

# Home-Based Early Rehabilitation For Acute Coronary Syndrome Patients A Novel Collaborative Approach

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## Background

- Participation in Cardiac Rehab (CR) has proven benefits for cardiac patients (Farrar D et al 1999)
- Attendance rates at CR is sub-optimal: US, 10-20%. UK, 14-23% (Calkins H et al 2003). Aus, 24% (Sundararajan V et al 2004)
- Anxiety is common post ACS, ↑ levels of anxiety are associated with ↑ risk of arrhythmic & ischaemic complications (Moser D et al 2007; Frazer SK et al 2002)
- Reduced LOS post ACS ↓ the opportunity for effective in-hospital education (Adler P. NEJM 2001)

*"The benefits of cardiac rehabilitation are broad and compelling"*



"All cardiac patients should have access to a comprehensive cardiac rehabilitation program. New delivery models are needed to improve health outcomes in a cost effective way."  
(NSW Department of Health 1997 Policy Standards for Cardiac Rehabilitation.)

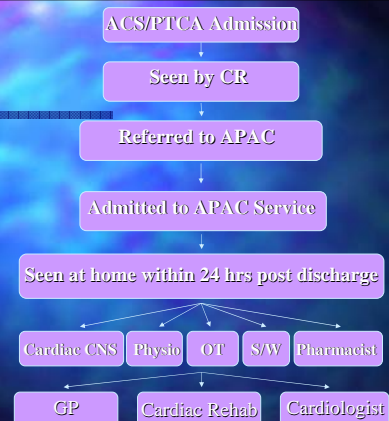
MJA, 1999; 171: 433-435; Am J Card, 2002; 90:645-647; MJA, 2004; 180:268-271

## Solution: NSCEC and APAC Partnership

To substitute acute care in the community without increase in adverse clinical patient outcomes

## Overall aim of collaboration

- Provide seamless continuum of care from hospital to home
- Facilitate **early** and **safe** d/c from the acute setting
- Provide education, information & support
- Reduce anxiety levels
- Improve uptake to CR program
- Access a wider population by introduction of an alternative home-based model for CR



## APAC Referral Data

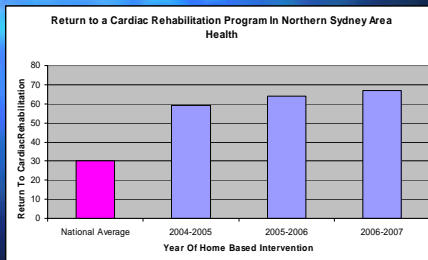
	2004-2005	2005-2006	2006-2007
No. seen by CR in hospital	461	362	338
No. referred to APAC	193	150	150
No. seen by APAC at home	159	130	130
No. who were readmitted during APAC visits	4	9	13

## Results - Knowledge & Anxiety

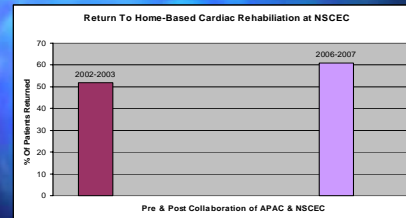
	Start of Program			End of Program			P*
	Mean	Median	Min-Max	Mean	Median	Min-Max	
Knowledge	6.88	7	0-8	7.15	7	0-8	NS
State Anxiety	0.75	0.50	0-3.00	0.56	0.30	0-2.80	.036

\* Paired sample comparisons 2005-6 (N=40)

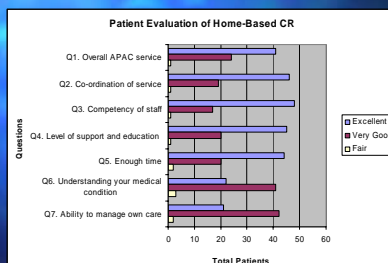
## Results - Return to Area CR Programs



## Results - Return to NSCEC



## Results – Patient Satisfaction



## Case Study

- KL Male 85yrs Hx HT Gout arthritis xsmoker
- Lives with wife & coping well
- Chest pain while mowing lawn 1230
- ED at 1700 Anterior STEMI
- SALAMI x2 stents LAD OM 50-70% EF 30-35%
- Troponin 33.1 CK 3016
- (R) anterior thalamic lacunar infarct
- LOS 9 days



## Issues

Discharge home

- KL was not himself wife concerned
- KL was not taking clopidogrel
- SBP 80mmHg and symptomatic
- Dispensed 1mg ACE instead of .5mg



## Interventions

Registered Nurse / Cardiac

- Stop ACE
- Collected EUC
- Cardiology Reg On Call
- Continue Plavix, cease ACE till BP ↑, Ax EUC
- Referred to APAC allied health
- Daily visits, assessment, education, support



## Interventions

- Occupational Therapist
- Physiotherapist
- Pharmacist



## Case Study continued

- Commenced Cardiac Rehab at NSCEC
- Slow recovery
- Improvement 6 min walk test
- Pre 200m Post 307m
- Continued GP and SMS care



## Summary

- 85% of patients referred by CR were seen by APAC
- Positive trend in CR attendance
- Improved anxiety levels
- Overall feedback was very positive

## Conclusion

- A unique partnership formed to meet the changing needs of short stay ACS/PTCA admissions
- Provides an alternative to hospital based CR
- Increase CR attendance/decrease anxiety levels
- In view of the increased demand on hospital resources – results indicate the potential for this collaboration to facilitate early and safe discharge

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