

AVIATION MEDICINE - HANDBOOK

Examiner Handbook



Acknowledgement of Country

The Civil Aviation Safety Authority (CASA) respectfully acknowledges the Traditional Custodians of the lands on which our offices are located and the places to which we travel for work. We also acknowledge the Traditional Custodians' continuing connection to land, water and community. We pay our respects to Elders, past and present.

Artwork: James Baban.

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Acronyms and abbreviations

The acronyms and abbreviations used in this handbook are listed in the table below.

Table 1. Acronyms

Acronym / abbreviation	Descriptions	
ACAsM	Australasian College of Aerospace Medicine	
ADF	Australian Defence Force	
AHPRA	Australian Health Practitioner Regulation Agency	
ARN	Aviation Reference Number	
AMROA	Australasian Medical Review Officers Association	
AMSANZ	Aviation Medical Society of Aotearoa New Zealand	
ASAM	Australasian Society of Aerospace Medicine	
AsMA	Aerospace Medicine Association	
ATPL	Airline Transport Pilot Licence	
AVMO	Aviation Medical Officer (ADF)	
CAA	Civil Aviation Act	
CAA (NZ)	Civil Aviation Authority of New Zealand	
CAR	Civil Aviation Regulations	
CASR	Civil Aviation Safety Regulations	
CASA	Civil Aviation Safety Authority (Australia)	
СО	Credentialed Optometrist	
CPG	Clinical Practice Guidelines	
CPL	Commercial Pilots License	
DAEE	Designated Aviation Eye Examiner	
DAME	Designated Aviation Medical Examiner	
DAO	Designated Aviation Ophthalmologist	
DPMO	Deputy Principal Medical Officer	
FAA	Federal Aviation Administration (US)	
IAASM	International Academy of Aviation and Space Medicine	

Acronym / abbreviation	Descriptions	
ICAM	International Conference in Aerospace Medicine	
ICAO	International Civil Aviation Organization	
ICASM	International Congress of Aviation and Space Medicine	
JAA	Joint Aviation Authorities (Europe)	
MRS Online	Medical Records System Online	
PMO	Principal Medical Officer	
PPL	Private Pilot's License	
SMO	Senior Medical Officer (CASA)	

Definitions

Terms that have specific meaning within this handbook are defined in the table below.

Table 2. Definitions

Term	Definition	
Examiner	Means DAMEs, DAOs and/or COs	
Doctor	Doctors or optometrists	
Non-AME	Doctor who is not an Aviation Medical Examiner.	

Reference material

The reference material used in this handbook are listed in the tables below.

Legislation

Legislation is available on the Federal Register of Legislation website https://www.legislation.gov.au/

Table 3. Legislation

Document type	Title	
Legislation	Civil Aviation Act 1988	
Legislation	Part 67 of the Civil Aviation Safety Regulations 1998	
Legislation	Commonwealth Authorities and Companies Act (CAC Act) 1997	
Legislation	Public Governance and Performance Accountability Act (PGPA Act) 2013	
Legislation	Privacy Act 1988	

Other

Table 4. Other

Document type	Title	
Manual	CASA Medical Assessor MRS User Guide	
Policy	CASA Policies	
Manual	Decision Trees	
Professional Standards	Medical Board of Australia Code of Medical Good Practice	
Professional Standards AMA Code of Ethics		
Professional Standards	AHPRA Code of Conduct	
Professional Standards RACGP Standards for General Practice		

Forms

CASA's forms are available at http://www.casa.gov.au/forms

Table 5. Forms

Form no	Title	
Form 755 Appointment as Designated Aviation Medical Examiner		
Form 651 DAME2 Application Form		

Revision History

Revisions to this document are recorded below in order of most recent first.

Table 6. Revision History

Version no	Date	Parts / sections	Details
6.0	August 2025	All	New Template – Handbook. Initial Issue as 'new' Examiner Handbook (Previously DAME Handbook).
			Removal of Chapter numbers and numbering sub-parts/sections.
			Major update and review of the following Chapter: 'Medical Records System User Guide for DAMEs and DAME2s
			Update and review of all other Chapters.
5.1	June 2024	Chapter 7.10	Updated to include new colour vision policy.
5.0	January 2024	Chapter 1	Update template.
		Chapter 5.2	Added to match template, all chapters +1.
		Chapter 5.3	Add Class 5.
			Add Class 5 and BC2 validities.
4.0	July 2022	Section 12	Update to Section 12
3.0	May 2022	Section 10	Update to Section 10
2.0	April 2022	Template update	Updated.
1.3	August 2018	All sections	Update and review.
1.2	June 2016	All sections	Update and review.
1.1	April 2012	All Sections	Update and review.
1.0	February 2008	Template and content of all sections.	Update and review.

1. Purpose

The content and purpose of the Examiner Handbook

CASA and its antecedent organisations have published advice for DAMEs concerning practical and administrative aspects of their duties for many years. The most comprehensive repository of such advice has been CASA's DAME Handbook, which originated in the late 1980s. The original hard copy publication was an amalgam of advice derived from many sources including Australian aeromedical guidance from as early as the 1950s, and international sources of aeromedical policy including most notably CAA NZ, CAA UK, and US FAA. The Handbook has been supplemented over time by periodic updates in the Examiner Newsletters and other FAQs and is incorporated by reference in Part 67 of the CASRs as an authoritative reference for aeromedical policies and procedures. As a result of the evolution in guidance materials over time and the requirement by CASA that all public documents should be created and maintained in electronic format, The Examiner Handbook (previously DAME) has been posted on CASA's website since May 1999.

Considering the rapid advances in medicine and evolution in aeromedical policy internationally, a decision was made in 2012 to focus the Handbook as the source of information about the regulatory framework and governance systems around CASA's requirements for DAME, DAO and COs, and implementation of regulations for medical certification.

Specific clinical materials which indicate CASA's expectations for aeromedical practice are published as CASA's Clinical Practice Guidelines. CPGs are linked with the Handbook for regulatory authority but developed separately to enable regular revisions as clinical and aeromedical practice change.

CPGs help to inform health care providers and aviation medical certificate-holders to understand what investigations or specialist reviews may be helpful in assisting CASA or the DAME in making a medical decision.

As noted above, the Handbook is meant only as a source of guidance to DAMEs on issues which are of relevance in considering aero-medical certification of pilots with certain conditions and injuries. Irrespective of the state of currency of the contents of a section of the Handbook, it is important to recognise that the decisions that CASA makes are on a case-by-case basis in response to the individual circumstances of the applicant under consideration.

This Handbook and the CPGs are provided by way of guidance as to the process and factors which may be in specific instances of area medical decision making.

End of Chapter.

2. Legal Status, Powers and Duties of Examiners

Designation of DAMEs and DAOs Under Part 67 of CASRs

The persons appointed by CASA to perform the necessary medical examinations for the medical certificate application under the Civil Aviation Safety Regulations 1998 (CASR) are known as DAMEs or DAOs. "Designation" identifies the DAME or DAO as an eligible person who has been determined by CASA to hold the required qualifications to perform the task of medical examination for the purpose of assessment against the medical standards. The information provided to CASA through the medical examination performed by DAMEs and DAOs (and, if directed, by COs) is used by CASA to consider whether an applicant or certificate holder meets the medical standard for certification, or if the standard is not met, whether the way in which the standard is not met presents a hazard to the safety or air navigation.

CASA may also declare appropriately qualified persons or holders of certain offices, or persons performing a specified act, to be taken to be a DAME or a DAO without meeting the eligibility and qualification requirements for designation. This provision of CASR (67.055 and 67.075) allows CASA the flexibility to support medical certification in exceptional circumstances where an appointed DAME or DAO is not available to perform a medical examination.

The eligibility and requirements for appointment as DAMEs and DAOs are detailed in Chapter 3 of this Handbook.

Delegations as DAME2

In 2018, CASA published a non-legislative instrument that enabled DAMEs to issue certain Class 2 aviation medical certificates. The instrument (CASA 26/18 — Issue of class 2 medical certificates (Designated Aviation Medical Examiners)) delegates to all DAMEs the power to issue a Class 2 medical certificate, conditional on certain requirements in the instrument being met. Chapter 12 of this Handbook provides details regarding DAME2 delegations and medical certificates.

Other Credentialed Specialists

Credentialed Optometrists

Credentialed optometrists (COs) have undergone CASA-approved training to be able to perform examinations of the eyes and visual system for aviation medical certificate applications. While not holding a designation or delegation under Part 67, COs are expected to comply with the same requirements for professional behaviours and compliance with CASRs and this Handbook as DAMEs and DAOs. Details on the eligibility and appointment process for COs is detailed in Chapter 3 of this Handbook.

For the purpose of examinations for applicants for aviation medical certificates under CASR 67.180 subsection 2(a), it is CASA's opinion that examinations performed by COs for routine and age-based requirements are relevant for applications for aviation medical certificates.

CASA-Approved Aviation Consultants

CAACs are Specialist medical practitioners who have additional training in aerospace medicine. Their role is to provide advice to their patients and to CASA regarding the safety relevance of diseases and therapies within their area of expertise. On completion of initial training, the CAACs may elect to be listed on the CASA website to make their status known to certificate-holders who seek such support. They may also be approached by CASA for support in complex case management. CAACs are not designated to perform aviation medical examinations for medical certification (unless they are also appointed as DAMEs) and do not have delegated authority to make decisions regarding medical certificates under Part 67.

Details on the training and currency expectations for CAACs is provided in Chapter 3 of this Handbook.

DAME and DAO powers under the CASRs

DAMEs have authority to perform certain functions relating to medical examinations and medical certificates under the CASRs.

Medical certificate extensions.

Under CASR 67.210, CASR 67.220 (4) DAMEs may extend the period in force of a current medical certificate for up to **two** months, unless it bears the condition 'Renew by CASA only'.

This provision allows DAMEs to "revalidate" a current medical certificate or a certificate while the application is assessed by CASA (or the DAME2 for Class 2 medical certificates). This allows the pilot or controller to continue to exercise the privileges of their license during the revalidation period, minimising the impact of time taken to gather information and assess the medical certificate.

This extension is applied in MRS by answering "yes" to the question "Do you wish to revalidate this medical certificate?"

DAMEs should only exercise this power if they have performed a risk assessment and decided that there is no safety relevant medical condition present that could cause a hazard to the safety of air navigation (impairment or incapacity of the pilot or controller) during the revalidation period.

Medical certificate renewals.

Under CASR 67.225, DAMEs may renew a medical certificate that has expired within the three months prior to the medical examination, unless it bears the condition 'Renew by CASA only'. This renewal can only be made for **two** months.

This extension is applied in MRS by answering "yes" to the question "Do you wish to revalidate this medical certificate?"

DAMEs should only exercise this power if they have performed a risk assessment and decided that there is no safety relevant medical condition present that could cause a hazard to the safety of air navigation (impairment or incapacity of the pilot or controller) during the renewal period.

Require applicants to provide information for renewal of expired certificates.

For the expired certificate renewal described above, DAMEs can require the applicant to authorise release of information to the DAME from health care providers, services and other organisations (for the full list, see CASR 67.225 (6)) so that the DAME can use this information to make a decision whether to renew the expired certificate.

If the applicant refuses to authorise the release of information, the DAME can refuse to renew the expired certificate. In that case, the DAME should answer "No" to the question in MRS "Do you wish to revalidate this certificate" and make a note to CASA when submitting the medical examination that the applicant has refused to authorise the release of information relating to their medical status.

Certification of pregnant air traffic controllers between 30 weeks and 38 weeks gestation.

ATCs who wish to maintain validity of their Class 3 medical certificate between 30- and 38-weeks' gestation are required by CASR 67.235(2) to undergo review by a DAME on a weekly basis during that period. In these cases, the Class 3 medical certificate will be issued by CASA with restrictions specifying that another ATC without medical restrictions must be immediately available while the pregnant ATC is exercising the privileges of their license, and that they must be reviewed by a DAME for continued fitness on a weekly basis. DAMEs should notify CASA that the weekly clearance has been confirmed by uploading a clearance letter to the ATC's MRS file.

Clearance to return to aviation duties for medically significant issues.

Where a certificate-holder experiences a change in their health status that is **medically significant** and is causing impairment, they must not exercise the privileges of their license until they have been reviewed by a DAME. They must also notify CASA or a DAME of their medically significant problem within the following required periods:

- For a Class 1 medical certificate: 7 days.
- For Class 2 and 3 medical certificates: 30 days.

If a DAME determines that a medically significant condition is not **safety relevant** and there is no impairment, the DAME can certify that the certificate-holder is not impaired and can continue (or resume) the exercise of their license privileges. The DAME must notify CASA of their certification by uploading a "DAME Clearance" letter to the certificate-holder's MRS file.

If a DAME determines that a medically significant problem is not safety relevant but there is continuing impairment, the certificate-holder must not exercise the privileges of their license until cleared by a DAME.

If a DAME determines that a medically significant condition is safety relevant, the DAME must notify CASA within five working days of that determination. If there is also impairment present, the DAME must advise the certificate-holder that their medical certificate is invalid until it has been re-assessed by CASA.

These requirements are specified in CASR 67.265, 67.270, 67.271 and 67.125.

For conditions and impairments relating to the eyes or visual system, the decisions, notifications, and clearances detailed above may be managed by a DAO. COs may also perform these functions at CASA's direction.

Medical Assessment Process – DAME and DAO Duties

The term 'Assessment' for applications for aviation medical certificates is used to describe the process through which the information provided by the applicant and the aviation medical examiner, plus any other information required by CASA or the DAME, is reviewed to determine whether the medical standard is met, or whether the presence of medically significant disease or medical conditions is safety relevant for the purpose of aviation medical certification.

The assessment leads to a decision on medical certification: whether to issue with conditions, suspend, refuse or cancel.

Definition of "medically significant" and "safety relevant"

Definitions of "medically significant" is provided in CASR 67.010 as follows:

medically significant condition includes:

- (a) any of the following (no matter how minor):
 - (i) any illness or injury;
 - (ii) any bodily infirmity, defect, or incapacity;
 - (iii) any mental infirmity, defect, or incapacity;
 - (iv) any sequela of an illness, injury, infirmity, defect, or incapacity mentioned in subparagraph (i), (ii) or (iii); and
- (b) any abnormal psychological state; and
- (c) drug addiction and drug dependence; and
- (d) for a woman—pregnancy and the physiological and psychological consequences of pregnancy or of termination of pregnancy.

The meaning of safety-relevant is provided in CASR 67.015 as follows:

"For the purposes of this Part, a medically significant condition is **safety-relevant** if it reduces, or is likely to reduce, the ability of someone who has it to exercise a privilege conferred or to be conferred, or perform a duty imposed or to be imposed, by a licence that he or she holds or has applied for."

Aeromedical risk assessment for impairment and safety relevance

For the purpose of DAME (or DAO) determination of safety-relevance that must be reported to CASA, the DAME must consider the following factors:

- Consequence: What is the nature of the impairment that is caused by the medical condition, or its treatment? Consider the impact on whether the person can adequately perceive information, perform an operational or threat analysis, formulate a response to the situation or threat, and take action to manage the situation or threat in a way that is safe and effective for themselves, the occupants of their aircraft, other users of the airspace and people on the ground.

