GUIDELINE: OCCUPATIONAL HEALTH PHYSICAL THERAPY: ADVANCED WORK REHABILITATION GUIDELINES

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I. INTRODUCTION

Workers who experience lost-time, limited duty or symptoms in response to job tasks may benefit from physical therapy services. These physical therapy services may be rendered in the immediate acute phase, subacute phase, or chronic phase of injury healing through return to safe and productive work. Physical therapy intervention consists of evaluation and treatment for neuromusculoskeletal problems and other injuries. Many patient/clients who receive appropriate early care immediately following injury are able to return to their job without need for ongoing rehabilitation services or other expensive care.

Some injured workers are able to remain in the workplace with graded workplace activities and supplemental physical therapy, while other workers may require more advanced work rehabilitation to return to safe and productive work. The purpose of these more intensive return-to-work programs is to help progress an injured worker's tolerance of job or occupation-specific physical stresses. Under these return to work programs it is critical that the treatment should emphasize restoration of work-related function and reconditioning. Physical therapists provide the physical and functional restoration components within these programs. For the patient/clients with behavioral and vocational limitations, multi-disciplinary intervention may be indicated.

The following guidelines discuss aspects of work rehabilitation from a broad perspective, as well as programs such as Work Conditioning and Work Hardening which may be distinct programs for injured workers in some settings. These guidelines describe program elements that should be used to develop and guide practice.

II. PURPOSE

The purpose of this document is to establish guidelines for the practice of Work Rehabilitation in a manner that promotes clinical excellence, accountability and consistency through evidence based services. These guidelines are to be used in context with the APTA *Standards of Practice for Physical Therapy* and the Accompanying Criteria, the APTA *Guide to Physical Therapist Practice, Second Edition,* and the standard language and framework for health and health-related states that is described in the World Health Organization (WHO) *International Classification of Functioning, Disability and Health,* known more commonly as ICF.

The guidelines serve the following purposes:

- For physical therapists - to design, implement and evaluate structured programs for injured workers that promote return to work or "stay at work".
- For medical referral sources - to facilitate referral to the appropriate structured programs
- For insurance companies, claims reviewers, managed care organizations, etc. - to develop appropriate methods or criteria for referral to work rehabilitation programs, authorization of care involving work rehabilitation programs, and the monitoring and payment for physical therapy services under work rehabilitation.
- For Departments of Labor and Industry - to provide definitions and guidance related to worker's compensation.
- For managed care organizations, regulators, and providers - to serve as a resource document and provide guidelines on program utilization, referral eligibility criteria, and oversight.

- To supplement published evidence based guidelines for the care of injured workers with musculoskeletal conditions (such as the APTA Orthopedic Section's ICF-based guidelines.)

III. HISTORY

In 1991, APTA established the Industrial Rehabilitation Advisory Council (IRAC) to classify the levels of work rehabilitation to accurately reflect contemporary practice, to standardize terminology, and to address the needs of patients/clients, providers, regulators and payers. The initial guideline was adopted by the APTA Board of Directors in 1992, representing elements that should be used to develop and guide practice related to Work Conditioning and Work Hardening. The guideline was amended several times with the most recent review in 2003.

While Work Conditioning and Work Hardening programs continue to be an effective means in assisting and integrating injured workers to stay at work and/or return to work, recent research has provided additional insight into elements of the physical therapists role in work rehabilitation which may bridge both specialty and conventional settings. Research over the past 5-10 years has led to changes in treatment models that point to the necessity to update the previous risk models for delayed return to work. In contrast with prior time lines of 6-12 months as critical benchmarks to identify risks of long term incapacity, research based findings now reflect a window from 4 weeks to 4 months as a critical time where the risks of long term incapacity increase substantially.

The Occupational Health Special Interest Group (OHSIG) envisions multiple uses for these guidelines including:

- Physical therapy services for injured workers
- Physical therapist professional education programs
- Professional development and staff education
- Peer review and standards of practice
- Education of referral sources, legislators, employers, regulators and payers
- Marketing
- Outcome development

IV. GENERAL WORK REHABILITATION GUIDELINES

Evidence based evaluation and interventions should include elements such as classification systems, clinical prediction rules, and self report instruments as well as functional tests and measures relating abilities to workplace demands.

