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## I. INTRODUCTION

- A. Clinical experiences are designed to develop clinical decision-making skills in the student physical therapist (SPT). These experiences allow students to integrate didactic material learned in the classroom by applying it to patient/client management activities that utilize principles of evidence-based practice.
- B. The *Physical Therapist Manual for the Assessment of Clinical Skills (PT MACS)*, Edition 2, describes the skills that a newly graduated physical therapist must be able to perform in order to engage in safe and effective practice. The skills in the *PT MACS* are based on (1) entry-level physical therapist education criteria as defined by *A Normative Model for Physical Therapist Education*,<sup>3</sup> (2) standards of practice, elements of patient/client management and terminology as defined by *The Guide to Physical Therapist Practice 3.0*,<sup>4</sup> and (3) standards of professional behavior initially defined as the *Generic Abilities*.<sup>1,2</sup>
- C. The *PT MACS* is designed for use by the student, the academic faculty, and the clinical faculty from the beginning to the culmination of the curriculum.
- D. The **DCE establishes the grade** for each clinical experience with input from documentation and feedback provided by the Clinical Instructor (CI).
- E. The objectives for each skill are designed to guide the CI in defining and documenting entry-level performance for the specific clinical setting.
- F. Definitions for the terms and concepts utilized in the *PT MACS* are located in Appendix A on pages 14-16.
- G. Tips for teaching in the clinical setting are located in Appendix B on page 17.
- H. Examples of the application of the *PT MACS* in various practice settings are located in Appendix C on pages 18-22. These examples are intended to guide the CI in determining how the same *PT MACS* skill may apply in different practice settings.

## II. PURPOSES

The purposes of the *PT MACS* are to:

- A. define entry-level skills;
- B. provide a uniform, objective mechanism for rating student skill performance;
- C. provide students with an opportunity for self-assessment;
- D. provide a summary of the student's strengths and weaknesses; and

- E. emphasize a critical decision-making approach to physical therapist education and practice.

### **III. CONTENTS**

- A. Entry-level Skills (Skills 1 – 24) comprise all skills an entry-level PT should be able to perform.
- B. Site-Specific Skills (Skills 25 – 28, yellow)
  - 1. Specialized skills may not be available at every site.
  - 2. If available, the CI may use these skill sheets to document student's performance.
  - 3. CI may contribute additional skills to this section.

**NOTE:** The academic program determines the number of entry-level and site-specific skills a student must complete during each clinical experience and prior to graduation.

#### **C. Forms**

- 1. Facility Identification Form
- 2. Progress Report

CI completes the Progress Report (5 pages) for each clinical experience. The progress report includes the following:

- a) Midterm and final summative assessment
- b) Skill summaries
- c) Visual Analog Scale

### **IV. ESSENTIALS OF DOCUMENTING STUDENT PERFORMANCE IN THE *PT MACS***

- A. All documentation must be in permanent ink.
- B. Do not use correction fluid/tape, pencils or erasers.
- C. Errors are marked through with a single line.
- D. All changes made to ratings must be initialed.

- E. Student completes the self-assessment before the CI's assessment.
- F. All **NI** (Not Independent) and **U** (Unacceptable) ratings require a written comment.
- G. The **U** rating also requires that the CI contact the student's DCE immediately.
- H. Progress Report is completed and discussed with the student at midterm and final evaluation conferences.
- I. CI and student sign and date the midterm and final comments of the Progress Report.
- J. Progress Report (5 pages) is returned to the DCE at the end of the clinical experience.

## **V. USE OF FORMS**

### **A. Skill Sheets**

1. Student and CI should read each skill and its objectives at the beginning of the clinical experience.
2. CI should identify objectives applicable to the particular setting.
3. CI should discuss expectations required to complete each skill.
4. Student and CI rate the student's performance relative to all applicable objectives for the setting at midterm and final evaluations.
5. Notation of the practice setting in which the skill was practiced or completed should be made on the skill sheet in the table below the rating columns.
  - CI or student records the clinical experience number and facility initials in the appropriate box.
  - If a clinical experience is divided among multiple settings, this should be indicated as well.
6. Comments related to student performance are written in the lower section of the skill sheet. Written comments are *required* for the **NI** and **U** ratings. Refer to pages 11-12 for examples.

### **B. Skill Sheets in Log Format**

1. Logs are applicable to the following intervention skills:

- Skill # 16.1 Interventions: Biophysical agents (modalities)

Skill # 16.5 Interventions: Manual therapy (Refer to example on page 13)

2. The log format is used for skills which there are a variety of means by which to demonstrate entry-level performance.
3. The student's performance with the activities listed on the logs is rated in the same manner as the other skill sheets.

