



2019 ONCOLOGY SPECIALIST CERTIFICATION CANDIDATE GUIDE



SPRING 2018

Dear Fellow Physical Therapist:

Congratulations! By acquiring this Candidate Guide, you have been proactive in your interest in and pursuit of specialist certification. The specialist certification program has been designed to identify and define physical therapy specialty areas and to formally recognize physical therapists who have attained advanced knowledge and skills in those areas.

Certification also assists the public and health care community in identifying therapists with acknowledged expertise in a particular field of practice and demonstrates that physical therapists are devoted to addressing the unique needs of the people with whom we work.

Certification is achieved through successful completion of a standardized online application and examination process. Coordination of this program is provided by the American Board of Physical Therapy Specialties (ABPTS), the governing body for approval of new specialty areas and certification of clinical specialists. Specialty councils representing the 9 recognized specialty areas have been appointed to delineate and describe the advanced knowledge, skills, and abilities of clinical specialists; determine specific requirements for certification; and develop the certification examinations.

The dedicated volunteers currently giving their time and service to the development of this process are listed in the rosters in the beginning of this guide. APTA established this program in 1978 to provide formal recognition for physical therapists with advanced clinical knowledge, competence, and skills in a special area of practice. The program evolved from the membership of special interest sections of APTA as a way to encourage and facilitate the professional growth of individual members and thereby facilitate growth of the entire profession.

Certified specialists have clearly demonstrated their commitment to service by the variety, depth, and consistency of their professional involvement. Their desire to attain formal recognition of their advanced clinical knowledge, competence, and skills reflects their devotion to their profession and their patients. In these times of dramatic health care reform, dedication to public service by providing high quality physical therapy services is paramount.

If you share these personal and professional principles, then you are in the right place! Please join the growing number of physical therapists who have chosen this pathway of professional development.

Thank you for your interest and I wish you success in this endeavor.

Sincerely,

Ronald Barredo, PT, DPT, EdD

Board-Certified Geriatrics Clinical Specialist
Chair, American Board of Physical Therapy Specialties

ROSTERS

AMERICAN BOARD OF PHYSICAL THERAPY SPECIALTIES SPECIALTY COUNCIL

AMERICAN BOARD OF PHYSICAL THERAPY SPECIALTIES

Ronald Barredo, PT, DPT, EdD, Chair
Board-Certified Geriatrics Clinical Specialist

Marie Johanson, PT, PhD
Board-Certified Orthopaedic Clinical Specialist

Ana Lotshaw, PT, PhD
Board-Certified Cardiovascular & Pulmonary Clinical Specialist

Robin Myers, PT, DPT
Board-Certified Neurologic Clinical Specialist

Eric Pelletier, PT, DPT
Board-Certified Pediatrics Clinical Specialist

Scott D. Richards, PhD, PA-C, DFAAPA

Robert H. Rowe, PT, DPT, DMT, MHS

Teresa Schuemann, PT, DPT, ATC
Board-Certified Sports Clinical Specialist

Robert Sellin, PT, DSc
Board-Certified Clinical Electrophysiologic Clinical Specialist

Tracy Spitznagle, PT, DPT, MHS
Board-Certified Women's Health Clinical Specialist

Don Straube, PT, PhD
Board-Certified Neurologic Clinical Specialist

SPECIALTY COUNCIL ON ONCOLOGIC PHYSICAL THERAPY

Nicole Stout, PT, DPT, CLT-LANA, Chair

Amy Litterini, PT, DPT

Charles McGarvey, PT, DPT, FAPTA

Lucinda Pfalzer, PT, PhD, FAPTA



TABLE OF CONTENTS

1. GENERAL INFORMATION

1.1. American Physical Therapy Association	1
1.2. American Board of Physical Therapy Specialties	1
1.3. Specialty Council	1
1.4. Additional Physical Therapy Examinations	1
1.5. National Board of Medical Examiners®	1
1.6. Prometric	1
1.7. Restriction of the Term Board-Certified Specialist	1

2. CERTIFICATION REQUIREMENTS

2.1. General Requirements	1
2.2. Other Requirements	1
2.3. Steps to Complete Certification	2
2.4. Maintenance of Specialist Certification (MOSC)	2
2.5. Ineligibility for Certification	3

3. APPLICATION PROCESS

3.1. Application Deadline	3
3.2. Procedures for Application Review	3
3.3. Services for Persons With Disabilities	3
3.4. Certification in More Than 1 Specialty Area	3
3.5. Submission of Application	3
3.6. Application Review Fee	3
3.7. Time Limit for Active Application/Reapplication	4
3.8. Address Changes	4

4. SCHEDULING THE EXAM

4.1. Examination Fee and Scheduling Permit	4
4.2. Test Dates	4
4.3. How to Schedule an Appointment at a Testing Center	4
4.4. Refunds and Cancellations	4
4.5. Rescheduling an Exam	4

5. PREPARING FOR THE EXAM

5.1. Description of Specialty Practice (DSP)	5
5.2. Exam Content Outline	5
5.3. Preparation for the Exam	5
5.4. Review Materials and Courses	5
5.5. Study Groups	5
5.6. Exam Development	5
5.7. Exam Question Format	5
5.8. Answer Strategy	5
5.9. Tutorial	5

6. SITTING FOR THE EXAM

6.1. Computer Testing	5
6.2. Test Centers and Testing Conditions	5
6.3. Exam Time	6
6.4. Admission to Test	6
6.5. Testing Regulations and Rules of Conduct	6
6.6. Irregular Behavior During the Examination Process	7
6.7. Canceled or Delayed Exam Administration or Problems at the Testing Center	7
6.8. Exam Deferral	7
6.9. Equipment Malfunction	7
6.10. Incomplete Examinations	7

7. EXAM RESULTS

7.1. Exam Results and Notification	8
7.2. Scaled Scores	8
7.3. Passing Scores	8

8. CONFIDENTIALITY

8.1. Confidentiality of Applicant Identity	8
8.2. Confidentiality of Examination Content	8

9. GROUNDS FOR DISCIPLINARY ACTION

10. PROCEDURES FOR REVIEW OF DECISIONS

10.1. Reconsideration of Decision Regarding Eligibility to Sit for the Exam	8
10.2. Appeal to ABPTS of Specialty Council's Decision Regarding Eligibility to Sit for the Exam	8
10.3. Procedures for Review of Certification Actions	9
10.4. Appeal to APTA Board of Directors of ABPTS Decision to Deny Certification	9

11. EXAM CONTENT OUTLINE & SAMPLE QUESTIONS

11.1. Exam Content Outline	9
11.2. Sample Questions	10

12. PREPARING A CASE REFLECTION

12.1. Instructions	11
12.2. Authorization to Disclose Protected Health Information Template	14
12.3. Case Reflection Checklist	15
12.4. Case Reflection Scoring Rubric	15
12.5. Sample Case Reflection	18

13. GLOSSARY

14. RESOURCE GUIDE INFORMATION

1. GENERAL DEFINITIONS

1.1. American Physical Therapy Association

The American Physical Therapy Association (APTA) is a national professional organization representing more than 95,000 physical therapists, physical therapist assistants, and physical therapy students throughout the United States. Its goals are to serve its members and to serve the public by increasing the understanding of the physical therapist's role in the health care system, and by fostering improvements in physical therapy education, practice, research, and professional development.

APTA established the specialist certification program in 1978 to provide formal recognition for physical therapists with advanced clinical knowledge, experience, and skills in a special area of practice, and to assist consumers and the health care community to identify physical therapy specialists.

1.2. American Board of Physical Therapy Specialties

Coordination and oversight of the specialist certification process is provided by the American Board of Physical Therapy Specialties (ABPTS), which is the governing body for approval of new specialty areas and certification of clinical specialists. ABPTS comprises board-certified physical therapists from different specialty areas; a physical therapist member of the APTA Board of Directors; an individual with expertise in test development, evaluation, and education; and a nonphysical therapist member representing the public.

The American Physical Therapy Association (APTA) prohibits preferential treatment or adverse discrimination on the basis of race, creed, color, gender, age, national or ethnic origin, sexual orientation, disability or health status in all areas including, but not limited to, its qualifications for membership, rights of members, policies, programs, activities, and employment practices.

1.3. Specialty Council

The Specialty Council, representing the area of oncologic physical therapy, has been appointed to delineate the advanced knowledge, skills, and abilities for their specialty area; to determine the academic and clinical requirements for certification; and to develop the certification examinations and oversee the maintenance of specialist certification.

1.4. Additional Physical Therapy Examinations

Individuals interested in Cardiovascular & Pulmonary, Clinical Electrophysiology, Geriatric, Neurologic, Orthopaedic, Pediatric, Sports and Women's Health certifications must complete a separate online application, accessible through APTA's Specialist Certification Program website (www.abpts.org).

1.5. National Board of Medical Examiners

The National Board of Medical Examiners® (NBME®) is a nonprofit organization that strives to provide the highest quality testing and research services to organizations involved in the licensure and certification of medical and health science professionals. NBME provides test development, test administration, editorial production, and psychometric services to ABPTS and the specialty councils.

1.6. Prometric

NBME currently delivers the specialist certification examinations by

computer through Prometric. Prometric administers testing programs for educational institutions, professional associations, corporations, and other organizations. Examinations are delivered in test centers that have secure rooms dedicated to test delivery.

Note: Prometric test center locations are subject to change, and there is no guarantee that a center listed on the Prometric website at the time of application will be available for a future ABPTS administration. The most efficient way for candidates to check for test center locations is to log on to www.prometric.com/ABPTS and select "locate a test center." This provides the most up-to-date information.

1.7. Restriction of the Term Board-Certified Specialist

APTA's House of Delegates adopted a policy that no physical therapist shall purport to be a "Board-Certified Clinical Specialist" unless (s)he has successfully completed the certification process as developed by the American Board of Physical Therapy Specialties (HOD 06- 94-23-39). In addition, ABPTS does not permit applicants for certification to state that they are "board eligible."

2. CERTIFICATION REQUIREMENTS

2.1. General Requirements

Applicants must hold a current permanent/unrestricted license to practice physical therapy in the United States or any of its possessions or territories. In addition, applicants are required to pay the application review fee.

Applicants must meet the minimum eligibility requirements for the 2019 examination by the application deadline of **July 1, 2018**.

Applicants must submit a complete application and review fee for each specialist certification examination.

ABPTS does not permit applicants to use the same direct patient care hours for different specialty areas.

2.2. Other Requirements

Applicants must meet requirements for Option A or Option B.

Option A

Applicants must submit evidence of 2,000 hours of direct patient care as a licensed United States physical therapist (temporary license excluded) in the specialty area within the last ten (10) years, 25% (500) of which must have occurred within the last three (3) years. Direct patient care must include activities in each of the elements of patient/client management applicable to the specialty area and included in the *Description of Specialty Practice* (DSP). These elements, as defined by the *Guide to Physical Therapist Practice*, are examination, evaluation, diagnosis, prognosis, and intervention.

Applicants must also submit 1 case reflection demonstrating specialty practice in oncology. This case reflection must be based on a patient/client seen within the last 3 years.