Optimal clinical outcomes result when worker rehabilitation is part of a collaborative effort. Common goals between the worker, health team, supervisors, management and other stakeholders appear critical for good clinical management and outcomes. Long term research indicates that in addition to other program elements, early self care elements such as problem solving, risk analysis, activity scheduling, and work on coping skills can also improve return to work outcomes.

Patient education is a critical part of work rehabilitation. Patients should be informed about their injury, anticipated healing, treatment process and goals and their responsibility with regards to practicing their home/self care, attending therapy, and adherence with all medical and therapy recommendations. Attempts should be made to help workers understand the process of post injury care, and handling some of the normal emotional responses that may accompany impairment, activity limitations, and/or participation restrictions. Progressive activity is encouraged. Remaining at work or early graduated return to work should be encouraged; return to work does not necessarily need to wait until pain resolves.

In worker rehabilitation, a physical therapist may observe external influencing factors that present as barriers or facilitators to progress or recovery. This may include environmental and personal factors. The physical therapist who identifies an injured worker who presents with "flags", barriers to recovery, or lack of objective clinical progress towards achieving the goals of treatment should inform the referral source and the other parties involved in the case for appropriate intervention.

Fear of movement or re-injury can impact perceived disability. Caution should be taken not to "over medicalize" non specific problems which can have a negative impact on time loss. Research shows that psychosocial components of care can become as critical than as biomedical problems or physical work demands after a 4-16 week window in non specific/neuromuscular injuries.

It is the responsibility of the physical therapist to provide individualized treatment plans, goals, and return to work activities that are individualized to a specific patient. The physical therapist should modify the treatment and plan of care regularly and provide regular updates to the medical provider(s) and referral source. It is not appropriate to under utilize treatment, nor to over-utilize treatment. The physical therapist should provide clinical documentation to the medical provider(s) and/or referral source if any outlying factor is identified.

V. OPERATIONAL DEFINITIONS

Historically, definitions related to work conditioning and work hardening incorporated programmatic interventions, goals, differentiation of the team members working with the client, and program selection based on physical ability and vocational behaviors. The outcome of this approach was to define the care of injured workers in a manner that did not truly address the role/skill of the physical therapist or incorporate elements of care that are needed for an individualized plan and promotion of return to work. APTA has used the following definitions as cited in APTA- Work Conditioning and Work Hardening Program: Occupational Health Physical Therapy Guideline

> *Work Conditioning: an intensive, work-related, goal-oriented conditioning program designed specifically to restore systemic neuromusculoskeletal functions (e.g., joint integrity and mobility, muscle performance (including strength, power, and endurance), motor function (motor control and motor learning), range of motion (including muscle length), and cardiovascular/pulmonary functions (e.g. aerobic capacity/endurance, circulation, and ventilation and respiration/gas exchange). The objective of the work conditioning program is to restore physical capacity and function to enable the patient/client to return to work.*
>
> *Work Hardening: a highly structured, goal-oriented, individualized intervention program designed to return the patient/client to work. Work Hardening programs, which are multidisciplinary in nature, use real or simulated work activities designed to restore physical, behavioral, and vocational functions. Work Hardening addresses the issues of productivity, safety, physical tolerances, and worker behaviors.*

Each person has individualized needs and it is not appropriate to separate physical and behavioral aspects of care through artificial program distinctions. Although the importance of communication and multidisciplinary care may have been emphasized in work hardening, these elements are just as critical for early intervention services to succeed in the acute or subacute phase of work injury care. The multidimensional nature of function, disability and health identified in research underscores the impact return to work and illustrates how participation, environmental factors, and personal factors may impact care throughout the healing and return to work processes.

