

REHABILITATION AND RETURN-TO-WORK

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The first two chapters of this book present a view of the role and process of case management across multiple disciplines and through several health care settings. One setting is so unique and complex that it requires a personal tour—rehabilitation and its relationship in return-to-work. Historically, case managers have played a dynamic role in both rehabilitation of a patient and in returning an ill or injured person to gainful employment. Rehabilitation case management has been successfully practiced since the 1940s, when massive numbers of wounded soldiers returned from active duty in World War II. Case managers coordinated extended community services for soldiers requiring psychological healing long after their physical wounds healed.¹ While the role of the first rehabilitation case managers was different from the roles assumed by rehabilitation case managers in today's technologically advanced medical system, the needs of today's patients remain fundamentally the same as those of patients 60 years ago. These include:

- positive, ongoing adjustments to the dramatic changes occurring as a result of the illness or injury;
- improved quality of life;
- ongoing education and empowerment of the patient and family/caregiver regarding age-related and disability-related challenges and solutions;
- restoration or establishment of gainful employment.

Overall, the profile of patients requiring rehabilitation in today's environment is quite different from what it was even a decade ago. Rehabilitation programs today are seeing individuals with greater degrees of disability and longer life expectancies. Individuals are of all ages with diverse premorbid lifestyles, and variable support systems. They are entering the rehabilitation process earlier and are being sent home earlier at a level that is often less than completely independent, requiring more intense, creative discharge planning.² Further, the ongoing rehabilitation needs of injured or ill persons are becoming more complex, with more levels of recovery occurring in the home environment. Therefore, rehabilitation case management requires specific skills and services that include:

- ability to review and summarize medical records and progress reports;
- initial assessment of the patient that includes physical, behavioral, psychosocial, and financial evaluation of the patient, with added emphasis on family living arrangements, family dynamics, and any pre-morbid deficits that could affect community reentry and return to work;
- effective and ongoing collaboration with physicians and other health care providers to design an effective medical and vocational treatment plan;
- facilitation, coordination, and evaluation of necessary services;
- facilitation, coordination and evaluation of necessary supplies and equipment, including those that may not be a covered benefit, such as home and vehicle modifications;
- identification of quality, cost-effective alternatives for ongoing care, particularly in chronic and catastrophic cases;
- establishment of appropriate goals and timelines for the recovery process;

- communication with the patient's employer for potential return-to-work;
- facilitation of vocational and psychological counseling services;
- comprehensive reporting of ongoing clinical assessment;
- accounting of anticipated and actual medical and vocational expenses;
- community reintegration services;
- education and empowerment of the patient/family toward self-care.

The rehabilitation needs of patients dictates that these skills are used in a variety of circumstances, for a variety of reasons. Most of this chapter centers on the needs of the patient who can return to work as part of the rehabilitation process. This is because return-to-work is synonymous with rehabilitation in a large portion of the patient population. Many times, however, facilitating a patient's rehabilitation to maximum functional and psychosocial status will not entail a successful return-to-work. Successful rehabilitation of a child with cerebral palsy, for example, may indicate that the case manager's goal is to integrate the child back into the school system, coordinating the most appropriate level and intensity of schooling possible in the best interests of the child. Successful rehabilitation of the retired cancer patient may indicate that the case manager has empowered the patient to accept his/her disease and prognosis, and to begin lifestyle changes to enhance survival, such as improved meal planning, a moderate exercise program, and participation in a support group. Successful rehabilitation of the at-home mom may indicate that the case manager has mobilized community resources to assist the mother during her recovery period, including car pools, an affordable after-school care program, and delivery of prepared meals.

Regardless of the situation, the rehabilitation case manager is successful when a meaningful lifestyle has been achieved by the ill or injured patient. The skills sets presented earlier are applicable in all situations, and aid the case manager in moving the patient toward a meaningful lifestyle. Certainly, some of the skills and services delivered by rehabilitation case managers require more specialized training and expertise than others. The most profound of these skills sets involves vocational and return-to-work assistance. Time away from work affects both the employee and the employer. The employee loses all or a portion of his/her income, depending upon benefits offered by the employer. The employee also loses the social contact, sense of accomplishment, and day-to-day continuity gained from employment. The employer primarily experiences significant costs associated with work absence as lost productivity.

