# Supplementary Appendix

## Discharge model

Data were collected on whether patients were discharged to another acute hospital, a long-term care facility, rehabilitation, or home after their index hospitalization. For patients discharged to another acute hospital this was likely to be one closer to their home but information on length of stay at this secondary acute hospital was not available. For these patients, total ward length of stay was predicted based on a linear regression of ward length of stay on treatment group, APACHE III risk of death score, hemoglobin at randomization, blood group, age, and hospital site for patients who were not discharged to another acute hospital.

Hospital readmission days reported at 6-month follow-up were then allocated up to the point where the total hospital length of stay, including any time spent discharged to a second hospital, did not exceed 6 months or time until death. Days spent in rehabilitation, long-term care, or at home were then sequentially assigned to the point where the total length of stay in all locations equaled the shorter of 6 months or time until death. Patients who were originally discharged to another acute hospital were assumed to be subsequently discharged to rehabilitation, long-term care, or home in the same proportions as those from the index hospitalization.

After rehabilitation, based on data from the Australasian Rehabilitation Outcomes Centre1, it was assumed that 52.3% of these patients were discharged to long-term care and 47.7% to their homes for the remainder of the follow up period. Patients discharged to long-term care or sent home after either their index or second hospitalization were assumed to remain in their discharge destination for the remainder of follow up less any hospital readmission days reported at 6-month follow-up.

Rehabilitation length of stay was calculated using the mix of Acute Physiology and Chronic Health Evaluation III diagnosis codes recorded in the trial for rehabilitation patients and the average length of stay for matched impairments from the Australasian Rehabilitation Outcomes Centre2. Rehabilitation length of stay for public and private patients was calculated separately and applied to patients whose index hospitalization was in a public or private hospital respectively.

## References

1 Australasian Rehabilitation Outcomes Centre. Impairment specific reports. Wollongong, NSW: University of Wollongong; 2017

2 Australasian Rehabilitation Outcomes Centre. Length of stay and functional improvement of completed episodes of rehabilitation in Australia. Wollongong, NSW: University of Wollongong; 2015.

# Figure Legends

**Figure A1 - Cost-effectiveness acceptability curve for short-term vs. long-term storage at 6 months**