 Taking action includes physically controlling the aircraft ("stick and rudder"), performing emergency drills or manoeuvres in the aircraft or ATC setting, making decisions on whether and how to continue the flight
 - or manoeuvres in the aircraft or ATC setting, making decisions on whether and how to continue the flight or operation (including navigation, communication, fuel state and other operational factors). The person should be able to safely perform these functions in all reasonable circumstances, not just when things are "normal" but also in unexpected situations such as changed weather, engine or other aircraft performance emergency, diversion, or other airfield issues.
- **Likelihood**: How likely is it that the impairment will happen to this person during the certification period? Consider the 2-month renewal and revalidation period for DAMEs, and also the duration of the medical certificate when issued by CASA. In general, CASA applies a 1% threshold for Class 1 and 3 certificates without conditions, and 2% threshold for Class 2 certificates without conditions.
- **Duration and progression**: What is the natural history of the medically significant issue? Is it chronic, stable, or progressive, requiring medical Specialist management or surveillance?

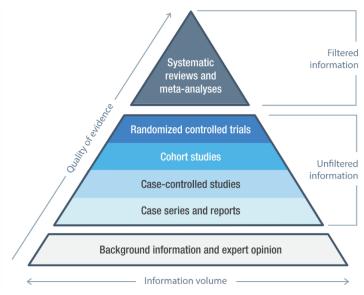
 Medical conditions that may be rapidly progressive or fluctuate in their severity are more likely to be safety-relevant than those which are stable or prone to slow progression over longer periods.

In making their assessment regarding safety relevance, DAMEs are required to refer to and follow as closely as possible (acknowledging the individual variations that characterise medical conditions and treatments) the available guidance materials, including:

- Examiner Handbook guidance
- CASA Clinical Practice Guidelines
- CASA Aeromedical Decision Guides for DAMEs and DAOs
- ICAO Manual of Civil Aviation Medicine
- International aviation authority clinical aviation guidance including those from FAA, CAA UK, CAA NZ, CAA Canada, and EASA
- Standards and guidelines for clinical practice published by Australian medical specialty bodies or agencies.
- Published medical literature (with regard to the level of evidence the publication represents) See Figure 1.

Where a CASA guideline or direction differs to that from another National Aviation Authority, the CASA guideline must be the primary resource for decision-making by DAMEs.

Figure 1. Hierarchy of medical evidence



Determining and reporting safety relevance

If the **consequence** impairment causes the certificate-holder not to be able to fully perform all their functions in all reasonable situations, and the **likelihood** is more than the thresholds described above, the condition is considered to be safety relevant. In that case, the DAME must report the condition to CASA within five days under CASR 67.125 and advise the certificate holder that they must not exercise the privileges of their license.

This reporting obligation under CASR 67.125 applies to DAMEs and DAOs regardless of how they came to know about the safety relevant medical issue. Reporting of safety-relevant issues is an indemnified act under CASR 67.140 (see below).

DAMEs should make this report by uploading all relevant information to the certificate-holder's MRS file. The CASA aeromedical decision guides and clinical practice guidelines provide detail on the relevant information that is required for these reports.

Note:

If there is an immediate hazard to safe air navigation, the DAME must also telephone CASA Avmed or CASA Safety Reporting on 131 757 to notify the immediacy and nature of the hazard.

CASA Avmed may then suspend the aviation medical certificate under CASR 67.240 and/or CASR 67.245.

Reporting of a new diagnosis or chronic disease

Even if the DAME determines that the likelihood/consequence assessment does not render the condition safety relevant such that reporting is required under CASR 67.125, any medically significant condition that is:

- Chronic (likely to last for more than six weeks),
- Progressive or unstable (may deteriorate or fluctuate over the duration of the medical certificate), or
- Requires assessment, management and/or surveillance by a medical Specialist (including Specialist General Practitioner)

Also requires reporting to CASA and identification in the Medical Assessment Record in MRS.

DAMEs must notify CASA of these medically significant problems within **30 days** of confirmation of the diagnosis. DAMEs should make this report by uploading all relevant information to the certificate-holder's MRS file. The CASA aeromedical decision guides and clinical practice guidelines provide detail on the relevant information that is required for these reports.

CASA actions for safety relevant and medically significant conditions

On receipt of DAME reports and medical certificate applications, CASA will assess the medical certificate further. Possible outcomes of that assessment may include one or more of:

- No certificate action
- Modification of the duration of validity of the medical certificate under CASR 11.067
- Direction from CASA to submit to further examination (such as clinical review, tests, or scans) or to
 provide more information immediately (Request for Information) under CASR 67.230, or at renewal of the
 medical certificate (CASA Surveillance Requirement) under CASR 67.165
- Conditions placed on the medical certificate under CASR 11.056 requiring:
 - Medical surveillance and reports
 - Operational reports
 - Operational restrictions
- Suspension of the medical certificate pending further information and assessment under CASR 67.240
- Cancellation of the medical certificate, or refusal if it is a new application, under CASRs 67.180, 67.255 and/or 67.260.

DAME2s may also assess applications for Class 2 medical certificates, with outcomes as listed above with the exception of cancellation or refusal of medical certificates.

Suspension, cancellation and refusal – advice and support for DAMEs and certificate holders

"Losing" a medical certificate can be a very difficult time for a pilot or air traffic controller. In many cases the person has heard stories from peers suggesting they will "never fly again" or that it is "the end of your career." With these stories in wide circulation, many certificate-holders choose to avoid or delay seeking health care, or to withhold their health information from DAMEs or from CASA.

In reality, long-term cancellation of a medical certificate with no prospect of future certification is exceptionally rare. Data from 2022-2023 shows that less than 3 in every 1000 CASA medical certificates are cancelled or refused and unable to be issued in the foreseeable future. Even in those cases, some medical conditions such as chronic substance use disorders, complex conditions requiring long-term stabilisation, or physical debilities that require extensive rehabilitation, may ultimately have an aviation medical certificate issued in the fullness of time. If a person is well, stable, has no or minimal impairment and risks can be effectively managed with medical or operational surveillance or restrictions, some form of medical certification is usually achievable.

During this process, DAMEs have a pivotal role in making sure the pilot or controller has access to the care they need and are best able to understand and navigate the medical assessment process. DAMEs can collaborate with treating doctors, support the writing of reports that meet the CASA requirements, and liaise with the medical Specialists at CASA in performing a tailored risk assessment and decision process. By helping the person to understand the medical standards and requirements, and ensuring the required information is provided to CASA in a timely way, the DAME can assist in having the medical assessment process completed without unnecessary delays.

Pilots and air traffic controllers are also encouraged to seek help and advice from an aviation peer support organisation during this process. This support will make sure the person is provided with reliable, correct, and useful information as well as personal support to navigate this stressful period.

Indemnification of medical reporting

Health practitioners and some organisations may have concerns about the handling and passing of personal medical information about a certificate-holder or applicant to CASA.

The CASR 67.140 provides indemnification against civil or criminal liability for any health practitioner, organisation, or other entity that, in good faith, provides CASA with information regarding a person's health status. This is taken to include situations where the person or representative informs CASA that there is a safety concern relating to the health of a person who holds an aviation medical certificate or a flight crew license.

DAMEs and DAOs are also indemnified by CASA for performing their designated functions in accordance with the Regulations. For this purpose, 'an indemnified act' means any act whereby a DAME or DAO advises CASA of any concerns over the ability of a medical certificate holder or applicant to meet a required medical standard for such certification.

Obligations relating to the handling of medical information within MRS are detailed in <u>Chapter 12</u> of this Handbook.

DAME Role In Special Areas

DAMEs In Drug and Alcohol Management Plans

Aviation workers are subject to the requirements of CASR Part 99, which mandates a program of testing for alcohol and other drugs for people employed in aviation safety-sensitive roles. Aviation employers must have a Drug and Alcohol Management Plan (DAMP) which includes a requirement for specialist review if an initial positive (or "non-negative") result is returned. This is done by a Medical Review Officer (MRO), a medical practitioner who has been accredited by the Australian Medical Review Officers Association to perform this role.

If an initial test is confirmed as a non-negative, the MRO reviews the situation to determine if the non-negative result is a result of legitimate therapeutic treatment or other innocuous causes. If this is confirmed, the MRO will confirm that the result is NEGATIVE for the purposes of Part 99. For example, a non-negative result for amphetamines where the MRO confirms the pilot is taking prescribed stimulant medication for management of their sleep disorder will be determined to be a final negative result for the purpose of Part 99. In this case, the pilot will still need to ensure they are compliant with the employer's medical standards for employment, and the medical standards for their aviation medical certificate. The pilot must declare to CASA aviation medicine or a DAME that they have a safety-relevant condition (sleep disorder and use of a stimulant medication).

For the avoidance of doubt:

An initial non-negative result under CASR Part 99 is considered medically significant and must be reported to CASA aviation medicine or a DAME. In these cases, CASR 67.270 (or CASR 67.271 for student pilots) applies and the person must not use their flight crew licence.

If the result is subsequently determined to be negative by the MRO for CASR Part 99, this also does not resolve the requirement for notification to CASA aviation medicine or a DAME to determine whether the medical condition associated with the MRO's decision is safety relevant under CASR 67.270 (or 67.271 for student pilots).

If an MRO confirms a positive result for a holder of an aviation medical certificate (including RAMPC, Class 5 and Basic Class 2), that certificate-holder needs to comply with the requirements of CASR Part 99, and their employer's DAMP and employment policies, and the CASR Part 67 requirements for management of the medical condition associated with the positive DAMP/Part 99 result.

MROs are encouraged to refer aviation medical certificate-holders to a DAME for review for any initial non-negative result, regardless of the final MRO decision under Part 99.

DAMEs are a unique group of medical professionals who have a comprehensive knowledge of the aviation occupational setting as well as the principles of risk assessment in the aviation sector. DAMEs have an important role in providing expert support and advice to people who work in safety-sensitive aviation areas who are using prescription medications or illicit substances who return any non-negative result under Part 99 testing. The role of the DAME in supporting people in these circumstances includes:

- Building awareness with the pilots and controllers they have examined regarding the role of the DAME in management of non-negative and confirmed positive results
- Early and ongoing engagement with pilots and controllers who return non-negative results
- Collaboration with MRO, DAMP personnel, employer, and CASA for managing return to workplace
- Collaboration with CASA, employer, health care providers and peer support for managing return to certification.

DAMEs are also encouraged to complete the AMROA training to become MROs, to be able to have a detailed knowledge of alcohol and other drug testing and management, and to seek advice from CASA Avmed if there is any doubt about fitness for aviation duties for a pilot or controller who has returned a non-negative or positive result under CASR Part 99 provisions.

DAMEs in the Australian Defence Force

Aeromedical training provided to ADF Aviation Medical Officers (AVMOs) complies with the ICAO requirements for civilian medical examiner training and also meets the requirements for appointment as a DAME. AVMOs are encouraged by ADF to apply for DAME appointment so they can provide this service to ADF pilots and controllers, many of whom either require or desire civilian aviation medical certificates. Similarly, some DAMEs take up positions working for the ADF in clinical roles.

In either case, doctors who are DAMEs and provide care for ADF members who hold CASA aviation medical certificates must continue to observe the requirements of their CASA appointments in their ADF role. If these DAMEs are aware that an ADF member with a CASA medical certificate has a safety-relevant medical issue, the DAME is obliged to notify CASA under CASR 67.125. Notifications of this manner are indemnified acts under CASR 67.140. CASA may also request medical information from the ADF regarding pilots and controllers who hold CASA medical certificates and require certificate-holders to provide their ADF health records to CASA as part of the assessment of applications for CASA aviation medical certificates. Provision of this information is also indemnified under CASR 67.140.

End of Chapter.

3. Requirements for Appointment and Renewal of DAMEs, DAOs, and Other Credentialed Health Practitioners

Note: Chapter 8 refers to expectations regarding compliance, performance and conduct.

Qualifications required for initial appointment of DAMEs and DAOs

Aerospace medicine training or competence

Appointment as a CASA DAME under CASR 67.045 requires evidence of successful completion of one of the CASA-approved post-graduate qualification in aviation medicine (AvMed). Current approved courses are:

- Australian Certificate of Civil Aviation Medicine issued by Monash University.
- RAAF Aviation Medical Officers Course.
- Otago University Post Graduate Certificate, Diploma, Graduate Diploma or Masters of Aviation Medicine with supplementary CASA Regulatory Avmed course.
- Australasian Society of Aerospace Medicine DAME course.

CASR 67.045 also allows CASA to appoint as a DAME those medical practitioners who have demonstrated competence in aviation medicine. The decision regarding whether competence has been demonstrated, and how it is demonstrated, is a technical decision that rests with the Principal Medical Officer. Medical practitioners who seek to apply for designation under this provision would typically be expected to provide evidence such as:

- Completion of an ICAO-compliant course of study in aerospace medicine
- Completion of an academic postgraduate qualification in aerospace medicine
- Confirmation of recent, competent practice in aerospace medicine from their National Aviation Authority or other competent authority
- Demonstration of currency of skills and knowledge in aerospace medicine

Although appointment as a DAO under 67.065 does not require completion of a particular course or study program in aerospace medicine, ophthalmologists who intend to practice as DAOs are encouraged to acquire knowledge and skills in aviation ophthalmology and aeromedical decision-making to ensure they comply with the expectations of the Medical Board of Australia Code of Good Medical Practice regarding competence and scope of practice. This is aligned with the requirements of CASR 67.080 *DAOs – conditions*.

CASA-approved courses for DAOs will be advertised through CASA website and communications, and DAOs can request CASA approval of other aviation ophthalmology training on an individual basis.

Professional Registration

CASR 67.045 requires those persons designated by CASA to perform Flight Crew and Air Traffic Services medical examinations to be registered in the State or Territory of Australia, or registered or licensed in the Contracting State, in which he or she proposes to function as a DAME. This is taken to mean General Registration as a medical practitioner with AHPRA. For DAOs, the requirements of CASR 67.065 for Specialist registration are taken to mean Specialist Registration with AHPRA as an ophthalmologist.

So that DAMEs and DAOs can fully perform the functions required of their appointment, CASA requires the DAMEs and DAOs to hold full registration (not limited or provisional) with AHPRA, or for doctors in other jurisdictions, registration with the medical practitioner licensing authority of the country in which they practice as DAMEs or DAOs. Their registration must not have any conditions or restrictions on practice that may impact their ability to perform aviation medical examinations as an independent medical practitioner. If an applicant has conditional, restricted, or limited registration, the Principal Medical Officer has discretion to determine whether the applicant is eligible for appointment as a DAME or DAO.

Professional memberships

DAMEs and DAOs resident in Australia are expected to be members of the Australasian Society of Aerospace Medicine (ASAM). DAMEs whose principal place of practice is not in Australia are expected to show evidence of membership of a suitable aerospace medicine association. These memberships provide assurance to CASA that the DAMEs and DAOs can access professional development activities and a community of professional practice that is consistent with the expectations and requirements of the performance of their roles.

DAOs are expected to hold Fellowship of the Royal Australian and New Zealand College of Ophthalmology. Those DAOs who do not hold FRANZCO must demonstrate compliance with the professional performance and behaviour expectations of RANZCO Fellows.

Procedures and administration of appointment

To apply for appointment (or reappointment) as a DAME, DAO or CAAC the doctor must complete Form 755 - Application for appointment or reappointment as Designated Aviation Medical Examiner or Designated Aviation Ophthalmologist or CAAC.

The required documentation and evidence to be provided in support of the application is listed on Form 755.