Consider the June, 2000 study of 11 telecommunications companies by the Integrated Benefits Institute. It demonstrated that the productivity lost when employees are away from work is a far greater financial burden to the company than the actual costs of benefits provided. The study confirmed that group health costs were 22%, disability and workers' compensation costs were 4%, and lost productivity was a disproportionate 74% of the companies' overall expenses.³

This certainly explains why vocational and return-to-work assistance by the case manager become very important skills sets in the rehabilitation process. This chapter addresses the many aspects of vocational and return-to-work processes that can be successfully performed or coordinated by the case manager. The first of these is job analysis.

JOB ANALYSIS

One process used by rehabilitation case managers in assessing a person's vocational needs is a job analysis. A job analysis objectively describes the job performed by the worker as well as defines the worker's functions and the physical requirements necessary to perform the job. It is a snapshot of what the worker does, how the work is performed, what are the expected worker characteristics, and what is the context of the work performed, including the environment, the organization, and the nature of responsibilities.⁴

In completing a job analysis, the rehabilitation case manager should perform an onsite assessment. He/she will gather information from the employer and from workers performing the same or similar

functions as the job being analyzed. Personal observation and one-on-one interviews with peers and the employer remain key processes to obtain an accurate job analysis. When the rehabilitation case manager or specialist gathers this information, he/she can determine essential job functions for the stated job. Identification of essential job functions will assist the case manager to determine whether an injured/ill worker can perform the required tasks of the job. Identifying essential job functions is also a necessary component if the injured/ill worker wishes to establish his/her rights under the Americans with Disabilities Act (ADA). Information on the pertinence of essential job functions under the ADA is covered in Chapter eight of this book.

Essential job functions may also be identified in the injured/ill worker's job description. Accurate job descriptions are essential for each job in the workplace. The case manager will review the patient's job description to compare tasks that are indicated with what he/she actually observes during the onsite assessment. Accurate job descriptions are essential to provide the treating physician with appropriate information to determine the patient's ability to return to work.

When the rehabilitation case manager compiles data gathered into a job analysis report, the written report should include:

- Worker functions, which are those actions of the worker that relate to data, people, and things;
- What is achieved in the job;
- Identification of equipment, tools, and other work aids used to accomplish the tasks;
- Physical demands and work conditions;
- Environmental conditions;
- Worker characteristics required by the job, such as ability to deal with people, perform under stress, set limits and tolerance, and adapt to variety and change;
- MPSMS, which is an acronym that stands for materials, products, subject matter and services related to the job.

Because a job analysis is comprehensive, it should be performed only by rehabilitation professionals and case managers who have training in vocational evaluations. The results of a job analysis often define whether a need exists for job modification to return a disabled worker to gainful employment.

JOB MODIFICATION

An agreement by the employer to modify a job may happen for different reasons. In some cases, job modification occurs because the employee brings to the employer's attention compliance issues with the ADA (see Chapter eight), and the employer is required by federal law to modify certain aspects of the job description. In other cases, the worker may be a beneficiary of workers' compensation, and the case manager negotiates with the employer to modify certain job requirements to return the worker to gainful employment. This can occur if the worker's physician releases the employee to resume work duties, while defining clear limitations of work duties that are unsafe for the worker to perform. Employers are becoming more and more aware of the benefits of early return-to-work to obviate the costs of absenteeism and potential long-term disability claims.

There are also times when job modification results from a medical case manager advocating for his/her patient without having vocational experience. For example, an acute care case manager working in the hospital's outpatient chemotherapy unit could learn that a patient receiving chemotherapy treatment for his colon cancer is experiencing significant fatigue stemming from the treatment. The patient expresses fear to the case manager that he may lose his job due to his need to take frequent rest breaks during the day. He indicates that he must stop the chemotherapy treatments to keep his job and protect his family's finances. The case manager, with the patient's permission, contacts the patient's employer and explores how the worker's job might be modified. The employer agrees to allow the worker to modify his work schedule to half days, and to work from home one day a week. This is one example of job modification. Other forms of job modification may include limiting or eliminating

certain physical tasks normally performed in the job, such as lifting or bending, or rewriting the job description to encompass other tasks able to be performed by the worker.

