’s notes by reimbursement agencies
- the K-level system being too vague and/or subjective and potential benefits from a more standardized system of measurement
- the value of a subjective evaluation when determining a patient’s level of rehabilitation potential.
- the inability of the system to account for the fact that some prosthesis-users might benefit from higher-level components and that many patients actually have the potential to increase their initially recorded K-level.

**Discussion**

The demographic results closely resemble the results of the 2013 O&P Edge Salary Survey\textsuperscript{13} suggesting that the respondents constitute a representative sample of prosthetics
practitioners. Interestingly, the majority of respondents were of either low to moderate experience (<10 yrs) or high experience (>30 yrs). Moderate to high experienced practitioners (10-30) were underrepresented and this may be considered a limitation to the study. The high rate of respondents with low-moderate experience might be explained by their younger age, perhaps making them more inclined to partake in online surveys. Additionally, as the opinions of other healthcare professionals involved in the K-level assignment process were not collected for this study, interpretation of results should be considered accordingly.

Almost all (89%) of the respondents indicated that they are routinely involved in the process of K-level determination, either as the sole determinant or as a collaborator with other healthcare professionals. This supports the idea that prosthetics practitioners have had an impact on how the K-level system has evolved in the past and will continue to have an impact on any future changes on the system. These results also highlight the importance of education on the current state-of-the-art methods of measuring patient mobility and assigning K-level, not only for the prosthetist but also for the other collaborators in the process (e.g. physical therapist or rehabilitation physician).

The results suggest that prosthetic practitioners consider a large array of patient-specific factors when assigning K-level. Over half of the respondents indicated that outcome measure results influence their decisions, and almost all respondents listed previous activity level and current health status as important factors in ultimately assigning K-level. However, in the official K-level descriptors¹, the main primary factors when graduating to higher levels (when a prosthesis is indicated) are the patient’s ability to traverse environmental barriers (K2), change cadence (K3), and participate in occupational or recreational activities that involve high impact, energy, or stress levels (K4). These additional factors, such as motivation and comorbidity, are
vital when considering a patient’s rehab potential\textsuperscript{14} and are related to the mobility factors listed in the K-level descriptors, but they are not explicitly defined.

Because practitioners appear to consider many factors outside of those specified by the K-level system (e.g. current health status, comorbidities, motivation, strength, outcome measure results, etc.), this could indicate that the K-level descriptors are either too vague or do not provide a sufficient depiction of a patient’s rehabilitation potential. Therefore, to make up for these insufficiencies, clinicians seem to consider the alternate factors mentioned above in order to create a more complete and accurate portrait of their patient’s rehabilitation potential. While some of these outside factors are easily quantified (strength, outcome measure results, current health status), others are not as easily measured, such as motivation, pre-amputation activity level, the effect of comorbid conditions, etc. In turn, the use of these less quantifiable factors introduces a high level of subjectivity and variability into the process of K-level assignment. This issue of subjectivity was supported by 57\% of respondents indicating that the process of K-level assignment is too subjective (Fig. 9)

Regarding the clinical utility of the K-level system, 75\% and 70\% of respondents agreed or strongly agreed that assigning a K-level assists in component recommendation and reimbursement, respectively. These high rates of agreement are likely due to the fact that K-level assignment and documentation is required by most reimbursement agencies for providers to receive payment. Over half of respondents did not agree that assigning K-level improves measurement and monitoring of patient mobility. These results indicate that clinicians may find K-level useful early during a patient’s rehabilitation when recommending and seeking reimbursement for components as it was originally intended but not throughout the entire rehabilitation process when trying to measure or record a patient’s improvement.
A patient’s mobility can easily change over a period of years, and the K-level system was not designed to measure these changes. Alternative methods of measurement are necessary to ensure that patients are not labeled a certain K-level at the beginning of their rehabilitation and stuck there without the potential to change levels because the system does not allow it. This type of permanent restriction from more advanced components could be very detrimental for lower-level patients who could benefit from improvement to their mobility and quality of life.