**NOTE: The academic program determines the number of interventions the student must complete for the skills containing a log.**

### **C. Facility Identification Form**

1. This form provides pertinent information about each clinical experience for subsequent CIs and the academic program.
2. If a clinical experience is split among multiple settings within the same institution, each setting should be identified separately.

### **D. Progress Report**

1. This form is a formative and summative evaluation that is completed by the CI and discussed with the student at the midterm and final evaluations for each clinical experience.
2. Documenting the Midterm Evaluation
  - CI completes the "Midterm Comments" section (pages 1 and 2).
  - CI schedules a midterm conference to review the evaluation with the student. Signatures of CI and student indicate that feedback was shared.
  - CI completes the Visual Analog Scale (page 5). This criterion-referenced scale is used by the CI to rate the student based on the level of clinical and academic experience the student has completed up to this point in time. A hash mark is placed on the line designating the rating with an "M" above the hash mark to indicate midterm.
  - A midterm conference with the DCE takes place to review the student's progress.

### 3. Documenting the Final Evaluation:

- CI's ratings of the student's performance on all skills attempted are transferred from the individual skill sheets to the skill summaries (pages 3 and 4) section of the Progress Report.
- CI completes the "Final Comments" section (pages 1 and 2).
- The CI completes the Visual Analog Scale (page 5). This criterion-referenced scale is used by the CI to rate the student based on the level of clinical and academic experience the student has completed up to this point in time. A hash mark is placed on the line designating the rating with an "F" above the hash mark to indicate final.
- CI schedules a final conference with the student to review the evaluation. Signatures of the CI and student indicate that the feedback was shared.

## VI. RATING SCALE

The following rating scale has been developed for use with the *PT MACS*:

According to current standards of practice, the student's performance is:	
<b>+</b>	<b>Above entry-level.</b> Surpasses entry-level standards <i>for this setting</i> by meeting all <i>applicable</i> objectives; practices the skill safely, effectively, consistently and efficiently.
✓	<b>Entry-level.</b> Meets entry-level standards <i>for this setting</i> by meeting all <i>applicable</i> objectives; practices the skill safety and effectively.
<b>NI</b>	<b>Not Independent.</b> Below entry-level standards <i>for this setting</i> ; does not meet all <i>applicable</i> objectives; practices the skill with supervision or assistance from the CI requiring guidance and/or correction.  <b><i>Requires comment by CI.</i></b>
<b>U</b>	<b>Unacceptable.</b> Well below entry-level standards <i>for this setting</i> ; does not meet <i>applicable</i> objectives even with repeated assistance from CI to correct deficits; practices the skill in an unsafe and/or ineffective manner despite repeated guidance from CI.  <b><i>Requires comment by CI citing incidents/reasons for the rating; CI or CCCE must call DCE as soon as possible once the student earns this rating.</i></b>
	<b>Blank.</b> Student has had no opportunity to practice the skill in this setting.

## A. Basis for the Rating Scale

1. The *PT MACS* is designed so that the skills can be completed in a variety of practice settings.
2. Student may encounter facilities where certain objectives for the skill are not performed routinely by the physical therapist.
  - If this is the case, then the student should be rated based *only* on the objectives that are applicable for that facility.
  - Student should not be expected to fulfill an objective that is not applicable at the facility. For example, if objective “D” is not applicable, but all other objectives are, and the student performs them safely and effectively, the CI rates the student as entry-level for that skill.
  - At the beginning of the clinical experience the CI should identify:
    - Objectives applicable to the setting
    - Expectations of the student in order to earn an entry-level (✓) rating

**NOTE: Ratings should be based ONLY on the objectives applicable at the facility in which the student is completing the clinical experience.**

## B. Explanation of the NI and U Ratings

1. **NI rating:** The student is *not independent* because of one or more of the following:
  - Student requires cueing, prompting, reminding, instructing, guiding, or correcting to perform applicable objectives for the skill.
  - Student is not safe in performing the skill.
  - Student demonstrates errors in performance of the skill.

**NOTE: CI must document specific behaviors that need improvement; referring to the objectives of the skill when applicable. Refer to example on page 11.**

2. **U rating:** The student’s performance is *unacceptable* because of one or more of the following:



- Student engages in a single grievous incident that demonstrates gross unprofessional, unsafe, illegal, or unethical behavior.
- Student continues to perform the skill in an unsafe or ineffective manner *despite* receiving repeated guidance from the CI including written documentation of the incident(s) or problem(s).
- Guidelines for Documenting the **U** Rating:
  - Document the specific behavior(s) that resulted in the **U** rating citing objective(s) that apply to the rating.
  - Document the extent and type of guidance, instruction, or counseling provided to the student leading up to the **U** rating.
  - If the documentation exceeds the space available for comments in the *PT MACS*, the CI must sign and date all additional documentation.
  - Refer to example on page 12.