Employers play a critical and key role in job modification and in the overall success of an ill/injured employee's return-to-work. They are an integral part of what is known as the *three-point contact* by the case manager: communication with the patient, the primary physician, and the employer. It is extremely important for the case manager to communicate directly with the patient, the employer, and the physician, and to facilitate dialogue between the employer and the employee, as well as between the physician and the employee. This dialogue will help ensure that the employee can return to work in the same job capacity, or in an altered capacity within the same company. If this is not possible, the employer may be a valuable resource in suggesting or opening the door to suitable gainful employment available elsewhere.

The ultimate goal of the employer should be to maximize opportunities for the employee to return to suitable, gainful employment within the company, and to identify and initiate measures to enhance safety-in-the-workplace to prevent further similar injuries/accidents. The short-term goal of the employer should be to communicate and cooperate fully with the rehabilitation case manager, other members of the rehabilitation team, the employee and the insurer (if any) to maximize the quality and efficacy of the rehabilitation process.

JOB ACCOMMODATION

This chapter has explored how jobs can be modified to assist an injured or ill individual seek gainful employment. In addition to, or instead of, modifying the actual job, the job environment may require redesign to allow the ill or injured worker to adequately perform tasks. Changes to the actual environment are known as job accommodation. Job accommodations can also occur for a variety of reasons, ranging from federal compliance with the ADA, to voluntary assistance from an employer wishing to hire a valuable, disabled job applicant.

Job accommodations in the workplace can be far reaching or simplistic. A simple example of job accommodation is moving files from an upper file cabinet to a lower cabinet to accommodate a worker who has an impaired reach. More extensive accommodations would be necessary for a wheelchair-bound worker. These might include raising the desk and/or workstation for roll-under access; widening hallways and doorways to provide clearance for the wheelchair; and providing a handicap-accessible stall in the common rest rooms. It is important to note that under the ADA, job accommodations must be made in both the immediate work area, and in all common work areas to provide accessibility. Common work areas include lunchrooms, vending machine areas, lockers and rest rooms, lounges, and any other area accessed by workers. If a company sponsors a recreational sport and provides transportation to the event, the vehicle transporting the employees must also be accessible. Job accommodation is often addressed by ergonomists who are experts in the field of accessible design. Ergonomists and ergonomics are discussed later in this chapter. Barrier-free design factors are discussed in this chapter.

Many employers proactively make job accommodations to prevent further injuries in the workplace. These job accommodations are often directed by the company's occupational health nurse, who may also perform many case management functions on behalf of employees and families. The occupational health nurse may bring to the attention of the employer common problems in the work environment that can be adjusted to avoid or lessen injuries. Computer screens placed at an appropriate height can lessen neck injuries and back pain. Keyboards placed at the appropriate height can prevent carpal tunnel syndrome. These are examples of the wellness focus taken by occupational health nurses who understand the benefits of job accommodation.

WORK ADJUSTMENT AND WORK TRANSITION

Obviously, adjusting to a significant illness or injury can be very difficult for anyone. Fear, anxiety, anger, self-doubt, and confusion are just a few of the overwhelming emotions experienced by the injured or ill person. Health care professionals are educated to address these emotions and to encourage the pa-

tient to achieve as much confidence and empowerment as is possible in the wake of life-changing circumstances. However, most health care professionals are not prepared to deal with the vocational challenges faced by ill and injured persons returning to work or seeking transition to work. In these cases, a rehabilitation case manager, usually in collaboration with a vocational specialist, can assist both the patient and the health care team.

A transition to the work environment will be uneventful for some patients, and truly monumental for others. The rehabilitation case manager will want to engage the employer, co-workers, and the support of the patient's physician whenever possible to assist the patient in a transition to work. Initially, it will be important for the case manager to speak with the patient to learn the patient's perspective of his/her expectations, limitations, and abilities surrounding a transition to work. If the case manager is involved by referral to the case, he/she will need to contact the payer to clarify expectations, discuss benefits or coverage issues, and to determine other individuals involved in the care plan who should be contacted.

Upon meeting with or speaking with the patient to assess work adjustment and work transition needs, the case manager will want to explore the patient's expectations to return to work with the same employer or at another job. Vocational strengths of the patient should also be discussed, including whether the patient has any transferable skills that can be utilized working for another employer, or in a modified job for the same employer. This will require that the case manager understands the patient's past work history. The case manager will need to obtain permission from the patient to contact other essential individuals in the job transition process, including the patient's physician and the patient's employer.