The following grid identifies several constructs identified in the literature as impacting return to work and considerations in the role of the physical therapists working with injured workers. Since there is a range of possible variation within each construct presented, a simple illustrative scale of 1 to 4, is used here to describe (1) higher function/lower severity/less intense therapy involvement to (4) higher severity presentation and the need for more potential involvement by physical therapists. It is not necessarily expected that a client will track on a single "level" as it is recognized that return to work outcomes may be slowed or delayed by worker progression and/or workplace factors. (See Table 1)

Table 1. Factors and Constructs Influencing Return to Work and Work Rehabilitation

Less Involved/Complicated <----------->More Involved/Complicated

	1	2	3	4
Work Impairments, Activity Limitations, and/or Participation Restrictions	Ready to work, able to work (high level job match)	RTW plan with specific goals Able to work modified/ transitional duty.	Time loss possible, activity tolerance only with moderate changes in original job (or alternative duty may be indicated.) Assistive devices may be needed.	Limited anticipation of timely RTW, significant discrepancy between abilities and job demands. Vocational consult/redirection to another position possible. Assistive devices and accommodations may be needed.
Worker Presentation/ Status	Primarily impairment in body structures, functions and activity limitations. Minimal work performance difficulties. Minimal or no psychosocial complications.	Minimal to moderate discrepancy between job or occupational goal demands and worker's current ability level. Stable and predictable with functional progression documented. Low/no psychosocial considerations documented.	Progress slower than expected or limited functional status improvements. Moderate psychosocial considerations may be documented.	Catastrophic / complex case or substantial daily variation in physical/medical stability. May need to address issues of independent care or cognitive processing. Multiple/high level psychosocial considerations may be documented.
Intervention, Communication Needs	Informational only (provider and client.) Generally interventions focus on progressive functional activities and related to work performance. Job coaching may be needed.	Limited contact/coordination required with external groups to assist with problem solving and clarification of information for worker and employer. Independent with some aspects of care. May require help with program changes or difficult areas of program performance. Minimum discussion/implementation of workplace modification.	Extended or interdisciplinary communication/coordination/ education needed. Active case management, planning and communication with worker, healthcare professionals and stakeholders. Moderate guidance and ongoing modification of interventions to progress safely. Moderate discussion/implementation of workplace modifications.	Significant interdisciplinary communication/coordination of care, with at least 3 member team communication or detailed case management. Requires constant guidance to adequately and safely perform activities related to rehab and work tasks. Significant discussion/implementation of workplace modifications.
Examination and Evaluation Decision Making Complexity	Focus on fitness and periodic screening. Monitoring and minimal evaluation to assess changes/ functional status.	Stable progression with minor modifications related to new findings or new problems as the worker performs functional tasks. Physical presentation (including co-morbidities) is generally stable. Fits into standard progression of practice guidelines with examination/eval and min/mod flare ups or problems.	Entry point evaluation and decision making. Significant status change or reevaluation for program development or changes. Detailed examination. Includes job/ergo analysis and job matching components as indicated.	Detailed examination such as FCE or extended evaluation with consideration of multiple medical problems. IME or extended coordination of medical records and planning with other healthcare providers is required for appropriate planning.
Environmental Factors (Labor and employment services, systems and policies)	Employer has policies and procedures in place for transitional RTW/eventual accommodation. May have dedicated staff for RTW planning	Basic employer policies for RTW coordination and case management, but specific application may need clarification.	Case by case assistance with limited employer policies on RTW and modified duty options and/or limited supervisor or employer understanding of optimum care patterns or limited options for modification due to collective bargaining.	No workplace transition plans for RTW. Often "100% or nothing" policies in place. Labor and employment services, systems and policies support may be needed.

Therapist and other healthcare provider/stakeholder involvement in care of the injured worker must include a model/set of operational boundaries that goes beyond narrow definitions of "work conditioning" or "work hardening" to one that matches the range of factors impacting severity and complexity that can impact care of the injured worker, including functioning, disability and health.

Former operational definitions often focused on outcomes of physical capacity. Although some of the current constructs are consistent with the previous definitions regarding worker limitations/abilities, therapist involvement regarding intervention and job match focus, a newer multidimensional definition seeks to add constructs of workplace preparedness including early return to work and a focus on decreasing lost time with a "gap analysis" principle that also includes consideration of the role of the workplace (barriers/facilitators) in return to work planning and goal setting.

Where previous definitions of work conditioning may have assumed low barriers and moderate/low complexity of worker presentation, former work hardening definitions attempted to be more inclusive of the dimensions in the grid, but did not necessarily allow for variable conditions which previous models largely ignored such as the role of the workplace preparedness in return to work.

While ideal Level 1 involvement would generally include return to work planning and reintegration with lesser physical therapist involvement, most physical therapists work with clients in the second and third level most consistently in the clinic (or onsite clinics), with only occasional cases with significant/extensive involvement.