The CASA Examiner Coordinator can be contacted using the aviation medical enquiries webform to advise prospective applicants on their eligibility and the application process.

All examiners who access the online medical record system must have their own ARN registered for the myCASA portal.

DAME/DAO appointment is not transferable to trainees, supervisees, locums, or successors.

Requirements for maintenance and renewal of appointment for DAMEs and DAOs

Continuing professional development

DAMEs and DAOs must complete continuing professional development (CPD) to maintain and renew DAME or DAO certification. CASA may request evidence of compliance with this requirement. If evidence is not provided CASA may suspend or cancel the DAME or DAO's designation pending provision of satisfactory evidence of compliance. Refer also to Examiner Handbook Chapter 8 – Expectations regarding compliance, performance, and conduct, and to CASR 67.095 DAMEs and DAOs - Cancellation or suspension of appointment.

Full renewal of DAME appointment for a three-year period requires:

- Six hours of approved Avmed CPD activities per year in the preceding three calendar years (1 Jan to 31 Dec in the three years prior to the year of re-application.)
 - For renewals in 2024, 2025 and 2026, the requirement is for six hours per year commencing 1 Jan 2023.

AND

- Attendance at one CASA Avmed Regulatory Update Session (held annually with the ASAM Annual Conference, and on other occasions as notified) in the three years preceding the date of application. This can be included in the six hours of CPD for the relevant year.
 - Attendance at AsMA, ICAM or ICASM may be considered on a case-by-case basis.

Interim renewal of DAME appointment for a one-year period can be considered on application, where the applicant has reasonable grounds not to have attended a CASA Avmed Update Session in the preceding three years. This will require:

- Six hours of approved Avmed CPD activities in the calendar year preceding the year of re-application AND
- Attendance at an approved aviation medicine face-to-face activity in the **12 months preceding the date of application.** This activity can be counted in the six hours of approved CPD for the 12-month period.
- DAMEs and DAOs must provide evidence of Avmed CPD compliance when applying to renew their designation. Otherwise, the application may be refused.

Full renewal of DAO appointment for a three-year period requires:

- Two hours of CPD activities relevant to DAO functions per year in the preceding three calendar years (1 January to 31 December in the three years prior to the year of re-application.)
 - For renewals in 2024, 2025 and 2026, the requirement is for two hours per year commencing 1 January 2023.

AND

Attendance at a CASA-approved aviation medicine face-to-face activity in the three years preceding
the date of application. This activity can be counted in the two hours of approved CPD for the 12-month
period.

Interim renewal of DAO appointment for a one-year period can be considered on application, where the applicant has reasonable grounds not to have attended a CASA Avmed Update Session in the preceding three years. This will require:

- Two hours of CPD activities relevant to DAO functions in the calendar year preceding the year of reapplication AND
- Attendance at an approved aviation medicine face-to-face activity in the **12 months preceding the date of application.** This activity can be counted in the two hours of approved CPD for the 12-month period.

DAMEs and DAOs must provide evidence of Avmed CPD compliance when applying to renew their designation. This evidence can be provided in the form of certificates of attendance at relevant activities, record of CPD activities from their AHPRA CPD home, or a statement of compliance detailing the CPD attendance.

Aviation experience

All designated examiners are required to be aware of the environment in which applicants for medical certification operate, and the operations they perform. CASA requires DAMEs and DAOs to maintain familiarity through regular practical experience of these conditions. As a guide, an experience or exposure to a real or simulated flight deck and/or an air traffic control tower on an annual basis is recommended. Flying as a passenger in a commercial aircraft is not considered to be a relevant aviation experience for this purpose.

Participation in these operational experiences counts as CPD for up to half of the annual compliance requirements.

Notification of change in details.

The DAME/DAO is to notify CASA promptly of any change of practice details.

Approved Aviation Medicine CPD activities

Approved aviation medicine face-to-face CPD activities:

- · Medical Review Officer (MRO) course or refresher
- · Aviation Medicine Society of Victoria meeting
- ASAM Western Australia meeting
- Aerospace Medicine Society of Aotearoa New Zealand update day
- Civil Aviation Authority New Zealand update day
- ASAM Airline day
- · ACAsM training activities
- ICASM attendance
- AsMA scientific meeting attendance
- ICAM attendance
- ACAsM Trainee examination (as candidate or examiner)
- Other PMO-approved activity by application

Approved self-directed or online aviation medicine CPD activities include:

- Examiner Grand Rounds attendance 1 hour
- Examiner Grand Rounds case presentation 3 hours
- Avmed meeting or conference presentation (includes ACAsM Trainee major project presentation) 3
 hours
- CASA Avmed online learning activities 1 hour
- CASA AvSafety Seminars and Webinars 1 hour
- RAAF AVMO CPD online activities 1 hour
- ACAsM Trainee assessment activities (CBD, Professional reflection) 1 hour per activity
- ACAsM Trainee major assignment (Research project, publication, literature review) 6 hours
- ACAsM Trainee online meetings 1 hour
- RAAF HSO online meetings 1 hour
- Other PMO-approved activity by application

Recommendations for operational aviation experience include:

- ASAM airline day
- Flight experience with flying instructor
- Observation of flight deck or simulator in 'jump seat' or control seat
- Professional activities as flight crew or operational personnel (for example, working as a doctor for an aeromedical retrieval service)
- Currency for own flight crew licence
- Visit as an observer in ATC setting
- Visit as an observer with Aviation Rescue Fire Fighting Services

Approved DAO and CO activities include any of the above with specific relevance to aviation ophthalmology and eye health assessment in the aviation setting. Approved CAAC activities include any of the above with specific relevance to aerospace medicine in their field of clinical specialty.

Requirements for reactivation of lapses appointment for DAMEs and DAOs

To reactivate a lapsed delegation, applicants must provide evidence of:

- If the applicant continues to act as a Medical Examiner for another NAA: number of medicals done for other NAAs in the preceding 3 years, and certificate of current status as a Medical Examiner for another NAA.
- If the applicant continues to work in the field of aerospace medicine: evidence of relevance of their work to civil and regulatory aeromedical practice.
- Aviation medicine (AvMed) Continued Professional Development (CPD) currency (e.g. number of hours and nature of AvMed CPD events attended in the preceding 3 years)

CASA Avmed will review the information provided and may seek further evidence such as workplace-based assessment of aeromedical competence, performance at desktop audit of medicals submitted, interview, or other requirements at CASA Avmed's discretion.

Credentialed Optometrists

Under CASR 67.180 section 2(a) CASA requires applicants for aviation medical certificates to undergo certain examinations that in CASA's opinion are necessary for their medical assessment. It is CASA's opinion that any examination of the eyes and visual system for an application for an aviation medical certificate must be performed by a DAO or CO where they are available, and CASA may issue a direction to that effect where it is considered necessary in individual cases.

COs managed by Optometry Australia are appointed on completion of the CASA-approved initial training course delivered by Optometry Australia, and maintenance of their OA appointment through compliance with the OA CPD requirements for COs. Optometrists who do not complete initial training and maintain currency through OA may apply to CASA for appointment as a CO by providing evidence of their completion of equivalent initial training and ongoing currency.

Core curriculum for initial CO qualification includes:

- Australian aviation medicine regulatory framework
- Aerospace physiology relevant to the visual system
- Visual demands of aviation operations
- Requirements of aviation eye examinations
- Clinical topics relevant to aviation medical certification
 - Visual acuity and correction
 - Visual fields
 - Colour vision
 - Contrast sensitivity
 - Binocular vision and depth perception
 - Disorders of the eye and visual system

Requirements for maintenance of CO appointment include:

- Maintenance of unrestricted registration with AHPRA as an optometrist
- Compliance with CPD requirements for AHPRA registration as an optometrist
- Completion of annual CPD activities relevant to CO aeromedical functions
- Completion of a relevant CO refresher course

The provisions for quality assurance, audit, oversight, and performance management in *Examiners Handbook Chapter 8 – Expectations regarding compliance, performance and conduct* also apply to COs. CASA may require COs to provide evidence of their completion of an initial course of study and of their compliance with the CPD requirements of their appointment. If evidence is not provided CASA may suspend or cancel the CO's appointment pending provision of satisfactory evidence of compliance.

CASA-Approved Aviation Consultants

Appointment as a CAAC is available to medical practitioners with Specialist registration with AHPRA who have completed a CASA-approved course in aviation medicine. The curriculum required for CAAC training must include:

- Australian aviation medicine regulatory framework
- · Aerospace physiology
- The aerospace environment
- Physical demands and stressors of aviation operations
- Human performance and human factors in aviation operations
- · Aeromedical risk assessment and decision-making principles

Specialists who have completed the RAAF Institute of Aviation Medicine Health Specialist Officers Course, and those who have been awarded Fellowship or Associate Fellowship of the Australasian College of Aerospace Medicine, are also eligible to apply for recognition as CAACs.

CAACs will be expected to comply with the standards of practice published by their learned medical College and the Medical Board of Australia, in addition to following the CASA Clinical Practice Guidelines. CAACs are expected to maintain currency in aerospace medicine relevant to their scope of practice by attending two hours of relevant CPD activities per annum.

Application for appointment as a CAAC is done by completing CASA form 755.

End of Chapter.

4. The Medical Examination Process for Examiners

This chapter provides information for DAMEs, DAOs, and COs regarding the requirements for performance of the medical examinations.

Related content

<u>Chapter 2</u> of this Handbook provides further information about the duties of DAMEs, DAOs, and other Credentialed aviation health professionals, in particular relating to the process of assessing the safety relevance of any findings from the medical examination. Chapter 8 of this Handbook provides details on the professional performance and behaviours expected of DAMEs, DAOs, and COs as they perform the medical examination.

Identification of applicants

The first step in performing the medical examination is to confirm that the person attending for the medical examination appointment is the person for whom the appointment has been made, and to whom the MRS file applies. The RACGP Standards for General Practice provide the following guidance for patient identification:

"Approved patient identifiers are items of information that are accepted for use to identify a patient. They include the following patient details:

- · Name (family and given names together are one identifier)
- · Date of birth.
- Gender (as identified by the patient).
- Address.
- Patient health record number where it exists.
- Individual Healthcare Identifier.

A patient's Medicare number is not an approved patient identifier, as some Australian residents and visitors do not have a Medicare number, and others may share numbers if they belong to the same family.

When asking for patient identifiers, practice team members must ask the patient to state at least three identifiers (e.g. their full name, date of birth, and address), while remaining mindful of privacy and confidentiality issues. Practice staff must ask the patient for the information, rather than provide the identifying information and then ask the patient to confirm the information.

A patient could supply government-issued photographic documentation (e.g. their drivers licence or passport) to provide information for your records and to subsequently provide one or more identifiers."

The DAME, DAO or CO is required to certify that they have formally identified each applicant (CASR 67.170) either by affirming that the person attending the appointment is known to them, or by confirming that they have viewed photographic documentation to confirm their identity. This may include the photograph and identifying information stored in the MRS file.

Applicant Aviation Reference Number

All applicants must have an Aviation Reference Number (ARN) to be able to access MyCASA and the MRS applicant questionnaire. The medical examination cannot proceed if the applicant does not have an ARN. These may be applied for on the <u>Applying for an aviation reference number</u> page.

Where possible letters, results and pathology reports should include the applicant's ARN. This assists in correct and timely uploading of the document to the MRS file and provides a further means of identifying the person to whom the document refers.

Performing the medical examination

Every medical certificate applicant must undergo a medical examination at each application, whether initial or renewal. Under CASR 67.180 section 2(a) CASA requires the examination to include:

- Medical examination performed by a Designated Aviation Medical Examiner, and
- At the intervals specified in this Handbook, an aviation eye examination performed by a designated Aviation Ophthalmologist or a Credentialed Optometrist.

CASA may also require other examinations based on the individual applicant's circumstances.

This section of the Handbook details the components of the medical examination and the eye examination and how they are to be completed. This includes all the elements where clinical information is gathered from the applicant and by the medical examiner performing the clinical history-taking and physical examination (including office or bedside tests).

For medical examinations, these are separated within MRS into the following sections:

- Applicant questionnaire
- Medical examination
- Clinical examination

The applicant questionnaire (for DAMEs)

Before attending for their medical examination appointment, the applicant must complete the Applicant Questionnaire in MRS. The majority of applicants are aware of this requirement, however initial applicants in particular may not complete this requirement. DAMEs are encouraged to confirm with the applicant that they are aware of this requirement before the appointment date to avoid delays.

The applicant provides health information in the following categories:

- Medical diagnoses
- · Ongoing symptoms or problems
- · Tests and scans
- Visits to health care professionals and services
- Procedures and hospitalisations
- Family history of significant health issues

If the questionnaire is being completed for the first time, the applicant must enter all information relating to their lifetime.

If the questionnaire is being completed as a renewal, the information relates to the period *since their last medical examination*. DAMEs can access the historical information from previous applications by reviewing the previous applications in the Document Tree, or by clicking on the "i" icon next to the question. Previous positive responses will also have been reviewed by previous DAMEs in the Problem Mapping and Findings list. It is important that DAMEs review previous medicals to ensure that ongoing or chronic diseases are reviewed and any surveillance requirements (such as tests for the stability or severity of the disease) are completed. If DAMEs do not complete this task, the applicant will experience delays while CASA seeks the relevant information. Please refer to Chapter 12 for more information.

Applicants are required to give complete and accurate responses to all questions. The DAME is expected to review the applicant's answer to the medical history questions in the medical assessment report, in conjunction with the applicant. They must ensure that the applicant understands each such question. The DAME must seek sufficient information to determine the safety-relevance of a positive response from the applicant. The DAME must provide further clinical details on the medical issue and its safety-relevance with the relevant entry in the MRS questionnaire and in the Findings and Problem Mapping section of MRS.

In the event that the DAME answers or amends the applicant questions on the form, it is essential that the applicant confirms that the information entered by the DAME is accurate. The applicant retains responsibility for the responses, as verified through the applicant declaration, regardless of whether the information is entered by the applicant or the DAME.

The Medical Examination

This tab in MRS is for the DAME to ask a series of focused questions about the applicant's medical history. For all medical examinations, CASA requires that the DAME personally ask the applicant the questions in the 'Examination' tab of the application, then personally records the answers given. This allows the DAME to assess the applicant's understanding of the questions and to provide any necessary explanations.

CASA similarly requires that the DAO/CO personally ask the applicant the questions in the medical history section of the eye assessment report, and personally record the answers given. This allows the DAO/CO to assess the applicant's understanding of the questions and to provide any necessary explanations.

The Clinical Examination

This section of MRS is where the medical examiner records their clinical findings.

The DAME, DAO or CO must personally perform the physical examination for each applicant presenting for examination and record the results in the medical assessment report or eye examination report. The clinical examination relies on the knowledge and skills of a medical practitioner or eye examiner to determine what elements of the physical examination need to be performed, guided by the applicant questionnaire, current and previous medical history and diagnoses, and their clinical assessment of whether a medically significant or safety relevant condition is likely to be present.

CASA does not specify the specific technique or content of the clinical examination that must be performed by the DAME, DAO, or CO (except where measurements or specific data are required). This is at the discretion of the individual clinician. CASA requires the DAME, DAO, or CO to perform a clinical examination that is sufficient to identify the presence or confirm the absence of abnormalities that may be medically significant or safety-relevant, for each of the items in the MRS document. This examination should be performed with regard to the expectations of the Medical Board of Australia Code of Good Medical Practice and the AMA Code of Conduct, and the DAME, DAO, or CO's relevant specialist professional body.

