

## Brain Foundation Grant Application Essay – Frances Batchelor

### Stroke and falls

#### How common are they?

Falls are very common after stroke. People with stroke fall more frequently than people of the same age who have not had a stroke. Approximately one in three people aged over the age of sixty will fall each year, but this can be as high as up to three in four in people with stroke. Falls can occur at any time after stroke: in hospital (either during the acute hospital stay or during rehabilitation), shortly after discharge home, and even years after stroke.

#### What are the consequences?

Although many falls do not result in injury, some falls are more serious. In people with stroke the most common injury after a fall is a soft tissue injury, such as a bruise or muscle strain. Although people with stroke have about the same risk of having a fracture (broken bone) as people without stroke, people with stroke are more likely to break their hip. This is related to the potential for bone thinning on the side most affected by the stroke, as well as the tendency to fall towards that side. Even minor falls can cause concern as some people may develop fear of falling. For some people, this may also be related to the collapse or fall that happened at the time of the stroke.

#### What causes falls?

Stroke affects different people in different ways and may affect balance, sensation, vision, co-ordination, mood and continence. All of these things are associated with falls to varying degrees. It appears that falls after stroke are not necessarily associated with the type or severity of stroke or whether or not the person had experienced falls prior to the stroke. Age and sex also don't seem to be related to falls after stroke. In the general older population other factors, such as home safety, risk taking behaviour, and number and type of medications are associated with falls. These factors may also contribute to falls in people who have had a stroke but to date there has been little research specifically in the stroke population.

Health professionals such as physiotherapists or your doctor are able to assess risk of falls as well as determine what specific falls risk factors an individual has.

#### How can falls be prevented?

Although falls are extremely common after stroke, there is currently limited evidence on what works to prevent falls in the stroke population. Some studies have shown that exercise, particularly high intensity balance and agility training may help to prevent falls, and one study found that vitamin D was effective, but only in women in institutional care. Therefore, at this stage we would recommend risk factor assessment and management that takes the individual (both general and stroke-specific) and environmental factors into consideration.

#### What should you do about falls?

See your doctor or health professional if you have had a fall, even if it wasn't serious.

Discuss your risk of falls with your health professional or doctor even if you have not had any falls. There may be steps you can take to reduce the risk of falls.

Your physiotherapist can advise you and your family/carers about the safest way to get up from the floor if you are not hurt following a fall.