CHAPTER 13

IDENTIFYING GAPS IN MULTIDISCIPLINARY CARE

Adapted from:

Wilson SF, Eccleston M, Marks R, Isouard G. Evaluation of Domiciliary Services and Hospital Discharge for Older People with Chronic and Complex Conditions. *Geriaction Journal.* 2003; 21: 5-9

13.1 Introduction

Macarthur Health Service has developed a wide range of multi-disciplinary services for post acute care, ambulatory care, day surgery and enhanced primary care for older people with chronic and complex conditions. This has occurred in an environment of acute hospital bed shortages and partly through the introduction of the Macarthur Model developed within this thesis. The disciplines involved in these programs include medical practitioners, physiotherapists, occupational therapists, social workers and nursing staff. In spite of this comprehensive range of services, many patients are still required to stay in hospital due to the absence of personal or domiciliary care available immediately following discharge. The Carrington Temporary Aged Care Program (CTACP) was developed by the author and the Director of Aged Care of the Macarthur Health Service in an attempt to solve this problem of a gap in the availability of personal care in the home. This additional care was structured to fill this gap by providing temporary aged-care services, thus building a bridge between hospital and home.

The Home and Community Care (HACC) Program is structured around maintenance and long-term care, as indicated in HACC Guidelines (2002) [175]. When patients are discharged from hospital they may require services similar to those provided by HACC on a short-term basis. It is very difficult to predict which clients are likely to require permanent maintenance care. As a result, when older clients are ready for discharge, they may still require home care of some type. This care may be difficult to arrange with the limited number of options available. A hospital may have no other option than to send the patient home

without full services, which carries the risk of readmission [176]. It is more likely that the client would be kept in hospital for an extended period of time, which may also be associated with an adverse outcome [177]. Another possibility is placement in a sub-acute bed or utilising nursing home for respite care. This situation has been aggravated by increasing pressures on inpatient beds, particularly in winter, and the increasing pressures on HACC services which create a gap in service delivery between the acute and community sector.

This gap in services was the focus of the author's participation in a consultation held at Campbelltown Hospital in 1999, with representatives from State and Federal governments, Aged Care Assessment Team (ACAT), HACC and South West Sydney Area Health. As a direct response to this consultation, Carrington Centennial Trust was invited by the NSW Ageing and Disability Department to run a project under "HACC NSW Home and Community Care Program 2000/2001" in an attempt to fill this gap. Carrington is one of the largest Aged Care providers in South West Sydney, with a range of nursing home, hostel and residential care beds. Carrington was, at the time of this project, looking for opportunities to extend its activities into community and domiciliary care.

13.2 Aims

The aim of this study was to evaluate the introduction of these new acutely responsive temporary HACC-type services to older people in their home, immediately following discharge from Campbelltown or Camden Hospital. It applied to those aged more than 65 years, and Aboriginal people aged more than 45 years. This bridging service was to provide the time necessary for referrals to

be processed by the appropriate HACC services and for the services to commence if necessary. The study was expected to contribute to an increase in the quality of life of these clients whilst promoting their wellness within the community, through return to their familiar home environment.

13.3 Inclusion criteria

The service was provided to frail aged clients (see above), who lived in their own home or independent living unit in the Macarthur area. Frail, aged clients with chronic respiratory disease, cardiac disease, stroke, neuro-degenerative disease, multi-system disease, or osteoporotic fractures, who had chronic and complex conditions were targeted. These clients were assessed as requiring an immediate need for basic maintenance service upon discharge from hospital. The types of services offered include personal care, domestic assistance, shopping, provision of meals daily, and transport to medical appointments or transport home from hospital. All services were provided by staff and resources of the Carrington Aged Care Trust. The payment for these services was provided through project funding from the Department of Ageing, Disability and Home Care for periods of up to eight weeks.

Older people with low to moderate disability were accepted for provision of temporary aged-care services if they satisfied the basic criteria listed in Table 13.1. Clients were also expected to agree to the service on an interim basis. The client also had to agree to a small fee for the service, which was in the region of $5.00 per hour. Assessment before referral to the service was required to be performed by the Macarthur Aged Care Liaison Nurse, who was aware of the

criteria. If the criteria were met, then referral was made to the Service Coordinator from Monday to Friday with at least 48 hours prior notice of discharge.

