Goal Planning in Stroke Rehabilitation: Why?

Stroke rehabilitation is a complex process, and goal planning is needed to ensure that the rehabilitation effort is as efficient and effective as possible. Many patients with neurological disability have multiple severe and complex problems that require input from many different people from various professions and agencies. In these circumstances, there is a major risk that individual people may be working toward separate and at times conflicting goals, and it is unlikely that everyone will work in a coordinated way. Consequently, a formal process of goal planning is often essential to improve coordination and cooperation among all those involved with a particular patient. Key words: complex disability, goals, organization, teamwork

INTRODUCTION

Two English proverbs illustrate the need for goal planning in rehabilitation: “Too many cooks spoil the broth” can refer to the situation without goal planning. Many people are involved but no coordinated activity exists, and the result is a mess. “Many hands make light work,” in contrast, could refer to a team working together toward a common goal. This article explains in more detail why it is important to devote time and resources to the process of setting goals in rehabilitation.

As with assessment, goal planning at an individual level is often undertaken unconsciously, especially in the short term. A therapist seeing someone failing to maneuver a wheelchair will subconsciously both assess (e.g., “she has hemiplegia; she does not know the technique”) and plan (“I will show her the technique”) and then will intervene, showing the patient how to move a wheelchair. However, longer-term planning and planning of coordinated activities are

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often overlooked (e.g., having taught the patient to self-propel her wheelchair, it is necessary to consider suitable accommodation). This article considers the process of setting goals at a level that involves more than one clinician and that considers more than the immediate future.

Goal planning and all other aspects of rehabilitation take place within a conceptual framework (whether this is consciously or openly articulated). There are many models of illness (Post, de Witte, & Schrijvers, 1999), and this series of articles is firmly rooted within the ideology of the World Health Organization’s International Classification of Impairments, Disabilities and Handicaps (WHO ICIDH), which is now being revised (see World Health Organization Internet Web Page <http://www.who.int/msa/mnh/ema/icidh/>). Table 1 shows the main features and some of the terminology that will be explained in this and subsequent articles.

**COMPLEXITY**

Rehabilitation is an extremely complex process. Each patient has his or her unique combination of problems and strengths. The complexity arises at each level of the

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**Table 1. Stroke management: Clinical framework and terminology**

<table>
<thead>
<tr>
<th>ICIDH FRAMEWORK</th>
<th>Synonym</th>
<th>Level of Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pathology</td>
<td>Disease/diagnosis</td>
<td>Organ/organ system</td>
</tr>
<tr>
<td>Impairment</td>
<td>Symptoms/signs</td>
<td>Body</td>
</tr>
<tr>
<td>Activity (was disability)</td>
<td>Function/observed behavior</td>
<td>Interaction of person and environment</td>
</tr>
<tr>
<td>Participation (was handicap)</td>
<td>Social positions/roles</td>
<td>Person in his or her social context</td>
</tr>
<tr>
<td>Contextual factors</td>
<td>Examples</td>
<td>Comment</td>
</tr>
<tr>
<td>Personal experiences</td>
<td>Previous illness</td>
<td>May affect response to this stroke</td>
</tr>
<tr>
<td>Physical environment</td>
<td>House, local shops</td>
<td>May affect need for equipment, etc.</td>
</tr>
<tr>
<td>Social environment</td>
<td>Laws, friends</td>
<td>May affect motivation, support, etc.</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>REHABILITATION</th>
<th>Synonym</th>
<th>Comment</th>
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<tbody>
<tr>
<td>Maximize patient’s social position and roles</td>
<td>Minimize handicap/maximize participation</td>
<td>Takes matters well outside health; personalizes rehabilitation process</td>
</tr>
<tr>
<td>Maximize patient’s sense of well-being (quality of life)</td>
<td>Minimize somatic and emotional pain, maximize satisfaction with life</td>
<td>Often involves education about reality of losses and helping patient to understand and come to terms with losses</td>
</tr>
<tr>
<td>Minimize stress on and distress of family</td>
<td>Provide emotional and practical help</td>
<td>Takes matters well outside health; also takes much effort and time unrelated to “objective” losses</td>
</tr>
</tbody>
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continues
patient’s illness. To help the patient, a large number of people (40 or more) will often become involved to a greater or lesser extent at some point of the patient’s illness over the first 6 months. The miracle is that the outcome for most patients is at least reasonable.