Sample Template of Topics to be Addressed with the Patient

In order to adequately assess the patient's needs for work adjustment and work transition, the case manager should explore the following topics with the patient.

- Is the patient currently working? If not, when did he/she stop working?
- What is the patient's primary spoken language? Is the patient bilingual?
- Can the patient read and write? In what language(s)?
- Current medical status;
- Health status expectations and perceptions by the patient;
- Past medical history that could impact employability;
- Allergies;
- Medications the patient is currently taking;
- Noted barriers to work adjustment, such as amputation, paralysis, limp, unsteady gait, fatigue, dizziness, etc;
- Is the patient currently able to perform ADLs independently, or does he/she need help? If so, who is currently assisting and in what manner?
- Is the patient married? Living with someone? Who is the primary caregiver?
- Number of years of school completed;
- Any military experience.

By conducting a thorough and objective assessment of the patient's current status, including situational analysis and functional assessment, the case manager obtains valuable information, which will allow him/her to assess barriers and strengths in work adjustment or work transition. The case manager will gather information to allow insight into how the patient perceives and understands his/her current condition and the treatment plan that is in place. The case manager may also be able to gain insight into family dynamics. The past medical history is also explored in order to see how the current injury/illness may be affected by other conditions the patient may have. It is important to assess the patient's ability to speak and read English, as well as the number of years of completed schooling in order to gain insight into vocational issues that may arise in addition to the medical complications

already facing the patient in work transition. All of these factors are important in developing a work adjustment/transition plan. As the case manager determines an effective transition plan for the patient, he/she must obtain approval of the plan from the patient.

Once the case manager has completed an interview with the patient, he/she will need to determine safety parameters involving transition to work. The patient must perform only those aspects of a job that are not a direct safety threat to himself/herself and others. The patient's physician should be contacted and provided with a written job description, provided by the employer, that defines the physical job demands, including the environment, physical and cognitive tasks, time requirements, and other pertinent data. Provided with accurate and appropriate job information, the physician can best determine whether the patient should have limitations to current job demands. The case manager should also provide a copy of his/her work transition plan to the physician, or discuss the plan with the physician if no formal written plan has been developed. A comprehensive plan will include short-term and long-term goals, as well as time frames in which the goals can be achieved. The goals must be specific, measurable, attainable, and relevant. Time lines are set up with each goal in order to make sure that the plan is re-evaluated.

After collaborating with the physician, the case manager should contact the employer to discuss the patient's abilities and limitations in a transition to work. Perhaps the limitations will be so severe that there is no return-to-work potential. Perhaps transition to work can be successfully achieved if the case manager can initiate efforts to provide job modification or job accommodation through the patient's existing employer. If return-to-work with the same employer is unlikely, perhaps the case manager will need to explore options for the patient to seek new employment.

VOCATIONAL ASPECTS OF CHRONIC ILLNESS AND DISABILITY

While a focus on rehabilitation and return-to-work strategies is required by legislation through workers' compensation systems across all fifty states, this focus has grown only as our understanding of the complex physical, emotional, financial, and behavioral issues surrounding profound illness and injury have matured. Providing rehabilitation and such services as job analysis, job modification, job accommodation, and work adjustment/transition is still not a responsibility of most health payer systems. Further, although these services are nationally covered in workers' compensation system, rehabilitation and vocational assistance have not always been addressed for workplace injuries.

CASE STUDY

Consider the documented case of an amputee injured on the job on May 8, 1930, at a cinder block company in St. Louis, MO. The 23-year-old male employee was cleaning a conveyor when he fell into the machinery, severing his right arm above the brachial region, receiving a compound fracture of the left leg, incurring extensive rupturing of the muscles and nerves of the left leg, damage to the right leg, and experiencing extensive tearing of the perineum and rectum. Subsequent to the accident, the injured worker sustained amputation of the right arm, permanent loss of the use of the left leg distal to the knee, lacerations and temporary muscle damage to the right lumbar region of the back and the abdomen, atrophy distal to the left leg injury, and permanent, partial loss of bowel function.

The injured worker spent one month in the hospital, and was discharged to home with follow-up care to be provided by his wife. He subsequently developed agitated nervousness and feelings of helplessness and hopelessness. Since there was no rehabilitation provided to this worker as part of the treatment plan, the injured worker's physician recommended the following in a written statement dated April 3, 1931: "I believe this man has now reached the point where he should make an effort to rehabilitate himself."