Many respondents on the survey indicated their concern that restriction from higher-level components could be limiting their patients’ potential for future rehabilitation, and there is some evidence to support these claims\textsuperscript{15-17}. Two studies found that use of microprocessor knees could improve a patient’s K-level from K2 to K3 among a significant number of subject. Another study found a similar result in the form of walking symmetry from the use of energy store and return prosthetic feet. However, many respondents commented about their hesitation to recommend K3 components because of doubts about reimbursement, even if the practitioner believes there might be some benefit to the patient.

A majority of the respondents (69.2\%) indicated regular use of outcome measures for the sole purpose of K-level assignment compared to a 2014 study that found 62\% of its respondents were not regular users of outcome measures\textsuperscript{18}. This difference is probably due to differences in sample populations (e.g. education, age, etc.), but more importantly, the fact that a large portion of prosthetics practitioners are using outcome measures to assign K-level indicates that there is desire and effort among professionals to make the process more objective and quantifiable.

Overall, none of the commonly mentioned hurdles (Fig. 8) involved in using outcome measures in clinical practice seem to be an important factor for the majority of respondents to this survey. However, approximately half of the respondents indicated two of the obstacles were
significant: 1) too many outcome measures to choose from and 2) not enough time to administer them. Therefore, although the industry is evolving to accommodate the use of clinical outcome measures, more work can be done to further streamline the selection and use of outcome measures in clinical practice.

The result of 61% of respondents having been required to provide outcome documentation for justification also suggests that reimbursement agencies do pay attention to outcome measure scores. Several outcome measures, such as the AMP and PEQ, have been indicated to correlate well with K-level assignment$^{4,5}$, and the results suggest that practitioners are using a variety of outcome measures for this purpose (Figs. 6 and 7). However, no standard protocol for measurement that is endorsed by reimbursement agencies currently exists, leaving practitioners to select their preferred method to quantify and record patient mobility and rehabilitation potential.

Remarkably, 67.2% of respondents reported a lack of confidence in the ability of the K-level system to accurately assign a level of rehabilitation potential for lower-limb prosthetics patients. However, since use of the K-level system is mandated by most reimbursement agencies, this once again supports the idea that many practitioners are using outcome measures in an attempt to address perceived limitations with this process.

Respondents strongly indicated that K-level limits the type of components that can be recommended for a patient, which is technically its function, but also that K-level descriptors can be interpreted differently depending on who is making the assignment, suggesting serious issues with the K-level system. Perhaps most notably, 76% of respondents indicated that the use of outcome measures would make K-level assignment more objective, supporting their use in clinical practice. Additionally, 57% of respondents supported the use of a continuous scale of
patient rehabilitation potential over the discrete levels currently used, and outcome measures could easily facilitate this change. Overall, the results suggest that clinicians find the K-level system too ambiguous, too subjective, and that each level contains too wide a range of patient mobility, especially between K2 and K3.

Solutions and improvements to these perceived issues with the K-level system may not be simple or automatic, but validated outcome measures can contribute to the process of advancement. Firstly, outcome measure scores, both in research and in the clinic, should be used to demonstrate and define the relationships between the K-levels as they are currently described to create a more objective assignment process. Using outcome measures to this effect could vastly improve the clinician’s ability to accurately and reliably quantify patient mobility and rehabilitation potential.

Secondly, outcome measures could be used to re-evaluate the content validity of the individual K-levels. Do the K-level descriptors themselves accurately assign patients to the correct level of rehabilitation potential? Is variable cadence a valid metric for stratifying patient mobility? What is the exact definition of “variable cadence” or “high impact”? What effect does a patient’s comorbidities and motivation have on their rehabilitation? Outcome measure scores have the potential to shed light on these questions and improve the validity of these previously non-validated levels.

Lastly, it is possible that the K-level system could benefit from modification to its classification strata. An additional level (or levels) or use of a continuous scale could improve patient classification resolution and optimize component recommendation. For example, two studies on service members with limb loss utilized a functional classification system with seven levels\textsuperscript{19,20}, in which the K2 level was defined as pure household ambulators and two levels of
community ambulator were included. Alternatively, the Special Interest Group in Amputee Medicine (SIGAM) developed a scale comprised of six grades of mobility based on a self-report questionnaire. This scale was shown to have high validity and reliability among lower-limb prosthesis users\textsuperscript{21}. Outcome measure scores, such as the SIGAM scale or others, have the potential to define new levels or could be easily adapted to a continuous scale of patient mobility and rehabilitation potential.