Further Clinical Information and Referrals

The Examiner is to perform or arrange for any investigations or specialist assessments that are necessary for the Examiner to determine the safety-relevance of any clinical findings, and for CASA to determine whether the applicant meets the medical standard for the Class of medical certificate sought. Notification of tests and reports which have been arranged should be included in the appropriate question at the end of the medical examination, as well as in the problem mapping for the finding about which further information is being sought.

The CASA Clinical Practice Guidelines (CPGs) and Aeromedical Decision Guides (ADGs) describe how CASA expects Examiners to approach the gathering and interpretation of clinical information during aviation medical examinations. Where a CPG or ADG is published for a medical condition or clinical situation, Examiners are required to follow the CPG or ADG. CASA acknowledges that CPGs and ADGs are not available for every medical condition, and individual circumstances for certificate applicants may not match the common clinical features of diseases. Where a CPG or ADG is not available, or an Examiner determines that the CPG or ADG should not be followed in an individual's situation, the Examiner must provide information about the reasoning for their aeromedical decision and/or deviation. If the DAME does not provide this information at the time of the examination, there will likely be delays in certificate decisions as CASA needs to seek this information.

Relevant information used for making medical certification decisions must be recorded in MRS in all cases where a DAME2 has issued a medical certificate, or a DAME has extended the validity of a medical certificate and there is a safety-relevant medical condition present.

Referrals to other health care providers should not seek an opinion about whether the applicant meets the CASR medical standard or is "fit to fly/control." That decision rests in law with CASA, and its delegates. Referrals should specify the clinical information and assessment that is required from the specialist, with reference to the CPG for that condition if one is available. Examiners should consider copying the CPG or CASA Surveillance Letter items into the specialist referral letter to ensure the required information is provided. The referral should result in the provision of clinical information which will be used for the CASA (or delegate) to make a decision about whether the standard is met and/or a medical certificate can be issued.

Where a form or guideline is available (for example, headache assessment form or CASA requirements for cardiac stress testing) it should be included with the referral.

Once the Examiner has received and reviewed all relevant investigations and reports concerning the applicant, these must be uploaded to MRS. If a safety-relevant finding is identified, the Examiner must notify CASA as soon as practicable, and in all cases within five (5) days as required in CASR Part 67.125.

Further information on decisions and reporting of safety relevance are provided in Chapter 3 of this Handbook.

Non-completion of Medical Applications

Where an applicant fails to return for follow up, or completion of the Examiner's process is delayed for more than one month beyond the date of the applicant's attendance, the DAME should forward to CASA advice of the situation and upload any reports available and advise CASA by secure messaging in MRS.

If the Examiner decides not to proceed with completion of the medical examination, including where the Examiner chooses to end the DAME-applicant relationship, the Examiner should inform CASA of the situation. This is particularly important where the Examiner has concerns about the conduct or behaviour of the applicant.

Declaration And Consent

When submitting an application for a medical certificate, the applicant is required to complete an online declaration concerning the accuracy and completeness of the information they have provided. This declaration also includes consent for the release of medical information. Examiners must inform each applicant of the possible legal consequences of a deliberate false or misleading statement made with the intention of obtaining a medical certificate and ensure applicants have read and understood the declaration and consent form prior to electronically signing it.

The aviation safety system depends on applicants for medical certificates to honestly and truthfully answer all questions posed of them by CASA, and on DAMEs, DAOs, and COs to diligently comply with the regulatory requirements. CASA promotes a 'just reporting culture' but this does not protect persons who recklessly or intentionally make false or misleading statements to CASA. Pilots and controllers with undisclosed safety-relevant conditions present a hazard to others and themselves. Additionally, they may attract additional legal and insurance liabilities, should an accident occur.

A false or misleading statement with respect to a medical certificate is an offence punishable by up to 12 months imprisonment under the Criminal Code, section 137.1. In addition, an applicant commits an offence if they knowingly or recklessly make a false or misleading statement in relation to the application for the Medical Certificate. In this situation, CASA is prevented by CASR 67.180 from issuing a Medical Certificate and DAMEs or CASA may refuse to issue the certificate.

Findings And Problem Mapping

Where a response in MRS by the applicant or DAME is medically significant, a "Finding" is generated in MRS. DAMEs are required to map each of those findings to a clinical "problem" or diagnosis. For example, where the applicant responds "yes" to the question about pain lasting more than seven days, a "finding" is generated for that response. After taking a history and performing an examination as needed, the DAME establishes this is due to a diagnosis of osteoarthritis. The DAME adds the problem "Osteoarthritis" in the problem mapping section of MRS and maps the finding about pain to that problem.

Examiners have a responsibility to assist CASA to form an aeromedical opinion that is consistent with the requirements in CASR Part 67 about whether the medical standard is met. If the medical standard is not met, the Examiner must also form an opinion about whether that means there is a hazard to safe air navigation. The DAME must also determine whether the findings or clinical issue is safety relevant and requires action. More detail on the principles of the medical assessment and approach to aeromedical risk assessment is provided in Chapter 2.

Submitting The Medical Examination

DAMEs must submit the medical examination to CASA as soon as the examination has been completed, and in all cases within 30 days of the applicant attending for their examination. This 30-day period allows the DAME a reasonable amount of time to obtain further information (such as test results and specialist reports). If the delay is likely to be more than 30 days, the DAME should submit the medical examination to CASA and include details of the kind of further information that has been sought. DAMEs are expected to provide any additional information or reports to CASA within five working days of receipt.

DAMEs are reminded that, regardless of the timing of submission of a medical application in MRS, they must notify CASA of any safety-relevant medical issues within five days.

CASA will send a reminder to DAMEs if medical examinations remain unsubmitted for more than six weeks after the examination appointment. Ongoing or recurrent delays in submitting and completing medical examinations may lead to a review of the DAME's appointment.

Additional reports and test results should be entered directly into MRS, where appropriate (e.g. glucose and lipids) or uploaded electronically into the applicant's file. DAMEs should take care to ensure their uploaded reports are correctly labelled or identified, to avoid certification delays due to reports being missed or misfiled.

Reporting of Safety Relevant Medical Conditions

If the holder of a medical certificate tells a DAME or DAO about a medical condition that is safety-relevant, then the DAME or DAO must inform CASA of the condition within five working days (CASR 67.125 refers), even if they are not yet ready to submit the medical examination for assessment. If the examination of the eyes and visual system is being performed by a Credentialed Optometrist, they are also required to report safety-relevant findings to CASA within five working days.

A medically significant condition is safety-relevant if it reduces, or is likely to reduce, a person's ability to exercise the privilege of the licence they hold or have applied for. Chapter 2 of this Handbook provides detailed information regarding determination of safety-relevance and requirements for reporting of safety-relevant conditions.

End of Chapter.

5. Administration of Medical Certificates

Classes of Medical Certificates for License Types

Aircrew and air traffic services licences are issued to applicants who have met the relevant technical and theoretical standards. Once a licence is issued, it continues in effect indefinitely unless suspended or cancelled. In general, a valid medical certificate appropriate for the class of licence must be held for the licence holder to legally exercise the privileges of the licence.

CASA also has authorised a Recreational Aviation Medical Practitioners Certificate (RAMPC) under CASR Part 61 and CASR Subpart 67.D *Modified Austroads Medical Standards*. The RAMPC is a medical certificate that is issued by a Medical Practitioner who does not need to be a DAME. The applicant completes the applicant questionnaire section of CASA Form 166 and then undergoes examination and assessment by a Medical Practitioner. If the applicant meets the *Modified Austroads Medical Standards* as specified in CASR Subpart 67.D the Medical Practitioner completes the relevant section of CASA Form 166 and submits that to CASA Flight Crew Licensing (FCL) section. More information on the RAMPC process is available here.

The medical standards for Class 1 (commercial and air transport pilots), Class 2 (private pilots), Class 3 (air traffic controllers) which are aligned with the ICAO medical certificate classes, and the Recreational Aviation Medical Practitioners Certificate are detailed in CASR Part 67.

There are two further medical standards for private and recreational pilots that have been authorised by CASA which are not included in CASR Part 67. These are the Basic Class 2 medical exemption and the Class 5 medical self-declaration.

Pilots flying with a Private Pilot License are exempt from holding a Class 2 aviation medical certificate for certain flying operations where they have been assessed by a Medical Practitioner as meeting the Austroads unconditional commercial driver's license standard.

This is authorised by CASA EX86/24 – Medical Certification (Private Pilot Licence Holders with Basic Class 2 Medical Certificate) (CASA EX49/24 – Repeal Date) Amendment Instrument 2024.

These pilots complete an application through the MRS and undergo an examination and assessment by a Medical Practitioner using CASA forms 1473 (applicant questionnaire), 1474 (medical practitioner fitness report) and 1475 (medical practitioner clinical assessment record). More information on the Basic Class 2 exemption process is available here.

In 2024 CASA authorised a Class 5 medical self-declaration through the Instrument CASA EX01/24 — Flight Crew Medical Status (Class 5 Medical Self-declaration) Exemption 2024. The Class 5 process allows certain private and recreational pilots to fly within defined operational limitations without a Class 2 aviation medical certificate, after completing mandatory training and self-assessing their medical fitness. More information on the Class 5 medical self-declaration process is available here.

The medical standards and certification requirements that apply for each license are detailed below:

Licence	Class 1	Class 2	RAMPC	Basic Class 2	Class 5
Recreational pilot licence (aeroplane)	Applies	Applies	Applies	Applies	Applies
Recreational pilot licence (helicopter)	Applies	Applies	Applies	Applies	Applies
Private pilot licence (aeroplane)	Applies	Applies	Applies ¹	Applies ²	Applies ³
Private pilot licence (helicopter)	Applies	Applies	Applies ¹	Applies ²	Applies ³
Commercial pilot licence (aeroplane)	Applies	Applies ⁴	Does not apply	Does not apply	Does not apply
Commercial pilot licence (helicopter)	Applies	Applies ⁴	Does not apply	Does not apply	Does not apply
Multicrew pilot licence	Applies	Does not apply	Does not apply	Does not apply	Does not apply
Air transport pilot licence (aeroplane)	Applies	Does not apply	Does not apply	Does not apply	Does not apply
Air transport pilot licence (helicopter)	Applies	Does not apply	Does not apply	Does not apply	Does not apply

¹Holders of a RAMPC can exercise the privileges of the PPL under the operational limitations of the RAMPC unless the holder has a Class 1 or 2 medical certificate

²CASA EX11/25 - Can exercise the privileges of the PPL under the operational limitations of the Basic Class 2 medical certificate unless the holder has a Class 1 or 2 medical certificate

³CASA EX01/24 - Can exercise the privileges of the PPL under the operational limitations of the Class 5 unless the holder has a Class 1 or 2 medical certificate

⁴CASA EX 32/24 - Part 7 - Foreign cadet pilots (medical certificate for CPL flights

Validity Periods of Medical Certificate

Classes of medical certificates and their duration of validity

Medical certificate has a maximum validity period one year. For air transport pilot licence (ATPL) holders who are 60 years and over, the maximum validity period is six months. (Refer to Chapter 6 of this Handbook for special reports and periodic tests required for medical certification for CPLs and ATPLs.)

Medical certificate has a maximum validity period of four years for applicants less than 40 years of age on the day of issue, and in all other cases for two years.

Medical certificate has a maximum validity period of two years.

- Pilots aged between 16 and 39 a validity period of 5 years.
- Pilots aged between 40 and 74 a validity period of 2 years.
- Pilots aged between 16 and 74 with a conditional private driver's licence a validity period of 2 years.
- Pilots aged 75 years and over a validity period of 1 year.

Medical certificate has a maximum validity period of four years for applicants less than 40 years of age on the day of issue, and in all other cases for two years.

- Under 65 years: 2 years
- Over 65: Every year

Expiry Dates, Extensions And Renewals

Expiry Dates

Medical certificates expire on the same date (day and month) as the medical examination was performed and at the specified yearly interval unless the medical examination for the new application is completed more than 28 days prior to this expiry date. In that case, the new medical certificate will expire on the same date (day and month) as the new medical examination at the specified yearly interval. This 28-day requirement also applies to the extended medical certificate expiry date provided by the DAME.

- **Example 1**: Class 1 Medical certificate expires 30 September 2018. Person completes medical exam 14 September 2018. New CASA-issued certificate expires 30 September 2019.
- **Example 2**: Class 1 Medical certificate expires 30 September 2018. Person completes medical exam 28 August 2018. New CASA-issued certificate expires 28 August 2019.

Extensions And Renewals

In most circumstances, DAMEs can extend the validity period of a medical certificate beyond the duration detailed in Table 5.1 above for Class 1, 2 and 3 medical certificates. This extension, also referred to as a "revalidation," can be done only once and only for a period of **two** months.

Example 3: Class 1 Medical certificate expires 30 September 2018. Person completes medical exam 14 September 2018. DAME extension expires 30 January 2019.

DAMEs can also renew a medical certificate that has been expired for no more than three months. This renewal can only be made for **two** months. The new expiry date is also subject to consideration of the timing of the aviation medical examination relative to the expiry date of the current certificate, as detailed above.

Example 4: Class 1 Medical certificate expires 30 September 2018. Person completes medical exam 14 November 2018. DAME renewal expires 14 January 2019.

In some cases, the new expiry date at the end of the fourth calendar month (for extension) or the second calendar month (for renewal) does not align with the current expiry date. In those cases, the new expiry date will be at the end of the relevant calendar month. For example: an expiry on 31 December can be extended by a DAME to 30 April in the following year.

Authority To Issue, Renew, Modify And Manage Aviation Medical Certificates

This section details the powers and authorities that can be exercised in relation to aviation medical certificates under the CASRs, including by relevant delegations, by CASA and DAMEs.

CASA

The ultimate authority for issuance of authorisations for civil aviation in Australia is the CASA Director of Aviation Safety. The DAS' authority to issue aviation medical certificates is delegated to certain officers of CASA under the CASRs. This delegation allows the decision to be made by or on the direct advice from the most technically qualified officers of CASA. The delegations of authority are detailed in the CASA Instrument - Delegation and Appointment for Powers under CASRs, which is reviewed and updated regularly.

The delegations for CASA officers include powers to:

- Issue.
- Refuse.
- Suspend.
- Cancel.
- Impose restrictions for operations.
- Impose restrictions for medical surveillance.
- Direct certificate applicants and holders to undergo further medical assessments.
- Extend certificate validity periods.
- Modify the validity period/expiry date for eligible certificates.

All medical certificates issued by CASA are issued with the signature of the Principal Medical Officer, regardless of which delegated officer has performed the assessment and decision regarding an individual aviation medical certificate.

DAMEs

DAMEs have authority to issue medical certificates in two circumstances. DAMEs are not obliged to make a decision to issue, renew or extend a medical certificate even when they are authorised to do so but may instead choose to refer the application to CASA.

Firstly, DAMEs can issue medical certificates with a 2-month validity period where the previous medical certificate has expired less than three months before the medical examination. Details on this role for DAMEs are provided in paragraph 5.3.2 above.

Secondly, DAMEs can issue Class 2 medical certificates under the DAME2 Delegation. Details of this delegation are provided in Section 12 of this Handbook, and information about the process of assessment and issuance of medical certificates by DAMEs under the DAME2 delegation is provided in Section 10 of this Handbook.

