

## REHABILITATION CONCEPTS USING HYDROTHERAPY

*The basic advantages and the therapeutic values of hydrotherapy are well-known in the rehabilitation of patients with orthopaedic (post-surgical and post-traumatic), rheumatology and neurological diseases.*

*EWAC Medical offers project management solutions in this field to the healthcare market.*

EWAC Medical, The Netherlands

### THE ADJUSTABLE FLOOR: IDEAL FOR REHABILITATION

In many cases the process of rehabilitation should go gradually, without putting too much weight on the body. The ideal situation is to put the patient in water, where the weight of the body is reduced because of the upward pressure of the water. To achieve this a pool with adjustable depths is required.

Basically there are 3 ways to achieve different levels in pools:

- a. A gradually declining floor (one long ramp).
- b. A floor with various fixed heights (large steps).
- c. A height adjustable floor.

**a.**  
Walking over the "width" of a gradually declining floor of only 5% has the effect of walking with a difference in leg length of 1.5 cm. Acceptable would be a maximum of 3% slope, which would require a very large pool. Besides, the danger exists that especially with group activities, the users will float unnoticed to the deeper part of the pool.

**b.**  
The floor with various fixed heights will be troublesome for patients with impaired locomotive system. Ramps and steps reduce the effective therapeutic area of the floor resulting in bigger pools and higher water contents of the basin. Difference in levels realised by ramps or steps are dangerous and take extreme attention to avoid casualties.

**c.**  
A pool that is equipped with an adjustable floor solves all the above mentioned problems:

- The therapist can precisely set any desired depth of the pool to the needs of the group he wants to treat.
- The base can be moved up and down during the treatment.
- Easy access for wheelchair- or bed bound patients by moving the base to the highest level.

In addition to the therapeutic advantages there are also other advantages:

- Putting the base in top position during hours that the pool is not being used will save energy.
- No one can fall into the pool accidentally.
- The pool can be much smaller due to the effective use of the available space. Less water is used, which reduces energy consumption.

The pool with an adjustable base has a very quick redemption as a result of above factors.

## THE NETHERLANDS: A UNIQUE CONCEPT

The result of a close co-operation between researchers, hydrotherapists and the industry in The Netherlands is a concept for hydrotherapy that is unique in the world.

On the basis of four decades of gained practical knowledge and experience, the rehabilitation in general and rehabilitation treatment -in the manner as it is done in The Netherlands- deserve attention.

It is therefore interesting to examine how the rehabilitation medical profession has evolved in The Netherlands. The progress and process made in implementing and developing what can be characterised as a "patient centred approach" in Dutch rehabilitation centres has proven to be very successful and cost effective.

## OFFERING A COMPLETE SOLUTION

It is essential to aim for project management solutions rather than buying just products for your rehabilitation centre or hospital.

The Dutch concept is being implemented into other systems by EWAC and other companies in the field of rehabilitation. These companies aim to provide highly experienced and totally professional service supplying project management solutions to the healthcare market. Their wide ranging service means that they can become involved at any stage of your project from inception and planning to commissioning and staff training. Emphasis is always placed on the assessment of clients requirements including budget, technical sophistication and local needs. Besides, equipment is of little use unless it can be used properly. Therefore training facilities form an important part of their work.

## REFERENCES

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