**NOTE:** When the student earns a **U (Unacceptable)** rating, the CI or CCCE must contact the DCE immediately.

### C. Approval of a Skill

1. Once the student achieves entry-level standards by meeting all *applicable* objectives, the student earns the ✓ (entry-level) rating.
2. Student should self-assess by placing a ✓ in the appropriate row on the skill sheet.
  - If this occurs prior to or at midterm, the ✓ is placed in the box marked “midterm” for the column corresponding to the clinical experience number.
  - If this occurs between midterm and final, then the ✓ is placed in the box marked “final” for the column corresponding to the clinical experience number.
3. Following the student’s self-assessment, the CI will place the ✓ in the appropriate row on the skill sheet.
4. CI’s ✓ constitutes approval of the skill. Refer to example on page 10.

5. Either the CI or student transfers the ✓/rating to the skill summaries, pages 3-4 of the Progress Report, found in the Forms section. The CI records the date of the approval and his/her initials in the “Approved” column.

#### **D. Practice Setting Section of the Skill Sheet**

1. CI at each site should indicate the practice setting(s) for the clinical experience by recording the experience number and the facility initials in the appropriate box.
2. Refer to example on page 10.

#### **E. Comments Section of the Skill Sheet**

1. CI uses the space provided at the bottom of the page of each skill sheet to write comments.
2. Comments are required for all **NI** and **U** ratings. Refer to examples of comments for these ratings on pages 11-12.
3. CI must record the date and his/her initials for the comments.
4. If additional documentation such as a remediation plan is created, the CI and the student must sign and date this additional documentation. A copy of this documentation should be sent to the DCE.

#### **F. Approval of a Skill During Subsequent Clinical Experiences**

1. For each clinical experience, the CI determines if the student is performing at entry-level in that setting.
2. For a previously approved skill, if the CI at a *subsequent* clinical site determines that the student **is** performing at entry-level per the facility standards, the CI places a ✓ in the appropriate box for that clinical experience.
3. For a previously approved skill, if the CI at a *subsequent* clinical site determines that the student **is not** performing at entry-level per the facility standards, the CI:
  - Places an **NI** or **U** rating in the appropriate box on the skill sheet.

- Documents in the comments section, describing specific behaviors the student must demonstrate in order to become entry-level for the setting.
4. Once the student earns an **NI** or **U** rating for a *previously approved skill at a subsequent site*, the student should be given adequate opportunities to develop entry-level performance of the skill through availability of appropriate learning experiences.
  5. When the student's performance becomes entry-level, the CI indicates this approval by placing a  $\sqrt{\phantom{x}}$  rating in the "CI" box marked either "midterm" or "final" for the column corresponding to the clinical experience number.
  6. If after adequate opportunities, the student's performance is not entry-level by the end of the clinical experience, the **NI** or **U** rating remains unchanged.
  7. Final skill ratings must be transferred to pages 3–4 of the Progress Report found in the Forms section. CI records the date of the approval and initials in the column marked "Approved."

**NOTE: Academic program may require certain skills to be approved during each clinical experience regardless of previous approval status.**

## VII. EXAMPLES OF DOCUMENTATION

### A. Example of Recording Approval of a Skill

Skill # 4      Communication Skills: Oral, Written, and Electronic																
CLINICAL EXPERIENCE #	1		2		3		4		5							
	Mid	Final	Mid	Final	Mid	Final	Mid	Final	Mid	Final						
STUDENT RATING	NI	✓														
CI RATING	NI	✓														
PRACTICE SETTING: Enter clinical experience # and facility initials for applicable setting(s)																
Acute	Rehab (IP/OP)		Pediatric (IP/OP)		OP Ortho		SNF/LTAC		ICU/CCU/NICU							
1 - BRMC																
<p><b>Objectives applicable to this skill:</b></p> <ul style="list-style-type: none"> <li>a. Initiates communication in a timely manner.</li> <li>b. Chooses appropriate time, place, topic, and audience for communication.</li> <li>c. Uses English language effectively.</li> <li>d. Identifies and seeks to resolve barriers to effective communication.</li> <li>e. Writes legibly.</li> <li>f. Adjusts verbal and non-verbal communication to each person and situation.</li> <li>g. Listens actively (may include re-stating, reflecting, and clarifying messages).</li> </ul>																
<table border="1"> <thead> <tr> <th>Date</th> <th>Comments (required with rating of NI or U)</th> <th>CI Initials</th> </tr> </thead> <tbody> <tr> <td>8-2-15</td> <td> <i>Clinical #1: NI rating for objective "f," requires continual cues to speak in laymen's terms with patients and to sit next to rather than stand in front of patients during treatments.</i> </td> <td>RP</td> </tr> </tbody> </table>											Date	Comments (required with rating of NI or U)	CI Initials	8-2-15	<i>Clinical #1: NI rating for objective "f," requires continual cues to speak in laymen's terms with patients and to sit next to rather than stand in front of patients during treatments.</i>	RP
Date	Comments (required with rating of NI or U)	CI Initials														
8-2-15	<i>Clinical #1: NI rating for objective "f," requires continual cues to speak in laymen's terms with patients and to sit next to rather than stand in front of patients during treatments.</i>	RP														