Note: (See 12.1 thru 12.4 beginning on page 11 for other requirements.)

Option B

Applicants must submit evidence of successful completion of an APTA-accredited postprofessional clinical residency completed within the last 10 years that has a curriculum plan reflective of the *Description of Specialty Practice: Oncologic Physical Therapy* (DSP). Experience from residencies in which the curriculum plan reflects only a portion of the DSP will not be considered.

Applicants applying under Option B also must submit one (1) case reflection demonstrating specialty practice in oncology. This case reflection must be based on a patient/client seen within the last three (3) years.

Applicants must submit evidence of successful completion of an APTA-accredited post professional Oncologic clinical residency. Applicants who are currently enrolled in an ABPTRFE-accredited clinical residency, or enrolled in a residency program that has been granted candidacy status, may apply for the specialist certification examination in the appropriate specialty area prior to completion of the residency. These applicants will be conditionally approved to sit for the examination, as long as they meet all other eligibility requirements, pending submission of evidence of successful completion of the ABPTRFE-accredited clinical residency to APTA's Specialist Certification Program no later than 1 month before the examination window opens. To verify your residency program's accreditation status, please visit www.abptrfe.org.

2.3. Steps to Complete Certification

Certification as a Physical Therapy Clinical Specialist consists of 2 major steps:

STEP 1. You must submit evidence that you have fulfilled the minimum eligibility requirements as defined by the specialty council. This includes completion of all required application forms, fees, documentation of the required practice hours, and other requirements specified by the specialty council.

You must meet all requirements by the application deadline, July 1, 2018. The specialty council will not consider experience toward the minimum eligibility requirements that was not acquired by the application deadline.

STEP 2. Following completion of Step 1 and approval of the application, the candidate must sit for and receive a passing score on the computer-based certification exam.

Certification is awarded for a period of 10 years. ABPTS has recently transitioned to a model of continued competency throughout the years of certification rather than a one-time recertification process as the certification period lapses. This new model has been titled the "Maintenance of Specialist Certification (MOSC)." Please review details of MOSC program in Section 2.4.

2.4. Maintenance of Specialist Certification (MOSC)

The purpose of the Maintenance of Specialist Certification process is:

- To more effectively verify current competence as an advanced practitioner in the specialty area
- To more effectively evaluate professional development and clinical experience
- To better encourage ongoing education and professional growth
- To keep pace with the rapidly expanding specialty knowledge base and scientific evidence that guides our clinical decision making
- To promote improved health outcomes related to physical therapy specialty services

ABPTS has developed a model for certification that focuses on continuing competence of the physical therapist specialist. This new model has been titled the "Maintenance of Specialist Certification" and includes the following elements:

- Professional Standing and Direct Patient Care Hours
- Commitment to Lifelong Learning Through Professional Development
- Practice Performance Through Examples of Patient Care and Clinical Reasoning
- Cognitive Expertise Through a Test of Knowledge in the Profession

Requirement 1: Professional Standing and Direct Patient Care Hours

- In years 3, 6, and 9, a specialist must submit evidence of current licensure as a physical therapist in the United States or any of its possessions or territories.
- In years 3, 6, and 9, a specialist must submit evidence of 200 hours of direct patient care acquired in the specialty area within the last 3 years. Direct patient care hours accrued in year 10 may be applied to the year 3 requirements for the next MOSC cycle.

Requirement 2: Commitment to Lifelong Learning Through Professional Development

- Each board-certified specialist is obligated to participate in ongoing professional development, **within his or her designated specialty area**, which leads to a level of practice consistent with acceptable standards. Each specialist may choose to pursue professional development that leads to a level of practice beyond prevailing standards.
- A web-based system tracks an individual's continuing competence in a specialty area. This system provides an individual account tracking mechanism for each specialist to record professional development activities during years 3, 6, and 9 of his or her certification cycle. There is not an hour requirement in this area, but the specialist must show evidence of professional development activities (equivalent to 10 MOSC credits) within 2 of the 3 designated activity categories in years 3, 6, and 9. By year 9, a specialist must have accrued a minimum of 30 MOSC credits and demonstrated professional development in each of the 3 designated activity categories. These activities include professional services, continuing education coursework, publications, presentations, clinical supervision and consultation, research, clinical instruction, and teaching.

Additional information about the MOSC process is available on the ABPTS website at <http://www.abpts.org/MOSC/>.

Requirement 3: Practice Performance Through Examples of Clinical Care and Reasoning

- The purpose of this requirement is to document continuing competency in patient/client management in the specialty area.
- The specialist will use an online system to complete 1 reflective portfolio submission in years 3, 6, and 9 of his or her certification cycle. These reflective portfolio submissions will be used to demonstrate the specialist's use of clinical care and reasoning. Each submission must have a reflective component and must have documentation that reflects clinical reasoning.
- These reflective portfolio submissions will not be scored but will be screened for completion of required information and reflection.

Requirement 4: Cognitive Expertise Through a Test of Knowledge in the Profession

- During year 10 of the certification cycle, the specialist will be required to sit for a recertification examination, comprising approximately 100 items. The exam will be specialty specific, assess an individual's cognitive expertise in the specialty area, and **reflect contemporary specialist practice.**
- The exam blueprint breakdown for this exam will mirror that of the initial certification exam, as noted in the various *Descriptions of Specialty Practice*. Items will be coded and pulled from existing specialty item banks.
- Successful completion of requirements 1-3 are prerequisites for sitting for the recertification exam. If a specialist fails to receive a passing score after the first attempt, he or she will be permitted to sit for the exam 1 additional time and will maintain his or her certification during this 1-year grace period.

Timeline: MOSC System Launched

- Systems are now in place for the new MOSC process.
- All individuals whose certification expiration is 2023 or beyond are subject to the new MOSC process. This will include a waiver of the first 3-year requirements for specialists whose certifications expire in 2023, 2024, and 2025. These cohorts will be required to fulfill the year 6 (second 3-year) requirements beginning in 2016, 2017, and 2018 respectively.
- The first recertification exams will be administered in 2023.

Any additional questions/concerns should be addressed to staff at spec-recert@apta.org or 800/999-APTA (2782), ext 3390.

2.5. Ineligibility for Certification

Specialty council members, ABPTS members, and cut-score study participants are prohibited from sitting for the specialist certification exam for a period of 2 years from the date of participation in the certification process.

3. APPLICATION PROCESS

3.1. Application Deadline

Completed applications and application review fees for the 2019 specialist certification examinations must be submitted online to the APTA Specialist Certification Program on or before July 1, 2018. Applications submitted after the deadline may not be reviewed.

3.2. Procedures for Application Review

The Specialist Certification Program staff will conduct the initial review of all submitted documents within approximately 6 weeks. Then your application will be forwarded to the Specialty Council for their expert review. This final review process will take approximately 10 business days from the time the Council receives the documents, and should the council have questions or need clarification about documents submitted the Specialist Certification staff will contact you via email. The applicant must resubmit requested documentation within 10 business days after email notification is received. Only one resubmission is permitted for an exam cycle.

If the applicant does not resubmit by the specified deadline, the record will indicate that he or she has not met the minimum eligibility requirements and is not approved to sit for the 2019 exam.

3.3. Services for Persons With Disabilities

The American Board of Physical Therapy Specialties (ABPTS) provides reasonable and appropriate accommodations in accordance with the Americans with Disabilities Act for individuals with documented disabilities who demonstrate a need for accommodations.

It is the responsibility of the person with a disability to provide advance notice and appropriate documentation of the disability with a request for test accommodations. If an applicant identifies functional limitations or special needs that would prevent him or her from taking the certification exam under standard testing conditions, ABPTS in consultation with its testing agency, will evaluate and respond to that applicant's needs for special arrangements.

Any requests must be submitted to ABPTS, accompanied by the appropriate forms and uploaded at the time of the online application submission for the exam (by July 1, 2018). The request for testing accommodations must include verification of the disabling condition from a professional specializing in the relevant area and a description of the requested accommodation. Applicants will be notified in the fall of the decision regarding the request and the accommodations that will be provided. If accommodation is not requested in advance, availability of accommodation cannot be guaranteed.

Note: Certain testing accommodations may require shared cost with candidate.

3.4. Certification in More Than 1 Specialty Area

Applicants must submit a complete set of online application materials and fees for each specialist certification exam. A certified specialist who applies for certification in a second specialty area is not permitted to submit the same direct patient care hours that he or she submitted for certification in the first specialty area. The Specialist Certification Program staff will review previously submitted applications for duplication of hours.

3.5. Submission of Application

It is the applicant's responsibility to ensure that the application is completed according to instructions.

In addition, it is imperative that you enter your name on the application exactly as it appears on the identification form you intend to present at the testing center. Please note that the way your name is entered on the application is also the way your name will appear in the APTA membership database.

Applicants who opt to pay the review fee by check should send the application fee with the appropriate payment form described in Section 3.6 below in a single mailing to:

APTA
Specialist Certification Application
P.O. Box 75701
Baltimore, MD 21275

If applicable, verification of current physical therapy license must be sent separately by your state licensing agency.

3.6. Application Review Fee

The nonrefundable application review fee must be submitted with your online application to the APTA Specialist Certification Program on or before July 1, 2018.

Payment of the review fee may be made by check (payable to APTA) or by credit card (MasterCard, VISA, Discover, or American Express). The Payment Form must accompany your fee. The applicant review fees are listed below:

APTA Member: \$525
Non-APTA Member: \$870
Member/Non-APTA Member Reapplication: \$170

Note: Reapplication fee is due by August 31, 2018

3.7. Time Limit for Active Application/Reapplication

Applicant files will remain active for only 2 consecutive exam administrations. However, eligibility for the second exam administration requires an online reapplication submission by August 31, along with a \$160 reapplication fee, as well as the current examination fee by November 30. This policy applies to those who choose to defer sitting for the exam, those who are not approved to sit for the examination, and those who do not pass the exam. Eligible reapplicants will receive reapplication information by email directly from the Specialist Certification Program. To reapply, you must submit an online reapplication, verification of current licensure to practice physical therapy, updated direct patient care hours, and any other requested documentation. The APTA Specialist Certification Program must receive this documentation by the reapplication deadline for the next scheduled exam. Reapplicants must meet the current practice requirements to be eligible to sit for the exam.

After 2 consecutive exam administrations, you must submit an entirely new application and initial applicant review fee to apply for specialist certification.

3.8. Address Changes

Should your mailing address, email address, or phone number change, please notify the APTA Specialist Certification Program immediately. The Specialist Certification Program maintains separate records from APTA's membership database, so candidates must email (spec-cert@apta.org) or phone (800/999-2782, ext 8520) the department.

4. SCHEDULING THE EXAM

4.1. Examination Fee and Scheduling Permit

The examination fee is submitted after you have been notified that you are eligible to sit for the exam. The fee must be received by the APTA Specialist Certification Program on or before November 30, 2018.

