

Health

Research to help reduce stroke-related disability

Early intervention is the key to patient recovery, writes **Amanda Place**.

THE treatment of patients who have suffered a stroke continues to change as new drug therapies come on the market and the value of immediate rehabilitation emerges.

A physiotherapist with a long-held passion to help stroke victims is on the case, pushing patients to get moving within hours of the stroke — with striking results.

Although exhausted after a stroke, patients are very keen to become involved in a pilot trial being conducted by Dr Julie Bernhardt, a physiotherapist and senior research fellow at the National Stroke Research Institute, accommodated at Austin Health in Heidelberg.

Very few patients shun the chance to help future stroke patients, often aware that they may not benefit from the research but that others may well.

The hours immediately following a stroke are crucial for recovery.

The groundbreaking drug tPA (tissue plasminogen activator), a clot-busting drug, is extremely effective in restoring blood flow to the brain when given within the first three hours.

Only a few patients are candidates for tPA, however. Those at risk of hemorrhages cannot take it and many don't make it to hospital quickly enough to undergo an MRI in order to be approved.

Dr Bernhardt and her team have just

won a \$2.8 million grant from the National Health and Medical Research Council to trial their approach to rehab with 2000 patients from 10 hospitals around Australia over five years.

"We have 48,000 strokes every year in Australia and a third of those are left with a significant disability, says Dr Bernhardt.

"More than 50 per cent of patients who arrive early at the hospital after a stroke may benefit from this research," she says.

Dr Bernhardt and her team have observed the type of treatment stroke patients receive in the first two weeks after the stroke. They watched them from 8am to 5pm, recording the amount of activity they managed and who was supervising.

Conventional stroke treatment in Australia typically leaves patients to rest in bed, believing them to be too sick to be active.

Some workplaces tend to neglect rehabilitation of stroke patients who are "seen as incapable of doing anything".

"But this is absolutely incorrect."

In contrast, patients in Trondheim in Norway are introduced to movement as part of their normal care from their arrival to their departure.

"The results for their stroke patients are better than anywhere else in the world."

"Here and in Trondheim we've found vast differences in the results for those involved in more frequent levels of physical activity."



Dr Julie Bernhardt (right) says the Austin Health project gives a great mix of clinical research within the hospital. She is pictured with nurses (left to right) Lisa Hegarty and Suzanne Sertori with patient Noel Potter.

did so I started doing some research."

She went on to do a PhD in upper limb recovery after stroke and then decided she needed to ensure the next 10 years of her life would have an impact on the lives of stroke patients.

Over the years, she watched her colleagues conduct small research studies that often didn't reveal meaningful answers.

Determined not to fall into the same trap, she decided to take a novel path, avoiding the university research environment to set up in a clinical setting so she could influence patient care day-to-day.

"As a career option it's very new. It offers a great mix of clinical research at the hospital level.

"I've never found it depressing (despite) some of our patients being as young as 30. I was blown away when we got this funding, because stroke is not sexy. But we have a diverse group and need to study a huge range of patients."

As many medical researchers know, funding is notoriously unpredictable. In Dr Bernhardt's case, she is not supported by a university so her employment is dependent on her successful acquisition of grants.

So far, so good.

The findings imply that more than a change in attitude is needed by staff with a tendency to write-off stroke patients.

Staffing levels will need to be addressed, too. Nurses and others need to be freed-up to keep their patients motivated and moving, even for a simple stroll up and down the corridor. "Trying to get them up and out of bed earlier and more frequently is difficult — it's a different kind of rehab — simple and brief and often."

The good news for nurses is that keeping patients moving helps to avoid

complications to which stroke patients are prone — bed sores, urinary tract infections and pneumonia.

Dr Bernhardt says it's not rocket science but she is clearly breaking down a few barriers to effective stroke care. No stranger to stroke rehab, she worked in the area at Mt Royal Hospital (now the Royal Melbourne's Royal Park campus) 10 years ago as a senior rehab physiotherapist.

"I felt frustrated by the lack of information on effective treatments. They didn't give a good grounding for what we