The Missouri State Workers' Compensation Commission determined the injured worker's status to be PPD (permanent partial disability) on September 30, 1931, and awarded him the maximum

allowable payment for PPD—66 2/3% of his average weekly wage of \$23.07 for 400 weeks, in a lump sum settlement of \$6,152. Upon appeal of the case by the injured worker, the workers' compensation court ruled in denial of additional funding or any ongoing medical care, stating that the employee was subsequently engaged in gainful employment—he was peddling eggs, limping door-to-door in his neighborhood.

Consider this case by today's rehabilitation standards of care in a workers' compensation system. This same injured worker would have been immediately assigned to a catastrophic case manager, who would have coordinated a comprehensive rehabilitation team that likely would have included an orthopedic surgeon, a vascular surgeon, a general surgeon specializing in bowel function, a gastroenterologist, a physiatrist, a pain specialist, a psychologist, a rehabilitation nurse, a physical therapist, an occupational therapist, a dietician, a social worker, and a vocational counselor. Following an acute care stay, the injured worker would have been transferred to a comprehensive inpatient rehabilitation facility for ongoing aggressive intervention by a similar specialized health care team. Weekly staffings by key members of the health care team would be used to report the injured worker's medical, psychological, and social progress toward short-term community re-integration. The injured worker and his wife would be actively involved in his ongoing care, with continual training, education, and support toward life-long adjustment and acceptance of the various deficits experienced.

Following successful inpatient rehabilitation, the injured worker would be transferred to home. The case manager would coordinate home health care services, using an agency specializing in catastrophic nursing and supportive care. The case manager would also coordinate wound care to include specialists in orthotics and prosthetics, durable medical equipment including disposables and incontinence products, assistive devices, compression therapy, bed support surfaces, ambulation aids, adaptive driving equipment and training services, home modifications and barrier-free architectural design. Care would also include life-care planning to address the lifelong needs of the injured worker, and to determine a fair settlement. A comprehensive vocational evaluation, would include job analysis, job modifications and accommodations, work hardening, and transitional counseling. If a new job was required, the worker would have vocational training, job development, and job placement to enable the injured person to begin a new career.

Clearly, return-to-work was not a focus in the Missouri workers' compensation system in 1930. Yet, today's rehabilitation case manager must have a broad knowledge base and skills regarding vocational aspects of disabled and chronically ill patients. The nature and scope by which a rehabilitation case manager can assist a patient in return-to-work will largely depend upon the payer system. The case manager must recognize which systems provide limited or no financial support for return-to-work, such as managed care health plans. In this scenario, the case manager will want to explore whether the chronically ill or injured patient qualifies for vocational services and wage loss benefits under other systems, such as vocational rehabilitation and Social Security Disability Income (SSDI). More information on these systems is provided in Chapter nine.

Rehabilitation case managers assisting a patient in return-to-work should engage the following sequential steps in determining how the person might return to gainful employment:

1. Modifications of the current job with the same employer, including a transitional return to work plan;
2. Exploration of a new job with the same employer, consistent with the patient's identified limitations and restrictions, and including work hardening, if necessary;
3. Modifications of a previous job with a new employer;
4. A new job with a new employer as a result of job placement, based on transferable skills and aptitudes;
5. A new job with a new employer involving on-the-job training;
6. A formal retraining and job placement.

Each of these sequential steps is covered in other sections within this chapter, as part of the overall vocational evaluation process. A vocational evaluation is a comprehensive process that systematically uses work, either real or simulated, as the focal point for assessment and vocational exploration. It incorporates medical, psychological, social, vocational, educational, cultural, and economic data gathered by the rehabilitation case manager or by a vocational specialist to determine goals and objectives in a vocational plan of care.⁵ A vocational evaluation is used to:

- determine employability;
- identify barriers to return-to-work;
- identify services/products to overcome those barriers.

