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Economic Evaluation Plan (EEP) for A Very Early Rehabilitation Trial (AVERT): an international trial to compare the costs and cost-effectiveness of commencing out of bed standing and walking training (very early mobilisation) within 24 hours of stroke onset with usual stroke unit care

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AVERT Phase III (ACTRN12606000185561; NCT01846247; ISRCTN98129255) is an international, assessor blinded, multicentre randomised controlled trial of very early mobilisation (VEM) following stroke. The 2,104 participants were recruited at 56 acute stroke units across three geographic regions: Australia (Australia and New Zealand), Asia (Malaysia and Singapore) and the United Kingdom (England, Scotland, Northern Ireland and Wales). Efficacy and safety outcomes at 3 months have been published [1] and the collection of 12-month follow up data will be complete at the end of October 2015.

Resource utilisation data are being collected for one year following stroke for the purpose of undertaking cost-effectiveness analysis, with a view to informing efficient allocation of resources. These data are being collected prospectively alongside the trial outcomes on safety, efficacy and quality of life [2, 3]. Resource use data collection tools were piloted and refined in a smaller pilot study [4] and adapted to suit local service provision as the trial expanded to other countries. In addition, exploratory analysis of the resource use data is intended to consider the relationship between patterns of service use and health outcomes collected during the trial, including quality of life. A further objective will be to explore key economic impacts of stroke on the health sector, patients, families and the broader community. The exploratory analysis is intentionally broad in scope to enable in depth consideration of resource use data.

The Statistical Analysis Plan detailing the methods for assessing trial outcomes on safety, efficacy and quality of life has been published [5]. The EEP details how the economic evaluation will be conducted. The EEP was finalised prior to the 12 month data collection being completed and before unblinding of the trial management team or steering committee to 12 month data.

There are few examples where the economic evaluation methods have been published prior to data analysis (see [6-9] for recent examples). This approach has been taken for AVERT in order to pre-specify methods that were used to collect resource use data and to ensure *à priori* specification of analyses that will be reported in publications of cost-effectiveness outcomes. Our plan for prior publication of the EEP is to ensure precision of the analysis plan and to avoid bias from data-dependent analyses.

Section A of the EEP reports key study parameters for the economic evaluation. Section B summarises the primary cost-effectiveness analysis of AVERT and Section C details intended exploratory analyses. Development and format of the EEP has been guided by using the Consolidated Health Economic Evaluation Reporting Standards where applicable [10].

The outcomes of the main economic evaluation analysis will satisfy the primary trial objective to determine if VEM is cost-effective. More broadly, the main findings will contribute a greater understanding of stroke rehabilitation practices that deliver value-for-money and how support services can be organised to optimise patient outcomes following stroke. The systematic and comprehensive way in which information has been collected is a major standalone achievement of AVERT and will ensure the economic analysis is underpinned by rigorous resource use data.

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Conflicts of interest None declared

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Appendix 1. Economic Evaluation Plan

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