## B. Example of Recording Comments for NI Rating

- All **NI** ratings require a comment that describes why the performance is not entry-level.

Skill # 4 Communication Skills: Oral, Written, and Electronic										
CLINICAL EXPERIENCE #	1		2		3		4		5	
	Mid	Final	Mid	Final	Mid	Final	Mid	Final	Mid	Final
STUDENT RATING	✓	✓								
CI RATING	NI	NI								
PRACTICE SETTING: Enter clinical experience # and facility initials for applicable setting(s)										
Acute	Rehab (IP/OP)		Pediatric (IP/OP)		OP Ortho		SNF/LTAC		ICU/CCU/NICU	
1 - ABMC										
<b>Objectives applicable to this skill:</b> <ol style="list-style-type: none"> <li>Initiates communication in a timely manner.</li> <li>Chooses appropriate time, place, topic, and audience for communication.</li> <li>Uses English language effectively.</li> <li>Identifies and seeks to resolve barriers to effective communication.</li> <li>Writes legibly.</li> <li>Adjusts verbal and non-verbal communication to each person and situation.</li> <li>Listens actively (may include re-stating, reflecting, and clarifying messages).</li> </ol>										
Date	Comments (required with rating of NI or U)									CI Initials
2-5-16	<i>Clinical #1: NI rating for objective "b;" required several reminders in the last week to avoid speaking of patients and their circumstances in public locations.</i>									LD
3-4-16	<i>NI rating for objective "f;" difficulty with adjusting communication when working with cognitively impaired patients. Needs assistance to break commands into single steps and needs repeated cues to give patient extra time for processing information.</i>									LD

### C. Example of Recording Comments for U Rating

- All **U** ratings require a comment that describes why the performance is unacceptable. CI or CCCE should immediately contact the DCE.

Skill # 14.2 Examination/Evaluation: Evaluation and Physical Therapy Diagnosis										
CLINICAL EXPERIENCE #	1		2		3		4		5	
	Mid	Final	Mid	Final	Mid	Final	Mid	Final	Mid	Final
STUDENT RATING	NI	NI								
CI RATING	U	U								
PRACTICE SETTING: Enter clinical experience # and facility initials for applicable setting(s)										
Acute	Rehab (IP/OP)		Pediatric (IP/OP)		OP Ortho		SNF/LTAC		ICU/CCU/NICU	
1 - ABMC										
<b>Objectives applicable to this skill:</b> <ol style="list-style-type: none"> <li>Synthesizes data from the examination (history, systems review, tests and measures, and environmental factors) to make clinical judgments.</li> <li>Determines a PT diagnosis based on health condition, impairments, limitations, restrictions, and environmental and personal factors.</li> <li>Uses the International Classification of Function (ICF) to describe impairments, activity, and participation limitations.</li> <li>Determines need for consultation with, or referral to another provider.</li> <li>Recognizes need for re-examination/re-evaluation.</li> <li>Uses findings from the tests and measures to determine resources needed to minimize activity limitations or participation restrictions at home, work, and/or in the community.</li> </ol>										
Date	Comments (required with rating of NI or U)									CI Initials
8-3-15	<i>Clinical #1: U rating for objectives "a" and "b;" unable to synthesize information and arrive at correct clinical diagnoses even after several one-on-one sessions with CI to review previous assessments and 2 opportunities to observe and discuss with CI diagnosis on new patients. Also, as homework, CI asked student to write the evaluation and diagnosis for 3 patients this week. For each patient, the student exhibited problems. See attached homework assignments with CI comments. DCE notified today. Remedial plan developed with student and DCE input.</i>									PG
9-4-15	<i>U rating for objectives "b" and "d;" continues to struggle as noted above. Did not meet all goals set in remedial plan. Also exhibited difficulty with determining need for consultation with another professional in several instances where it was warranted. Student did improve performance related to objective "a," but continues to require minimal assistance to achieve the objective. See remedial plan for further clarification and addendum of suggestions for remediation. Left message for DCE today.</i>									PG

