CHAPTER 6

CONCLUSION

The aim of this study was to quantify the level of ability and in particular walking ability of a group of stroke survivors between three to six months post incident.

The main conclusions arising from the study and clinical and research suggestions are summarized as follows:

- A high percentage of subjects achieved independent mobility at three to six months post stroke with little or no rehabilitation training. Further investigations are required to confirm these findings.

- The subjects achieved a mean self-paced walking speed of 0.55 metres per second which is half the speed that has been calculated to cross a road safely. Their mean distance walked in six minutes is 40% of that calculated using normative equations for healthy subjects. These subjects have very limited walking ability.

- There is a strong correlation between the distance calculated from the ten-metre walking test speed measured in metres per second over six minutes and the actual distance the subjects walked in six minutes. The distance calculated from the ten-metre walking test speed measured in metres per second over six minutes underestimated the actual distance walked in six minutes. Therefore the ten-metre walking test using the protocol that utilizes a standing start could be used to calculate a subjects walking capacity particularly in a clinic environment where space is at a premium.

- There was a very strong correlation between the results of the two minute walk test and the six minute walk test. The two minute walk test could be used as a simple quick test to measure walking capacity.

- Only one of the subjects had an exercise heart rate after six minutes walking greater than the 80% upper limit of the maximal age-predicted heart rate. Heart rate should be measured when using the six minute walking test to evaluate walking endurance.

- Though for two thirds of subjects pain in the paretic leg was a common symptom it was not significantly associated with a poorer performance on any of the walking tests than the group with no pain. Further investigations are required to determine which impairments associated with stroke have an impact on walking ability.

- Although the mortality rates for the BI≤ 60 is quite high the prognosis of survivors does not appear to be uniformly poor. Thirty percent of the group had moderate disability requiring assistance at three to six months post stroke. It needs to be confirmed in larger studies that the Barthel Index can predict mortality and/or abilities and facilitate identification of subjects and caregivers who require specific support.

- Surprisingly, tests investigating the relationship between the results for subjects with a BI score less than 60 and the results for those with a BI greater than 60 and the ten-metre walking test and six minute walk tests showed no significant difference. This may be a factor of the relatively low subject numbers.

- The thirty seven percent of subjects requiring a mobility aid for independent mobility highlights the importance of both the assessment for an appropriate aid and it's acquisition.

- Socioeconomic factors of the subjects in a specific community need to be taken into account when planning a patient intervention study to facilitate participation.

- When planning stroke research that is dependent on a specific diagnosis the difficulties experienced during this study reinforce the importance of close collaboration with the medical team.