You may pay the examination fee by check (payable to APTA) or by credit card (MasterCard, VISA, DISCOVER or AMEX), by mail or online. Please note that both first-time and repeat test takers must pay the following examination fees:

APTA Member: \$810
Non-APTA Member: \$1,535

If you are planning to sit for the examination in an international location, please make sure that you enter that in your online application.

Before the end of December, after your examination fee has been received, APTA's Specialist Certification Program will send you an email with instructions on how to access and download your electronic scheduling permit online. You must print your scheduling permit before you contact Prometric to schedule a test date. Check to make sure that

the information on your permit is correct, and that your name (first name, middle initials, last name) **exactly matches** your name on the identification you will use on the day of the examination. If the name on your permit does not match the name on your identification, you must contact APTA immediately. Name changes or corrections cannot be made within 7 business days of your scheduled testing date. You will be denied admission to the test if the name on the permit does not match the name on your identification.

4.2. Test Dates

The examination will be administered at testing centers worldwide between the dates of **March 2019**.

4.3. How to Schedule an Appointment at a Testing Center

The Specialist Certification Program will notify approved candidates when they may begin to schedule a date to sit for the examination. Candidates are not eligible to schedule a session until they have paid their exam fee and have their scheduling permit.

You **must print or download** your scheduling permit before you contact Prometric to schedule a testing appointment. To schedule a testing appointment, you will need to provide Prometric with the scheduling number that is included on your scheduling permit. Appointments are assigned on a first-come, first-served basis; therefore, you should schedule an appointment as soon as possible after you have accessed your scheduling permit. If you defer scheduling you may not be able to make an appointment at your preferred test site or for your preferred test date. You should report any problems in scheduling a testing appointment to the Specialist Certification Program at least 4 weeks before the first day of the testing window to give ABPTS an opportunity to resolve the problem.

Prior to your testing appointment, you can log in at the URL provided to access and reprint your permit if necessary.

4.4. Refunds and Cancellations

The Applicant Review Fee is not refundable. You must notify the APTA Specialist Certification Program in writing if you decide, for any reason, not to sit for the 2019 exam. Upon receipt of written notification, your examination fee will be refunded minus 20% of the fee. **Please allow 6 weeks for processing.**

4.5. Rescheduling an Exam

If you are unable to keep a testing appointment and would like to reschedule, you must contact Prometric by 12:00 pm local time of the second business day prior to your appointment. The rescheduled test date must fall within the testing window. Fees from your previously scheduled test will be transferred to the rescheduled exam as follows:

- a. If you contact Prometric by 12:00 pm local time of the second business day prior to your test date, you will be permitted to reschedule without penalty. If you provide less than 2 business days' notice, Prometric will charge a \$101 fee to reschedule your examination (*rescheduling fees vary for international sites*).
- b. If you cancel your appointment within 2 business days or do not appear on your test date, you must contact Prometric Candidate Cares at the phone number listed in the permit and pay a \$101 fee to reinstate your eligibility record in order to reschedule your appointment within the testing window (*rescheduling fees vary for international sites*).

5. PREPARING FOR THE EXAM

5.1. Description of Specialty Practice (DSP)

The *Descriptions of Specialty Practice* (DSP) are documents developed for each specialty area that outline the knowledge, skills, and abilities related to clinical practice in the specialty area. The DSP content is based on a detailed practice analysis conducted by the specialty council. A practice analysis involves extensive research, including survey data and judgments of subject matter experts, of the knowledge, tasks, and roles that describe advanced specialty practice. The specialty council develops the written exam from the DSP and includes a percentage of questions from each of the major content areas identified in the practice analysis. Because applicants will find the DSP for their specialty area helpful in organizing exam preparation, a copy is made available electronically to each new applicant upon submission of their application and payment of the application review fee. If you wish to purchase an advance copy of the DSP, please contact APTA's Member Services at 800-999-2782.

5.2. Exam Content Outline

The content outline for the exam that specifies the percentage of questions in each major content area is found on page 10. The content outline is presented as an approximation of the test construction and should not be interpreted as an exact distribution of test items.

5.3. Preparation for the Exam

You declare your intent to sit for the specialist certification exam at the time of application and are expected to begin preparation for the exam at that time. You are responsible for determining the method and amount of preparation necessary for the exam. Results from candidate surveys suggest that helpful methods of examination preparation include, but are not limited to, advanced level texts, *Physical Therapy*, and other journals containing current physical therapy research. You may also want to review the *Description of Specialty Practice* and the content outline to determine what content will be covered on the exam and to direct your study efforts.

5.4. Review Materials and Courses

Resource Guide information, prepared by APTA's Oncology Section, can be found on page 21. Some sections hold review courses related to advanced practice in their specialty area. Applicants should contact their section directly to receive information. Neither ABPTS nor the specialty councils review or endorse the content of review materials and courses.

5.5. Study Groups

The APTA Specialist Certification Program maintains a list of candidates who are interested in participating in study groups. To be included in study group listings, select "participate in study group" and answer "yes" on the online application. Study group lists will be generated and emailed by November 17, 2018, to candidates who have indicated their interest in participating in study groups. **Study group lists are emailed by request only.**

5.6. Exam Development

The specialist certification examinations are developed by specialty councils of ABPTS. APTA has contracted with the NBME to assist in the development, administration, scoring, and reporting of results for the certification examinations. Using the DSP as a basis, the specialty councils make the final determinations regarding the exam content and the number of items in each area.

Questions (items) for the exam are solicited from content area experts currently practicing in the specialty area representing the full range of practice settings and focus in all regions of the country. Item writers attend workshops and receive instruction to enable them to write high-quality, practice-related test items. Test items undergo extensive editing and review by subject matter experts and professional test editors before specialty councils approve them to be placed on the examinations.

5.7. Exam Question Format

Questions (items) are designed to test synthesis and analysis levels of cognitive skills, as well as content knowledge. The exam is composed of objective multiple-choice questions with 4 or 5 answer choices. The questions either stand alone or are part of a series that relates to a presented case study. Beginning on page 10 are sample questions that are representative of the format of questions for each exam, but may not necessarily reflect the ability level or content of the items. There are 200 items on the exam, consisting of 50 questions in each 1½-hour time block.

5.8. Answer Strategy

You should consider answers to each question carefully and eliminate the least likely ones instead of randomly selecting an answer. Please keep in mind that there is no penalty for incorrect responses. Since test scores are based on the actual number of questions answered correctly, it is to the candidate's advantage to select an answer for each question rather than leaving any blank. There is only one best answer for each question.

5.9. Tutorial

After you are approved to sit for the examination, the Specialist Certification Program will make available a tutorial so that you may practice using the testing software prior to your test day. The tutorial can be accessed on the APTA Specialist Certification website (www.abpts.org/SpecCertExamTutorial/). You should acquaint yourself with the testing software well before your test date. Test center staff are not authorized to provide instruction on use of the software.

The tutorial will also be available at the beginning of the examination session. You may use up to 10 minutes before beginning the examination. The test driver is easy to understand and requires little or no prior computer experience.

6. SITTING FOR THE EXAM

6.1. Computer Testing

The specialist certification examinations are administered by computer. The examination questions are presented on computers, and candidates provide their responses using a mouse or keyboard. NBME works with Prometric to deliver these examinations worldwide at more than 300 test centers. Approved candidates should contact Prometric as soon as possible once they have their scheduling permit to schedule a testing appointment. Candidates may take the test on any day that it is offered during the testing window, provided that there is space at the Prometric test center of choice.

6.2. Test Centers and Testing Conditions

Prometric provides computer-based testing services for academic assessment, professional licensure, and certification. Please be aware that there may be test takers from other professions taking examinations during your test administration. Their exam schedule may differ from your schedule, and they may arrive and depart at different times.

These test centers provide the resources necessary for secure administration of the examination, including video and audio monitoring and recording, and use of digital cameras to record the identity of candidates.

6.3. Exam Time

You should arrive 30 minutes before your scheduled testing appointment.

The official exam time begins the moment that you enter your identification number online. There are 200 questions on the exam. The exam is administered during a seven (7) hour testing session, which consists of an online tutorial (up to 10 minutes), four 1½-hour test periods, an optional break after any section (up to 50 minutes), and a post-test survey if time is available within testing session. Please note that if you finish a section early, you may not use the extra time for a different section of the exam.

If you have unused time after you complete the examination, you will be given the opportunity to complete an online survey about the test administration. The purpose of the survey is to evaluate the test scheduling and delivery procedures. Your responses will be kept confidential, and the time you take to complete this survey will not detract from your allotted examination time.

6.4. Admission to the Test

You should arrive at the test center at least 30 minutes before your scheduled testing time on your testing day. If you arrive late, the test center administrator may refuse you admission. If you arrive more than 30 minutes after your scheduled testing time, you will not be admitted. In that event, you must pay a \$101 fee to Prometric to reinstate your eligibility record in order to reschedule your appointment within the testing window (*rescheduling fees vary for international sites*).

Upon arrival at the test center, you must present a printed copy of your scheduling permit or present it electronically (e.g. via Smartphone) and an unexpired, government-issued form of identification (such as a current driver's license, valid passport, or military ID) that includes both your photograph and signature. You will also sign a test center log, be photographed, and store your personal belongings in your assigned locker. You will be scanned with a handheld metal detector and be asked to empty and turn out your pockets prior to entry into the testing room to confirm that you have no prohibited items. You will be required to remove eyeglasses for visual inspection by the test center administrators. Jewelry, except for wedding and engagement rings, is prohibited and hair accessories are subject to inspection. You should not wear ornate clips, combs, barrettes, headbands, and other hair accessories. Any examinee wearing any of these items may be prohibited from wearing them in the testing room, and asked to store such items in their locker. These inspections will take a few seconds, and will be done at check-in and upon return from breaks.

If you brought a printed copy of your scheduling permit, the Test Center Staff will collect it. You will be provided with laminated writing surfaces and markers. You will be instructed to write your name and Candidate Information Number (CIN) on one of the laminated writing surfaces provided. Your scheduling permit will be retained by the Test Center Administrator. You may request access to the permit during the examination if it becomes necessary for you to rewrite the CIN on the laminated writing surface. Test Center Staff will escort you to your assigned testing station and provide brief instructions on use of the computer equipment. Laminated writing surfaces and markers issued are to be used for making notes and/or calculations during the testing session. They should only be used at your assigned testing station, and only after you have begun your examination by entering your CIN. You must enter your CIN to start the examination, which will begin with a brief tutorial prior to the first test block. Depending on the type of markers provided, you

may also be provided an eraser. Otherwise, if you have filled the laminated writing surfaces and need additional space for making notes, you will need to notify test center staff and a replacement will be provided. Laminated writing surfaces must be returned to test center staff at the end of the testing session.

If your identification contains your photograph but not your signature, you may use another form of unexpired identification that contains your signature, such as student/employee identification card or a credit card, to supplement your photo-bearing, government-issued identification. As a security procedure, you will be photographed before you begin taking the examination.

Important Note: You will not be admitted to the testing room without presenting either a printed or electronic copy of your permit and an unexpired, government-issued form of identification (such as a driver's license or passport) that includes **both** your photograph and signature.