Conditional Medical Certificates

Medical certificates, whether electronic ("pdf" file or accessed through other electronic systems) or printed, is a legal document.

A medical certificate confirms:

- the class of medical certificate held*
- the validity dates of each medical certificate
- conditions imposed on the medical certificate (see list below)
- a note if the certificate does not comply with the requirements of ICAO Annex 1 Chapter 6 (and which ICAO Standard is not met)
- a note if the holder of the medical certificate does not meet the relevant medical standard

All Classes of medical certificate held are listed on a single document, rather than a separate document being generated for each Class of medical certificate.

The terms "condition," "restriction" and "endorsement" carry different meanings and can sometimes be used interchangeably in various documents and settings. In general, for aviation medical certificates these terms are used describe the situation where a medical certificate is issued but the holder must comply with certain requirements for the medical certificate to be valid, or the holder is not permitted to perform certain flight activities while relying on that medical certificate for their license. The correct term under CASR Part 11 and CASR Part 67 for this purpose is "conditions."

In other Parts of the CASR, "endorsement" refers to flight activities that are authorised for a license-holder once they have met an additional requirement. For example, an aerobatics flight activity endorsement on a flight crew license will be applied when the pilot has met the requirements specified in Table 61.1145 of Part 61 of CASRs. The endorsement authorises the pilot to conduct aerobatic manoeuvres in an aeroplane above 3000ft AGL.

The word "restriction" is not used in the CASRs in relation to authorisations including medical certificates.

A medical certificate issued to an applicant who does not meet the medical standard specified in CASR Part 67 is issued based on an assessment (called an Accredited Medical Conclusion) that the person's medical problems do not present a hazard to safety of air navigation. Their certificate is issued subject to a "condition" under CASR Part 11 (regulations 11.056 and 11.067), where the condition describes any additional requirements or considerations that mean that their medical status is acceptable despite the standard not being met. The principle being applied is sometimes referred to as the "Flexibility Provisions" of ICAO Annex 1 Chapter 6.

CASR 67.180(8) states that a medical certificate issued to an applicant who does not meet the relevant medical standard for the issue of the certificate, or to whom subparagraph (2)(f)(ii) applies, must bear a note of that fact. This means that anybody who does not meet the regulatory standard and is assessed under flexibility must have this note on the medical certificate—'Holder does not meet the relevant medical standard'.

Conditions must be noted on the medical certificate. Where potentially sensitive medical information is involved, CASA (or DAME2s) may elect to provide a letter to the applicant stating the condition, but they must reference the dated letter on the medical certificate. For example, the medical certificate states "conditional certificate subject to the requirements stated in CASA/DAME Dr X letter dated dd.mm.yyyy."

A range of "conditional certificate" letter templates are available, including grounding advice and clearances to exercise the privileges of their licence to which their medical certificate(s) relate. It is strongly recommended that DAMEs use the supplied templates for communicating with the pilot or controller. This ensures the advice is clearly communicated and simultaneously updates CASA about the medical condition.

Details of the medical condition, treatment and supporting documentation must be uploaded with the notification.

"Show Cause" Process For Medical Certificate Conditions

When medical certificates are intended to be issued subject to conditions, CASA must offer certificate-holders and applicants the opportunity to 'show cause' why a particular condition should not be applied to their certificate. The intention to issue a conditional certificate and the 'show cause' advice is provided in a letter to the applicant. This is a requirement of CASR 11.067.

DAME2s intending to issue a Class 2 medical certificate subject to conditions (other than for visual correction for refractive error) must also provide advise the applicant in writing and provide them with an opportunity to 'show cause' regarding the proposed condition.

CASA has determined that a "show cause" period of 30 days provides a reasonable opportunity for the applicant or certificate-holder to respond. This can be varied on request to CASA by the applicant and will be considered on a case-by-case basis. Variations to the show cause period would typically be approved when due to delays outside the applicant's control. These include delays in accessing health care or specialist services, but not where the applicant has not made reasonable efforts to access that health care. Multiple extensions to show-cause periods would not usually be approved unless exceptional circumstances apply.

Frequently Used Conditions For Medical Certificates

1. Renew By CASA Only

The medical application must be referred to CASA to assess and issue the medical certificate. A designated aviation medicine examiner (DAME) cannot re-validate the medical certificate themselves, even if they are eligible to exercise the DAME2 delegation for Class 2 aviation medical certificates.

2. Distance Vision Correction Must Be Worn Whilst Exercising The Privileges Of The License

This is applied when the applicant does not meet the distance vision standard without wearing corrective lenses.

You must carry 2 pairs of corrections, one which is worn throughout the flight, and one which is immediately available if the worn corrections fail ("standby correction"). Part 67 requires the standby visual correction to be **spectacles** in all cases. This means you must either:

- wear contact lenses and carry one spare pair of glasses, or
- wear one pair of glasses and carry one spare pair of glasses.

3. Not Valid for mustering or agricultural flying

The condition means the pilot is not permitted to perform agricultural operations such as aerial application and spraying and is not permitted to perform mustering operations.

These operations are characterised by flying at low levels and performing manoeuvres that are highly agile such as tight turns. These operations put additional stress on the visual vestibular and cardiovascular systems, and any disease or treatment that impairs the function of these physiological systems may not be compatible with performing these operations safely.

4. For CASA Audit

In some cases, CASA may require closer surveillance or "audit" of a medical certificate by requiring additional test or review during the period of certificate validity.

This is covered in more detail below in 'CASA Surveillance Requirements.'

5. Not Valid for ATPL Operations

This restriction applies to Class 1 medical certificates, where the pilot meets CASR Part 67 standard or has been determined to be safe for medical certification for an Australian commercial pilot's licence (CPL) but not for an air transport pilots licence (ATPL).

This would usually be the required where the ICAO Annex 1 Chapter 6 medical standard for ATPL is not met.

6. Not Valid for Rotary Wing Operations

This condition means the pilot is not permitted to use the certificate for flying rotary wing aircraft.

Operation of rotary wing aircraft, particularly close to the ground, place unique demands on the bodily systems that orientate a pilot in space. Usually this is applied where there is a medical condition that impairs the function of the visual system or the orientation (vestibular) system. The flight control systems for rotary wing aircraft also typically do not allow a pilot to take medical actions in-flight to manage an acute symptom or medical issue. Medical conditions that require the pilot to perform medical tasks, whether routinely or unexpectedly, may not be compatible with rotary wing operations.

7. Holder To Fly As Or With A Qualified Co-Pilot (Class 1) And Holder To Fly With Safety Pilot (Class 2)

This condition is applied where the medical risk assessment has determined that the presence of second qualified and unrestricted pilot occupying a control seat will reduce consequence of the certificate-holder experiencing incapacity or impairment while flying. If the flying pilot is impaired or incapacitated, the co-pilot or safety pilot can provide input, advice and/or take over control of the aircraft, reducing the likelihood of a safety occurrence or accident. The Class 1 condition is also referred to as "operational multicrew limitation".

These conditions are especially important in providing opportunity to return to or continue flying when they would otherwise not be eligible.

The different risk environments for commercial aviation and private/recreational aviation mean that some pilots may have an operational multicrew limitation for their Class 1, and no condition on their Class 2 medical certificate.

When a Class 1 or Class 2 medical certificate carries these conditions, all of the following apply:

- The holder is restricted to operating either as or with a qualified co-pilot while exercising the privileges of the licence validated by the medical certificate.
- · Aircraft requirements:
 - the aircraft flown must be configured with side-by-side seating in the cockpit.
 - the aircraft being flown must have a full set of dual flying controls.
- Certificate holder must:
 - wear a shoulder restraint harness at all times when occupying a control seat.
 - be prepared to relinquish command or control of the aircraft at the onset of any incapacity.
 - ensure that the other pilot has is aware of the requirements of them as the safety/co-pilot.
- Other pilots must:
 - occupy a control seat, except for short absences (absences only in the cruise with the autopilot engaged)
 - be endorsed and current on the aircraft type being flown.
 - be appropriately rated for the in-flight conditions.
 - have a medical certificate not restricted to multi-crew flight operations.
 - be aware of the type of incapacity the pilot may suffer in flight.
 - be prepared to take over the aircraft controls during critical phases of flight.
 - be competent and capable of concluding the flight safely from the control seat.

This condition does not preclude the medical certificate holder from being left on the flight deck alone in a 2-pilot operation or preclude the conditional medical certificate holder from operating as a single pilot on a flight deck should the other pilot become incapacitated.

8. Headset Must Be Worn Whilst Exercising The Privileges Of This License

The pilot or controller must always wear a headset whilst exercising the privileges of their license. This is usually applied where there is a hearing impairment, and an operational check has determined that the use of a headset means that the certificate-holder can hear and understand safety-relevant auditory communications, warnings, and cues.

9. Special Conditions

This condition is used where a licence-holder requires a unique or less common condition on their medical certificate. There are a number of special conditions that may be applied in response to a pilot's unique medical and functional situation. For example, AvMed may work with flight crew licencing to issue medical certificates and licences that are conditional for use in a particular aircraft or operations for a person with a physical disability. Other common special conditions include:

Restricted in Accordance With CASA (Or DAME) Letter Dated [dd/mmm/yyyy]

This condition is applied when it is inappropriate to specify fully the conditions or compliance requirements on the medical certificate document. This may include:

- the number and type of conditions for the certificate and permitted operations are too many or complex to list on the certificate document, or
- listing the conditions on the medical certificate document may breach the rights to privacy of the certificate-holder.

The letter that accompanies the certificate will define the special condition and/or compliance requirements in detail.

• Must Use CPAP Or Sleep Device In The Sleep Period Immediately Preceding Flight Or Duty

This condition is applied when a pilot or ATC is being treated for sleep disorder using CPAP or other sleep management device. If the sleep management device is not used, the person is more likely to experience the impairments resulting from their sleep disorder. These impairments are safety-relevant and therefore not compatible with safe aviation.

More information can be found in the CPG – Sleep Apnoea.

10. Holder does not fully meet requirements of ICAO Convention Chapter 6 of Annex 1 (refer to relevant section if applicable).

This condition applies if you have failed to meet the standards specified in the ICAO Standards for Flight Crew Licensing. ICAO requires this note to be included in all medical certificates where this is the case.

11. Reading correction to be available while exercising the privileges of this license

Near vision, or reading vision, corrective lenses must be immediately available whilst exercising the privileges of the license. This is because the applicant does not meet the intermediate or near vision standard without wearing corrective lenses. They may not need to wear the glasses throughout flight, but they must be able to put them on immediately if necessary.

You must carry 2 pairs of corrections, one which is worn throughout the flight, and one which is immediately available if the primary correction fails ("standby correction"). Part 67 requires the standby visual correction to be **spectacles** in all cases. This means you must either:

- wear contact lenses and carry one spare pair of glasses, or
- wear one pair of glasses and carry one spare pair of glasses.

12. Must not fly within 24 hours of venesection/immunotherapy

Venesection is a treatment where around half a litre of blood is removed from the body. This is commonly done for blood conditions such as haemochromatosis, or in some cases of polycythaemia. This is also the process for donating blood at the Blood Bank.

The effect of reduced total blood volume and total red cell count increases the pilot's risk of hypoxia and of reduced G-tolerance. People can also have low blood pressure and may become more easily tired or have difficulty with concentration, vigilance, and cognitive function. It takes around 24 hours for healthy people to restore their circulating volume and red cell count.

Immunotherapy is used to manage a person's allergic reactions. A small amount of the allergenic material is injected to reduce the person's sensitivity to larger exposures. There is an unacceptable risk of impairing or incapacitating symptoms in the 24 hours after immunotherapy exposure.

13. Must Only exercise privileges of ATC licence when another person is on duty and able to implement risk mitigation in case of incapacitation

This condition is also referred to as a "Class 3 proximity requirement."

When a Class 3 medical certificate is endorsed with this condition, the certificate-holder is required to inform their employer of the nature and extent of his/her medical impairment, and to co-operate in establishing mitigation strategies to minimise the effect of this impairment. These strategies may include:

- special roster or shift arraignments.
- · specified meal breaks, or
- · guaranteed access to prescribed facilities.

There must be at all times be present another licenced air traffic controller (who must themselves not have a proximity condition on their Class 3 certificate) who is aware of the holder's impairment and able to immediately assume the holder's air traffic management duties should the holder experience impairment or incapacitation.

14. Not Valid for aerobatic flight

Aerobatic manoeuvres has higher levels of physiological stress or demand (in particular spatial orientation, vestibular function, visual function, cognitive function, and G tolerance). This condition is usually applied where a pilot has a higher likelihood of experiencing spatial disorientation, has limitations on their visual function or visual field, may have impaired G-tolerance, or may have impairment of cognitive function.

15. Not Valid for night operations

This condition means the pilot may only fly during daylight hours and under visual flight rules. This condition is typically applied where there is a medical issue that may impair the ability of the pilot to perform more complex tasks in more challenging environments, that therefore have a high cognitive demand.

This condition may be applied where there is an eye disease that may cause issues with visual function and performance in low light conditions or where there are high-intensity single points of light. Issues with contrast sensitivity, glare and haloes from environmental lights and aviation lights or beacons in night environments.

16. Must carry short acting bronchodilator

This condition is used where a person has a current diagnosis of asthma or other respiratory disease, and they may experience an unpredictable episode of bronchospasm (an asthma attack). The breathing environment in the aircraft cockpit contains multiple potential triggers for these episodes, including cold air, dry air, and smoke/fumes. Immediate access to inhaled short-acting bronchodilator is required to maintain adequate respiratory function and allow the pilot to safely operate the aircraft.

If a pilot experiences an acute respiratory event in-flight that requires them to use their bronchodilator this is considered to be a medical incident. The pilot should land as soon as practicable and report the event as an in-flight medical incident to the ATSB. More information can be found in the CPG – Asthma.

17. For flight in daytime, valid for passenger operations with operational multicrew restriction with a non-colour-deficient flight crew member

This condition is applied where the pilot has not passed one of the required colour vision assessments and therefore does not meet the CASA medical standard for colour vision.

18. Does not comply with ICAO 6.2.4.4

This condition is applied where the pilot has not passed one of the required colour vision assessments and therefore does not meet the ICAO medical standard for colour vision.

CASA Surveillance Requirements

Certificates that are subject to surveillance requirements are not conditional in terms of operational limitations. Rather, the presence of a medical diagnosis or issue means that CASA will review the status of the medical concern to ensure that there is no hazard to safe air navigation as a result of the medical issue.

A new medical certificate will only be issued after all required reports have been received and the medical application and information has been reviewed by a CASA medical officer (or the DAME2 for Class 2 certificates).

The surveillance requirements that apply to this certificate will be advised by CASA (or the DAME2) in a letter to the applicant. The requirements will usually include medical reports and / or test results at specific intervals.

Applicants who hold a certificate with this restriction are encouraged to plan for and book appointments with their DAME or usual doctor well in advance of the expiry of the current medical certificate. At the time of booking with the DAME, the DAME can also confirm the routine and special testing required either by checking in MRS for "required reports," reviewing the periodic testing requirements detailed in Section 6 of this Handbook, and asking the applicant to provide the DAME with a copy of any "CSR" letter the applicant received with or since their last medical certificate. When booking the appointments, the applicant should consider:

- the potential waiting time for specialist reports and tests.
- make sure that your appointments all fit in this timeframe.
- Specialist reports can be done up to 3 months in advance of the medical examination with your DAME.

