

Coronary Heart Attack Ireland Register (CHAIR) Pilot Progress Report – August 2004

CHAIR Pilot evaluation and duration

The CHAIR Pilot external evaluation was tendered for in June with responses to be in by end of July. The future of CHAIR will then be discussed having regard to the evaluation and cardiovascular health information systems developments.

The pilot is currently funded to the end of December 2004 and all CHAIR registration officers are contracted to this date.

CHAIR Pilot Workshops – April and June 2004

CHAIR registration officers met on 23rd April 2004 for the 6th CHAIR workshop.

This workshop discussed:

- CHAIR updated general statistics and reports;
- the European Cardiology Audit and Registration Data Standards (CARDS) project;
- progress of 3 month CHAIR patient follow up;
- proposed CHAIR patient follow up on mortality from 1st January 2004; and
- procedures and proposed software to deal with ACS patient transfers specifically for angiograms, angioplasties and coronary artery by-pass grafts.

CHAIR registration officers met on 21st June 2004 for the 7th CHAIR workshop.

This workshop discussed:

- feedback from recent NCIS Steering Committee meeting of 18th June;
- outcome of CHAIR patient follow up on mortality from 1st January 2004;
- results of audit of CHAIR patients with a discharge diagnosis of ST Elevation Myocardial Infarction (STEMI);
- CHAIR ACS patient hospital transfers (and day cases) software (demonstrated at the workshop by the software company).

The next workshop is scheduled for October 2004.

CHAIR pilot general statistics

CHAIR collects data on patients who are admitted to hospital with a confirmed or suspected acute coronary syndrome (ACS). An ACS may be either a myocardial infarction or unstable angina. Myocardial infarction (MI) is the medical term for a heart attack.

From the beginning of CHAIR data collection in mid to late 2002 to 31st May 2004, there were **5,429** completed CHAIR admissions (comprising 4,724 patients – some patients were admitted more than once).

Gender and age breakdown

- Male 3,398 (63%) (mean age 62 - 67% < 70 & 33% > 70 years)
- Female 2,031 (37%) (mean age 66 - 52% < 70 & 48% > 70 years)

Discharge Diagnosis breakdown

- ACS (MI and Unstable Angina) 2045 (38%)
 - *ST Elevation MI* 490 (24% of ACS)
 - *Non ST Elevation MI* 937 (46% of ACS)
 - *Unstable Angina* 618 (30% of ACS)
- Non ACS (including other cardiacs) 3384 (62%)

CHAIR Pilot 'follow ups'

3 month follow up of 101 patients consented in the second half of 2003

Of the 101 CHAIR patients who consented for the 3 month follow up in 2003, only 97 patients could be contacted for the follow up. Of these 97 patients, there were:

- 71 males and 26 females
 - *youngest patient - 31 years (with the next youngest being 46 years)*
 - *oldest patient - 89 years*
 - *median age - 65 years*
- 35 patients with a discharge diagnosis of STEMI
- 54 patients with a discharge diagnosis of non STEMI
- 41 patients who had returned to a hospital within the three month period
- 3 patients who had died since their discharge
- 47 patients who received cardiac rehabilitation treatment or advice after discharge

Follow up of patient status for all MIs registered on CHAIR – 1 Jan to 30 April 2004

A follow up was done to establish mortality outcome of all CHAIR patients - discharged with an MI (STEMI or Non STEMI) between 1 January and 30 April 2004 - 30 days after discharge.

355 MIs (119 STEMI and 236 Non STEMI) were followed up, and of these:

- 24 (9 STEMI and 15 Non STEMI) died in hospital during that admission
 - *12 males with an average age of 76 years (youngest 59 years)*
 - *12 females with an average age of 80 years (youngest 63 years)*
- 11 (4 STEMI and 7 Non STEMI) died within 30 days of discharge
 - *8 males with an average age of 70 years (youngest 55 years)*
 - *3 females with an average age of 76 (youngest 74 years)*

CHAIR quality audits

Apart from the internal quality audit and evaluation done during September 2003 there have been a number of ongoing audits done by the CHAIR project team. Some of these audits have involved investigating the use of the 'unknown' or 'none' options in CHAIR for each hospital where frequency of use of these option has been considered to be high for a particular data field.

There has been a complete audit in one hospital and a sample audit in another hospital on the use of 'unstable angina' as a discharge diagnosis. Both of these audits were conducted with the assistance of a clinician.

There was also a random sample audit of CHAIR patients with a discharge diagnosis of 'MI ST Elevation' from a major CHAIR hospital to determine if the patients with this discharge diagnosis met all the relevant criteria (ECG and cardiac markers) on their medical records to be considered genuine MI ST Elevations. This audit was also conducted with the assistance of a clinician.

CHAIR transfer function

It is important that CHAIR records data on all patients who are admitted to hospital with a confirmed or suspected acute coronary syndrome (ACS). This includes ACS patients who are transferred to a CHAIR hospital for an investigation (such as, an angiogram) or a procedure (such as, an angioplasty or coronary artery by-pass graft (CABG)). Many of these patients may only be admitted for a day and then be taken back to the initial referral hospital.

Rather than rely on manual procedures to identify and record these patients, and their investigations and procedures, the CHAIR software has been modified and communications technology used to more effectively and efficiently record these cases. This software modification is currently in the testing phase.

CHAIR alignment with CARDS

The Cardiology Audit and Registration Data Standards (CARDS) conference was held in Cork on 10 and 11 May 2004. The CARDS datasets are to be piloted throughout sites in Europe and all CARDS datasets (including the ACS dataset) are expected to be finalised between September and December 2004.

As one of a number of current European ACS datasets, CHAIR has contributed to CARDS development. CARDS has also fed back into CHAIR and there have been modifications to CHAIR software and procedures as a result of CARDS and its ongoing development.

Although CHAIR and CARDS ACS are two different datasets they collect similar information. CARDS is a 'core' dataset only indicating the minimum requirements of ACS data to be collected in a European context whereas CHAIR collects other information of interest for a proposed national database. CHAIR is now aligned to CARDS as much as possible in terms of field names, options and protocols while not affecting the value and integrity of data collected to date.

Future CHAIR pilot project work

As well as the ongoing monitoring of the project and development of the software and reports, there are a number of project tasks to complete. These are to:

- arrange and conduct further CHAIR workshops (next workshop – October 2004);
- continue analysis of the CHAIR pilot data and publish some information;
- ensure that all relevant hospitals are operating with a patient administration system (PAS) interface to CHAIR;
- complete further targeted internal audits and evaluations of the CHAIR pilot;
- assist in the external evaluation of the CHAIR pilot as required; and
- produce a CHAIR pilot project report.

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