The name on your scheduling permit must exactly match the name on your identification form. The only acceptable difference would be the presence of middle name or middle initial, or suffix on one document and its absence on the other. If you do not present your permit and required identification on the exam day, you will be denied admission to test. In that event, you must pay a fee to Prometric to reschedule your test (see section 4.5 for additional instructions).

6.5. Testing Regulations and Rules of Conduct

Test center staff monitor all testing sessions. Candidates must follow instructions of test center staff throughout the examination. Test center staff are not authorized to answer questions from candidates regarding examination content, testing software, or scoring.

If staff observes a candidate violating test administration rules or engaging in other forms of irregular behavior during an examination, the test center staff will not necessarily tell the candidate of the observation at the time of the examination. Test center administrators are required to report such incidents to NBME; each is fully investigated.

Candidates may not bring any personal belongings into the testing area, including but not limited to the following:

- Mechanical or electronic devices, such as cellular telephones, calculators, watches of any type, electronic paging devices, recording or filming devices, radios
- Outerwear such as coats, jackets, head wear, gloves
- Book bags, backpacks, handbags, briefcases, wallets
- Books, notes, study materials, or scratch paper
- Food, candy, gum, or beverages

If you bring any personal belongings to the test center, you must store them in a designated locker outside the testing room. You should keep in mind that the lockers are small and that mechanical or electronic devices stored in lockers must be turned off. Making notes of any kind during an examination, except on the laminated writing surface provided at the test center, is not permitted and removal of those materials from the secure testing area during a testing session or break is prohibited.

Note: Although the site provides noise-reducing headphones, you are encouraged to bring your own cordless soft-foam earplugs (subject to inspection).

6.6. Irregular Behavior During the Examination Process

Irregular behavior includes any action by candidates or others when solicited by a candidate that subverts or attempts to subvert the examination process. Test center administrators are required to report any irregular behavior by a candidate during the examination. Irregular behavior may include, but is not limited to, the following:

- Seeking and/or obtaining access to examination materials
- Impersonating a candidate or engaging another individual to take the examination by proxy
- Giving, receiving, or obtaining unauthorized assistance during the examination or attempting to do so
- Making notes of any kind during an examination except on the erasable writing surface provided at the test center
- Memorizing and/or reproducing examination materials
- Failure to adhere to test center regulations
- Possessing unauthorized materials during an examination administration (eg, recording devices, photographic equipment, electronic paging devices, cellular telephones, reference materials)
- Any other behavior that threatens the integrity of the specialist certification examinations

Looking in the direction of the computer monitor of another candidate during the examination may be construed as evidence of copying or attempting to copy, and a report of such behavior may result in a determination of irregular behavior. Candidates must not discuss the examination while a session is in process. Test center administrators are required to report all suspected incidents of irregular behavior. A candidate who engages in irregular behavior or who violates test administration rules may be subject to invalidation of their examination.

6.7. Canceled or Delayed Exam Administration or Problems at the Testing Center

Every effort is made to administer an examination at the scheduled test time and location. On occasion, however, exam administrations may be delayed or canceled in emergencies such as severe weather, a natural disaster that renders a Prometric Testing Center (PTC) inaccessible or unsafe, or extreme technical difficulties. If Prometric closes a testing center where you have already scheduled a testing appointment, it will reschedule the examination appointment at no additional charge.

In that event, Prometric will attempt to notify you in advance of your testing appointment to schedule a different time and/or center. Rescheduling an appointment for a different time or center may occur at the last minute due to limited availability of seats in a PTC.

You are advised to reconfirm your appointment with Prometric and maintain flexibility in any travel arrangements you may make.

If you experience an emergency situation on the day of your examination that you feel may jeopardize your ability to perform effectively on the examination, you may be eligible to postpone sitting for the examination until 2020. However, please note that if you opt to still sit for the examination and are not successful, this is not a basis for appealing examination results and your ability to sit again in 2020 at no additional cost may be in jeopardy.

Any candidate, once checked in and seated at a test station, who is delayed to take the examination by more than 30 minutes because of technical difficulties, is responsible for reporting the delay to the Specialist

Certification Program at 800/999-2782, ext 8520, as soon as possible. For such cases, the candidate may be eligible to choose to reschedule his or her examination at no additional charge. Before deciding to reschedule, you should be sure that there is another appointment available during the testing period. The test administration will not be considered “irregular” if you choose to remain and test despite the delay. You will receive the maximum number of hours available to candidates to complete the exam even if the test is delayed.

Any candidate, once checked in and seated at a test station, who has a concern or complaint about the test center environment, should immediately report the problem to the test center administrator. If you feel that the problem was not resolved to your satisfaction, you should contact the Specialist Certification Program at 800/999-2782, ext 8520, as soon as possible.

6.8. Exam Deferral

Candidates may defer their examinations through the ABPTS online application system located at www.abpts.org. To access your application click on “Online Application” from the Quick Links menu. Find your current application and click “History.” On the left-hand side of the screen, click on “Applicant Admin.” At the top of the Applicant Admin page is “Submit Deferral.” It is recommended that you review the [deferral guidelines](#) before selecting “Yes” from the drop-down menu. Last, scroll to the bottom of the page, and click “Save” to complete the deferral request. Please note you will not receive an email confirming the deferral, but once you click save that will finalize the process.

6.9. Equipment Malfunction

Should you experience any difficulty with the computer, please notify the test center administrator immediately. Do not wait until you have completed the exam to bring equipment malfunctions to the attention of the test center administrator. Once again, if you feel that the problem was not resolved to your satisfaction, you should contact the Specialist Certification Program at 800/999-2782, ext 8520, as soon as possible.

Please note that, occasionally, a computer at the test center may need to be restarted. Prometric has appropriate safeguards in place to ensure the integrity of candidate examination data. As soon as a candidate answers a test item, the response is immediately copied and saved, on the candidate’s directory on the server at a center. If there is a computer restart, the driver locates the results from the directory and picks up where the examinee left off. The system does not change or delete any responses. Thus, examination data are captured at the instant a candidate responds to a question; the computer can be restarted, if necessary, without losing or corrupting examination data.

6.10. Incomplete Examinations

After you start taking an examination, you cannot cancel or reschedule that examination unless a technical problem prevents you from completing your examination. As noted in section 6.8, if you experience a computer problem during the test, notify test center staff immediately. The testing software is designed to allow the test to restart at the point it was interrupted. In most cases, your test can be restarted at the point of interruption with no loss of testing time. If you do not finish the exam for any reason you are not permitted to resume the incomplete sections of the test. You must reapply for the next regularly scheduled administration (see section on “Reapplication” 3.7). The examination fee is nonrefundable for incomplete examinations.

7. EXAM RESULTS

7.1. Exam Results and Notification

After ABPTS meets in May 2019 to make certification decisions, score reports will be prepared for online distribution in mid-June 2019. The score report specifies your examination score, the passing score on the examination, and feedback on your performance in the major competency areas tested. In mid-June 2019, the Specialist Certification Program staff will send you an email notification announcing that score reports are available online, including instructions on how to access and download your score report.

Although there is a time lapse between the close of the examination window and the availability of examination results, much is happening during this period of time. Key validation takes place after the exam window closes in March. Key validation is a process of preliminary scoring and item analysis of the exam data, followed by careful evaluation of the item-level data, to identify potentially flawed or incorrect items prior to final scoring. During April and early May, standard setting committees are convened at the NBME to participate in content-based standard setting studies. The outcome of each committee's standard setting meeting is the recommendation of a passing standard of each of the specialty examinations during their May meeting. NBME then scores the specialist certification examinations and candidates are notified of their exam results as soon as this information is received by the Specialist Certification Program.

7.2. Scaled Scores

While your score is based on the number of questions answered correctly, it is a scaled score. ABPTS requires a scaled score of 500 to pass the examination. Scaling is a procedure that converts raw scores (number of correct responses) to a more easily interpretable scale. The purpose of scaling scores is to simplify things by keeping the passing score at the same number (eg, 500) for all exam forms, while the raw scores necessary for passing may vary for different forms.

7.3. Passing Scores

The certification examinations assess a clearly defined domain of knowledge and skills. You will be certified upon achievement of a passing score on the examination. The passing score is based on a detailed analysis of exam data and a recommended performance standard from a panel of clinical subject matter experts. This panel includes physical therapists in the specialty representing diversity in practice setting, years of experience, theoretical perspective, and geographic region.

Upon receiving board-certification, the candidate will:

- receive a certificate recognizing board certification as a specialist in an area of physical therapy
- be entitled to note they are "board-certified" in their specialty
- receive a board certified specialists lapel pin in his or her specialty area
- be recognized by his or her colleagues at APTA's annual Ceremony for Recognition of Clinical Specialists at APTA's Combined Sections Meeting
- be included in the online Directory of Certified Clinical Specialists in Physical Therapy

8. CONFIDENTIALITY

8.1. Confidentiality of Applicant Identity

Applicant names, application documents, and test scores are considered confidential. Only Specialist Certification Program staff, members of the American Board of Physical Therapy Specialties, members of the Specialty Council, and designated staff at the NBME and its subcontractors shall have access to this information. Applicant identity can be released for study group purposes only, with the consent of each applicant. Copies of test scores will be released only at the written request of the candidate.

8.2. Confidentiality of Examination Content

All candidates must sign/acknowledge the Affidavit & Pledge of Confidentiality in their online application for certification. Candidates must not disclose examination content to others or reproduce any portion of the examination in any manner. The examination of any candidate who violates these security rules will not be scored.

9. GROUNDS FOR DISCIPLINARY ACTION

Applicants or candidates who are determined to have engaged in fraud, misrepresentation, or irregular behavior in the application or examination process, to have disclosed examination content to others or reproduced any portion of the examination in any manner, or to have violated the Affidavit & Pledge of Confidentiality will be subject to disciplinary action, to be determined by ABPTS, which may include, without limitation, withdrawal of any certification granted and permanent or temporary exclusion from the certification process. Before taking disciplinary action, ABPTS will give the individual written notice of the evidence against the candidate and an opportunity to respond.

10. PROCEDURES FOR REVIEW OF DECISIONS

10.1. Reconsideration of Decision Regarding Eligibility to Sit for the Exam

An applicant whom the Specialty Council has determined to be ineligible may request the Council to reconsider its denial of eligibility. The request for reconsideration must specify the grounds on which it is based. An applicant may submit new information in support of his or her request for reconsideration. An applicant may challenge the Specialty Council's application of the eligibility requirements to his or her case, but not the requirements themselves. An applicant may not appeal to ABPTS unless he or she has first submitted a request for reconsideration to the Council. An applicant must submit his or her request for reconsideration no later than 2 weeks from the date of the denial letter. For purposes of determining compliance with the foregoing deadline, a request for reconsideration will be deemed submitted on the postmark date. The Specialty Council will notify the applicant in writing of its decision on reconsideration.

10.2. Appeal to ABPTS of Specialty Council's Decision Regarding Eligibility to Sit for the Exam

An applicant who wishes to submit an appeal must contact the Specialist Certification Program for a complete copy of the procedures.

