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A stroke rehabilitation unit 6 years on

In 2002, I reported on the first 6 months of a dedicated stroke rehabilitation unit (SRU) for older patients.[1] Length of stay in hospital was shortened by a median of 8.0 days, without compromising patient outcomes.[2] However with new initiatives, there is always a danger that the initial enthusiasm diminishes over time. Furthermore there is inevitably attrition of key staff either through retirement or rotation to other clinical areas, with the effect that some of the original energy and/or vision is lost.

Consequently, efficiency gains previously made may be reduced or even lost. I wished to investigate whether the progress made by introducing a SRU have been sustained over time.

In Christchurch, patients with an acute stroke are initially admitted to Christchurch Hospital (CH) for their acute care. Older patients (generally 65+ years old) who need ongoing inpatient rehabilitation are transferred CH to the SRU based at The Princess Margaret Hospital (TPMH). Approximately 45–50% of all acute stroke patients require this inpatient rehabilitation.[3]

Data from all patients admitted to the SRU over a 6-year period (2001–2006 inclusive) was collected prospectively. These data are for those patients admitted to SRU only, and so exclude the less severe strokes that are able to be discharged directly from CH. Trends in numbers of patients admitted to the SRU, length of stay (LOS), functional scores, and discharge domicile were reviewed.

During the study period, the numbers of patients admitted annually to SRU rose from 186 to approximately 250 (Table 1). Mean LOS in CH, SRU, and total LOS (CH and TPMH combined) all showed a steady reduction over time. The age of the patients, severity of stroke (as assessed by FIM[4] score on admission), and FIM on discharge did not alter.

Discharge domicile over the study period is shown in Figure 1 with the proportion of patients returning to live in the community remaining between 50 and 60% of all SRU patients.

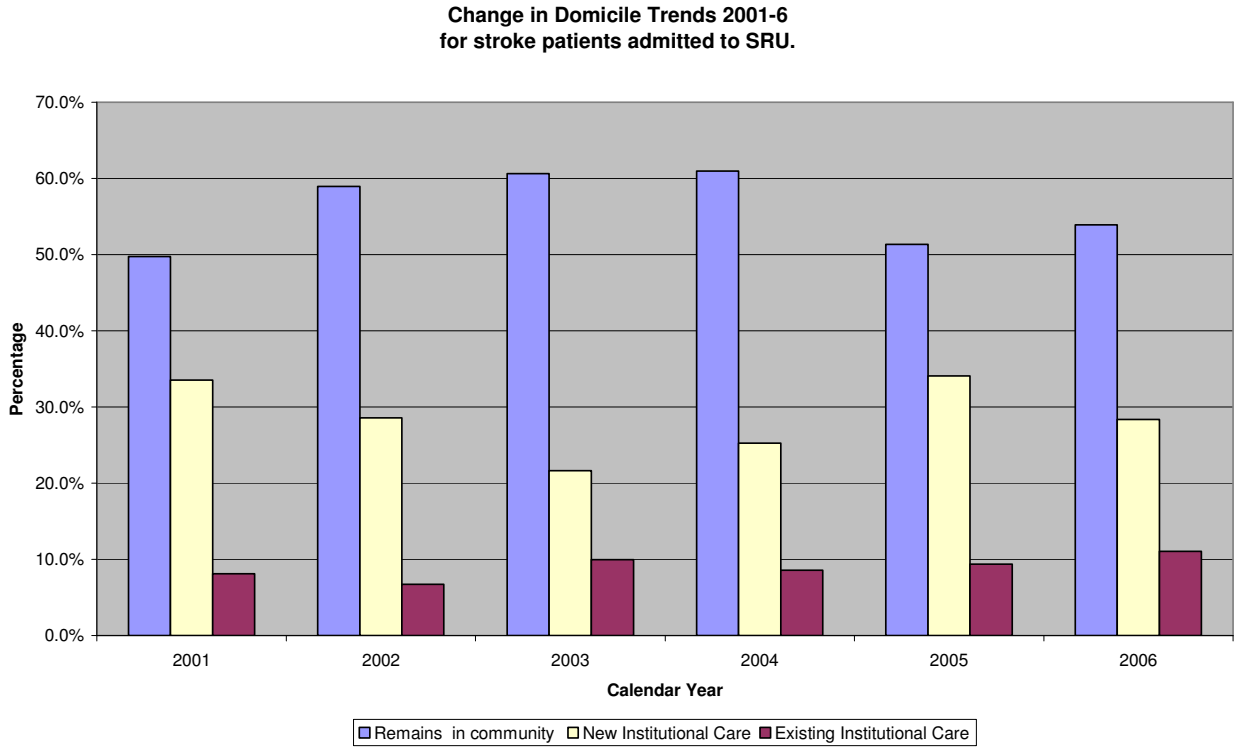
These data confirms that the SRU has not only maintained but improved its performance. More patients are now admitted, with a lower average LOS, whilst patient outcomes are maintained. This has major benefits for both patients and the Canterbury District Health Board (DHB). Other recent initiatives have probably impacted on these results. These include the development of an acute stroke unit at CH (opened October 2004)[3] and more recently a pilot, community-based stroke specific rehabilitation team (started March 2006 but yet to be expanded beyond pilot phase).

Table 1

Variables	2001	2002	2003	2004	2005	2006
N	186	224	231	210	267	254
Age (mean in years)	78.8	78.6	75.8	79.6	80.0	79.7
LOS CH (mean in days)	10.7	11.4	7.6	7.8	8.4	7.4
LOS SRU (mean in days)	34.1	37.0	31.8	31.6	28.0	28.3
LOS Total (mean in days)	44.7	48.2	39.0	39.0	35.8	35.4
Admission FIM (median)	67.0	74.5	71.0	62.0	65.0	69.0
Discharge FIM (median)	101.0	103.0	107.0	100.0	96.0	96.5

LOS=Length of stay; CH=Christchurch Hospital; SRU=Stroke Rehabilitation Unit; FIM=Functional independence measure (score).

Figure 1



Unfortunately despite local and international evidence,[1,2,5–7] many stroke patients in New Zealand are still unable to benefit from such stroke unit care.[8,9]

Stroke Units (SUs) are a win-win scenario for patients and DHBs. Therefore the question needs to be asked "Why haven't all DHBs developed organised stroke services, with SUs in all the medium to large DHBs?"

National Stroke Awareness Week (10–16 September 2007) is a timely reminder that we can, and should, do better for all stroke patients in New Zealand.

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