At the level of pathology, stroke itself is a heterogeneous diagnosis in terms of location of damage (e.g., left or right hemisphere), extent of damage (e.g., lacuna infarction, or total anterior circulation infarction), and the direct (e.g., thrombosis or hemorrhage) and indirect (e.g., diabetes, ischemic heart disease) cause of damage. In addition, most patients, being older persons, will have accumulated a variety of other relevant pathologies such as osteoarthritis, ischemic heart disease, and diabetes. All of these factors will
affect the prognosis and will determine the specific problems (impairments) experienced by the patient.

At the level of impairment, the patient will have a combination of several different neurological impairments—each of a different severity—and the patient will therefore also have a combination of preserved and partially preserved neurological skills. For example, although most patients will have some motor loss, its severity will vary and patients may or may not have additional sensory loss, language impairment, and so forth. In addition, impairments may arise from other diseases such as shortness of breath from heart failure or pain in a knee from arthritis.

The context of each patient will also be unique. Each patient has personal experiences and strengths; a social, cultural, and family background; and a specific physical background (type of house, available caregivers, and so forth).

The patient’s behavior and behavioral repertoire (i.e., what they do and what they can do) will be determined by the interaction between the contextual factors and the impairments. The interpretation of that behavior by the patient and relevant others will be determined by the attitudes and expectations of those parties. Consequently, each patient’s disability (performance at the level of activities or alteration in the quality and/or quantity of behavioral repertoire) and handicap (social status, participation in society) will be unique, and neither will be particularly closely related to any specific pathology or impairment. Further, a patient’s sense of well-being will vary in unpredictable ways.

The response of the family also will vary greatly. Some people have no family; some have families who are protective and hamper recovery; and some families encourage appropriately. Sometimes the family will become dependent on the rehabilitation team.

As a result of this complexity, it is not possible to have standard management packages. Unlike the situation with an operation on a hip, in which the treatment and rehabilitation procedures are relatively predictable and problems relatively uniform, a patient who has had a stroke poses a specific set of problems that will not be repeated precisely. Each patient’s course through rehabilitation will be unique in terms of resources needed, processes undertaken, inputs given, and outcomes achieved and achievable.

**REHABILITATION**

Rehabilitation has three related aims. The first aim is to maximize the patient’s social role functioning, i.e., to maximize participation or minimize handicap. The second aim is to maximize the patient’s sense of well-being, his or her satisfaction with life or quality of life. The third aim is to minimize the stress on and distress of the patient’s family and relevant others.

To achieve these aims, rehabilitation needs to be an active and problem-solving educational process that primarily focuses on the patient’s disability and the activities that he or she undertakes, but rehabilitation must consider factors at all levels and may inter-

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> Each patient’s course through rehabilitation will be unique in terms of resources needed, processes undertaken, inputs given, and outcomes achieved and achievable.
The processes involved in any problem-solving process include assessment (the analysis of the situation), goal-setting, intervention, and comparison of the change that was hoped for or expected. Reiteration then occurs until all problems are resolved or remain unresolved.

As is discussed in more detail in the next article, the aim of the rehabilitation process is to achieve the best level of social participation possible for the patient in the circumstances. If this is accepted (and arguably many purchasers and some providers would not agree), then inevitably the rehabilitation process must involve organizations outside the health-funded organization.

**TEAMWORK**

To achieve these aims, it is necessary for many people to be involved. These people will come from many different professions and are likely to work for several organizations in various settings.

The patient’s problems will need analysis and assessment at all levels. This analysis requires several people with different specialties. For example, the patient may need a speech and language therapist to assess communication; a dietitian to assess nutrition and special dietary requirements; a physician to advise on drug treatment of pain and spasticity; a social worker to advise on financial and other benefits; an occupational therapist or architect to advise on housing adaptations; an employment advisor to discuss returning to work; and so forth.

At the same time, a large number of interventions will be needed at many levels and often in several geographically separated places (Wade, 1998). For example, the patient may need to learn how to walk or dress; the family may need emotional support or practical advice; the family car may need adapting; a botulinum toxin injection might be needed; the house may need adapting; and so forth. These interventions may vary in terms of time because some may be short term and quick to achieve but others may be complex and long term.

Consequently, successful rehabilitation depends on the involvement of an expert multidisciplinary team. The effectiveness of a coordinated, specialist multidisciplinary team has been proven beyond reasonable doubt for stroke rehabilitation (Stroke Unit Trialist’s Collaboration, 1997). Some observational evidence indicates that—in actual practice—specialist stroke services are more efficient and effective than the “routine” service offered on medical and geriatric wards (Rudd et al., in press). Further, it is increasingly recognized in many areas of health care that better outcomes follow the involvement of expert teams of people working together.