Refer to Chapter 6 of this Handbook for details of the timing and validity of additional tests and reports.

Ideally, all the required reports and tests are available when the DAME performs their assessment. The DAME can then make a recommendation regarding safety relevance, which in many cases may lead to faster certification by CASA. If reports are not available, for eligible applicants the DAME may still revalidate the certificate for up to two months duration to allow time for reports to be provided and for CASA to assess the certificate.

Temporarily Medically Unfit For Aviation

Where a certificate-holder has been temporarily unfit due to a **medically significant** issue, before resuming the exercise of privileges under the licence, the certificate-holder must obtain confirmation of return to fitness from a DAME, as follows:

- for a Class 1 medical certificate holder, where the medically significant condition has been present for longer than seven days.
- for a Class 2 medical certificate holder, where the medically significant condition has been present for longer than 30 days.
- for the Basic Class 2 medical exemption, where the medically significant condition has been present for longer than 30 days.
- for a Class 3 medical certificate holder, where the medically significant condition has been present for longer than 30 days.
- for a RAMPC holder, there is no mandated reporting period however they must see a DAME for clearance to return to flying if they have experienced a safety-relevant medical issue.
- for a pilot flying with a Class 5 medical self-declaration, their declaration is invalid if a safety-relevant issue has been present for more than 60 days. They must also notify CASA of any change in medical status that impacts their eligibility for Class 5 within 30 days.

The DAME must satisfy themselves that the applicant has recovered from the illness, injury or other medically significant condition and meets the required medical standard for exercise of the privileges of any licence held. Clinical Practice Guidelines, where available, must be considered (refer to Section 7 of this Handbook). Sections 2 and 4 of this Handbook for more information on the principles of aviation risk assessment, determinations of safety relevance and DAME obligations for clearance of pilots and controllers with medically significant issues.

Minor self-limiting health condition or symptom are not considered to be "medically significant' for the reporting requirements of CASR 67.265 and clearance requirements of 67.260 (or 67.261 for students). Common examples of non-medically significant issues include the following:

- influenza, coryza, other mild viral upper respiratory tract infection
- post-infective cough
- sinusitis
- occasional, mild headaches (not migraines)
- uncomplicated urinary tract infection
- gastroenteritis
- uncomplicated haemorrhoid(s)
- mild seasonal/transient allergies
- minor soft tissue injuries, muscular or joint pain without ongoing pain or loss of function
- period or other gynaecological pain not requiring ongoing medication or modified duties.
- treated chronic fungal nail infections.
- dental treatments

These conditions must have resolved fully, without sequelae, prior to applicants resuming the exercise of license privileges. Certificate-holders should also be aware that some of these symptoms may be associated with more serious conditions, and certificate-holders are encouraged to seek medical and/or DAME advice to confirm that there is no more serious diagnosis present.

Suspension, Cancellation and Refusal of Medical Certificates

This section provides details on situations when a current medical certificate(s) are suspended or cancelled or a new applications (including applications for renewal) are refused.

Suspensions - General

Under CASR 67.240, if CASA directs the holder of a medical certificate to submit to an examination under regulation 67.230, or to authorise the disclosure of information to CASA under that regulation, CASA may, in writing, suspend the medical certificate.

Suspension may also occur under 67.260 if the applicant has:

- contravened a condition on the medical certificate.
- not complied with a direction to undergo further assessments under CASR 67.230.
- not notified CASA or a DAME of an impairment due to medically significant problem.

This suspension takes effect from when the person receives notification of the suspension from CASA, either verbally or in writing.

The suspension remains in effect until CASA has provided the applicant with written notice that the suspension has been lifted. DAMEs do not have the authority to apply or to lift a medical certificate suspension.

Suspensions are subject to the "show cause" process detailed above in paragraph 5.5.1 and as required under CASR 67.260, unless CASA determines that an immediate suspension is required in the interest of the safety of air navigation.

Suspensions - pregnancy

In Pregnancy, medical certificates are taken to be suspended under CASR 67.235:

- For pilots: during the period beginning immediately after the end of the 30th week of gestation, until CASA lifts the suspension.
- For air traffic controllers: during the period beginning immediately after the end of the 38th week of gestation, until CASA lifts the suspension.

In these cases, the suspension is not subject to a 'show cause' or notification process. However, a DAME is required to notify CASA that the pilot or controller is fully recovered following the end of the pregnancy and is experiencing no safety-relevant effects of the pregnancy or associated medical conditions. CASA will then lift the suspension if the certificate is not expired.

Pilots can apply to CASA for an individual assessment and decision for a different period of suspension with pregnancy, noting that a Class 1 certificate will not comply with ICAO medical standards if it remains valid for longer periods and will carry a note to that effect.

Cancellations

For a holder of a current aviation medical certificate, if a new safety-relevant medical condition is notified to CASA and CASA determines either that the medical standard is not met or that there are no reasonable conditions that can be placed on the certificate to allow it to remain current, CASA may cancel a medical certificate under CASR 67.255.

Cancellation may also occur under 67.260 if the applicant has:

- contravened a condition on the medical certificate.
- not complied with a direction to undergo further assessments under CASR 67.230
- not notified CASA or a DAME of an impairment due to medically significant problem.

Cancellations are subject to the "show cause" process detailed in 'Show Cause' Process For Medical Certificate Conditions' paragraph above and in CASR 67.260 unless CASA determines that an immediate cancellation is required in the interest of the safety of air navigation.

OFFICIAL

Refusals

An application for an aviation medical certificate can be refused by CASA under CASR 67.180 and CASR 11.056 if:

- The medical standard for that Class of medical certificate is not met, and
- The extent by which the standard is not met is likely to endanger the safety of air navigation.

In making a decision to refuse an aviation medical certificate CASA will consider the results and reports of all available medical assessments and examinations, whether an applicant has provided all the information and undergone all examinations that CASA has decided is necessary, and whether any conditions on the medical certificate can preserve a level of aviation safety that is at least acceptable to CASA.

Refusals are subject to the "show cause" process detailed in 'Show Cause' Process For Medical Certificate Conditions' paragraph above.

Reconsiderations, Reviews and Appeals of Certification Decisions

If an applicant or certificate-holder is not satisfied with CASA's decision about their aviation medical certificate, the following processes should be a followed:

Step 1: DAME Review

In many cases a discussion with the DAME can provide an opportunity for the pilot or controller to gain a better understanding of the aeromedical concerns relating to their health status, the aeromedical risk assessment process, and why the CASA decision has been made. DAMEs hold a unique and important position as being able to consult and discuss directly with the pilot or controller to both perform a clinical assessment and to review the clinical information available alongside the person. A pilot or controller who has consulted with their DAME about their certificate decision will have a clearer understanding of the details and reasoning for the decision, and whether a reconsideration or appeal is likely to result in a different certificate outcome. They will also have a good understanding of CASA's requirements for assessment and decisions regarding the medical condition in question.

Consultation with the DAME is encouraged as a first step before proceeding to any of the subsequent review steps.

Step 2: Reconsideration

Applicants who wish to have their medical certificate decision reconsidered are invited to apply for a reconsideration by CASA. An application should be made within 21 days of receipt of the decision under review and is made by submitting an online reconsideration request through the CASA Medical Records System (including the payment of the required fee). If the applicant wants to rely on information that was not available to CASA at the time of the original decision, this must be provided at the time of the application for reconsideration.

The reconsideration is performed by an appointed CASA medical officer (who is not the officer who made the original decision). Reconsiderations may be informed by the CASA Avmed Complex Case Management (CCM) panel, comprising CASA Senior Medical Officers who have not been involved in the original decision. The reconsideration may also involve consultation with other National Aviation Authorities, clinical specialists, and aerospace medical consultants. In some cases, the original decision may have been made by the CCM, in which case an external aerospace medicine consultant will be engaged by CASA to perform the reconsideration.

Seeking a reconsideration does not prejudice an applicant's right to seek review with the ART within 28 days after the reconsideration has been decided (see below)

Step 3: Clinical Case Conference

Our clinical case conference panel is an informal meeting to help pilots and air traffic controllers understand how we make aviation medicine decisions. A clinical case conference can be requested through the online request form on the CASA website.

Applicants are invited to be accompanied by their DAME, treating specialist and/or a support person. CASA will convene the CCC with one of the Senior Medical Officers and an administrative support officer. A CCC can online using the Microsoft Teams platform. CCC using voice call only is not preferred.

The CCC is not a legal proceeding and cannot consider complaints or appeals. Rather, it is an opportunity for an applicant to understand the reasons for CASA's decision about their certificate. If an applicant seeks to have legal representation for a CCC, the conference will be cancelled, and alternative arrangements will need to be made.

It is also not appropriate for new medical information to be presented to CASA during a CCC. If new information is presented during the CCC, the information will be referred to the SMO who made the original decision and the normal process for review of new medical information will be followed. The applicant can choose to continue to discuss the current decision or may choose to cancel the CCC and await review of the new information by the managing SMO.

Step 4: Commonwealth Administrative Review Tribunal

All CASA aviation medicine decisions are reviewable decisions by the Commonwealth ART.

Applications must be made to the ART within 28 days of the date of the final certification decision. Legal advice should be sought in relation to an ART application. CASA also recommends that applicants apply for reconsideration and engage in a clinical case conference before seeking review in the Commonwealth Administrative Review Tribunal.

An ART may decide to uphold a CASA decision, or to set aside CASA's decision and direct another course of action. An ART decision applies only to that individual application and set of circumstances and not to other cases even with the same or similar diagnosis. If a medical condition changes after an ART decision about a medical certificate, CASA may make a new decision about the medical certificate.

The ART process is a lengthy and often adversarial process. It usually involves opportunities for preliminary process of mediation to resolve issues before proceeding to a full hearing. An ART hearing is conducted in person and involves examination and cross-examination of witnesses by the applicant's and CASA's legal team. The findings of all proceedings are published and accessible in the public domain, even those including sensitive personal and medical information. While an ART case is proceeding, the decision by CASA that is being appealed remains in place.

Complaints about CASA

Where a certificate-holder has a complaint about the process of handling medical certificates the most appropriate process is to submit a complaint to the Aviation Industry Complaints Commissioner. As a Commonwealth authority, CASA is included in the complaints processes of the Commonwealth Ombudsman.

Examples of complaints appropriate for this process include:

- how AvMed staff dealt with matters or interacted with applicants.
- disagreement about the reasonableness of requirements for extra reports.
- delays in processing.

The Commissioner and Ombudsman cannot consider a complaint about the outcome of a CASA decision.

Medical Certificate Exemptions

Under CASR 61.040, the Principal Medical Officer a holder of a CASA license may be exempt from holding CASA aviation medical certificates under certain circumstances, when approved by CASA. The PMO is authorised to approve exemptions for:

- Student pilots conducting a solo flight (CASR 61.114(2) and (4))
- Recreational pilots (61.405(1))
- Private pilots (61.410(1))
- Commercial, multicrew and air transport pilots (CASR 61.415(1)).

Medical certificate exemptions are considered only when sufficient information is available for the PMO to form an informed opinion about the medical status of the applicant for the exemption, and the granting of the exemption would not be likely to have an adverse effect on the safety of air navigation.

The following of circumstances are considered to be acceptable for PMO approval of a medical certificate exemption. These exemptions can be approved on one occasion and must then be followed by an application for a CASA aviation medical certificate.

Any other applications for exemptions will be considered on a case-by-case basis.

For Recreational Pilots (CASR 61.405(1)) and private pilots (CASR 410.1)):

The pilot holds a current unrestricted or unconditional private pilots medical certificate issued by aviation medical assessors of any of the listed National Aviation Authorities

- Civil Aviation Authority of New Zealand
- Civil Aviation Authority United Kingdom
- Civil Aviation Authority, Transport Canada
- United States Federal Aviation Authority
- An aviation authority under the jurisdiction of the European Aviation Safety Authority

Applicants under this provision must provide with their application a copy of:

- The current aviation medical certificate issued by the issuing NAA and
- A statutory declaration that they do not have any safety-relevant medical conditions and
- A clearance letter from a CASA DAME confirming that there are no safety-relevant medical conditions.
- Any other information that CASA decides is required to consider the application for exemption.

This exemption is valid for the duration of a Class 2 CASA aviation medical certificate relevant to the applicant's age.

For commercial, multicrew and air transport pilots (CASR 61.415(1))

The pilot holds a current unrestricted or unconditional commercial, multicrew or ATPL pilots medical certificate issued by an aviation medical assessor of any of the listed National Aviation Authorities

- Civil Aviation Authority of New Zealand
- Civil Aviation Authority United Kingdom
- Civil Aviation Authority, Transport Canada
- United States Federal Aviation Authority
- An aviation authority under the jurisdiction of the European Aviation Safety Authority

Applicants under this provision must provide with their application a copy of:

- The current aviation medical certificate issued by the issuing NAA and
- · A statutory declaration that they do not have any safety-relevant medical conditions and
- A clearance letter from a CASA DAME confirming that there are no safety-relevant medical conditions.
- Any other information that CASA decides is required to consider the application for exemption.

This exemption is valid for the duration of 12 months.

End of Chapter.

6. Medical Tests and Requirements for Medical Certificates

Frequency of Medical Examinations

Unless otherwise directed by CASA, the interval required for renewal of aviation medical certificates is provided below. The content and process of the medical examination are described in Chapter 4 and Chapter 10 of this Handbook.

Certificate	Frequency	Requirements on Initial Issue
Class 1 ATPL	12-monthly until age 60, then 6-monthly	Audio, Eye, ECG, Serum Lipids, Blood Glucose.
Class 1 CPL	12-monthly	Audio, Eye, ECG, Serum Lipids, Blood Glucose.
Class 2	Four-yearly until age 40, then two-yearly	N/A
Class 3	Two-yearly	Audio, Eye, ECG, Serum Lipids, Blood Glucose.

Required Reports for Medical Assessments

Periodic tests required in association with applications are shown in the reference chart below (Table 6.2). Automatic reminders for Class 1 and 3 requirements are also provided by the MRS based on the applicant's date of birth and the date of the appointment with the DAME.

DAMEs and/or CASA may direct the applicant for any Class of medical certificate to undergo additional testing to decide whether the medical standard is met, or to determine whether it is safe to issue a medical certificate when the standard is not met. Section 6.3 below provides details for the way in which the most common additional tests are required to be performed and reported. Details of the additional testing required for medical conditions are provided in the Clinical Practice Guidelines.

CASA may approve a variation from the CPG for performing and reporting clinical assessments and tests, usually in consultation with the treating Specialist and in response to a unique medical situation. CASA will require a description of the clinical indication for the CPG variation from the treating Specialist. A variation that is not consistent with the published specialist clinical guidelines for that disease is unlikely to be approved. Routine requests to omit or vary the assessment requirements will not be approved.

Validity And Timing of Reports

Periodic tests and reports should be no more than 90 days old at the time of the medical application.

The exception for this is where it is unlikely that a result will have significantly changed in a way that would be safety-relevant in the period since the test was done. For example, a PSA test that is required to be done every 6 months at the direction of the treating urologist will be accepted despite being done more than 90 days prior to the medical examination.