A properly performed vocational evaluation produces a vocational diagnosis for the patient, which includes the preparation of the person regarding both job readiness and employability of the person being evaluated. In cases where patients are severely disabled, such as with a traumatic brain injury, the employability of the person may be limited to very simple tasks. Still, if employability is possible, the evaluation has been successful. The employability of the individual becomes less focused on assisting the individual to earn an income, and more on lifelong rehabilitation. Employment of the person may be possible only through community resources, where the person works for a stipend, and is monitored closely and allowed to perform rehabilitation-enhancing tasks. The individual gains improved quality of life, and is able to be financially independent. Employment of the person may give the person's family some respite from the burden of caregiving. This example demonstrates the fact that a rehabilitation case manager is most successful when the person achieves a meaningful lifestyle.

WORK HARDENING RESOURCES AND STRATEGIES

Whether a disabled worker is adjusting to a modified job or seeking new employment because of limitations, it is imperative for the individual to learn new techniques that prevent re-injury and promote safety for both the worker and co-workers. Work hardening is a method, used to re-train a worker in physical techniques.

Work hardening, a specific rehabilitation program, uses a controlled, artificial environment similar to the injured person's actual work environment. This simulated environment may be at the company where the person will be assuming his/her former job, a modified version of his/her job, a new job; or, may be the perceived environment of a potential employer. The purpose of the artificial environment is to mirror, as closely as possible, the worker's actual job functions within the actual environment.

Before entering a work hardening program, the person participates in a functional capacity evaluation (FCE), usually performed by a physical therapist. The FCE allows the therapist to explore the person's ability to perform normal activities related to his/her job function, such as stooping, bending, lifting, etc. The results of the FCE enables the rehabilitation team performing the work hardening to develop a program suited to the person.

The work-hardening program is the final stage of physical therapy to prepare the person for return-to-work. A well-planned work hardening program enables the injured worker to safely and deliberately prepare for reentry into the work force. The work-hardening team may comprise a physiatrist, physical therapist, occupational therapist, nurse, pain specialist, vocational consultant, and an ergonomist. The team teaches such functions as proper lifting, squatting, bending, standing, positioning, and other body mechanics to maximize function and minimize risk of injury.

ERGONOMICS

Ergonomics is the process of adapting the work environment to meet the wellness needs of the injured or ill person. An ergonomist assesses the job environment to determine whether certain compo-

nents can be modified or eliminated by redesign to prevent further illness or injury, and to promote wellness. As part of the environmental assessment, ergonomists address situations and conditions that may alter a person's optimal level of function. These include lighting, noise, workstation design, and distractions in the immediate area or the common areas of the work setting.

An example of ergonomic assessment for a chronically ill person focuses on a worker with chronic asthma. The worker's asthma is known to be triggered by extrinsic allergens, such as dust mites. An ergonomist examines the work area and determines that, in addition to keeping the worker's immediate workstation as clean and dust-free as possible, the common air conditioning system must be adapted to include an allergy-prevention filtration system. An example of ergonomic assessment for a worker with behavioral deficit focuses on the worker with diagnosed attention deficit disorder (ADD). Since the worker is easily distracted, the ergonomist determines that the employee's workstation must be removed from the existing cluster grouping, and placed in a private office with a door.

Ergonomic assessments can be done in a proactive manner to prevent injuries from occurring on the job, and to promote wellness in the workplace. Over the past few years, ergonomics, as it relates to injury prevention, has focused primarily on the reduction of cumulative trauma disorders (CTDs).⁶ CTDs are among the leading cause of workplace injuries, and include a wide variety of diagnoses such as tendonitis, bursitis, carpal tunnel syndrome, and several types of back problems. These syndromes result from overuse of specific muscles, tendons, ligaments, and joints and usually develop gradually over time.

Ergonomists are often asked to prevent or thwart an increase in CTDs. Risk factors for CTDs are position, force, and repetition. An example of CTD caused by position is the typist who types with her wrists bent, rather than typing with the wrists in a neutral position. The ergonomist evaluates risk factors for CTD in the work environment and makes modifications, such as placing a "lift" beneath a computer keyboard, making the employee's work easier to perform.

Ergonomists also assess products that enable workers to use near-normal postures that lessen force or repetition.⁷ Examples include adjustable chairs, back /abdomen lift braces, knee pads, hydraulic-lift tables, anti-fatigue floor mats, workstation height extenders, and wrist rests. These products prevent injuries and decrease stress on vulnerable or healed areas.