Many respondents suggest that these arguments to improve K-level are mostly academic, since reimbursement agencies only take the physician’s notes into account. They raise an interesting point, and most physicians only have some, if any, familiarity with the K-level system and measures of patient mobility. The prosthetist’s ability to subjectively analyze a patient’s potential is an asset that is impossible to place a value upon and will always have a role in clinical prosthetics practice\textsuperscript{14}. Ideally, because they are the clinicians with the most expertise and experience with fitting patients with prosthetic components, the prosthetists would be the final say in what their patients receive. However, it is very unlikely for any changes to occur without having the tools in place to measure function and justify prosthetic component recommendations. The K-level system is a valid step in providing these tools, but further refinement and diligence will be necessary to achieve these changes.
References

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2. Levinson DR. Questionable billing by suppliers of lower limb prostheses. Government Document. Services HaH. 2011,


Appendix A: On-line Survey

Note: Highlights indicate logic built into the survey.

Part One: Demographics

1. Do you currently practice prosthetics in the United States?
   a. Y
   b. N [In which country do you currently practice prosthetics?] <Entry Field> (Skip to Q3)

2. Which form of national certification did you receive, or will you receive?
   a. ABC
   b. BOC
   c. Other <Entry Field>

3. What is your current title? (Multiple Answer)
   a. Certified Prosthetist (CP)
   b. Certified Orthotist (CO)
   c. Certified Prosthetist-Orthotist (CPO)
   d. Licensed Prosthetist (LP)
   e. Licensed Orthotist (LO)
   f. Licensed Prosthetist-Orthotist (LPO)
   g. Prosthetics Resident
   h. Other: <Entry Field>

4. How long have you been practicing as a prosthetics practitioner?
   a. Dropdown Menu (0-100 yrs)

5. What type of degree did you obtain for your prosthetics education?
   a. Certificate
   b. Bachelor’s
   c. Master’s
   d. Other: <Entry Field>

6. What is the highest level of education you have completed?
   a. Certificate Program
   b. Bachelor’s
   c. Master’s
   d. PhD
   e. MD
   f. Other: <Entry Field>

7. In which setting do you currently practice? [Select all that apply]
   a. University medical center setting
   b. Inpatient hospital setting
   c. Research facility
   d. Private practice (single site)
   e. Private Practice (smaller group, 2-3 offices)
   f. Private Practice (medium group, 4-10 offices)
   g. Private Practice (large group, more than 10 offices)
Part Two: K-level Assignment Process

8. In your clinical setting, how is the K-Level assignment determined?
   a. I primarily and solely determine my patients’ K-level assignment *(Skip to Q10)*
   b. K-level assignment is determined as a collaborative effort by myself and other clinical care providers
   c. K-level is determined by my referring physician, and I transcribe the aforementioned K-level to all billing documentation *(Skip to Q10)*
   d. K-level is not assigned in my clinic *(Skip to Q17)*
   e. Other: <Entry Field>

9. Who else contributes to the process of determining the K-level assignment of your patients? [Select all that apply]
   a. Surgeon
   b. Primary Care Physician
   c. Rehabilitation Physician (Physiatrist)
   d. Physical Therapist
   e. Occupational Therapist
   f. Other: <Entry Field>

10. Which patient factors are considered when assigning K-level? [Select all that apply]
    a. Medical history
    b. Current health status
    c. Previous activity level
    d. Desired activity level
    e. Motivation
    f. Presence and severity of comorbid health conditions
    g. Exercise and recreational activities
    h. Muscle strength
    i. Body weight
    j. Age
    k. Outcome measure results
    l. Other: <Entry Field>

11. Please rate how strongly you agree or disagree with each of the following statements. 1 – Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 – Strongly Agree.
    a. Assigning a K-level assists with component recommendation
    b. Assigning a K-level assists with prosthetic component reimbursement
    c. Assigning a K-level provides documentation of clinical care
    d. Assigning a K-level improves measurement and monitoring of patient mobility

