

CAHE JC Critically Appraised Article Summary

Journal Club criteria

Date of submission	Pilot 2007
Journal Club location	Noarlunga General Hospital
JC Facilitator	Kelly Vlassopolous

Clinical Scenario

Is co-ordinated multidisciplinary allied health care effective in reducing length of stay for medical or surgical inpatients in an acute care hospital?

Review Question/PICO/PACO

- P** medical inpatient or surgical inpatient (any age/diagnosis)
- I** co-ordinated multidisciplinary allied health care
- C** usual care (or single allied health discipline involvement)
- O** length of stay

Article/Paper

Mudge A, Laracy S, Richter K, Denaro C. *Controlled trial of multidisciplinary care teams for acutely ill medical inpatients: enhanced multidisciplinary care.* Internal Medicine Journal. 2006; 36:558–563

Article Methodology:	Randomised Controlled Trial
Returned JC on:	Pilot 2007
By CAHE staff member:	Matt Sutton

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Ques No.	Yes	Can't Tell	No	Comments
1	✓			<p>Population</p> <ul style="list-style-type: none"> Patients admitted to the Internal Medicine units Excluded if they had been admitted directly to the Intensive Care Unit from the Emergency Department, if they were arranged day-case admissions or if they were transferred to other specialty units within 24 h of admission <p>Intervention</p> <ul style="list-style-type: none"> Intervention was well defined and described <p>Outcomes</p> <p>Primary outcomes</p> <ul style="list-style-type: none"> index length of stay, death, mortality (in-hospital and 6 months) and functional decline in hospital. <p>Secondary outcomes</p> <ul style="list-style-type: none"> 6-month readmission, inpatient bed occupancy, discharge to residential care, self rated health change 1 month after discharge, restoration to previous functional level 1 month after discharge and Allied health utilisation.
2	✓			<p>The study was not a randomised controlled trial; it was a p controlled trial. This means the allocation of participants to control groups was not random. We will however use this a it will remain relevant to address most important characteri study (including exactly how the participants were allocated it is worth keeping in mind one of the most important featur is baseline equivalence.</p> <p>Is it worth continuing? YES, even though we have answered no to the RCT section (see above)</p>
3		✓		<p>Allocation occurred as per which medical unit a patient was allocated on admission to the hospital. There is no detail as to how this allocation occurred.</p> <p><i>Why was this study not carried out as an RCT?</i></p> <p>Participants were well matched according to</p> <ul style="list-style-type: none"> Age Gender Frailty Independent living Medical condition <p>Are there any other characteristics that should have been analysed? (eg for the intervention, were all clinicians equally experienced/qualified?)</p>

Ques No.	Yes	Can't Tell	No	Comments
4			✓	Only the participants were blinded. It is unrealistic to blind the clinicians. There is no mention of the assessors being blinded. This is something that could have been introduced to reduce observer bias and reduces the quality of the study. This is offset by the nature of the outcome measures which is largely objective or patient reported.
5			✓	There was no intention-to-treat analysis, however it is not unreasonable to assume that all participants were studied according to the group they were allocated to. For all of the outcomes other than the self rated health change 1 month after discharge and restoration to previous functional level 1 month after discharge it is also reasonable to assume there was 100% follow up for. For the other outcomes, 68-71% of data was acquired. Overall, this equates to meaningful data collection.
6	✓			Primary and some secondary outcomes were collected on discharge, the rest were collected 1 month post discharge.
7		✓		A power calculation was not carried out and so we are unable to say whether there were sufficient numbers. However, the total number of participants was 1538, a large enough number to assume meaningful results for most outcomes. (Note the comment for length of stay differences)
8				The results are statistical, given in p values and confidence intervals. The bottom line is appropriately summed up in the conclusion of the abstract: "This model of enhanced multidisciplinary inpatient care has provided sustainable efficiency gains for the hospital and improved patient outcomes."
9				The following outcomes showed statistically significant effectiveness for the intervention: <ul style="list-style-type: none"> • Reduced functional decline • Improved self rated health status • Reduced mortality (no change at six months however) • Increased no of discharges to residential care (this was due to the effect of increased deaths in control group) • Allied health utilisation There were non statistically significant improvements for the intervention group in the following outcomes: <ul style="list-style-type: none"> • Shorter length of stay • Reduced number in mean total of occupied beds over 6 months There was minimal difference in return to pre morbid function following discharge.
10	✓			The study does appear generalisable to other settings, however the extent to which that is possible needs be decided with a clear understanding of the patient profile of each individual setting.