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Survival times of participants in a stroke unit and on conventional wards. Black crosses indicate censored individuals (those for whom no information was available after five year follow-up—see text)

ward.⁴ Improvements in databases meant that more participants were identified at 10 years than at five years,² with only 15 participants untraced (stroke unit, eight; conventional wards, seven). Eight traced participants (four in each group) refused to give consent for follow-up but were included in the survival analysis.

At 10 years, 122 (69%) stroke unit participants and 111 (80%) participants who had been in conventional wards were known to have died; 31 stroke unit participants (67% of the 46 survivors) and nine conventional ward participants (43% of the 21 survivors) were known to be disabled (Barthel score < 18); and nine stroke unit participants (20% of survivors) and two conventional ward participants (10% of survivors) were known to be in institutional care.

Relative risks and confidence intervals were calculated by assuming worst case scenarios (that is, untraced participants all dead, non-consenting participants all disabled). At 10 years, the relative risks of death (0.87; 95% confidence interval 0.78 to 0.97), death or disability (0.99; 0.94 to 1.05), and death or institutional care (0.91; 0.83 to 1.00) all tended towards more favourable outcome for participants who had received care in a stroke unit. Survival was significantly greater in the stroke unit group (log rank test, 6.63, $P = 0.01$) (figure).

Comment

The relative risks of death, death or disability, and death or institutional care all tended towards more favourable outcome for stroke unit patients. Survival was significantly greater in the stroke unit group. Although this study was not designed to detect

What is already known on this topic

Decreased mortality and reduced disability are short term benefits of care in a stroke unit

Only one previous study—in a combined acute and rehabilitation unit—has shown that care in a stroke unit conferred benefit 10 years after stroke

What this study adds

Management in a stroke rehabilitation unit confers survival benefits 10 years after stroke

differences in long term survival, these findings are consistent with previous work showing that the long term benefits of stroke rehabilitation are maintained over a 10 year period.³ The reasons for this are unclear, but one explanation is that long term survival is related to early reduction in disability.

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Ethical approval: Ethical approval for the study was obtained from the Queen's Medical Centre Ethics Committee.

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A patient who changed my practice

Speak clearly to the bogey man

When performing a cerebellar examination in multicultural Singapore some years ago, I asked the patient to touch the tip of his finger to my fingertip and then to touch his nose. In Hokkien, the latter instruction translated to "Touch your nostril," whereupon the patient touched my fingertip, then dug his finger into his left nostril, and finally touched my finger again. Too shocked to remonstrate (after all, he had complied with my instructions), I completed the examination, after which I surreptitiously went off to wash my hands.

Since then, I have always instructed my patients to touch the tips of their noses, after which they are to touch my fingertip. It was somewhat heartening to hear that a colleague (RCSS) has since learnt the same lesson, to his chagrin (and my amusement).

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