VOCATIONAL ASSESSMENT

A vocational assessment is a comprehensive process conducted over a period of time to identify individual characteristics, skills, education, job training, and job placement needs of an ill or injured worker. The assessment usually involves a multidisciplinary team that plans an individual's educational program.⁸ The role of the vocational specialist who assesses the worker and the work environment is to provide or enhance employment opportunities for the ill or injured worker. The vocational specialist may be completing a job search on behalf of the ill or injured worker, to maximize the person's ability to return to work, or to seek work once the rehabilitation process is complete. The vocational specialist may also evaluate the ill or injured person to determine his/her employability.

Vocational specialists have specific education to perform vocational testing and should be used as needed. The rehabilitation case manager must understand the scope of practice, and the practice within that setting. If the rehabilitation case manager is not prepared in vocational activities, he/she should refer the patient to a vocational specialist in a timely, efficient manner.

The vocational specialist and the rehabilitation case manager should function within the limits of their defined roles, education, and professional competencies, and should not recommend or request specific medical examinations, procedures, tests, or psychometric evaluations that are outside the scope of their education. Because few other health care providers focus exclusively on returning an ill or injured patient to work, the vocational specialist and the rehabilitation case manager together fill a critical role in maximizing vocational opportunities for an ill or injured patient seeking employment or return to work.

The vocational specialist uses different tools and tests as part of a vocational assessment. These include:

- Achievement tests (eg, reading comprehension tests)
- Aptitude tests (eg, motor coordination tests)
- Vocational tests (eg, ability to make correct choices to supervise others)
- Work samples (eg, testing both the ability to weld and the knowledge of welding)
- Behavioral observation (eg, patient's ability to follow directions during test-taking)
- Situational assessment (eg, observing patient's behavior in a simulated or role-playing work setting)
- Work trials (eg, observing the patient in the actual work setting)

Another common tool of the vocational specialist is a transferable skills analysis. Skills analysis is appropriate when the person's actual or projected physical abilities are too limited to allow the person to perform essential functions of the job. The ill or injured person is interviewed for past work history, education, and training. An analysis is then conducted to profile the past jobs, determining the highest level of vocational functioning. These functions are classified as transferable skills, because they are skills that the individual can use, or transfer, from one given job to another. An example of some of the transferable skills of a successful case manager include concise written and verbal communication skills, critical thinking, collaboration, and negotiation. Transferable skills are based on the individual's aptitudes, skills and physical abilities, and are documented to assist in determining current and projected employability of ill or injured persons.

A vocational specialist uses a labor-market survey as part of the vocational assessment/evaluation. A labor-market survey or analysis is often performed when an ill or injured worker requires retraining. The survey searches the local job market to determine job availability of jobs suited to the person's skills, abilities, and physical limitations. The survey, combined with information from the skills analysis, is used for:

- a job search;
- career counseling;
- the study of employment trends;
- a wage-loss analysis.

The steps a vocational specialist takes in completing a labor-market survey include determining the focus of the study, identifying the data-gathering method, and determining the final form of the data. In the past decade, Internet access has changed data-gathering methods. Vocational specialists are able to perform quick, efficient job searches. Major newspapers have online versions of their classified ads. Many employment entrepreneurs have websites as a way to capitalize on advertising opportunities generated by frequent site visitors ("hits"). Vocational specialists are advised to use good judgment to access both traditional and Internet-based sources when doing job searches.⁹

JOB DEVELOPMENT AND PLACEMENT

If the labor-market survey is done for career counseling, the vocational specialist is engaged in job development and placement for the ill or injured patient. Job development involves training or retraining a person for a new job or career change when the person cannot return to his/her pre-injury job, and no new position can be obtained based upon the individual's current transferable skills and physical limitations.

For example, a truck driver sustaining a low back injury in a weekend recreational activity cannot return to his job, which requires him to sit for long hours, exacerbating his chronic pain. The orthopedic physician treating the truck driver advises the patient to look for a more sedentary job, and suggests an office job where he may be able to take frequent stand-up breaks. With the help of the case man-

ager at the hospital where he was initially treated, the truck driver identifies an independent vocational specialist, who completes a vocational assessment, documenting that the truck driver requires vocational training. The specialist refers the injured truck driver to vocational training services under the state's vocational rehabilitation program.