On occasions, applicants may have undergone certain of these tests or specialist reviews independently of the CASA requirement. There is no requirement to repeat these tests with the DAME unless the result is more than three months before the DAME medical examination date. CASA may approve older test results on a case-by-case basis, but in no case can the results be more than 12 months old.

Table 7. Required reports for medical certificates.



Special Reports & Tests

Licence	Age (yrs)	Ser., Lips & Bl. Gl	Audio	Eye	ECG	CVD Risk Score*
INITIAL ISSU	E					
Class 1	All		•	•	•	
Class 2		No additiona	I tests required	d unless clinica	ally indicated	
Class 3	All		•	•	•	
RENEWALS						
	25				•	
	30		•		•	•
	32				•	
	34				•	
	35		•			•
	36				•	
	38				•	
	40		•			•
	45		•			•
	50		•			•
	55		•			•
Class 1 &	60		•	•		
Class 3	62			•		
	64			•	An ECG is	
	65	1 1			required yearly	Calculate each year over 60
	66			•	from age 40 to	
	68	To be done		•	80 for Class 1 & every 2 years	
	70	each year over 60 years	•	•	for class 3	
	72	over 60 years		•		
	74			•		
	75					
	76			•		
	78			•		
	80+	Additional requirements advised individually				
Class 2	No additional tests required unless clinically indicated					

^{*} NOTE - Diabetics/impaired glucose tolerance to have yearly CVD Risk Score

Additional Tests for Class 1 and 3 Medical Assessments

To fully assess the risk of a safety-relevant issue affecting higher-risk operations and to comply with the ICAO requirements for Class 1 and 3 certificates, additional tests are needed at certain intervals for routine aviation medical examinations for these Classes of medical certificate.

These are required for all applicants, in addition to any specific tests required for an individual certificate-holder's personal medical circumstances.

Class 1 and 3 Initial Issue of a Medical Certificate

The following medical tests are required for the initial issue of a Class 1 or Class 3 medical certificate:

- ECG
- audiogram
- estimation of fasting serum lipids and fasting blood glucose
- calculation of cardiovascular risk (see below)

You must also have an eye examination.

You will need to find a designated aviation ophthalmologist (DAO) or credentialed optometrist (CO).

Class 1 and 3 Medical Certificate Renewals

The following medical tests are required for medical certificate renewals:

- ECGs are required at the first renewal after the age of 25, 30, 32, 34, 36, 38 and 40. After 40, an ECG is required annually.
- audiograms are required at the first renewal after the age of 25 and then every 5 years from the age of 25.
- fasting lipids and glucose are required at the first renewal after the age of 25 and then every 5 years from the age of 25 until age 60, when they are required annually.
- an eye examination is required by a DAO or CO at age 60, then every 2 years after.

Requirements For Class 1 ATPL aged over 60 Years

Pilot aged over 60 years who wish to continue exercising the privileges of the Air Transport Pilot Licence conducting air transport operations need to pass a class 1 medical examination every 6 months. This is in line with the ICAO requirement in Annex 1, section 1.2.5.2.3.

Applicants should also see our page on Air Transport Pilot Licences (ATPLs).

Medical Examinations for Over 60 ATPL Holders

The 6-monthly medical examinations for ATPL holders aged over 60 years are termed 'major' or 'minor'.

1. Major Medical

The first medical after the pilot's 60th birthday is the 'major' medical. Applications must include:

- medical questionnaire and examination form
- resting ECG trace
- serum lipids and blood glucose levels (if glucose levels are 5.5 or above, applicants will need to do a glucose tolerance test)
- cardiovascular risk assessment
- Any CASA Surveillance Requirements (CSR) identified for this 12-month application
- Any additional tests the DAME or CASA considers necessary based on the questionnaire and examination.

Note: that CSR is an administrative flag only.

It notes that specified information must be reviewed at the next medical application or during the validity period of this medical certificate. It is not a restriction of privileges.

If this information is satisfactory and within regulations, we will issue a Class 1 medical certificate valid for 1 year for CPL holders, and for 6 months for ATPL holders.

This meets the ICAO requirements.

2. Minor Medical

Within 28 days prior to the expiry of the medical examination done for the ATPL, applicants must complete a 'minor' medical examination. Minor medicals are much less in-depth than major medicals.

Requirements for minor medicals include:

- medical questionnaire and examination form
- Any CASA Surveillance Requirements (CSR) identified for this 6-month application
- Any additional tests the DAME or CASA considers necessary based on the questionnaire and examination.

If all of this information meets the medical requirements, the certificate will be issued with a further 6-month validity period for the ATPL privileges and a further 12 months period for the CPL privileges.

3. Other Age-Based Tests

Unrelated to the ATPL major/minor blood tests and cardiovascular assessments, Class 1 applicants must also undergo the additional testing for vision and hearing detailed above in this section.

4. Alignment of ATPL Major and Minor medicals with anniversary dates and birthdays.

CASA recognises that undergoing additional tests purely based on age and dates can be frustrating for pilots. This becomes a particular issue when a pilot has not maintained the anniversary dates for their major and minor medicals. The timing of major and minor medicals is designed to minimize the need for extra tests for older pilots. This means that some pilots will need to undergo two consecutive major medicals at age 60 for ICAO and age 61 for CASA. After that, if a pilot keeps their medicals up to date, they will only ever need to do the tests for a major medical once every 12 months. An example of this situation is provided below.

In selected cases, CASA may also approve the deferral of annual major testing requirements by 6 months based on the individual pilot's medical risk profile.

5. Example: Anniversary date more than 6 months after your 60th birthday

If a medical anniversary date falls more than 6 months after your 60th birthday, applicants must complete two major medicals in a row. This is because the medical after the 60th birthday will be a major medical as required by ICAO, and the medical 6 months later will be the first medical after the 61st birthday, therefore a major medical as required by CASA. All major medicals after that will be done at 12-month intervals. The following example is provided to assist in understanding this situation:

- Normal annual medical done age 59 and 8 months.
- Next annual medical done age 60 and 8 months = major.
 This is required by CASA and is consistent with the ICAO Standards for the ATPL, because the pilot is now aged over 60 years.
- Next medical age 61 and 2 months = major. This is required for the CASA CPL age requirements.
- Nex medical age 61 and 8 months = minor (ATPL requirements).
- Next medical age 62 and 2 months = major (CPL and ATPL requirements).

6. ATPL applicants with CASA Surveillance Requirements (CSR)

If you have surveillance requirements for your medical, you will receive a letter with your medical certificate that details the additional tests and reports required at the time of your next medical. In this case, we will issue your 'major' medical certificate for 12 months (CPL) and your ATPL for 6 months.

When you complete your minor medical for your ATPL after 6 months, instead of extending your CPL for 12 months as we would for a person with no additional surveillance requirements, your CPL anniversary will stay the same as it was when your medical certificate was issued.

Where an applicant's medical condition is under review, the duration of a medical certificate validity may be varied at the discretion of the Principal Medical Officer (PMO).

Requirements For Class 2 Initial and Renewal Medical Assessments

There is no routine requirement for additional tests for Class 2 medical examinations based on pilot age or year of renewal. However, CASR 67.165, 67.180 and 67. 230 authorise CASA to require any medical certificate holder to undergo additional examinations, assessments, investigations or tests for the issue, renewal, and currency of their medical certificate.

DAMEs are responsible for identifying and assessing any medically significant condition for its safety relevance and may therefore require applicants for any medical certificate to undergo additional tests to fulfil the obligations of their DAME role.

Any additional medical testing requirements identified are communicated to the applicant in the form of a "CASA Surveillance Required" (CSR) letter from CASA or advised directly by the DAME to the applicant at the time of the medical examination.

Performing And Reporting Tests for Aviation Medical Assessments

The information in this section details the requirements for performing and reporting the common tests and examinations required by CASA. In all cases, the test should be performed in accordance with the current clinical guidelines published for Australian practice. It is important to note that interpretation of normal and abnormal results may not align directly with the required standard for aeromedical risk assessment, and CASA or a DAME may require further testing or surveillance for a result that would not necessarily require further review on purely clinical grounds.

In some cases, the DAME delegates the performance of office tests required for the routine medical examination to another clinician. In these cases, the DAME remains responsible for the conduct, reliability, and interpretation of the result. Section 4 of this Handbook provides more details on DAME responsibilities.

In some cases, the DAME has suitable equipment and/or qualifications to perform "referred" tests. The same performance and reporting requirements apply regardless of who performs the test and where it is performed.

The tests detailed in this section include:

- Blood pressure measurement
- · Hearing assessment.
- Visual acuity assessment.
- Colour vision screening and assessment.
- · Office urine analysis.
- Electrocardiographs.
- · Cardiovascular risk assessment.
- · Spirometry.
- Sleep apnoea risk assessment.
- · Drug and alcohol testing.
- Health promotion and preventive activities.

Office-based tests may be performed by a member of the DAME's clinical team, provided they are suitably qualified to perform the test, and they perform the test in accordance with normal clinical practice expectations. For example, a Registered Nurse, Enrolled Nurse, Assistant in Nursing, Paramedic or Medical Practice Assistant who is working under the supervision of the DAME and is registered or credentialed to perform the clinical task. The DAME remains ultimately responsible for the conduct and results of the test regardless of who performs it.

Blood Pressure

Item 1.10 of table 67.150, Item 2.10 of table 67.155 2.10, and Item 3.10 of table 67.160 of the CASR specify that the systolic and diastolic blood pressures are within limits specified by CASA from time to time in the Examiner Handbook (even if approved drugs are used to maintain the blood pressure within those limits).

High Blood Pressure

The acceptable upper limits for unrestricted aviation medical certification are as follows:

Systolic BP: 160 mmHg

Diastolic BP: 95 mmHg.

These parameters limits are higher than best practice for medical management. They have been set to allow for variation in and between management regimes and in consideration that moderate hypertension in isolation is unlikely to cause impairment or incapacity.

Refer to **RACGP Red Book** and **Australian Heart Foundation** for further information on diagnosis, investigation, and management of hypertension.

Applicants with blood pressure levels above these levels must be referred to their treating doctor for further assessment. That further assessment must include a 24-hour ambulatory blood pressure report. Self-measurement of blood pressure at intervals as described in clinical guidelines does not provide sufficiently detailed results for aeromedical risk assessment.

If moderate hypertension is diagnosed (<180/<110) additional tests will be required to assess for end-organ effects and for cardiovascular risk assessment (see below). Reports from treating doctors regarding the type and dose of medication will also be required. In some cases, an interim or restricted medical certificate may be issued by CASA or a DAME while awaiting the results of these tests.

If severe hypertension is diagnosed (180 or more / 110 or more) the applicant is medically unfit for aviation-related duties. This is a safety-relevant condition and must be reported to CASA or a DAME as required under CASR Part 67.

Even though a person with Grade 1 (moderate) hypertension meets the aviation medical standards, they are at increased risk of many medical conditions which may ultimately lead to restriction or cancellation of their aviation medical certificate. The considerations for health promotion and preventive activities as an element of the aviation safety system is detailed below.

Low Blood Pressure

CASA will individually assess applications where the blood pressure is less than 100mmHg systolic and/or less than 60mmHg diastolic. If the blood pressure is below 100/60 it is important for the DAME to comment in MRS on whether the blood pressure is stable, whether there is a postural drop, if the blood pressure is under treatment, and any symptoms of postural hypertension. If none of these issues are present or concerning, the low blood pressure is not likely to be safety relevant.

Hearing Tests

Principles Of Hearing Assessment and Aircraft Noise

Sound pressure (or loudness) for human hearing is measured in decibels or dB(A). The higher the number in dB(A), the louder the sound. The frequency or "pitch" of sound is measured in hertz (Hz). The majority of sounds for intelligible speech are around 3000Hz, and conversational voice in a normal office environment is a loudness of around 60dB(A). The sound pressure level in a common recreational aircraft cabin in flight is around 90dB(A), and the level at the ear with a standard aviation headset worn is around 70dB(A).

This means that a pilot wearing a standard aviation headset in a typical recreational aircraft must be able to hear at more than 70dB(A) to be able to reliably hear communications with the headset in place. The baseline CASA standards in the table below will ensure safety in almost all cases, and only the higher-risk cases who do not meet these standards need to proceed with speech discrimination and/or operational testing.

Hearing Assistance Devices (Hearing Aids and Implants)

It is essential that pilots and controllers who require hearing aids or amplification for flying or controlling are tested with their hearing devices in place. Operational tests, if required, should also be done in the aviation environment they will usually be operating; for pilots this would usually be in the aircraft they would usually be flying.

Some pilots do not wear their hearing aids while flying, preferring to use the amplification of their aviation headset for communications. In these cases, an operational check will usually be required to ensure they can also hear the non-headset sounds such as audible alarms and engine noise, and that the headset provides adequate amplification.

If a pilot or controller needs a hearing assistance device or amplification device (including a headset) to pass any of the assessments detailed here, their aviation medical certificate will include a note that this is the case.

Office Tests - Conversational and Whispered Voice Tests

At each medical examination, the DAME is asked "does the applicant fail to hear a conversational voice at 2 metres?"

The recommended procedure for this assessment is:

- Examiner stands 2 metres behind the applicant in the consultation room. No special arrangements need to be made for soundproofing, but there should be no loud external sounds that would interfere with a normal conversation.
- Examiner speaks a short phrase or a series of words that the applicant must repeat correctly. Avoid
 using phrases that are recognisable such as commonly used quotes and avoid using words with
 predominantly sibilant ("s") sounds. Reading a sentence from a newspaper article is a reasonable
 approach.
- Applicant repeats the phrase or words correctly the test is complete.
- Applicant does not repeat the phrase or words correctly the examiner can repeat the test (be careful not to raise your voice to a louder level, remain "conversational") to confirm the result.

If the result is that the examiner is not satisfied that the applicant can hear conversational voice at a distance of 2 metres, the DAME response to the MRS question is "yes" and the applicant should be referred for pure tone audiometry.

DAME Assessment of Safety Relevance

MRS specifically asks about hearing conversational voice at a distance of 2 metres. If an applicant does not pass the 2-metre test, the DAME can proceed with a standardised "whispered voice" test to decide whether the hearing issue is safety relevant. The reference and protocol below has been validated as an office-based test.

Pirozzo S, Papinczak T, Glasziou P. Whispered voice test for screening for hearing impairment in adults and children: systematic review. BMJ 2003;327:967.

The examiner tests the patient's hearing with whispered, conversational, and loud voice (indicating higher sound thresholds) while standing 60 cm behind the seated patient. If responses are poor, then the test can be repeated at 15 cm from the patient. Free field testing does not differentiate the type of hearing loss but can be useful in the consulting room where audiology is not available.

If the candidate cannot hear conversational voice at 60cm, the hearing deficiency may be safety relevant, and the pilot must not exercise the privileges of their license until they are cleared by CASA or a DAME in accordance with the audiometry requirements detailed below.

Pure Tone Audiogram

Pure tone audiometry must be undertaken according to the periodic testing schedule for Class 1 and 3, and if the conversational or whispered voice tests are not passed in the DAME office for all Classes. Testing must include the following frequencies as per CASR. Table 67.150 item 1.30 and Table 67.160 item 3.28. The minimum threshold for each frequency is provided in the table below.

Frequency	500Hz	1000Hz	2000Hz	3000Hz
Threshold	<35 dB(A)	<35 dB(A)	<35 dB(A)	<50 dB(A)

If the applicant can hear at the given threshold level in the better ear, they meet the CASA requirements. If their measurement is more than the given level, they must undergo further testing.

