Impact of cardiac rehabilitation on 3 year outcomes amongst patients after acute coronary syndrome: (ACS) SNAPSHOT ACS follow-up study

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On behalf: SNAPSHOT ACS Investigators

Topic(s):
Rehabilitation: Outcomes

Background: Cardiovascular disease is the leading cause of disease burden globally. With advancements in medical and surgical care more people are surviving initial acute coronary syndrome (ACS) and are in need of secondary prevention and cardiac rehabilitation (CR). Increasing availability of high quality individual-level data linkage provides robust estimates of outcomes long-term.

Purpose: To compare 3 year outcomes amongst ACS survivors who did and did not participate in Australian CR programs.

Methods: SNAPSHOT ACS follow-up study included 1806 patients admitted to 232 hospitals who were followed-up by data linkage (cross-jurisdictional morbidity, national death index, Pharmaceutical Benefit Schedule) at 6 and 36 months to compare those who did/not attend CR.

Results: In total, the cohort had a mean age of 65.8 (13.4) years, 60% were male, only 25% (461/1806) attended CR. During index admission, attenders were more likely to have had PCI (39% v 14%, p<0.001), CABG (11% v 2%, p<0.001) and a diagnosis of STEMI (21% v 5%, p<0.001) than those who did not attend. However, there was no significant difference between CR attenders/non-attendees for risk factors (LDL-cholesterol, smoking, obesity). Only 19% of eligible women attended CR compared to 30% of men (p<0.001). At 36 months, there were fewer deaths amongst CR attenders (19/461, 4.1%) than non-attendees (116/1345, 8.6%) (p=0.001). CR attenders were more likely to have repeat ACS, PCI, CABG at both 6 and 36 months (Table). At 36 months, CR attenders were more likely to have been prescribed antiplatelets (78% v 53%, p<0.001), statins (91% v 73%, p<0.001), beta-blockers (11% v 13%, p=0.002) and ACEI/ARBs (72% v 61%, p<0.001) than non-attendees.

Conclusions: Amongst Australian ACS survivors, participation in CR was associated with less likelihood of death and increased prescription of pharmacotherapy. However, attendance at CR was associated with higher rates of repeat ACS and revascularisation.

<table>
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<th>0-3 months</th>
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<td>UA</td>
<td>34 (7.4)</td>
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<td>32 (6.9)</td>
<td>26 (1.9)</td>
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CR, cardiac rehabilitation; STEMI, ST-elevation myocardial infarction; NSTEMI, non-ST-elevation myocardial infarction; UA, unstable angina; PCI, percutaneous coronary intervention; CABG, coronary artery bypass graft