# SIVA PORTAL on Assistive Technologies

# Data Base of Experiences

#### Giuseppe, age 68: Accessibility in a very small bathroom

Terezinha Menezello<sup>1</sup> e Renzo Andrich<sup>2</sup> <sup>1</sup>fisioterapista, Centro Girola Fondazione Don Carlo Gnocchi Onlus, Milano <sup>2</sup>ingegnere, Siva Fondazione Don Carlo Gnocchi Onlus, Milano

## The protagonist

Some years ago Giuseppe – a 68 years old retired gentleman – was diagnosed Amiotrophic Lateral Sclerosis (ALS), a disease that leads to progressive paralysis. Now he has severe difficulties in walking, so he spends most of his time in seating position and uses a walker to move around in the home. Giuseppe and his wife are fully aware of the problems related to ALS. Since the onset of the disease their approach to practical problems of daily life was farsighted, always with an eye at possible worsening of his functional status.

#### The environment

Giuseppe is married with a woman of the same age. They live in a spacious flat, at the third floor of a joint ownership building in a residential area of a big city. They have two children - a son and a daughter - who live elsewhere on their own.

#### The problem

Independence and safety in the restroom was an important objective for Giuseppe. As he felt he wouldn't be able to cope without any help at all, he sought a solution that would make it possible to manage with a limited and sustainable help by his wife. He also wanted such solution to require minimal technical intervention and limited expenditure.

In their home there are two bathrooms. At a first glance Giuseppe considered to adapt the larger one  $(250 \times 120 \text{ cm})$ . However, this revealed too narrow shaped to make it accessible for manoeuvring in a wheelchair or in a wheeled chair. Conversely, the smaller one  $(180 \times 165 \text{ cm})$  showed more easily adaptable due to its square shape.

Thus he decided to adapt the smaller bathroom in such a way to be able to enter and use the facilities (washbasin, toilet bowl and shower) in two possible situations:

- walking with the support of his walker
- seating in a wheeled shower chair pushed by his wife

In both situation there should be sufficient room for two persons whenever help is needed; a solution should be found also for installing a lifting device for assisting toilet transfer whenever Giuseppe wouldn't feel like transferring on his own.

#### The solution

The intervention that was carried out consisted of the following elements:

- the entrance door width previously 60 cm was enlarged to 80 cm and a sliding door was installed so as to optimise space
- a suspended washbasin (so that no obstacle would prevent from sitting with the legs below it), equipped with a long-lever water-mixer tap (*Ideal Standard*)

- a narrow-shaped toilet bowl (*Ideal Standard*) that would fit under the shower chair. The bowl is 10 cm higher than average; it is placed by the window at the right corner of the bathroom.
- Three handgrips (*Malux*), respectively aside the toilet bowl, the shower and the sink
- a wall-mounted shower (*Groove*) with drain at floor level, the floor being slightly sloped so as to convey the drain water
- a plastic curtain to be spread out when taking a shower, in order to prevent water leakage throughout the room

A wheeled shower chair (*Meccsan, model 970810*) was purchased and is now used by Giuseppe's wife to take him from the bedroom to the bathroom; the chair can be wheeled onto the toilet bowl (the chair seat has an opening for evacuation), to the shower plate or nearby the washbasin.

For the time being Giuseppe is thinking to purchase a wheeled hoist (*Sunrise Medical model OP21700 New Mini Elettrico*) that is small enough to be used in any room including the bathroom, so as to make it easier for his wife to assist him in transferring. He thinks this is a good solution as it will occupy no further space and may be needed quite soon. In fact, at the time we are writing he is no longer walking into the bathroom with the support of the walker and of the handgrips, he rather feels safer seating in the shower chair. Thus the handgrip near the toilet is now used as towel support.

## The authors' personal view

Giuseppe chose a quite reasonable solution that showed effective in maintaining his independence and relieving his wife's burden of assistance. Both say they are satisfied with this solution, that made daily life easier for the couple. Before adapting the bathroom, considerable space was occupied by a short bathtub which in itself was completely inaccessible to him, and would allow him entering the room only by walking. Substitution of the bathtub with a shower drain at floor level solved both problems.

However, not all problems have been solved. For instance, the higher toilet bowl makes Giuseppe feel unsafe when seating on it, he feels like falling down. The positive side of the coin is that his wife finds it easier transferring from/to the chair. However, a standard-height toilet bowl and a self-standing raised toilet seat placed above it - equipped with foldable armrests that prevent from falling aside - might have offered better solution: transfers from/to the chair would be easy exactly as with the current higher bowl, while lateral supports would provide stability; in the future, as transfers become more difficult due to increased functional limitations, the raised toilet seat could be removed and Giuseppe could be more easily driven onto the bowl while keeping seating in his wheeled chair (now it is possible, but requires some effort); this manoeuvre would be even easier if the gap between the bowl and the wall would be 10 cm wider (this in fact was carried out later).