Table 13.1 Criteria for inclusion in Carrington Temporary Aged-Care Program (CTACP)

	Inclusion	Exclusion
Functional	A low to moderate disability	Clients with high-level dementia
Time	<7 hours per week care	>7 hours per week care
Procedure	Referral to appropriate HACC services before discharge (with evidence of referral)	Persons who were eligible for the Home Care virtual pool; Department of Veterans Affairs eligible clients; Community Aged Care package (CACP) and Extended Aged Care in the Home (EACH) eligible clients
Age	>65 years (or Aboriginal people >45 years)	Younger people with disabilities

13.4 Methods

The evaluation involved examination of process indicators for 35 clients and outcome indicators for a subset of 15 consecutive clients. As the evaluation was introduced during the course of introduction of the new service, only the final 15 of the 35 clients were subject to a prospective review of the outcome indicators.

The following process indicators were used to determine timeliness and efficiency of the service:

1) Time between referral and assessment.

2) Time between assessment and uptake of the service.
3) Number of clients who were readmitted to hospital during the service.
4) Number of clients continuing on with HACC services on exit from the program.

The following well-known and validated scales were use to measure client outcomes:

1) Assessment of Quality of Life (AQoL) survey form, Department of Human Services Acute Health Division (2001) [177].
2) The Short Form 36, Version 2 (SF36v2) Health Survey, Ware (2000) [178].
3) Carer Strain Index (CSI), Robinson (1983) [179].

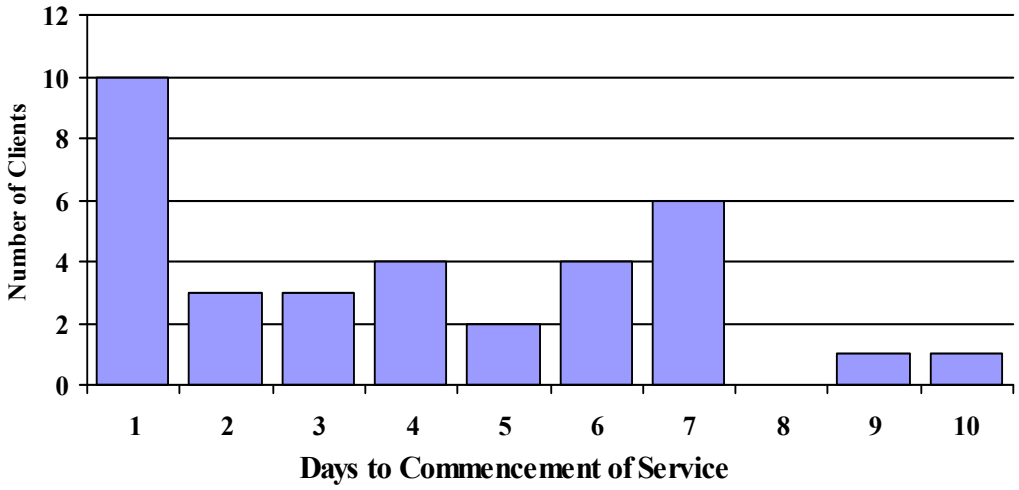
These measures were collected from May to July 2002 to assess the quality of life, health status, and carer strain. Exit interviews were performed with clients and staff members to determine satisfaction with the service through a structured interview. This approach was chosen to assess the client, the carer, and the temporary caregiver.

Process indicator data were collected on all 35 clients from a number of sources, including the Aged Care Patient Liaison Officer, the CTACP Coordinator, and patient admission records. Clients involved in the outcome surveys were asked to complete the surveys (SF36, AQoL, and CSI) prior to commencement of the service (after being assessed as suitable for the program) and on exit. The satisfaction surveys were carried out on completion of the program.

13.5 Results

Thirty four patients were discharged from hospital with an average length of stay of 11 days (acute) or 49 days (subacute). One client was recruited directly from the Emergency Department circumventing hospital admission. During the period of service, 28.6% of clients (10) received acute nursing care from the Macarthur Ambulatory Care Service (MACS) which included intravenous therapy. The time between referral by the hospital Aged Care Liaison Nurse and assessment by the CTACP Coordinator was less than 24 hours in all cases. No assessments were delayed over a weekend. The time between assessment and service commencement (Figure 13.1) was considered appropriate in all cases. Most clients (94%) had commenced the service within 7 days of assessment and 28.6% within 24 hours. Two clients, who had an extended delay in receiving service, had chosen not to have the service commence immediately.

Figure 13.1 **Days from discharge to CTACP service uptake**



Five clients were readmitted to hospital, while receiving the CTACP service, within the eight-week maximum period of care. Of these five clients, two were readmitted for the same condition (palliative care and congestive cardiac failure), and three were unrelated acute admissions (syncope, diverticulitis and gastrointestinal haemorrhage). Two of these patients later died.