If progressive return to work is available, minimal/low therapist involvement may be needed, compared to a situation where no modifications or progressive return to work is available. Lack of work reintegration (outside of job changes) may indicate the need for more formal or extended programming in a clinical setting until return to work, plateau, reassignment or case closure.

PROGRAM ELEMENTS

Operational Definitions From Previous Guidelines (for historical purposes only)		***Current Operational Definition***
WORK CONDITIONING	***WORK HARDENING***	***WORK REHABILITATION***
Addresses physical and functional needs; may be provided by one discipline (single discipline model)	Addresses physical, functional, behavioral, vocational needs within a multidisciplinary model	Addresses physical, functional, behavioral, vocational needs within a multidisciplinary model that includes medical and workplace stakeholders
Requires Work Conditioning examination and evaluation	Requires Work Hardening examination and evaluation	Requires examination and evaluation with functional testing. Also requires communication and coordination with other stakeholders.
Utilizes physical conditioning and functional activities related to work	Utilizes real or simulated work activities	Utilizes various therapeutic interventions with a functional emphasis, emphasizing the role of the worker/work activities
Provided in multi-hour sessions up to: • 4 hours/day • 5 days/week • 8 weeks	Provided in multi-hour sessions up to: • 8 hours/day • 5 days/week • 8 weeks	Determined by situational analysis, may extend from hour/multi-hour sessions depending on evaluation plan of care and options/availability for work reintegration

VI. PROGRAM MANAGEMENT

The role and involvement of the therapist may vary based on the complexity of worker/work/stakeholder status and interaction. The care of the injured worker needs to be responsive to the needs of the worker, while not presenting an unreasonable set of rehabilitation parameters. Previous program parameters assumed multi-hour programming to address either physical/functional needs (work conditioning) or functional/behavioral/ vocational need (work hardening). With the benefits of return to work becoming clearer in evolving literature, workplaces with progressive return to work programs may reduce the need for extensive directed/supervised therapy based physical conditioning and work activities.

Situational changes in worker status or transitional duty can change the intensity/duration/type of physical therapist participation in care. Elements of historical work conditioning programs relating to impairments, function, mobility and stamina were “goals” and did not necessarily need to be contrasted/delineated from simulated work activities which are interventions such as strengthening, motor planning, or self care activities used to achieve those goals.

The programmatic needs of the client should be gauged on activity limitations and participation restrictions as well as potential facilitators/barriers. An example of this is a client who presents with an injury of low to moderate severity as well as activity limitations who may be able to return to work through progressive physical demands, with the need for physical therapy less intense compared to a situation where the client is restricted by workplace policies requiring 100% job match for return to work.

While 4-8 week programs may still be appropriate based on severity of client presentation or lack of modified/progressive return to work availability, the range of programming needs recognized in today’s occupational health environment require a more robust model for appropriate service identification.

VII. PATIENT/CLIENT ELIGIBILITY FOR WORK REHABILITATION (ADMISSION CRITERIA)

1. The client must be medically stable such that participation in a functionally based program would not be prohibited.
2. The client must have stated or demonstrated a willingness to participate.
3. There must be physical and functional deficits that interfere with work.
4. The client must have a treatment goal that includes returning to an occupational situation.
5. Work Rehabilitation should not begin until a functional evaluation has been performed to identify the specific physical limitations preventing a current return to full-duty work.

VIII. WORK REHABILITATION PROGRAM COMPONENTS

1. A comprehensive initial evaluation performed by a physical therapist to identify worker’s functional deficits in relation to specific work tasks and establish appropriate treatment plan and goals.
2. Document current functional job demands or potential job demands and any needs for improving the fit between the worker and workplace.
3. Address occupational deficits in goal development and program updates.
4. Include interventions to address impairments, activity limitations, and/or participation restrictions that interfere with the performance of work tasks.
5. Instruct worker in performing work related activities through use of real or simulated work activities.
6. Provide education related to safe job performance, injury prevention, and ergonomics.
7. Promote patient/worker responsibility and self-management.
8. Include multi-disciplinary consultation as needed to address barriers to recovery.
9. Weekly assessment and objective documentation to ensure progress is being made toward functional return to work goals; re-evaluate as appropriate to update worker’s abilities/restrictions.
10. Ensure program progression with increased emphasis on job simulation activities. This may include Transitional Return to Work to prepare the injured worker for return to a full-time, structured work environment.