An applicant whom the Council has determined upon reconsideration to be ineligible may appeal the decision to ABPTS. An applicant may challenge the Council's application of the eligibility requirements to his or her case,

but not the requirements themselves. The applicant must submit his or her appeal no later than 2 weeks from the date of the Council's decision on reconsideration. The appeal must be in writing and must be addressed to the Chair of ABPTS at the APTA Specialist Certification Program. For purposes of determining compliance with the foregoing deadline, a request for reconsideration will be deemed submitted on the postmark date. The appeal must specify the grounds on which it is based.

The Appeal Committee, a committee of ABPTS, will be responsible for the review and disposition of requests from applicants for appeal of a Specialty Council decision. The Appeal Committee will make its decision no later than 30 days from the date of receipt of the request for appeal. The Appeal Committee will send written notification of its decision to the Chair of the Specialty Council and the applicant by certified mail, return receipt requested, no later than 7 days from the date of its decision.

10.3. Procedures for Review of Certification Actions

A candidate who wishes to request that ABPTS reconsider its decision to deny certification must request a complete copy of procedures from the Specialist Certification Program.

The purpose of the ABPTS reconsideration procedure is to enable a candidate to challenge an ABPTS decision denying certification and to seek relief from untoward circumstances associated with the onsite administration of the examination and errors in the transmission of examination responses due to technical malfunction. To be considered, the request must include supporting evidence of technical malfunction.

Candidates must submit a request for reconsideration in writing and address the request to the Chair of ABPTS at the APTA Specialist Certification Program. To request reconsideration, the candidate must submit a written request no later than 2 weeks after the date of the letter notifying the candidate of exam results. For purposes of determining compliance with the foregoing deadline, a request for reconsideration will be deemed submitted on the postmark date. The request for reconsideration must specify the grounds on which it is based and the corrective action sought. Within 7 days of the receipt of a request for consideration ABPTS will acknowledge in writing the receipt of the request, including the date on which the request was received.

10.4. Appeal to APTA Board of Directors of ABPTS Decision to Deny Certification

A person may not appeal to the APTA Board of Directors unless he or she has submitted a request for reconsideration to ABPTS. A candidate who wishes to submit an appeal must request a complete copy of procedures from the Specialist Certification Program. Any candidate adversely affected by the ABPTS decision on reconsideration may appeal to the APTA Board of Directors within 14 days of receipt of the ABPTS notification of the Appeal Committee's decision. A candidate must submit this appeal in writing, and the candidate must address it to the President of the APTA at the APTA Governance Department. The candidate must also send a copy of the written appeal to the Chair of ABPTS at the APTA Specialist Certification Program. The appeal must set forth arguments in support of the candidate's position. ABPTS will send written acknowledgment of receipt of the appeal to the candidate within 7 days after ABPTS receives the candidate's written appeal request.

11. EXAM CONTENT OUTLINE & SAMPLE QUESTIONS

11.1. Exam Content Outline

The examination will comprise approximately 200 questions. Questions may include graphics. Examination questions can represent both a practice expectation and a knowledge area associated with that expectation. The following is a summary, including the percent of exam questions for each of the major components of the *Description of Specialty Practice: Oncologic Physical Therapy*.

Content Area	% of Exam Questions
I. Knowledge Areas:	15%
A. Foundation Sciences (5%)	
B. Clinical Sciences (5%)	
C. Behavioral Sciences (5%)	
II. Professional Roles, Responsibilities and Values:	16%
A. Professional Behavior (2%)	
B. Professional Development (2%)	
C. Communication (2%)	
D. Social Responsibility (2%)	
E. Leadership (2%)	
F. Education (1%)	
G. Advocacy (1%)	
H. Administration (1%)	
I. Consultation (1%)	
J. Evidence-based Practice (2%)	
III. Patient and Client Management Expectations:	69%
A. Examination/Reexamination (23%)	
B. Evaluation/Diagnosis/Prognosis (14%)	
C. Intervention/Instruction (27%)	
D. Outcomes (5%)	
TOTAL:	100%

Medical Conditions

The following list represents conditions that could be represented on the specialty exam. The list is meant to be a guide and is not comprehensive. Further, it is expected that consideration is given not only to the medical diagnosis of cancer, but also to the side effects and late effects of the treatments rendered to manage the disease, including but not limited to chemotherapy, radiation therapy, and surgery.

• Types of Cancer

- Breast
- Prostate
- Lung
- Colorectal
- Ovarian
- Melanoma
- Cervical
- Uterine
- Bladder
- Testicular
- Pancreatic
- Leukemia
- Lymphoma
- Multiple myeloma

- Osteosarcoma
- Soft-tissue sarcoma
- Central nervous system
- Brain
- Kidney
- Stomach
- Head and Neck
- Thyroid
- Paraneoplastic syndromes
- **Musculoskeletal**
 - Bone metastasis
 - Hormonal deprivation induced osteoporosis
 - Pelvic pain, hypertonus, vaginal fibrosis
 - Weakness
 - Postural deviations from radiation-related tissue contracture
 - Loss of ROM
 - Cording/axillary web syndrome
 - Steroid myopathy
- **Neurological**
 - Nerve palsies (facial, spinal accessory, long thoracic)
 - Brachial plexopathies (radiation induced vs metastatic)
 - Lumbosacral plexopathies
 - Peripheral neuropathies
 - Balance dysfunction
 - Chemotherapeutic neurotoxicities
 - Falls
 - Gait abnormalities
 - Spinal cord compression
 - Brain and CNS metastasis
- **Integumentary**
 - Radiation fibrosis
 - Phlebotoxicity
 - Radiotherapy toxicities
 - Skin extrusion
 - Infection
- **Cardiovascular and Pulmonary**
 - Deconditioning
 - Cancer-related fatigue
 - Lymphedema
 - Chemotherapeutic cardiotoxicities
 - Interstitial pulmonary fibrosis
 - Cachexia
 - Vena cava syndrome
 - Pulmonary metastasis
- **Immunosuppressive**
 - Graft vs Host disease
 - Scleroderma
 - Thrombocytopenia
 - Neutropenia
 - Anemia
- **End of Life**

11.2. Sample Questions

Candidates for the specialist certification examination in oncology are encouraged to review the following sample questions to familiarize themselves with the examination format. Please note that the questions listed below reflect the format but not necessarily the complexity of the actual examination questions.

Case Scenario 1

The patient is a 45-year-old man in the acute care bone marrow transplant (BMT) ward. He is 2 weeks post-BMT, after failed therapy for multiple myeloma. He has been functionally ambulating in his room, but recently the nursing staff witnessed him to be unsteady on his feet and wobbling. Dorsiflexion appears to be limited in the left foot. His induction chemotherapy regimen includes vincristine, doxorubicin, and dexamethasone, followed by high-dose melphalan.

Questions

1. Based on clinical presentation and past medical history, what is the most likely underlying cause of his presentation?
 - A. Chemotherapy-induced peripheral neuropathy
 - B. Steroid myopathy
 - C. Metastatic lesion to the CNS
 - D. Graft vs Host disease
2. What tests and measures should the specialist use to objectively assess the severity of the deficits noted?
 - A. Tinetti Balance Score
 - B. Total Neuropathy Score
 - C. Berg Balance Test
 - D. Timed up and go
3. Upon evaluation of the medical chart, the specialist finds the patient's platelet levels to be low. The medical team is strongly recommending physical therapist treatment today. The appropriate treatment plan would include:
 - A. Resistive exercise
 - B. No activity restrictions
 - C. Bedside activities
 - D. No ambulation

Case Scenario 2

The patient is a 60-year-old woman postsurgical resection of a spinal ependymoma. Since the surgery, she has experienced a decline in mobility status and now requires moderate assistance for transfers. Past medical history: Basal cell carcinoma 20 years ago, resolved; stage 0 melanoma treated with wide local incision 7 years ago. Prediabetic rehabilitation assessment prior to her surgical procedure revealed:

- Neuromuscular/musculoskeletal system
 - Sensation—lower limb dysesthesias were described as mild, itchy sensations. These occurred prior to the onset of back pain; intensity 2/10. Back pain is rated at 6/10 after gardening requiring an over-the-counter analgesic, and sometimes without specific activity it can increase to 3-4/10.
 - Proprioception—3/5 correct answers on the left great toe, compared with 5/5 on the right.

—Motor—functional stability has been impaired, given her report that she has difficulty rising from the floor. MMT revealed slight left lower extremity weakness, as compared to the right lower extremity. Most significant proximal weakness.

— Gait—decreased step length on the left. Selected comfortable speed during a 6-minute walk test was 2.4 mph. Mild increase in discomfort after testing was noted. No assistive device was used.

— Balance—left unipedal stance time 15 seconds, right unipedal stance time 30 seconds.

Present exercise routine includes walking 2x weekly in her community, followed by general LE stretches and knee-to-chest stretches, and hook lying trunk rotation to reduce back pain.

Questions

4. What is the most appropriate care setting for her to receive rehabilitation postoperatively?
- A. Acute inpatient rehabilitation
 - B. Outpatient ambulatory rehabilitation
 - C. Skilled nursing facility
 - D. Long-term acute care facility
5. What postsurgical rehabilitation interventions would be most appropriate and indicated for this patient in an outpatient setting?
- A. Extension-based core stabilization with modified hamstring stretches to avoid flexion and vertebral compression
 - B. Progressive closed chain exercises with proprioceptive challenges, and gait training
 - C. Transfer training using a thoracic-lumbar spinal orthosis to protect the spinal cord
 - D. Only partial-weight-bearing gait activities for 4 weeks postoperatively

Key: 1-A, 2-B, 3-C, 4-B, 5-B

12. PREPARING A CASE REFLECTION

12.1. Instructions

Purpose: The purpose of the clinical case reflection is to document competency in patient/client management in the specialty area. Patient/client management in a clinical case reveals clinical reasoning skills that are essential to demonstrating competency in the oncology physical therapy specialty area.

Guidelines for case selection: Patient/client management has 5 elements—examination, evaluation, diagnosis, prognosis, and intervention – which lead to optimal outcomes of care. Please select a **typical** case in your practice where you can provide evidence that demonstrates your competency in all 5 elements. *The case should provide a clear picture of how the oncologic specialist provided care that is beyond that of an entry level practitioner.* ABPTS may audit your submitted case reflection to verify its authenticity.

Material/information to include (see attached sample case reflection):

- You should begin the document with your rationale for selecting the case.
- Each case must include relevant clinical information, which may be presented using tables, graphs, bullet-points, etc.
- The information presented can be descriptive or actual documentation with identifying information removed.

- You should provide a written description of your clinical reasoning based on a synthesis of information and what is known in the literature, ie, discuss why certain tests/measures or interventions were selected based on the literature and appropriateness for the patient.
- You should provide relevant citations from the literature to support your clinical decision making. The case reviewer will consider the relevance of these references when evaluating the case reflection.

The case should indicate contemporary, specialist practice as depicted in the *Description of Specialty Practice for Oncologic Physical Therapy*. An individual evaluating your competency should be able to rate your performance from reading your case using the scoring rubric described below.