## D. Example of Recording on the Skill Sheets with Log Format

Skill # 16.5 Interventions: Manual Therapy (see log)					
PRACTICE SETTING: Enter clinical experience # and facility initials for applicable setting(s)					
Acute	Rehab (IP/OP)	Pediatric (IP/OP)	OP Ortho	SNF/LTAC	ICU/CCU/NICU
			2 - MHS MC		
<b>Objectives applicable to this skill:</b> <ul style="list-style-type: none"> <li>a. Selects appropriate technique.</li> <li>b. Positions and drapes patient/client properly.</li> <li>c. Applies technique correctly (eg, hand placement, body mechanics, stabilization, and direction and magnitude of force).</li> <li>d. Evaluates outcome of intervention and modifies technique as needed.</li> </ul>					
Date	Comments (required with rating of NI or U)				CI Initials
8-3-15	<i>Clinical #2: Glenohumeral joint. NI rating for objectives "a" and "c;" requires guidance to select appropriate mobilization for patient's problem; needs more practice to apply correct grade of mobilization and to stabilize joint.</i>				JD
9-9-15	<i>Proficient with glenohumeral and talocrural joint mobilizations techniques; practiced variety of grades of movement using appropriate technique.</i>				JD

Manual Therapy		1		2		3		4		5	
		Mid	Final	Mid	Final	Mid	Final	Mid	Final	Mid	Final
<b>Extremity Joint Mobilization/Manipulation (list joint)</b>											
• <i>Glenohumeral</i>	S			NI	✓						
	CI			NI	✓						
• <i>Talocrural</i>	S				✓						
	CI				✓						

## APPENDIX A

### GLOSSARY OF TERMS AND CONCEPTS

**Activity:** “the execution of a task or action by an individual.”<sup>8</sup>

**Activity limitations:** “difficulties an individual may have in executing activities.”<sup>8</sup>

**Affective:** the area of learning dealing with professional behavior, communication styles, and interpersonal skills.

**Approval:** to certify that the student's performance has met the established criteria of safe and effective performance expected of an entry-level physical therapist in a specific setting.

**Body functions:** “the physiological functions of body systems, including psychological functions.”<sup>8</sup>

**Body structures:** “the anatomical parts of the body such as organs, limbs and their components.”<sup>8</sup>

**Center Coordinator of Clinical Education (CCCE):** the clinical staff member designated by the clinical education facility to be responsible for the clinical education program of the facility; may also serve as a clinical instructor (CI).

**Clinical Instructor (CI):** the physical therapist designated by the clinical facility to be responsible for the teaching and direct supervision of an assigned student; may also serve as the CCCE.

**Cognitive:** the area of learning dealing with organization of thoughts, problem solving abilities, and documentation skills.

**Competency:** defined skills, knowledge, and attitudes required for successful performance of a skill.

**Director of Clinical Education (DCE):** the academic faculty member designated by the program to be responsible for the clinical education component of the educational program.

**Disability:** “an umbrella term for impairments, activity limitations, and participation restrictions. It denotes the negative aspects of the interaction between an individual (with a health condition) and that of the individual's contextual factors (environmental and personal factors).”<sup>8</sup>



**Entry-level performance:** level of knowledge, skill, and professional behavior expected of a new graduate when entering the profession of physical therapy.

**Entry-level physical therapist:** a graduate physical therapist entering the profession following completion of the educational program.

**Evidence-based practice:** "Applying the best available research results (evidence) when making decisions about health care. Health care professionals who perform evidence-based practice use research evidence along with clinical expertise and patient preferences. Systematic reviews (summaries of health care research results) provide information that aids in the process of evidence-based practice."<sup>9</sup>

**Environmental factors:** "the physical, social, and attitudinal environment in which people live and conduct their lives."<sup>8</sup>

**Formative assessment:** an on-going assessment of clinical performance by the student (self-assessment) and the CI throughout the instruction phase for the purpose of providing feedback, improving learning, and revising learning experiences.

- **Feedback:** is formative in nature and is given immediately; feedback delivers information and is described using nouns and verbs.