IX. PROVIDER RESPONSIBILITIES

1. Familiarity with job expectations, work environments/ergonomic risk factors, skills and physical demands required of the patient/client through means such as site visits, employer interviews, videotapes, and functional job descriptions. This is critical to construct a job-specific plan of care to address work performance barriers.
2. Program establishment based on the results of a comprehensive examination and evaluation and use of valid/reliable functional tests and measures. All examinations, evaluations, and interventions provided, should contribute to progress toward the functional work oriented goals of treatment, and discharge plans will be documented.
3. Ensuring appropriate authorization/information is available to the patient/client, employer, other providers, insurance carriers, and any referral source.
4. Arranging and equipping an area for the specific purpose of providing work simulation activities (i.e. manual materials handling tasks, etc).
5. Regular communication with members of the healthcare team and workplace personnel to discuss, coordinate and document program progress toward anticipated goals and expected outcomes. All communication/team meetings should be documented.

XI. COMMUNICATION

Providers should document an initial evaluation, visit notes, progress notes, and a discharge summary according to APTA Guidelines: Physical Therapy Documentation of Patient/Client Management. This communication should *support interventions performed and* include:

1. Current work status of the client.
2. Documentation of specific work-related activities preventing the patient/client from returning to work, specifically job demands they cannot currently perform and the factors limiting performance of those activities.
3. Job-related goals of treatment.
4. Progress made to date in resolving the limiting factors identified in the initial evaluation.
5. Documentation of factors influencing continued functional limitations.
6. Timely referral to other disciplines to address potential barriers to recovery.
7. Frequency and duration of care.

XII. DISCHARGE CRITERIA

1. The client has met the work-specific goals of treatment.
2. The client is not making objective improvement toward achieving the work-specific goals.
3. The client declines to continue.
4. The client fails to comply with the requirements of participation.
5. The client has been referred to care of another member of the healthcare team.
6. Medical complications, psychosocial complications, or expenditure of financial/insurance resources precludes continued participation.
7. Payer refuses to authorize additional treatment, and the client has been given the option to continue independently.
8. Care is discontinued due to release from physician/medical provider.
9. The client has sustained new or related injury or condition has worsened, precluding continued participation in the established plan of care.

XIII DOCUMENTATION AND OUTCOMES ASSESSMENT

Physical therapists and physical therapist assistants who provide care paid through workers' compensation benefits need to be aware of the specific documentation necessary to support the provision of services for injured patients/clients. Insurance carriers consistently point out that physical therapy documentation consistently lacks a focus on functional performance in both goal-setting as well as the plan of care. A primary goal for workers' compensation patients/clients should be return to work.

In addition to standard APTA documentation guidelines, additional areas of documentation that should be considered and addressed for each patient/client can be found in APTA Defensible Documentation- Setting Specific Considerations in Documentation- Section J- Workers' Compensation.

Physical therapists and physical therapist assistants should also be familiar with specific documentation requirements for the workers' compensation jurisdiction in their state and any requirements that are stated in their state practice act.

When a patient is discharged or discontinued from a Work Rehabilitation program, data collected related to periodic outcome measures may be shared with the employer, insurance carrier, and/or referral source as allowed by state law and HIPAA requirements. Outcome measures can also be used to evaluate program effectiveness and management.

1. Reasons for program termination.
2. Use of standardized outcome tools related to clinical and functional status pre and post treatment/program.
3. Recommendations regarding return to work.
4. Recommendations for follow-up services.
5. Utilization Measures: should include diagnosis, body parts, number of visits.
6. Satisfaction survey.

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XIV. RESOURCE LIST

[1]APTA- Guidelines: Physical Therapy Documentation of Patient/Client Management (BOD G03-05-16-41) http://www.apta.org/AM/Template.cfm?Section=Policies_and_Bylaws&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=31688

[2] APTA- Work Conditioning and Work Hardening Program: Occupational Health Physical Therapy Guideline (BOD G03-01-17-58) (http://www.apta.org/AM/Template.cfm?Section=Policies_and_Bylaws&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=26229)

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