Scoring Rubric: After review of the case reflection, the rater will decide if it has met competency as specified by the scoring rubric. Your submitted case must meet competency for approval at this step of initial certification. Competency is defined as obtaining a score of “Pass” for the screening criteria.

Process for Submission of a Clinical Case Reflection:

1. A case must be submitted along with the application to sit for the Oncologic Specialty Examination.
2. A case will be evaluated within 3 months of submission.
3. A case that does not meet the screening criteria will be returned with an explanation.
4. A case not rated as competent will be returned with the rater’s comments.
5. If this case is rated as not meeting the screening criteria or competent, it can be replaced with another case, but only once.
6. Each case will be reviewed by 2 trained raters in the specialty area. Disagreements between 2 raters will be referred to a third, trained rater.
7. A candidate whose case is not rated as competent may submit a written request to the American Board of Physical Therapy Specialties (ABPTS) for reconsideration per existing ABPTS policy and procedures for reconsideration requests.

Compliance With HIPAA Privacy Rule:

Please note that to be in compliance with the HIPAA Privacy Rule, the case reflection and any documentation you submit must conform to either Option 1 or Option 2 below:

Option 1. De-identify the patient information in the case reflection and documentation per the HIPAA Privacy Rule, defines 18 specific items that must be removed to release patient information without patient authorization or approval from the Research Privacy Board.

These 18 items are:

1. Names.
2. All geographic subdivisions smaller than a state, including street address, city, county, precinct, ZIP Code, and their equivalent geographical codes, except for the initial three digits of a ZIP Code if, according to the current publicly available data from the Bureau of the Census:
 - a. The geographic unit formed by combining all ZIP Codes with the same three initial digits contains more than 20,000 people.
 - b. The initial three digits of a ZIP Code for all such units containing 20,000 or fewer people are changed to 000.

3. All elements of dates (except year) for dates directly related to an individual, including birth date, admission date, discharge date, date of death; and all ages over 89 and all elements of dates (including year) indicative of such age, except that such ages and elements may be aggregated into a single category of age 90 or older.
4. Telephone numbers.
5. Facsimile numbers.
6. Electronic mail addresses.
7. Social security numbers.
8. Medical record numbers.
9. Health plan beneficiary numbers.
10. Account numbers.
11. Certificate/license numbers.
12. Vehicle identifiers and serial numbers, including license plate numbers.
13. Device identifiers and serial numbers.
14. Web universal resource locators (URLs).
15. Internet protocol (IP) address numbers.
16. Biometric identifiers, including fingerprints and voiceprints.
17. Full-face photographic images and any comparable images.
18. Any other unique identifying number, characteristic, or code, unless otherwise permitted by the Privacy Rule for re-identification.

Option 2. Obtain written authorization from the patient. A template of a form to be used for this purpose is located in Section 12.2 of the application. This written authorization does not need to be obtained if patient information in the case reflection and documentation is de-identified per the instructions in Option 1 above.

Writing a Case Report:

INTRODUCTION

Writing a case report accurately and transparently may be easier if written in a different sequence than when it is published.

First: Clearly identify the message you wish to communicate. Is this case report about an outcome, a diagnostic assessment, an intervention, a new or rare disease, etc.?

Second: Create a timeline of your case report—a visual summary of the case report (see examples of timelines that follow the CARE guidelines).

Third: Complete the remainder of the case report using specialty-specific information if necessary with appropriate scientific clarification. Write the abstract last.

Patient information should be de-identified and informed consent obtained prior to submitting your case report to a journal. If the patient is a minor or unable to give informed consent seek consent from a close relative.

WRITING SEQUENCE

Part 1: Working Title, Timeline, Narrative

1. Develop a descriptive and succinct **working title** that describes the phenomenon of greatest interest (symptom, diagnostic test, diagnosis, intervention, outcome).
2. Create a **timeline** as a chronological summary of an episode of care as a figure or table. This should begin with antecedents and past medical history through the outcome. Examples are available on the CARE website.
3. **Narrative of the episode of care** (including tables and figures as needed.)
 - The **presenting concerns** (chief complaints) and **relevant demographic information**.
 - **Clinical findings** describe the relevant past medical history, pertinent co-morbidities, and important physical examination (PE) findings.
 - **Diagnostic assessments** discuss diagnostic testing and results, differential diagnoses, and the diagnosis.
 - **Therapeutic interventions** describe the types of intervention (pharmacologic, surgical, preventive, lifestyle) and how the interventions were administered (dosage, strength, duration and frequency). Tables or figures may be useful.
 - **Follow-up and outcomes** describes the clinical course of the episode of care during follow-up visits including (1) intervention modification, interruption, or discontinuation; (2) intervention adherence and how this was assessed; and (3) adverse effects or unanticipated events. Regular patient report outcome measurement surveys at such as PROMIS® may be helpful.

Part 2: Introduction, Discussion (including limitations), Conclusion

1. The **introduction** should briefly summarize why this case report is important and cite one of the CARE articles (eg, Gagnier JJ, Kienle G, Altman DG, Moher D, Sox H, Riley D, et al. The CARE Guidelines: Consensus-based Clinical Case Reporting Guideline Development. *Glob Adv Health Med.* 2013 Sep;2(5):38-43)
2. The **discussion** describes case management, including strengths and limitations with scientific references.
3. The **conclusion** offers the most important findings from the case.

Part 3: Abstract, Key Words, References, Acknowledgement, Informed Consent

1. **Abstract.** Briefly summarize in a structured or unstructured format the relevant information without citations. Do this after writing the case report. Information should include: (1) Background, (2) Key points from the case; and (3) Main lessons to be learned from this case report.
2. **Key Words.** Provide 2 to 5 key words that will identify important topics covered by this case report.
3. **References.** Appropriately chosen references from the peer-reviewed scientific literature.
4. **Acknowledgement.** A short acknowledgement section should mention funding support or conflicts of interest, if applicable.
5. **Informed Consent.** The patient should provide informed consent and the author should provide this information if requested. Rarely, additional approval may be needed.
6. **Appendices.** If indicated.

CARE Checklist

1. **Title.** The area of focus and “case report” should appear in the title
2. **Key Words.** Two to five key words that identify topics in this case report.
3. **Abstract.** (structured or unstructured)
 - a. Introduction: what is unique and why is it important?
 - b. The patient’s main concerns and important clinical findings.
 - c. The main diagnoses, interventions, and outcomes.
 - d. Conclusion—What are one or more “take-away” lessons?
4. **Introduction.** Briefly summarize why this case is unique with medical literature references.
5. **Patient Information.**
 - a. De-identified demographic and other patient information.
 - b. Main concerns and symptoms of the patient.
 - c. Medical, family, and psychosocial history including genetic information.
 - d. Relevant past interventions and their outcomes.
6. **Clinical Findings.** Relevant physical examination (PE) and other clinical findings.
7. **Timeline.** Relevant data from this episode of care organized as a timeline (figure or table).
8. **Diagnostic Assessment.**
 - a. Diagnostic methods (PE, laboratory testing, imaging, surveys).
 - b. Diagnostic challenges.
 - c. Diagnostic reasoning including differential diagnosis.
 - d. Prognostic characteristics when applicable.
9. **Therapeutic Intervention.**
 - a. Types of intervention (pharmacologic, surgical, preventive).
 - b. Administration of intervention (dosage, strength, duration).
 - c. Changes in the interventions with explanations.
10. **Follow-up and Outcomes.**
 - a. Clinician and patient-assessed outcomes when appropriate.
 - b. Important follow-up diagnostic and other test results.
 - c. Intervention adherence and tolerability (how was this assessed)?
 - d. Adverse and unanticipated events.
11. **Discussion.**
 - a. Strengths and limitations in your approach to this case.
 - b. Discussion of the relevant medical literature.
 - c. The rationale for your conclusions.
 - d. The primary “take-away” lessons from this case report.
12. **Patient Perspective.** The patient can share their perspective on their case.
13. **Informed Consent.** The patient should give informed consent.

12.2. Authorization to Disclose Protected Health Information Template

Authorization to Disclose Protected Health Information

Patient Name: _____

Description of information to be used or disclosed: _____

Purpose or purposes of disclosure: _____

Persons authorized to use or disclose information: _____

Persons to whom information may be disclosed: _____

Expiration date or expiration event: _____

Right to Terminate or Revoke Authorization

This authorization may be revoked or terminated by submitting a written revocation to (name) at (clinic name).

Potential for Redisclosure

Information disclosed pursuant to this authorization is subject to redisclosure by the recipient, and may no longer be protected.

Your Rights

You have the right to receive a copy of this authorization and to be told the purpose and to whom the protected health information is being disclosed.

Refusing Authorization

If you refuse to sign this authorization, you may not be denied appropriate treatment by this facility.

Printed name of patient

Signature of patient or patient representative

Date

12.3. Case Reflection Checklist

PURPOSE:

The purpose of the patient case reflection is to demonstrate the advanced clinical reasoning and decision making process reflective of that of an oncologic clinical specialist. Clinical specialists are set apart from non-board certified therapists with entry level proficiency by their ability to synthesize information from a variety of sources including, but not limited to, the patient/client, examination, differential diagnosis, intervention, and the incorporation of literature into clinical practice.

Clinical specialists are able to incorporate what is learned from each patient case, positive or negative, into future patient management. The case reflection should demonstrate these learning experiences by providing rationale for decision making throughout the plan of care. Relevant citations of the literature should be included in the case reflection.

Cases reflections will be accepted on cases that are representative of oncologic clinical practice.

REFERENCES:

All documented citations should be <10 years since publication unless the article is considered a seminal study. References are to be provided throughout ALL sections of the case reflection. The applicant should provide reference citations supporting all clinical decision making and intervention techniques. Course manuals are not accepted as supporting references.

AREAS OF REFLECTION:

The applicant is to provide reflection within each section of the case reflection document. These reflections should highlight the specialist's clinical thought processes and rationale. This is the opportunity for the applicant to clearly demonstrate their ability to understand and practice as a clinical specialist. This may include discussion on decisions that were made correctly or decisions that would be made differently in the

future. The applicant may also highlight items that would be focused on in more detail next time or methods on which they would change their practice with future patients.

SCORING:

Case reflections which are poorly assembled, which rely on outdated literature (> 10 years since publication unless a seminal study), or do not adequately demonstrate the clinical decision making process throughout the document in the reflections will **not** receive a passing score. Applicants will be provided one opportunity for revision if a non-passing score is received.

Refer to the **case reflection scoring rubric** for specific points of content which should be included in the case reflection to achieve a passing score. The applicant must include all points within each section of the case reflection (as clearly outlined on the scoring rubric) to receive a passing score.

MISTAKES TO AVOID:

- These are the most common mistakes applicants make in the case reflection. Take care to avoid these mistakes which result in a non-passing score.
- Failure to provide the required reflection within each section of the case document
- Failure to address each point on the scoring rubric
- Incomplete post case reflection or failure to include this section
- Failure to cite supporting literature throughout the case document to support clinical decisions and treatment interventions
- Submission of a case report in format for publication; the case reflection is NOT a case report. The case reflection is a document that shows the applicants learning and critical thinking skills based on the patient experience.