A team is possibly best defined as a group of people working together toward a single agreed goal. Football teams work to score goals; sales teams work to increase sales; and mountaineering teams work to help one or two members reach the summit. Large organizations often break work down to form teams: for example, armies break up into small groups such as platoons with each team having a specific task; and in some modern automobile factories, teams of workers cooperate to build a complete car. It is generally recognized that a well-organized team can achieve more than a poorly organized team.

Therefore, if stroke rehabilitation is to be an effective and efficient problem-solving process, then it is vital to achieve good teamwork for each and every patient. Teamwork in stroke rehabilitation is made particularly
difficult by several factors. First, the group of individual people needed for any particular patient is unlikely to work together with any other patient. Certain people or professions will be involved with most patients, e.g., physiotherapists will see most patients. However, most patients are likely to be seen by some professionals who are only involved with a few patients. For example, only about half of all patients will require much input from a speech therapist, and the domiciliary occupational therapist in the patient’s home area may only see a few patients from the central stroke unit. It is extremely unlikely that the group of people involved with any one patient over the first 6 months would have been involved together (i.e., all involved, but without any extra people) with any other patient.

Second, the people needed and involved will change over time as problems are resolved or arise. Further, there may be changes as the patient moves from setting to setting (e.g., from hospital inpatient to outpatient status). The individuals involved may come from different organizations with different cultures and beliefs.

Third, in most services there will be individuals who are still inexperienced and learning their skills, and there will inevitably be staff who leave the particular service or join the service, which again disrupts teams.

Fourth, the people involved with a patient may not share a common or agreed view on the nature and aims of the rehabilitation process. If some team members think that the main aim of rehabilitation is to discharge someone from the hospital, others think the main aim is to achieve a good quality gait, and yet others feel their main aim is to achieve continence, then there will be no effective teamwork and little hope of planning goals for a patient.

**GOAL SETTING**

Therefore, a process is needed that will— for each individual patient— ensure that all the people involved, including the patient and his or her family, agree on the following:

- the longer-term goals
- how the goals are to be achieved, both shorter-term goals and specific methods
- the role of each person in the process

This is the goal-planning process. It is described in more detail in the following articles that cover terminology, the practical aspects of undertaking goal planning, the research evidence in support of goal planning, the research into training needs, and the possible patient benefits of goal planning.

There are two aims of the goal-setting process. First, it must ensure that the whole rehabilitation effort is centered on the patient. As stated, each patient poses a unique set of challenges, and the process must identify and analyze these challenges. In addition, rehabilitation can only be effective if the patient and family are fully involved. Rehabilitation involves changing behavior—and behavior is goal directed—and therefore it is vital to identify (and if necessary modify) the goals of all interested parties, but especially those for the patient. Second, it needs to ensure that the whole rehabilitation process is both effective and efficient.

The process of goal setting has two main groups of objectives (i.e., the main ways to achieve these aims). The first is to ensure that the rehabilitation team does the following:

- Identifies and respects the patient’s wishes and expectations.
- Identifies all the major areas that need further actions.
- Identifies all the specific actions needed.
• Undertakes the necessary actions at the optimal time.
• Works together in a collaborative way.
• Documents its work and communicates efficiently.

At the same time the goal-setting process should ensure that the goals set:
• Are complete.
• Take into account the wishes and expectations of all relevant parties, especially (but not only) the patient and the family.
• Are appropriate to the situation and specifically are achievable within the resources available and given the patient’s impairments and context.
• Are coordinated toward a longer-term goal.

GOAL-PLANNING PROCESS

The aims and objectives of goal setting previously listed will only be achieved if there is a robust mechanism for identifying and setting goals. Hopefully, this will be best achieved through a goal-planning process described in the next few articles. In this context, goal planning is best defined as a collaborative process that does the following:
• Involves all interested parties.
• Reviews the current situation (all levels, and contexts), and the potential for change.
• Sets long-, medium-, and short-term goals.

Therefore, in conclusion, the unique and complex needs of each patient will necessarily involve a large number of people over the first 6 months who represent different professions, organizations, and places. Coordination is vital to ensure that the patient makes smooth progress. Patients and relatives are not in a position to coordinate the effort. A patient-centered, handicap-based goal-setting process might be one way to ensure that all people involved work together as a team toward the patient’s goals.

REFERENCES