**Generic abilities:** affective behaviors critically important to effective physical therapy practice.<sup>1</sup>

**Health condition:** "disease (acute or chronic), disorder, injuries." Health conditions are coded using ICD-10.<sup>8</sup>

**Impairment:** "problems in body function or structure such as significant deviation or loss."<sup>8</sup>

**Participation:** "a person's involvement in a life situation."<sup>8</sup>

**Participation restrictions:** "problems an individual may experience in involvement in life situations."<sup>8</sup>

**Personal factors:** "include contextual factors that relate to the individual such as age, gender, social status, and life experiences that influence how disability is experienced by the individual."<sup>8</sup>

**Psychomotor:** the area of learning dealing with the performance of an activity, such as a patient treatment technique.

**Summative assessment:** the final assessment of student performance at the completion of the instruction period, program, course or clinical experience.

- **Evaluation:** is summative in nature and occurs over time; an evaluation delivers a judgment and is described using adjectives and adverbs.

**Visual Analog Scale (VAS):** a 10 cm line with descriptors at each end of the line. Rater marks the location on the line that represents his/her perception in relation to the descriptors. The VAS in this document is criterion referenced.

## APPENDIX B

### TIPS FOR TEACHING IN THE CLINIC

The *PT MACS* is designed to assist the CI in incorporating the principles of formative evaluation into clinical teaching during clinical experiences. Ongoing feedback and discussion of performance pertaining to the skills is essential to the student's learning.

- A. Give the student daily, informal feedback regarding performance.
  - 1. *Describe specific behaviors* rather than generic comments such as "You need to improve your ROM skills."
  - 2. Example of feedback containing specific behaviors: *"Monitor the patient's thoracic spine posture when you measure shoulder flexion ROM."*
- B. Schedule a weekly meeting with the student to discuss performance, review the *PT MACS*, and plan or revise learning experiences.
- C. Expect the student to take primary responsibility for:
  - 1. Achieving completion of required skills.
  - 2. Seeking opportunities to promote self-learning.
- D. Require the student to use the *PT MACS* for ongoing self-assessment.
  - 1. The self-assessment is completed independently of *and* prior to the CI's assessment.
  - 2. After the CI rates the student's performance, discuss any discrepancies.
- E. Develop and update goals for the clinical experience based on the student's strengths and weaknesses identified during this formative (ongoing) assessment process.
- F. Document, at the midterm and completion of the clinical experience, an overall summative assessment of the student's performance using the Progress Report in the *PT MACS*.
- G. Contact the DCE immediately when questions or problems arise.

**NOTE:** Written documentation and timely communication with the academic program by the student and CI are essential to assure early recognition of problems. Once a problem has been identified, a remediation plan should be implemented as soon as possible.

## APPENDIX C

### APPLICATION OF THE SKILLS TO VARIOUS PRACTICE SETTINGS

With the *PT MACS*, the CI rates the student's performance based on what would be expected of an entry-level therapist for that setting. The objectives for each skill are used as guidelines to help the CI document whether or not the student meets entry-level expectations for the practice setting. Therefore, the CI should review each skill in the *PT MACS* and determine how it applies to the particular setting. The following examples illustrate how skills may be applied to situations in various practice settings.

## Acute Care Setting

Student has evaluated and treated a 65-year-old patient whose referral states "Evaluate and treat, WBAT" following an elective right TKA. From start to finish of the examination and treatment, the following skills might be appropriate for observation of the student's skill level:

Skill	Skill Title	Application of Skill In Acute Care Setting
1	Professionalism	Introduces self as student, obtains consent, projects professional image
2	Commitment to Learning	Welcomes learning opportunity and performs self-evaluation
3	Interpersonal Skills	Responds confidently and respectfully to the situation
4	Communication Skills	Communicates effectively with patient, family, and other professionals
5	Effective Use of Time and Resources	Completes all tasks (chart review, exam, intervention, documentation) in a timely manner
6	Use of Constructive Feedback	Accepts feedback from CI, provides feedback to patient
7	Responsibility/Accountability	Practices responsibly
8	Stress Management	Maintains composure during difficult situations
9	Problem Solving	Identifies functional problems and provide solutions to address problems
10	Critical Thinking	Understands scientific evidence for the interventions selected
12.1	History	Reviews medical record and conducts a history with the patient
12.2	Pharmacology	Conducts a medication review
12.3	Systems Review	Conducts systems review
13.1	Aerobic Capacity and Endurance	Measures vital signs, peripheral pulses
13.2	Arousal/Mentation/Cognition	Assesses patient orientation to day and time
13.4	Mobility and Locomotion	Analyzes gait
13.7	Muscle Performance	Performs gross muscle strength testing
13.10	ROM	Observes gross range of motion
13.11	Self-Care	Assesses transfers, bed mobility
13.12	Sensory Integrity	Tests superficial sensation
13.13	Skin Integrity	Assesses surgical wound site, skin integrity of sites at risk for breakdown
14.1	Initial Examination	Completes the initial examination
14.2	Evaluation and Physical Therapy Diagnosis	Integrates data to formulate the evaluation and PT diagnosis
15.2	Plan of Care	Develops PT prognosis, goals, POC, DC plan
16.1	Biophysical Agents	Applies CPM device correctly
16.2	Equipment Selection and Training	Selects appropriate assistive device for home use
16.4	Gait and Locomotion Training	Performs gait training
16.7	Patient/Client and Caregiver Instruction	Performs patient/family training for HEP
16.8	Therapeutic Exercise	Instructs patient in strengthening and ROM exercises
17	Safety During Patient Management	Handles patient and equipment safely, asks for help if needed
20	Outcome Assessment	Selects an appropriate outcome measurement tool
21	Documentation	Documents appropriately in the medical chart