12.4. Case Reflection Scoring Rubric

Criteria	Pass	
	Yes	No
<p>Case Rationale</p> <p>The case represents specialist practice.</p> <p>The specialist presented a rationale for the case, eg, diagnosis within those seen most often by a women's health practitioner or whose treatment is different than that for a man, co-morbidities, presence of "red flags."</p> <p>Does the specialist provide insight regarding his/her perspective of specialist practice?</p>		
<p>For each element noted below, the specialist must provide commentary clarifying the decision making process.</p> <p>Explain the basis on which the case was approached. How was the case handled? What decisions were made? Why? How did information, change, and/or progress inform decisions? A reader should have a clear idea about the specialist's thinking process.</p>		

Examination	Yes	No
<p>Specialist must describe decision making and rationale for the following:</p> <p>The history, systems review (risk factor assessment), and tests and measures demonstrate appropriate rationale supported by current practice/literature allowing for measurement of outcomes, diagnostic classification, and/or, as appropriate, a referral to or collaboration with another practitioner(s).</p> <p>The specialist's clinical reasoning reflects an organizational approach that considers development of hypotheses in the categories of activity capability/restriction, patient's perspective on their experience, patho-biological mechanisms, impairments, and source of the symptoms, contributing factors, precautions and contraindications.</p> <p>The specialist provided rationale for decisions including relevant citations.</p> <p>Tests and Measures: The special provides a rationale for the tests/measures that describes the necessity to (1) confirm or reject a hypothesis about the factors that contribute to making the current level of patient/client function less than optimal and (2) support the physical therapist's clinical judgments about appropriate interventions, anticipated goals, and expected outcomes.</p> <ul style="list-style-type: none"> • Provide commentary on reliability, validity, specificity, sensitivity, likelihood ratios as available of tests and measures when appropriate. <p>With the information from the 3 elements of the examination (history, systems review, test and measures) the specialist provided his/her reasoning for decisions regarding patient management. The specialist shared what he/she was thinking, what guided his/her decisions and how he/she made plans for the patient's management at this point.</p>		
Evaluation/Diagnosis	Yes	No
<p>Specialist must describe decision making and rationale for the following:</p> <p>The evaluation/diagnosis demonstrates the synthesis of all the examination findings from the history, systems review, and tests and measures and applies a differential diagnosis process to establish the diagnosis, prognosis, and plan of care as supported by current practice/literature.</p> <p>Reflection is provided including supporting evidence regarding the principal hypothesis of the nature of the onset or diagnosis (e.g., is it consistent with a particular syndrome, practice pattern per the Guide, structures at fault or suggest a dominant pain mechanism?), extent of impairment, functional limitations and associated tissue damage/change. The specialist provides insight into how the diagnosis directs treatment planning.</p>		
Prognosis/Plan of Care	Yes	No
<p>Specialist must describe decision making and rationale for the following:</p> <p>The prognosis includes a predicted optimal level of improvement in function and the amount of time needed to reach that level.</p> <p>The specialist reflects on favorable and unfavorable prognostic indicators and identifies appropriate prognosis for this patient. The prognosis is based on the literature, understanding of the nature of the disorder (eg, inflammatory, degree of irritability, worsening, and other indicators of the need for caution), the patho-biological mechanisms, the patient's perceptions (ie, cognitive/affective status) and possible contributing factors.</p> <p>The plan of care demonstrates the use of interventions to produce changes in the condition that are consistent with the diagnosis/prognosis.</p>		
Intervention	Yes	No
<p>Specialist must describe decision making and rationale for the following:</p> <p>The timing and progression of interventions were designed to maximize the patient's/client's recovery.</p> <p>The interventions were relevant to functional outcomes as supported by current practice/literature.</p> <p>Monitoring or reexamination of the patient's/client's responses/progress toward achieving the anticipated goals and expected outcomes was adequately documented.</p> <p>Evidence is presented demonstrating that risk factors and health promotion were addressed.</p>		

Post-Case Reflections	Yes	No
<p>Specialist must document:</p> <p>How similar cases were managed based on what was learned from this case</p> <p>How specialist or patient/client understanding of the patient's/client's problem and management changed in subsequent visits</p> <p>How the patient's/clients's needs are being met</p> <p>Clues that were missed, misinterpreted, under- or overweighted</p> <p>What to do differently next time</p> <p>Decision about management if the outcome will be less than a 100% resolution of the problem(s)</p> <p>Interventions to improve the overall health status of the patient/client</p>		

Formatting the Case Reflection:

The following questions can be used help form your case reflection. Please also use the scoring rubric to ensure all points are included in your case reflection. **NOTE:** the points below are to provide a guide for developing the case reflection; additional information is likely indicated and should be included.

Case Rationale:

- Is the case representative of women's health specialty practice?
- Does the specialist provide rationale for the case clearly outlining the indicators that make it reflective of women's health specialty practice?
- Does the specialist provide insight regarding his/her perspective of specialist practice?

Examination:

The history, systems review (risk factor assessment), and tests and measures demonstrate appropriate **rationale** supported by current practice/literature allowing for measurement of outcomes, diagnostic classification, and/or, as appropriate, a referral to or collaboration with another practitioner(s)

The specialist's clinical reasoning reflects an organizational approach that considers development of hypotheses in the categories of activity capability/restriction, patient's perspective on their experience, patho-biological mechanisms, impairments, and source of the symptoms, contributing factors, precautions and contraindications.

Tests/Measures:

- How do the physical signs fit with the symptoms? If they do not, how might this influence the prognosis, plan of care and intervention?
- What element of the specialist's physical examination findings would indicate the need for caution in the intervention?
- What did the specialist consider about referring the client to another health provider?

Evaluation/Diagnosis:

- What is the assessment of the patient's understanding of his/her problem?
- What is the specialist assessment of the patient's feeling about his/her problem, its affect on his/her life and how it has been managed to date?
- What does the patient expect/want from the specialist management (i.e., patient goals)?
- How did the specialist determine that the patient's goals were appropriate?
- What effect does the specialist anticipate the patient's understanding and feeling regarding his/her problem may have on the prognosis, plan of care and intervention?
- Have impairments that may require management/reassessment (e.g. posture, movement patterns/.motor control, soft tissue/ muscle/joint/neural mobility/sensitivity, etc.) been identified?
- Has supporting and negating evidence from the examination for diagnosis, faulty structure or patho-biological mechanism been adequately presented and considered (comment on reliability/ validity/specificity/sensitivity/likelihood ratios of test and measures)?
- Would there be a perceived need to refer the client to another health provider?

Prognosis/Plan of Care:

- How do the physical signs fit with the symptoms and if not, how would this influence the prognosis, plan of care, and intervention?
- What about the examination findings would indicate the need for caution in the prognosis, plan of care, and intervention for the patient?
- What is the management of the patient for day 1 (e.g., advice, exercise, passive mobilization, referral for further investigation, etc.)? Why was this chosen over the other options?
- If passive treatment was used, what are the principle treatment techniques (rationale provided)?

- What physical examination findings (comment on reliability/ validity/specificity/sensitivity/likelihood ratios of test and measures) support your choice for management?
- What is the specialist's expectation of the patient's response over the next 24 hours?

Intervention:

- How would the specialist progress this patient?
- What kind of outcomes to expect for this patient?
- What would the specialist justify referring the patient to another health provider?
- After subsequent visits, how has the specialist or patient understanding of the patient's problem and management changed since first session?
- How are the patient's needs being met?
- What interventions were introduced to improve the overall health status of the patient?
- If the outcome will be less than a 100% resolution of the problem(s), at what point would the specialist cease management and why?

Post-Case Reflections:

- On reflection, what clues can be recognized by the specialist that were missed, misinterpreted, under- or over weighted?
- What would the specialist do differently next time?
- Discuss how similar cases were managed based on learning experience from this case?

12.5. Sample Case Reflection

Submitted to Demonstrate Competence as an Oncological Clinical Specialist

High Grade Sarcoma with Metastases to Lung: A Case Reflection

Patient History:

A 65 year old African American woman diagnosed with malignant fibrous histiocytoma (MFH) of the left thigh (medial compartment). She was initially treated with wide local excision of the medial compartment (adductor muscle group). Post-operatively she received adjuvant radiotherapy 50 Gray (Gy) over a 7 week period to the left inner thigh. Patient underwent further diagnostic imaging of the chest and was found to have extensive bilateral metastases. Patient underwent 5 cycles of adriamycin and ifosfamide chemotherapy with significant positive response (reduction in pulmonary nodule size). The medical plan included metastectomy following chemotherapy to remove the remaining metastatic lesions. Patient underwent left thoracotomy and multiple wedge metastectomies in and right thoracotomy on and multiple wedge metastectomies.

Current Condition/Chief Complaint:

Patient was referred to PT for evaluation and treatment four days post thoracotomy. PMHx included recurrent bronchitis and hypertension (HTN). She was living independently and alone in senior living apartment and was a community ambulator prior to recent hospitalization. Prior to hospitalization was as full time retail/ sales clerk recently retired as she was unable to stand for long periods due to tumor in left leg. Enjoyed bicycle riding as a leisure activity prior to diagnosis and hospitalizations. Routine medications included Singular and Maxzide.

Chief complaint at time of referral included shortness of breath with deep breathing subsequent to recent surgeries and hospitalizations. No complaints of somatic pain except for occasional 3/10 on a scale of 0-10 during deep breathing.

Review of Systems.

Review of systems at initial examination consisted of the following cardiovascular/pulmonary, integumentary, musculoskeletal neuromuscular and communication. Examination revealed the following: HR 77 bpm, RR 18 min, BP 130/81 mmHg, and a two inch difference in thigh circumference L>R. PFT revealed moderate obstructive disease. All upper (UE) and lower extremity (LE) AROM within normal limits and painfree with exception of 40 degree deficit in (L) knee flexion secondary to surgical scarring. Gross muscle strength all 10/10 in all joint planes of motion bilaterally with exception 3/10 (L) adductor muscle group. Patient was able to ambulate short distances independently without assistance of device or person however complained of shortness of breath (SOB) and dyspnea on exertion (DOE).

Reflection: Summary of findings: Preferred Practice Pattern: Cardiovascular/Pulmonary: Pattern B: Impaired Aerobic Capacity/Endurance Associated with Deconditioning.¹⁷ Primary impairment: Dyspnea and shortness of breath upon exertion. Secondary impairments: Left lower extremity edema and loss of flexion left knee secondary to surgical scarring and radiation therapy.

Reflection: Reflection on the selection of tests and measures for this patient included the following based on level of psychometric evidence and application to practice pattern.

St. George's Respiratory Questionnaire (SGRQ).