Once the truck driver successfully completes retraining in basic office and clerical skills, he is ready for job placement, and begins a search of the labor market, much as a vocational specialist conducts a labor-market survey. The difference is that a vocational specialist may conduct a labor-market survey for employability, whereas the truck driver is seeking place-ability. Place-ability and employability are very different. Place-ability is the chance a person has of gaining employment due to his/her job readiness, while employability is the capacity a person has to gain employment. A person may not be place-able because his or her job readiness is deficient. If the same truck driver fears a career change and does not believe he is capable of performing an office job, despite his retraining, he is not job ready. Therefore, his employability is strong, while his place-ability is weak. Vocational specialists will first assess an ill or injured person's job readiness in the event the person has successfully completed retraining but fails to follow through with potential job leads provided by the specialist.

BARRIER FREE ARCHITECTURAL DESIGN

Often the ability of an ill or injured person to seek employment has as much to do with architectural barriers as with vocational barriers. If an ill or injured person cannot be independent in his/her ADLs in the home environment, or cannot access the workplace in his/her wheelchair, it won't matter how much training or retraining the person has accomplished. Dependence, rather than independence, will keep the worker from working.

Barrier-free architectural design is so important to a disabled person's home and work environments that state vocational rehabilitation systems and workers' compensation systems provide benefits to pay for barrier-free environments. Barrier-free architectural design encompasses a wide variety of processes and identifiers, including universal design, home modifications, workplace retrofitting, and medical remodeling. The intent of barrier-free architectural design is to maximize a disabled person's independence, and provide an environment that is equally accessed by persons of all ages and all levels of abilities.

Barrier-free workplace and home environments are created by environmental access specialists. An environmental access specialist is classified with ancillary professionals as part of the health care team. Environmental access specialists typically build their practice and their expertise on their related professional licenses/certifications. Practitioners credentialed in environmental access include OTs, rehabilitation nurses, building contractors, engineers, and architects. The existing national certificate for an environmental access specialist is a CEAC—and is based on the specialist's related professional license/certification. The goal of the environmental access specialist is to provide a safe, cost-effective, and quality-designed home or workplace environment for the disabled person that will also maximize the person's independence and autonomy.

LIFE-CARE PLANNERS

Life-care planning is a comprehensive written document that acts as a care map to estimate the required medical, financial, psychological, spiritual, and social needs that a catastrophically or chronically ill/injured person requires over the lifespan. The professional who completes a life-care plan is known as a life-care planner, with specialty training, expertise, and practice in this rapidly growing and dynamic field. Many case managers are experienced life-care planners. Practitioners credentialed in life-care planning include nurse case managers, social workers, economists, vocational counselors, and rehabilitation counselors.

The intended recipients of a life-care plan are those with catastrophic injuries or those who have chronic, disabling conditions such as traumatic brain injury, spinal cord injury, amputation, multiple

fractures, severe burns, premature birth, congenital anomalies, cancer, AIDS, and cardiopulmonary disease. A life-care planner conducts a comprehensive review of the ill or injured person's medical records, and reviews the person's work or school records. Patient and family interviews are conducted, including all members of the health care team. The life-care planner then investigates cost and availability of necessary services, equipment, and other resources required now, and those anticipated to be required for the rest of his/her lifetime. Diagnosis and prognosis are carefully documented to determine all expected complications, comorbid conditions, challenges, and quality of life issues affecting the individual now and, likely, in the future because of the illness/injury, including considering the medical, financial, social, behavioral, and cognitive aspects of the person's illness or injury. The final written report is comprehensive and compiled in a format that is understood by the patient, the family, the treatment team, the payer, and the legal system.

Life-care planners use a number of reliable tools to prepare a comprehensive life-care plan, including the U.S. Life Tables, to determine the life expectancy of a disabled individual, Present and Future Value Tables to project the value of today's dollar in the future health care and socio-economic climate, statistical data reports by economists, clinical guidelines, reports of experts in the field, significant research and literature reviews, and the life-care planner's own advanced practice and expertise to determine the future needs of the injured person.

Life-care planners can be identified and referred by claims representatives, defense attorneys, plaintiff attorneys, guardians, case managers, and others who may require a systematic way to determine projected services, products, and costs associated with a disabled person's survival and quality of life, both in the present and the future. The overall goal of the life-care planner is to define in a clear, accurate, concise, and unbiased manner the needs of the ill or injured person over his/her anticipated lifetime. The life-care planner must remain objective throughout, while preparing the life-care plan, regardless of the payer source requesting the plan.

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