12. Which form of standard outcome measures do you use to assist with determining K-level assignment? [Select all that apply]
    a. Performance-based measures, such as the 6 minute walk test and Amputee Mobility Predictor (AMP)
    b. Self-report measures, such as the Prosthesis Evaluation Questionnaire (PEQ) and Locomotor Capabilities Index (LCI)
    c. Wearable devices, such as step count and activity monitors
    d. I do not use standard outcome measures to assist with assigning k-level *(Skip to Q17)*
13. (If a, b, or c to #12) Provided are several examples of standardized outcome measures. Please select which outcome measures you have used to assist with K-level assignment, or select “other” and list the outcome measures you use. [Select all that apply]
   a. Amputee Mobility Predictor (AMP)
   b. Patient Assessment Validation Evaluation Test (PAVET)
   c. Distance Walk Test (DWT) (e.g. 10-Meter Walk Test)
   d. Timed Walk Test (TWT) (e.g. 2-Minute Walk Test)
   e. Prosthesis Evaluation Questionnaire (PEQ)
   f. Activities-specific Balance Confidence (ABC) Scale
   g. Timed Up and Go (TUG)
   h. Prosthetic Profile of the Amputee (PPA)
   i. Borg Rating of Perceived Exertion (RPE)
   j. Functional Mobility of the Amputee (FMA)
   k. Orthotic and Prosthetic Users Survey (OPUS)
   l. Short-Form 8, 12, or 36 (SF-8, SF-12, or SF-36)
   m. Step Activity Monitor (SAM)
   n. Berg Balance Scale (BBS)
   o. Houghton Questionnaire
   p. Locomotor Capabilities Index (LCI)
   q. Lower Extremity Functional Scale (LEFS)
   r. Rivermead Mobility Index (RMI)
   s. Nottingham Health Profile (NHP)
   t. Trinity Amputation and Prostheses Experience Scales (TAPES)
   u. Wearable Devices (StepWatch Activity Monitor, BTS G-Walk System, McRoberts DynaPort, etc.)
   v. Other: <Entry Field>

14. How regularly do you use these outcome measures to assist with assigning K-level?
   a. Very regularly (>75% of the time)
   b. Somewhat regularly (50-75% of the time)
   c. Somewhat rarely (25-50% of the time)
   d. Almost never (0-25% of the time)

15. Please rate your level of agreement with the following statements regarding the clinical use of outcome measures. Scale: 1 – Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 – Strongly Agree
   a. Outcome measures require too much time to administer to use them regularly
   b. My clinical documentation system does not support recording of outcome measure results
   c. I do not have the necessary resources, such as space and equipment, to perform outcome measures
   d. There are too many choices of available outcome measures to select the most appropriate outcome measure for clinical assessment
   e. I lack sufficient training to administer outcome measures
   f. I lack sufficient training to interpret results from outcome measures
16. Have you ever been required by reimbursement agencies such as Medicare or Aetna to present documentation of a patient’s mobility level and/or activity level as measured by an outcome to justify recommendation for a particular component or device?
   a. Y
   b. N

*Part Three: K-level System and Reimbursement*

17. Do you believe the current K-level classification system is sufficient to accurately assign a level of rehabilitation potential for lower-limb prosthetics patients?
   a. Y
   b. N

18. Please rate your level of agreement with the following statements. Scale: 1 – Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 - Agree, 5 – Strongly Agree
   a. K-level descriptors are too vague
   b. The descriptors can be interpreted differently depending on who is making the assignment
   c. Each K-level includes too wide of a patient mobility range
   d. Level of rehabilitation potential should be measured on a continuous scale rather than being grouped together into 5 categories
   e. K-level classification system limits the type of prosthetic components that can be recommended for a patient
   f. The overall process of K-level assignment is too subjective
   g. Incorporating outcome measures into common clinical practice would make K-level assignment more objective

19. Which patient factors or outcome measures do you think would make k-level assignment more objective and consistent? You may skip this question if you would not like to comment. <Entry Field>

20. Please include any additional comments regarding your thoughts on the use of the K-level system for assigning rehabilitation potential and making prosthetic component recommendations. You may skip this question if you would not like to comment. <Entry Field>