**Inpatient (IP) Rehabilitation Setting**

Student has been following a 21-year-old patient for one month who sustained a TBI in a motorcycle accident. The patient is to be discharged this week. The following skills would be appropriate to assess:

<b>Skill</b>	<b>Skill Title</b>	<b>Application of the Skill in the IP Rehabilitation Setting</b>
1	Professionalism	Abides by policies and code of ethics, maintains confidentiality
3	Interpersonal Skills	Responds confidently and respectfully to adverse situations
6	Use of Constructive Feedback	Accepts feedback from CI, provides feedback to patient, assesses own performance accurately
7	Responsibility/Accountability	Practices responsibly
8	Stress Management	Manages stress associated with team interactions
9	Problem Solving	Identifies functional problems, prioritizes problems and provides/implements solutions to address problems
10	Critical Thinking	Understands the scientific evidence for the interventions selected, formulates new and alternative solutions
12.1	History	Reviews medical record
12.3	Systems Review	Conducts systems review
13.1	Aerobic Capacity and Endurance	Assesses autonomic responses
13.2	Arousal/Mentation/Cognition	Assesses extent of cognitive deficit
13.4	Mobility and Locomotion	Analyzes gait
13.6	Movement Analysis	Assesses balance strategies, fall risk
13.7	Muscle Performance	Performs manual muscle test
13.8	Neuromotor Development and Sensory Processing	Assesses reflexes, tone, coordination
13.9	Posture	Observes posture during functional activities
13.10	Range of Motion	Measures range of motion
13.11	Self-Care Management	Assesses transfers, bed mobility, self-care
13.12	Sensory Integrity	Tests deep and cortical sensation
14.1	Initial Examination	Sequences appropriate tests and measures
14.2	Evaluation and Physical Therapy Diagnosis	Integrates data to formulate the evaluation and PT diagnosis
15.2	Plan of Care	Develops PT prognosis, goals, POC, DC plan
16.2	Equipment Selection and Training	Selects appropriate equipment and instructs patient in its use
16.3	Functional Activity Training	Performs ADL and IADL training
16.4	Gait and Locomotion Training	Performs gait training
16.6	Neuromotor Function training	Applies motor control interventions
16.7	Patient/Client and Caregiver Instruction	Performs patient/family training for HEP
16.8	Therapeutic Exercise	Performs balance retraining, neuromuscular re-education
17	Safety During Patient Management	Handles patient safely with respect to vague medical diagnosis (e.g. low back pain)
21	Documentation	Completes interdisciplinary forms
22	Direction and Supervision	Directs and follows up with PTA/support personnel
23	Payment/Reimbursement	Assumes responsibility for management of the patient by following up with case manager/3rd party payer
25.1	Community Re-integration	Conducts IADL assessment
25.5	Orthotics/Supportive/Protective Devices	Assesses need for orthotics
26.2	Work Re-integration	Incorporates activities to help patient return to work and/or school

**Outpatient (OP) Orthopedic Setting**

Student will be evaluating and treating a 45-year-old patient referred for "low back pain". The following skills would be appropriate to observe:

<b>Skill</b>	<b>Skill Title</b>	<b>Application of the Skill in the OP Orthopedic Setting</b>
1	Professionalism	Abides by policies and code of ethics, maintains confidentiality
2	Commitment to Learning	Locates appropriate resources, incorporates new knowledge into practice
3	Interpersonal Skills	Responds confidently and respectfully to adverse situation
4	Communication Skills: Oral, Written and Electronic	Communicates (orally) effectively with patient, family, and other professionals
5	Effective Use of Time and Resources	Completes all tasks in a timely manner
6	Use of Constructive Feedback	Accepts feedback from CI, provides feedback to patient, assesses own performance accurately
7	Responsibility/Accountability	Practices responsibly
9	Problem Solving	Identifies problems and develops solutions with respect to the vague diagnosis
10	Critical Thinking	Understands the scientific evidence for the interventions selected, formulates new and alternative solutions
12.1	History	Conducts an efficient and effective interview
12.2	Pharmacology	Obtains pertinent medication review
12.3	Systems Review	Reviews medical record, conducts systems review
13.3	Joint Integrity	Assesses spinal joint mobility
13.5	Motor Function	Tests DTRs
13.6	Movement Analysis	Observes body mechanics
13.7	Muscle Performance	Performs manual muscle test
13.9	Posture	Observes posture
13.10	Range of Motion	Measures range of motion
13.11	Self-Care Management	Assesses transfers, bed mobility, self-care
13.12	Sensory Integrity	Tests superficial, and deep sensation
14.1	Initial Examination	Sequences appropriate tests and measures
14.2	Evaluation and Physical Therapy Diagnosis	Integrates data to formulate the evaluation and PT diagnosis
15.2	Plan of Care	Develops PT prognosis, goals, POC, DC plan
16.3	Functional Activity Training	Refers patient to "Back School" program
16.4	Gait and Locomotion Training	Performs gait training
16.5	Manual Therapy	Performs joint or soft tissue mobilization
16.7	Patient/Client and Caregiver Instruction	Performs patient/family training for HEP, body mechanics
16.8	Therapeutic Exercise	Instructs patient in dynamic trunk stabilization, McKenzie, etc
17	Safety During Patient Management	Handles patient safely with respect to vague medical diagnosis (eg, low back pain)
21	Documentation	Documentation supports billing codes
23	Payment/Reimbursement	Assumes responsibility for management of the patient by coding accurately and following up with case manager
25.4	Ergonomic Assessment	Performs work site evaluation

## Pediatric Setting

Student will be re-evaluating and following a 12-year-old with cerebral palsy who underwent bilateral hip osteotomies 6 weeks ago. The patient has returned to school, is ambulatory with assistance using a rolling walker, and is receiving PT as an OP.

Skill	Skill Title	Application of the Skill in the Pediatric Setting
1	Professionalism	Abides by policies and code of ethics, maintains confidentiality
2	Commitment to Learning	Locates appropriate resources, incorporates new knowledge into practice
3	Interpersonal Skills	Responds confidently and respectfully to adverse situation
4	Communication Skills: Oral, Written and Electronic	Communicates (orally) effectively with patient, family, and other professionals
5	Effective Use of Time and Resources	Completes all tasks in a timely manner
6	Use of Constructive Feedback	Accepts feedback from CI, provides feedback to patient, assesses own performance accurately
7	Responsibility/Accountability	Practices responsibly
8	Stress Management	Manages parental interaction
9	Problem Solving	Identifies problems and develops solutions
10	Critical Thinking	Understands the scientific evidence for the interventions selected, formulates new and alternative solutions
12.1	History	Reviews medical record
12.2	Pharmacology	Reviews medication regime to enhance therapy outcomes
12.3	Systems Review	Conducts systems review
13.2	Arousal/Mentation/Cognition	Assesses cognitive level
13.3	Joint Integrity	Assesses lower extremity joint integrity
13.4	Mobility and Locomotion	Analyzes gait
13.6	Movement Analysis	Observes functional movement patterns
13.7	Muscle Performance	Performs manual muscle test
13.9	Posture	Observes posture
13.8	Neuromotor Development and Sensory Processing	Assesses reflexes, tone
13.11	Self-Care Management	Assesses transfers, self-care, toileting
13.12	Sensory Integrity	Tests superficial, deep and cortical sensation
14.2	Evaluation and Physical Therapy Diagnosis	Integrates data to formulate the evaluation and PT diagnosis
15.2	Plan of Care	Develops PT prognosis, goals, POC, DC plan
16.2	Equipment Selection and Training	Selects appropriate devices for gait
16.3	Functional Activity Training	Performs transfer training, IADL training
16.4	Gait and Locomotion Training	Performs gait training
16.6	Neuromotor Function Training	Applies agility training
16.7	Patient/Client and Caregiver Instruction	Performs parent/patient training for mobility, positioning
16.8	Therapeutic Exercise	Prescribes strengthening exercises
17	Safety During Patient Management	Handles patient and equipment safely, asks for help if needed
21	Documentation	Documents according to facility protocol
22	Direction and Supervision	Communicates effectively with support personnel
23	Payment/Reimbursement	Writes letter of medical necessity for equipment
25.1	Community Re-integration	Incorporates activities to return to prior level of community participation



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