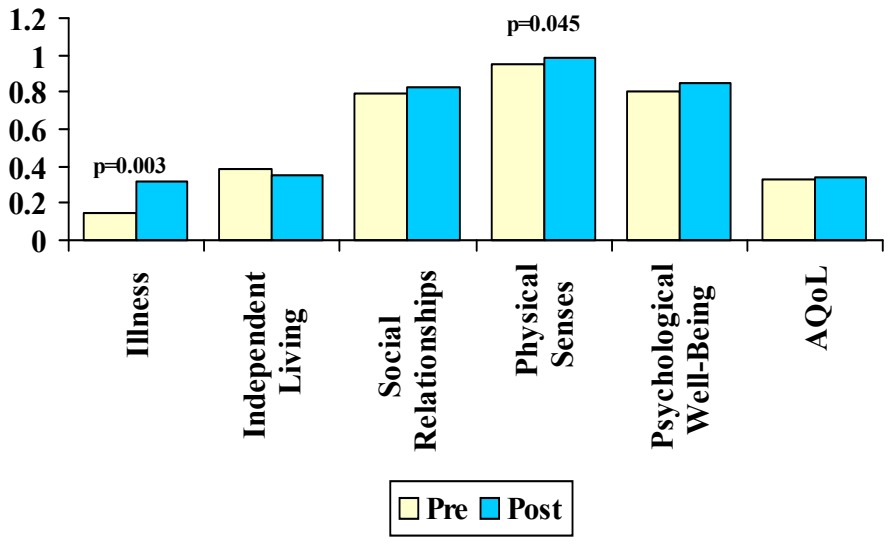
On exit from the CTACP service, 34.3 % (n=12) of clients received HACC services. Of these, 14.3 % (n=5) had recommenced the service after being hospitalised, and 20 % (n=7) were new clients. A further 25% (n=9) required HACC services, which were not available at the time of exit.

The AQoL figures for pre- and post-CTACP illustrate the scores for the five dimensions of the survey (Table 13.2 and Figure 13.2). A significant decrease ($p<0.01$) on medical and medication input (called illness) and an improvement ($p<0.05$) in the physical senses was demonstrated using a paired sample t-test. Overall, there was no significant change in total quality of life score.

Table 13.2 **AQoL scores, pre- and post-CTACP**

Item	Mean Pre; n=15	Mean Post; n=15	Difference	95% CI	P value
Illness	0.15 (0.16)	0.31 (0.26)	0.16	0.06 to 0.26	0.003
Independent Living	0.38 (0.36)	0.35 (0.42)	0.03	-0.14 to 0.08	0.627
Social Relationships	0.79 (0.24)	0.82 (0.17)	0.03	-0.06 to 0.13	0.461
Physical Senses	0.95 (0.08)	0.98 (0.05)	0.03	-0.1 to 0.7	0.045
Psychological Wellbeing	0.80 (0.24)	0.85 (0.16)	0.05	-0.8 to 0.18	0.423
Total AQoL	0.32 (0.33)	0.34 (0.35)	0.02	-0.5 to 0.9	0.626

