Genetic testing for heritable cardiac arrythmias, channelopathies and cardiomyopathies

Last updated: 8 June 2022

- From 1 July 2022, eight new Medicare Benefits Schedule (MBS) items will be introduced to support genetic testing for heritable cardiac arrhythmias, channelopathies and cardiomyopathies.
- The new items will support specialists to determine whether the cause of one of these conditions is genetic in affected patients, determine future risk in asymptomatic biological relatives of affected patients, and enable informed reproductive decision making for those considering having children.
- These changes are relevant to specialists or consultant physicians who manage patients with suspected or known cardiac arrythmias, channelopathies and/or cardiomyopathies, and Approved Pathology Practitioners (APP) who provide these referred services.

What are the changes?

From 1 July 2022, four new items will be introduced to the Medicare Benefits Schedule (MBS) for genetic testing for heritable cardiac arrhythmias and channelopathies and an additional four new items will be introduced for genetic testing for heritable cardiomyopathies.

The new items for cardiac arrythmias and channelopathies are:

- MBS item 73416, for genetic testing in a patient for whom clinical or family history suggest a high risk of an inherited cardiac arrhythmia or channelopathy
- MBS item 73417, for genetic testing of first- or second-degree relatives of an individual who is known to carry a genetic variant(s) associated with inherited cardiac arrhythmias or channelopathies
- MBS item 73418, for genetic testing of a reproductive partner of an individual who is known to carry a genetic variant(s) associated with inherited cardiac arrhythmias or channelopathies
- MBS item 73419, for re-analysis of genetic data obtained in performing a service to which item 73416 applies, for testing of previously unreported genetic variants associated with inherited cardiac arrhythmias or channelopathies.

The new items for cardiomyopathies are:

- MBS item 73392, for genetic testing in a patient for whom clinical or family history, or laboratory findings suggest a high probability of a heritable cardiomyopathy
- MBS item 73393, for genetic testing of first-degree biological relatives (or second-degree, where a first-degree relative is unavailable) of an individual who is known to carry a genetic variant(s) associated with heritable cardiomyopathies

- MBS item 73394, for genetic testing of a reproductive partner of an individual who is known to carry a genetic variant(s) associated with heritable cardiomyopathies
- MBS item 73395, for re-analysis of genetic data obtained in performing a service to which item 73392 applies, for testing of previously unreported genetic variants associated with heritable cardiomyopathies.

Why are the changes being made?

The listing of the services for heritable cardiac arrhythmias and channelopathies was recommended by the Medical Services Advisory Committee (MSAC) at its November 2020 meeting.

The listing of the services for heritable cardiomyopathies was recommended by MSAC at its March-April 2021 meeting.

Further details about MSAC applications can be found under MSAC Applications on the MSAC website (Medical Services Advisory Committee).

What does this mean for referrers?

The new MBS items for genetic testing for heritable cardiac arrhythmias, channelopathies and cardiomyopathies may be referred by specialists or consultant physicians.

Patients who are found to have any form of affected allele should be referred for post-test genetic counselling as there may be implications for other family members. Appropriate genetic counselling should be provided to the patient either by the treating practitioner who acted as the referrer for the service(s), a genetic counselling service or a clinical geneticist on referral.

What does this mean for providers?

To be eligible for Medicare rebates, laboratories providing these services must be accredited according to the pathology accreditation standards specified in the *Health Insurance (Accredited Pathology Laboratories — Approval) Principles 2017*.

The rapidly expanding field of genomic medicine has resulted in recognition of an increasing number of genetic causes of cardiac diseases. Where possible, providers are encouraged to use genomic testing methods that permit reanalysis of existing data for newly described pathogenic variants in clinically relevant genes.

How will these changes affect patients?

The new services supported under MBS items 73416 and 73392 will support patients who have signs or symptoms of these conditions to confirm if their condition has a genetic cause.

The main benefit of this genetic testing is to inform whether there is a need to test asymptomatic biological relatives of the patient with the suspected heritable heart condition. Where a genetic cause is found, asymptomatic biological relatives may be referred for further testing supported under MBS items 73417 and/or 733393.

If testing in an asymptomatic biological relative identifies a genetic variant associated with the heritable cardiac condition in the symptomatic patient, the asymptomatic biological relative remains at risk of developing the condition in

the future. Their doctor may consider more targeted monitoring, recommend appropriate lifestyle changes, or commence early treatment before symptoms appear.

In the absence of genetic testing, asymptomatic biological relatives of individuals diagnosed with a heritable cardiac condition are usually offered ongoing, regular monitoring for the same heart condition on the basis that the cause may be hereditary. Where the patient with a known heritable cardiac condition is not found to have a genetic cause (as an outcome of testing supported under MBS items 73416 and/or 73392) or if the asympyomatic biological relative does not have the genetic variant associated with the heritable cardiac condition (as an outcome of testing supported under MBS items 73417 and/or 733393), a medical practitioner may reconsider the need for ongoing, regular monitoring in the asymptomatic biological relative.

The reproductive partner of any patient found to have a genetic variant associated with one of these conditions may also be referred for testing under MBS items 73418 or 73394 for the purpose of reproductive planning.

As the field of genetic and genomic medicine rapidly expands, additional genetic variants may be found to be associated with these heart conditions. Patients with signs or symptoms of one of these conditions may subsequently have their genomic data re-analysed under MBS items 73419 and/or 73395, provided the pathology laboratory that performed the initial testing sequenced the patient's entire genetic makeup (exome or genome).

Who was consulted on the changes?

Consultation has been undertaken with key stakeholders, clinical experts and providers, and consumer health representativesas part of the MSAC process.

How will the changes be monitored and reviewed?

MBS items will be subject to MBS compliance processes and activities, including random and targeted audits which may require a provider to submit evidence about the services claimed.

Significant variation from forecasted expenditure may warrant review and amendment of the items and fees, and incorrect use of MBS items can result in penalties including the health professional being asked to repay monies that have been incorrectly received.

The utilisation of the new MBS items will be reviewed by MSAC approximately 24 months post-implementation.

Where can I find more information?

The full item descriptor(s) and information on other changes to the MBS can be found on the MBS Online website at www.mbsonline.gov.au. You can also subscribe to future MBS updates by visiting MBS Online and clicking 'Subscribe'.

The Department of Health provides an email advice service for providers seeking advice on interpretation of the MBS items and rules and the Health Insurance Act and associated regulations. If you have a query relating exclusively to interpretation of the Schedule, you should email askMBS@health.gov.au.

Subscribe to 'News for Health Professionals' on the Services Australia website and you will receive regular news highlights.

If you are seeking advice in relation to Medicare billing, claiming, payments, or obtaining a provider number, please go to the Health Professionals page on the Services Australia website or contact the Services Australia on the Provider Enquiry Line – 13 21 50.

The data file for software vendors when available can be accessed via the Downloads page.

Please note that the information provided is a general guide only. It is ultimately the responsibility of treating practitioners to use their professional judgment to determine the most clinically appropriate services to provide, and then to ensure that any services billed to Medicare fully meet the eligibility requirements outlined in the legislation.

This sheet is current as of the Last updated date shown above, and does not account for MBS changes since that date.