St. George's Respiratory Questionnaire (SGRQ). The SGRO is a 76 item questionnaire developed by Jones and published in 1991. The scale assesses frequency and severity of breathlessness that impacts on social functioning, and identifies psychological disturbances resulting from airway dysfunction Reliability: Internal consistency¹⁸⁻²⁰, test-retest^{18, 19}. Validity: Construct^{18, 19}, concurrent²⁰ and predictive²¹.

<http://www.atsqol.org/george.asp>

Six Minute Walk Test.

The six minute walk test (6MWT) was developed and published by Lipkin et al in 1986. It is a self-paced walk test for total distance walked in 6 minutes. It is a predictor of morbidity and mortality from heart or lung disease. Normal range is 400-700 meters.⁴⁰

Reliability: Intratester²², intertester²² and test-retest²².

Validity: Construct²³ concurrent²⁴ and predictive²⁵

The Borg Perceived Level of Exertion Scale.

The Borg perceived level of exertion scale was developed by Borg in 1985. It is a self-report scale from 6 to 20 based on the following scoring: 6- no exertion, 11- light exertion 13 hard exertion and 20 maximum exertion.

Reliability: Intertester^{26, 27}, test-retest^{28, 29}

Validity: Concurrent³⁰ and predictive²⁹

http://www.cdc.gov/nccdphp/dnpa/physical/measuring/perceived_exertion.htm

Breath Sounds.

Breath sound analysis by auscultation. This is a non-invasive method of determining abnormal breath and lung sounds through the use of a stethoscope. Abnormal sounds can be characteristic of pathology such as COPD or airway obstruction. <http://www.med.ucla.edu/wilkes/intro.html> Watchie J.⁴¹ or Zadai C.⁴²

Pulmonary Functional Status Scale.

Pulmonary Functional Status Scale (PFSS) as developed by Weaver 1989 is a 53 item self-administered questionnaire with three domains and subscales, 10 categories ADL, social, psychological and sexual function. It is scored using a variable likert score 15-20 minutes to administer. <http://www.atsqol.org/pfss.asp>. Reliability: Test-Retest³⁹ and Validity: Content³⁹ construct³⁹ and concurrent³⁹.

Results: Tests and Measures

Results from tests and measures were remarkable for the following: SGRO and PFSS were predictable limitation in IADL. A 6MWT revealed moderate to severe limitation in walking distance and endurance. Response to Borg Scale of perceived exertion resulted in response of "very hard" during low level activity.

Decreased breath sounds consistent with pulmonary restriction and spirometry.

Plan of Care and Intervention

Medical prognosis for patients following surgical resection for pulmonary metastatic nodules has been reported to be 10-40%.⁴³ In this case, while length of survivorship (remission) was unpredictable, this patient was relatively functional and had been living independently. Additionally, the literature supports the role of aerobic conditioning as a reasonable intervention in a population of patients [chronic obstructive pulmonary disease (COPD) and asthma] with related pulmonary compromise and restrictions.⁴³⁻⁴⁶

Rehabilitation intervention included short and long term goals. Short term goals included an inpatient plan with progression to outpatient and home care. Specific emphasis was to increase exercise tolerance and endurance, improve (L) knee AROM and strength, decrease pain on deep breathing and improve ability to perform all BADL without assistance. Long term goals included the ability for patient to return to all IADL and leisure activity of bicycle riding.

The following therapeutic program was instituted to achieve rehabilitation goals:

General Prognosis and Plan of Care

Impairment	Intervention	Prognosis (Goal of Care)
Dyspnea	Aerobic capacity and endurance conditioning. Breathing strategies	Return to IADL and be community ambulator
Loss of Motion	Flexibility exercises, muscle lengthening, AROM, stretching	Recovery of 90% of AROM
Adductor Weakness	Strength, power and endurance training. Active, Assistive, and resistive exercises	Return of muscle strength from 3/10 to 5/10

Edema	Manual Lymph Drainage Compression Stockings Transverse friction massage over fibrotic areas.	Reduction of edema/ lymphedema by 50%
-------	--	--

Reflection

Aerobic conditioning for dyspnea

A series of articles by Dimeo et al describe the efficacy of various therapeutic exercise and cardiopulmonary benefits in a variety of cancer patients with fatigue and endurance impairments.⁷⁵⁻⁸⁸

Manual therapy and home exercise for loss of motion and weakness

Deyle et al., (2005) investigated physical therapy treatment effectiveness in a randomized comparison of supervised clinical exercise and manual therapy procedures versus a home exercise program. Both groups supervised manual therapy and home exercise (unsupervised) showed significant changes in distance walked in 6 minutes and the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) when compared with baseline scores. But those in supervised manual therapy group scored twice as well as the home exercise group on the WOMAC score.

Manual lymph drainage and compression garments for edema reduction

There are many citations related to efficacy in cases of lymphedema management following breast cancer and the use of compression garments and pneumatic modalities in the treatment of circulatory disease (venous stasis) and dysfunction however few are specific to impairments documented subsequent to limb sparing surgery and radiation therapy. Support and clinical rationale for the manual lymph drainage and compression therapy strategy is therefore based on the following reviews and studies:

Harris et. al. (2001) identified a difference of 2.0 centimeters at any of 4 measurement points may warrant treatment of lymphedema. Findings supported long-term and consistent use of compression garments by women with lymphedema.⁷⁰

Sitzia er al., (2002) investigated manual lymphatic drainage (MLD) compared with simple lymphatic drainage (SLD) in the treatment of lymphedema. Findings revealed the mean percentage reduction in lymphedema was 33.8% in the MLD group and 22.0% in the SLD group. These data suggested that MLD was more effective than SLD in reducing limb swelling.⁷¹

Summary Discussion and Reflection

In this particular case, the patient presented to physical therapy on two separate occasions. The first episode of care occurred following surgery to remove the primary tumor and radiation therapy to control for regional disease in her inner thigh. Emphasis at that time was based on the post-surgical sequelae and impairments of motion, strength and skin. Unfortunately her rehabilitation program was truncated when she began complaining of blood tinged sputum. Follow-up testing revealed metastatic pulmonary nodules from the primary lesion. Medical management at that point favored chemotherapy and metastectomy to reduce and remove the nodules.

Subsequent to these procedures the patient was referred to P.T. a second time for dyspnea and deconditioning. As a result, the patient presented with multiple impairments involving two different diagnoses/practice patterns and a series of significant impairments.

Based on the examination, and the degree of severity of the impairments, a decision was made to prioritize the tests and measures to favor the patient's pulmonary condition as first priority, and her musculoskeletal impairments as secondary. The disablement process for patients with pulmonary disease, as described by Jette⁹⁰ served as the model for this case presentation and LaPier's⁴⁷ article as the framework for the outline and basis for this report.

Patients diagnosed with sarcoma represent a relatively rare tumor of bone and soft tissues, however, often present with signs and symptoms consistent with common neuromuscular and musculoskeletal conditions diagnosed by physical therapists.^{2, 73}

Unfortunately, little has been published in the area of cancer rehabilitation related to patient/client management, specific tests and measures, or the efficacy of therapeutic interventions. The literature does, however, support the prevalence of this cancer, and medical practice standards related to the antineoplastic treatment based on stage of disease. The advances in medical imaging and the effectiveness of the multimodality approach to the treatment of various cancers have resulted in improvements in overall survivorship for many patients.³

While this case represents a unique episode of care for many physical therapists, it does illustrate the importance of being able to research the management of rare disorders and provides an opportunity for therapists to demonstrate the ability to diagnose and treat similar conditions through an evidenced based method. In the future, P.T.s will need to be able to educate themselves well beyond the curriculum taught in professional educational programs. No curriculum can encompass all of medicine, so it will be incumbent to each individual therapist to accurately review the current literature for these types of rare diseases and disorders.

Principles and the therapeutic practice of oncology is an example of one such area of study. Being able to weigh the available evidence in a timely manner and establish a priority of assessment and care may afford the patient the greatest degree of function and safety in the shortest period possible. Finally, the therapist, as a medical professional has a certain responsibility to report material which may benefit their colleagues in understanding the disease, its ramifications on function and effective therapeutic interventions.

Case Reflection Bibliography may be found online at

http://stage.abpts.org/uploadedFiles/ABPTSorg/Specialist_Certification/Oncology/Oncology-CaseReflection-Bibliography.pdf

13. GLOSSARY

Description of Specialty Practice (DSP). This document is based on a practice analysis, which is a systematic study of professional practice behaviors and content knowledge of specialty practice. The purpose of the practice analysis is to collect data that will describe what specialist practitioners do and what skills and knowledge bases enable them to perform specialty practice. These data are used to describe specialty practice. The DSP defines the content area for the clinical specialist certification examination in the specialty area.

Guide to Physical Therapist Practice. This reference describes physical therapist practice in general, using the disablement model as the basis; describes the various roles of physical therapists and the setting in which they practice; standardizes physical therapy terminology; delineates tests and measures and the interventions that are used in physical therapist practice; and provides preferred practice patterns to assist in (a) improving quality of care, (b) enhancing positive outcomes of physical therapy services, (c) enhancing patient/client satisfaction, (d) promoting appropriate utilization of health care services, (e) increasing efficiency and reducing unwarranted variation in the provision of services, and (f) diminishing economic burden of disablement through prevention and the promotion of health, wellness, and fitness initiatives.

Part 1 of the Guide, "A Description of Patient/Client Management" describes the process of patient/client management including the following 5 elements:

- **Examination.** A comprehensive screening and specific testing process leading to diagnostic classification or, as appropriate, to referral to another practitioner. The examination has 3 components: the patient/client history, the systems review, and tests and measures.
- **Evaluation.** A dynamic process in which the physical therapist makes clinical judgment based on data gathered during the examination.
- **Diagnosis.** Diagnosis is both a process and a label. The diagnostic process includes integrating and evaluating the data that are obtained during the examination to describe the patient/client condition in terms that will guide the prognosis, the plan of care, and intervention strategies. Physical therapists use diagnostic labels that identify the impact of a condition on function at the level of the system (especially the movement system) and at the level of the whole person.
- **Prognosis.** The determination of the predicted optimal level of improvement in function and the amount of time needed to reach that level.
- **Intervention.** The purposeful interaction of the physical therapist with the patient/client and, when appropriate, with other individuals involved in patient/client care, using various physical therapy procedures and techniques to produce changes in the condition.

14. RESOURCE GUIDE INFORMATION

Resource guides are compiled by APTA sections and board-certified specialists to reflect current literature in the specialty area. They are provided for your information only. Neither the ABPTS nor the specialty councils has reviewed or endorsed the content of these lists. In addition, reviewing these resources does not guarantee that a candidate will receive a passing score on the specialist certification examination.

Oncology Physical Therapy Resource Information

Section on Oncology Physical Therapy—APTA

Suzie Callan

1055 North Fairfax St., Ste. 205

Alexandria, VA 22314-1484

Phone: 800/765-7848 ext. 7107

Fax: 703/738-1606

Email: oncology@apta.org

Website: www.oncologypt.org



Specialist Certification Program

American Physical Therapy Association

1111 North Fairfax Street, Alexandria, VA 22314-1488

1-800/999-2782, ext. 8520

www.abpts.org

Email: spec-cert@apta.org