Figure 13.2 **AQoL scores, pre- and post-CTACP**

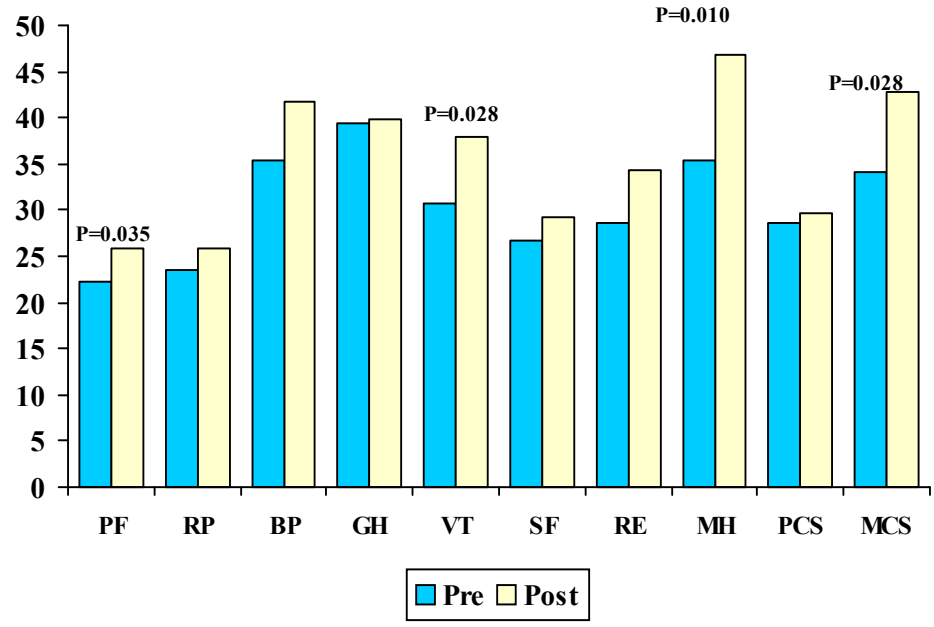


The SF36 showed similar improvement in physical functioning ($p<0.05$), vitality ($p<0.05$) and mental health ($p<0.01$) (Table 13.3 and Figure 13.3). There was an overall significant improvement in the mental health component ($p<0.05$) and no change in the physical component.

Table 13.3 **SF36 scores, pre- and post-CTACP**

Item	Commencement Mean (SD)	Discharge Mean (SD)	Mean Difference	95% Confidence Interval	P value
Physical Function	22.2 (9.4)	25.7 (13.1)	3.5	0.3 to 6.7	0.035
Role-Physical	23.5 (10.3)	25.8 (10.8)	2.3	-0.2 to 4.8	0.074
Bodily Pain	35.4 (14.6)	41.7 (14.7)	6.3	-1.8 to 14.4	0.116
General Health	39.5 (11.9)	39.9 (11.4)	0.4	-4.2 to 5.0	0.852
Vitality	30.7 (12.4)	37.9 (12.3)	7.2	0.9 to 13.6	0.028
Social Function	26.7 (14.6)	29.2 (15.1)	2.5	-3.7 to 8.8	0.396
Role-Emotional	28.7 (14.2)	34.4 (13.9)	5.7	-1.1 to 12.6	0.096
Mental Health	35.4 (13.9)	46.8 (10.6)	11.4	3.2 to 19.7	0.010
Physical Component Score	28.6 (6.2)	29.6 (10.9)	1.0	-3.2 to 5.2	0.629
Mental Component Score	34.0(14.0)	42.8 (11.6)	8.8	1.1 to16.4	0.028

Figure 13.3 **SF36 scores, pre- and post-CTACP**



There were no live-in carers present for 53.3% (n=8) of clients. In the seven cases where a carer was present, the Carer Strain Index showed a mean improvement from 6.7 to 6.1, which was not statistically significant (Index range 0 - 13).

The structured interview of clients revealed statements that the service met their needs in all cases, 66% of clients (n=10) felt that 8 weeks of service was adequate, and 100% of clients (n=15) were satisfied with the care and information delivered with 47% (n=7) describing it as excellent, 40% (n=6) as very good, and 13% (n=2) as good. Likewise, the staff confirmed that there was a high level of satisfaction with the delivery of care. The staff stated that 82% of clients (n=12) were assisted to their maximum benefit, 100% of clients (n=15) were suitable for the service, and 36% of clients (n=5) would have benefited from longer service.

13.6 Discussion and conclusions

This program demonstrated that an interim aged-care service could be delivered in a timely and efficient manner. This enabled appropriate discharge and possibly prevented extended hospitalisation and avoidable re-admissions. The service was also available immediately upon discharge from hospital and, although there was a maximum period of eight weeks, there was no minimum time limit set. The program allowed acute service providers such as MACS in the patients own home while receiving CTACP.

Clients benefited from a unique collaborative approach, with a single point of entry, to actively respond to identified needs that focused on ensuring optimum outcomes. This program demonstrated that only 60% of all clients assessed for HACC services actually required those services on a long-term basis.

There are limitations to this evaluation due to the small sample size and, as such, it was not possible to determine a significant difference in many of the components of the quality of life and health survey scores. There was no control group in this study to determine the number of clients who may have required nursing home or extended hospitalisation, although it is probable that most clients evaluated would have had an extended hospitalisation in the absence of the CTACP service.

This service was successful from the client, carer, service provider and Health Service perspectives, and is an example of mutual gains for both the Health Service as well as HACC providers, by triaging clients requiring appropriate long-term care. This study presents a challenge to encourage an investment in essential services to complement the delivery of multidisciplinary care of patients with chronic and complex care needs.