About this Release

This publication relates to cardiac rehabilitation referrals, assessments, interventions and completions by NHS Board for initiating cardiac events in the year ending 31st March 2011.

For audit purposes the data is also presented in time periods of 6 months duration (April to September and October to March).

The data for April to September 2010, previously published in March 2012, has been revised in this release. In particular, a definitional change involving patients undergoing both Coronary Artery Bypass Graft (CABG) and Heart Valve operations has been implemented following advice from the Cardiac Rehabilitation Audit Group. This has had an effect in reducing the number of patients allocated to CABG initiating events and increasing the number of valve operation patients compared to the previously published figures.
Key Points

- Cardiac rehabilitation referral rates have been estimated by matching anonymised aggregated data from 2 separate sources – cardiac rehabilitation audit data and Scottish Morbidity Records (SMR01). As such, there are inevitably issues of data completeness, data quality and comparability and all results presented should be treated with caution. In particular, the referral rates may exceed 100% due to:
  
  1. Differences in classifying heart attack patients may include more patients in the cardiac rehabilitation audit and inflate the numerator.
  2. Small differences in the time period covered mean the SMR01 number and cardiac audit patient cohorts may be slightly different.
  3. Differences in classifying patients by initial event between the two data sources – SMR01 linked data has information on prior events which may not be available to cardiac rehabilitation staff.

- Across Scotland, an estimated 65% of patients having an initiating event of either myocardial infarction (MI), coronary artery bypass graft (CABG) or percutaneous coronary intervention (PCI) were referred for cardiac rehabilitation. This includes 75% of heart attack patients, 68% of patients undergoing CABG, and 22% of patients undergoing PCI procedures.

- Patients have been allocated to a single initiating event within a hierarchical order: MI, CABG, PCI, valve surgery, heart failure, unstable angina then other events. This may contribute to the apparent low percentage of patients undergoing PCI reported to have been referred for cardiac rehabilitation. Audit data shows that at least 39% of patients with a non-ST elevated MI (NSTEMI) initiating event also had a linked PCI intervention.

- Referral to cardiac rehabilitation after any MI/CABG/PCI initiating event reached just under 100% in NHS Dumfries & Galloway health board area, but just over 40% in NHS Grampian (40%) and NHS Highland (42%).

- Previously reported figures for Scotland from the 2008 National Audit of Cardiac Rehabilitation showed percentage uptake for Scotland in 2006/07 were MI 52%, CABG 74%, PCI 11% and combined MI/CABG/PCI 45%. Although not directly comparable, the latest figures suggest an increase in referral in 2010/11 compared to 2006/07.

- Out of all the patients who were referred for cardiac rehabilitation in Scotland, 87% underwent assessment. This ranged from 76% in NHS Highland to 97% in NHS Shetland.

- Across Scotland, 85% of all patients assessed for cardiac rehabilitation received heart disease education.

- 67% of patients in Scotland who were referred and assessed for cardiac rehabilitation after MI or revascularisation (CABG or PCI) completed the audited phase(s) of the programme. This was highest in Orkney (85%) and lowest in Western Isles (38%).
Estimated percentage receiving cardiac rehabilitation referral having had a spell of care in hospital involving acute myocardial infarction, coronary artery bypass graft or percutaneous coronary intervention by NHS Board

April 2010 to March 2011

Note: Referral rates have been calculated from separate sources of numerator and denominator data and may exceed 100% due to differences in data completeness, data quality and classification of patients by type of initiating event.
Background
The Scottish Government in their “Our Better Heart Disease and Stroke Care Action Plan” (June 2009) recognised the clinical and cost effectiveness of cardiac rehabilitation and also emphasised the importance of ensuring that people living with heart disease, who could benefit from cardiac rehabilitation, can gain access.

The source data are routine audit of cardiac rehabilitation referrals captured on a continual basis by NHS Healthcare Improvement Scotland, and then ISD, since April 2010. Eligible numbers for cardiac rehabilitation have been estimated from routine national hospital episode records (SMR01).

Contact
David Clark
Principal Information Analyst
dclark5@nhs.net
0131 275 6144

Adam Redpath
Programme Principal
Adam.Redpath@nhs.net
0131 275 6704

Further Information
Further information can be found in the full report on the ISD website.

About ISD
Scotland has some of the best health service data in the world combining high quality, consistency, national coverage and the ability to link data to allow patient based analysis and follow up.
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