The presence of asymmetry may also be safety-relevant, even if the medical standards is met in terms of hearing function. Significant asymmetry is a common symptom or retro-cochlear pathologies, such as vestibular schwannoma, and may warrant further referral and evaluation by an ENT specialist.

The audiogram report is to be uploaded into MRS as a document even when the results are entered into the MRS fields.

Speech Discrimination Test

If the applicant does not meet the pure tone audiometry requirements, the applicant must be referred for a speech discrimination test. To pass the speech discrimination test for CASA, the applicant must record correct responses at 90% or more in the better ear, at a loudness of 90dB(A) or less. 90dB(A) is approximately the same loudness as a shouted voice from around half a metre away. If the applicant passes the speech discrimination test, they can be issued with an aviation medical certificate.

Operational Hearing Test

If the applicant fails the speech discrimination test, an operational test may be considered. The operational test will involve in-flight evaluation of the ability of the pilot to hear important auditory information (such as speech, auditory alarms, changes in aircraft sound). The operational hearing test is conducted by a CASA Flying Operations Inspector or an Authorised Testing Officer with test material transmitted from a control tower and within the aircraft. A standard protocol should be obtained from CASA and provided to flight testing officer conducting the operational hearing test.

Surveillance Of Hearing Impairment

If a pilot or controller has required pure tone audiometry, speech discrimination or operational testing for their hearing assessment, they will be required to undergo periodic re-assessment using pure-tone audiometry (unless otherwise indicated) for renewal of their aviation medical certificate. This is to assess for any progression of the hearing loss. CASA and/or the DAME will specify the nature and interval of the required testing with a "CASA Surveillance Required" (CSR) letter.

Visual Acuity Assessment

DAMEs are required to assess the distance visual acuity at each medical examination using a standard 6-metre Snellen chart. DAMEs are required to assess the intermediate (1 metre) and near (30cm) visual acuity at each medical examination using the "N" series charts. Care should be taken that the visual acuity assessment is done with accurate distances, and standardised levels of contrast and illumination.

If the applicant requires visual correction for flying, this is to be noted in the medical examination and the acuity must be tested for both uncorrected and corrected vision and using both the main spectacles and the standby (spare) pair of spectacles.

Applicants who use contact lenses as their primary method of visual correction must carry a spare pair of **spectacles** for flying. The effectiveness of the applicant's standby (spare) spectacles must also be tested at each medical examination.

A person whose visual acuity in either eye is worse than 6/60 must provide a full ophthalmic report (CASA Eye Report) to CASA. The eye assessment must be performed by a designated aviation ophthalmologist (DAOs) or credential optometrist (COs).

Colour Vision Screening and Assessment

For compliance with ICAO Annex 1 Chapter 6 (6.2.4.1) each applicant for an aviation medical certificate must undergo assessment of colour vision.

CASA's aeromedical approach to colour vision assessment is detailed in the Clinical Practice Guideline, and the operational approach and assessment is detailed in the CASA Flight Examiner Handbook.

Ishihara Pseudo-isochromatic Plates

The first level of colour vision assessment (Tier 1) is conducted by the DAME using the Ishihara plates. The Ishihara test should be conducted under standardised illumination conditions (350-600 lux, daylight wavelength using fluorescent bulbs). The plates should be held at 75cm from the eye, and 90 degrees to the visual plane. The applicant must identify the number on the test plate within 3 seconds. CASA requires DAMEs to use the first 17 plates of the Ishihara set. Applicants must not make more than 2 errors. If pilots make 3 or more errors on first 17 plates of the Ishihara set, they can choose to have a certificate issued with colour vision restrictions and/or proceed to the next level of colour vision assessment. If air traffic controllers make 3 or more errors on first 17 plates of the Ishihara set, they are not eligible for an aviation medical certificate.

Farnsworth Lantern

The second level of colour vision assessment (Tier 2) is conducted by an optometrist or ophthalmologist using the Farnsworth lantern or the OPTEC 900 test. The applicant is presented with nine pairs of lights, and must identify the colour (red, green, or white) of each light.

If the applicant makes no errors in the first nine pairs, they pass the test.

If there are any errors, the applicant proceeds to TWO more runs, each of nine pairs. If the total number of errors in runs 2 and 3 is no more than 2 errors, they pass the test.

Only the first three runs of nine pairs of lights are permitted to be considered in total. Applicants are not permitted to undertake fourth (4th) or subsequent runs of pairs of lights.

If the applicant does not pass the lantern test, they can choose to have a certificate issued with colour vision restrictions and/or proceed to the next level of colour vision assessment.

Operational Colour Vision Tests (CAD)

Colour Assessment and Diagnosis (CAD) test. This is a test of colour discrimination using a computer program with standardised display. The CASA thresholds for passing the CAD are:

Red-green protanomaly: 12 SNURed-green deuteranomaly: 6 SNU

Yellow-blue tritanomaly: 2 SNU

Australian Operational Colour Vision Assessment (AOCVA)

This is an operational assessment of whether a pilot with colour vision deficiency can safely perceive and interpret colour-based cues in a standardised assessment. Details on the conduct of the AOCVA is provided in the CASA Flight Examiner Handbook.

If the applicant does not pass one of the operational tests, they can be issued with a medical certificate with colour vision restrictions.

Note: If an applicant fails the AOCVA they are not eligible to subsequently attempt the CAD test.

Ophthalmology assessments for Colour Vision Deficiency

There are a number of diseases of the eye and other body systems (including treatments) that can impact colour vision, either as a cause of acquired colour vision deficiency or to increase the impact of a congenital colour vision deficiency. CASA may therefore require any pilot with colour vision deficiency to undergo specialist ophthalmologist assessments, and to repeat their colour vision assessments, to ensure that there has been no safety-relevant change in their colour vision status due to any disease or treatment.

Office Urine Analysis

At every aviation medical examination, DAMEs must perform office ("dipstick") urinalysis and record the result for the presence of blood and of protein.

If the result is trace blood or protein, no further action is required for this medical.

If the result is any more than trace of blood (1+, 2+ or 3+) the DAME should refer the applicant for urine microscopy, culture, and sensitivities to confirm the screening result. Subsequent investigations and referrals will be based on the result of the urine MCS and any other clinical concerns of the DAME, treating doctors or CASA's assessors.

If the result is any more than trace of protein (1+, 2+ or 3+) the DAME should refer the applicant for urine albumin/creatinine ratio (ACR). Subsequent investigations and referrals will be based on the result of the urine ACR and any other clinical concerns of the DAME, treating doctors or CASA's assessors.

ECGs

Routine ECGs are required at specified intervals for Class 1 and Class 3 medical certification. They may also be required on clinical grounds for all Classes at the discretion of the DAME or CASA.

Copies of ECGs must be uploaded to MRS as an attached document (document category is Cardio → ECG resting) when:

- Required by CASA based on the Class 1 and Class 3 age requirements.
- Required by CASA or a DAME as surveillance requirements for certificate renewal.
- An abnormality is detected on the ECG (regardless of the reason it has been done)

All uploaded ECG documents must include the following:

- · applicant's full name.
- applicant's ARN.
- · date of recording.
- 12 lead and rhythm strip (correctly labelled).
- standard calibration (10mm/mV).
- speed 25mm per second.

DAMEs are required to provide an interpretation of all ECGs and record in MRS any safety relevant abnormalities with reference to the CASA ECG interpretation guide (available in MRS). DAMEs may interpret the ECG themselves or choose to refer the ECG to a cardiologist for interpretation.

Cardiovascular Risk Assessment

The clinical information required for cardiovascular risk assessment includes:

- Age
- Gender at birth
- Ethnicity
- · Systolic blood pressure
- Fasting lipid profile (total cholesterol, HDL, LDL, and ratio)
- Assessment for diabetes or pre-diabetes
- Assessment for chronic kidney disease
- Assessment for atrial fibrillation
- Medication list
- Family history of familial hypercholesterolaemia

Each applicant for a Class 1 or Class 3 medical certificate must have their cardiac risk calculated at the initial medical examination, then at the first medical examination after age 25, thereafter every 5 years until age 60, thereafter annually. Table 6.1 also describes the required assessment timing.

Cardiovascular risk is calculated automatically for Class 1 and 3 applicants by MRS using the NZ PREDICT calculator. DAMEs can also manually calculate risk using the <u>Australian Cardiovascular Risk Assessment Tool</u>. If the Australian online tool is used, the DAME must provide a copy of the calculation to CASA by uploading the report at the time the medical is submitted to CASA. If the lowest of these two risk calculations is greater than 5% per 5 years, the pilot or controller must undergo further assessment. Refer to CASA's CPG on Cardiac Risk Assessment for recommendation.

Cardiovascular risk assessment is not routinely required for Class 2 medical certificates. In some cases, the DAME may consider it necessary for their aeromedical decision. CASA may also direct a cardiovascular risk assessment to be done for a Class 2 pilot when there is a concern for aviation safety.

If a cardiac risk assessment is required for Class 2 medical examinations, a risk level of more than 10% per 5 years requires the applicant to undergo further assessment. Refer to CASA's CPG on Cardiac Risk Assessment for recommendations.

The required actions based on cardiovascular risk score differ based on the available clinical information and the Class of aviation medical certificate. Details for the next steps for elevated cardiovascular risk are provided in the CPGs.

OFFICIAL

Spirometry

If spirometry is performed, it must be done in accordance with the recommendations of the Australian Asthma Council Spirometry Handbook for Primary Care.

The report of the spirometry test must include:

- Applicant full name, date of birth and ARN
- · Results of the three valid pre-SABA attempts
- · Results of the three valid post-SABA attempts
- Record of the predicted results for this applicant
- The applicant's results expressed as a percentage of the predicted value.

Initial applicants with a history of asthma in childhood (last symptomatic episode and/or use of preventers was before age 16, and/or more than 4 years ago if aged under 20 years) do not require further respiratory testing.

In all other cases for initial certificates, the applicant must undergo spirometry before and after short-acting beta agonist medication as part of their medical certificate application.

Applicants with a current diagnosis of asthma will be required to undergo baseline spirometry (not pre/post SABA unless directed by CASA or DAME) at each medical examination and provide a treating doctor report regarding their asthma status. They will have their medical certificate issued with the note that they must have ready access to a short acting beta agonist inhaler during flight / controlling duties.

Sleep Apnoea Risk Assessment

Applicants who are identified as having an increased risk of obstructive sleep apnoea must have their risk formally assessed using the STOPBANG score.

MRS automatically calculates STOPBANG for applicants with a BMI of >= 35kg/m2, including prompting for the measurement of neck circumference.

For applicants with BMI of 35 or less with a comorbidity strongly associated with sleep apnoea (see below), the DAME should consider performing a risk assessment using the STOPBANG score.

STOPBANG score (1 point for each "yes" response)

Table 8. STOPBANG score

STOPBANG Score		
s	Do you snore loudly overnight?	
Т	Are you excessively tired during the day?	
0	Have you been observed to stop breathing / gasp / gag / choke while sleeping?	
Р	Are you being treated for high blood pressure?	
В	Is your BMI >-35 kg/m2?	
Α	Are you aged older than 50 years?	
N	Is your neck circumference >40cm?	
G	Are you of male gender?	

Actions to be initiated by the DAME for each STOPBANG risk level and medical certificate Class are detailed below. Acceptable sleep studies are Level 2 (home or hospital, under sleep physician supervision and technical support) or Level 1 (hospital overnight polysomnography).

Table 9. STOPBANG Risk Level

Score	Parameter	Risk	Action
0-2	Any	Low risk	Counselling and advice on risk reduction measures.
3a	1-STOP + 2-BANG	Intermediate risk	Counselling and advice on risk reduction measures.
3b	2-STOP + Age	High risk	First assessment – sleep study.
	2-STOP + BMI	High risk	Subsequent assessment – counselling and advice on risk reduction measures.
	2-STOP + Neck	High risk	Repeat sleep study if: Significant change in BMI (>2.5kg/m2)
4	Any	High risk	since last sleep study. 4 years since last sleep study. New diagnosis of comorbidity.
5	Any	High risk	Sleep study every year for Class 1 and 3, every 2 years for Class 2.

Comorbidities strongly associated with sleep apnoea include:

- Ischaemic heart disease
- Atrial fibrillation
- Pulmonary hypertension
- Stroke or TIA
- Diabetes mellitus
- Hypertension

Tests for Alcohol and Other Drugs

For certain applicants, periodic and random testing for substance use is a requirement for aviation medical certification. Usually this will be based on the type of substance, pattern of use (amount and frequency), recency of use, complications, or consequences of use (such as convictions or hospitalisations), and evidence of abstinence or relapse.

CASA will specify the type of test (breath, urine, oral fluid, hair, blood, or other specimen), the substances or levels to be tested and the timing of the test. This information will be provided in writing to the applicant in a "CASA Surveillance Required" (CSR) letter. It is essential that this testing be performed in accordance with the specified protocol as determined by CASA for the individual applicant.

CASA encourages open and honest communication between the certificate-holder, their DAME, health care providers, peer support providers and employer (where relevant). A collaborative approach that includes workplace and peer support facilitates a faster return to aviation medical certificate and work, and a greater opportunity for a healthy and enduring recovery.

If an applicant returns a positive result to any test, the applicant will be contacted by CASA and/or the DAME to manage the immediate situation and develop a plan for further assessment. This will include suspension of the medical certificate while the issues are explored and managed. Certificate-holders in this situation are strongly encouraged to access aviation peer support and/or community-based recovery organisations, to help them navigate a very stressful and challenging time.

If an applicant refuses to undergo tests, avoids, or delays their testing, adulterates specimens, or otherwise attempts to conceal their use of substances that is considered a safety-relevant situation and must be reported to CASA if not already advised. In those cases, CASA will suspend, cancel, or refuse the medical certificate and require the applicant to undergo further assessment.

Relevant sources of advice and assistance for certificate-holders include:

- Human Interventions and Motivation Study (HIMS Australia)
- Aviation Peer Support Organisations (available through the major airlines, Airservices Australia and unions, and open to all aviation participants)
- Birds of a Feather
- Alcoholics Anonymous
- Narcotics Anonymous
- SMART Recovery

Medical advice for DAMEs can be sought from:

- FAChAMs (list is available on The Royal Australasian College of Physicians (RACP) website).
- Australasian Medical Review Officers Association (AMROA)

Health Promotion and Preventive Activities

ICAO encourages States to include health promotion activities in the medical assessment process, with the aim of reducing longer-term health risks. By identifying remediable and treatable risk factors and conditions, it is possible to reduce the long-term health risks to pilots and controllers. In this way, safety-relevant conditions may be detected before they impact the medical certificate or flight safety.

DAMEs are encouraged to refer to the RACGP Red Book for their pilot/controller and identify whether they are up to date with the recommended screening and preventive activities. If not, the applicant should be encouraged to review the recommendations with their usual GP and complete the recommended screening and health promotion activities.

End of Chapter.

7. Clinical Practice Guidelines (CPG)

CPGs are written to support safe, consistent, and effective decisions about aviation medical certificates. They are written for medical practitioners and health care providers, therefore are written using medical terminology and concepts. CPGs are also intended provide guidance for treating doctors and care providers regarding the reporting and surveillance requirements for their patients who hold aviation medicals. Applicants and holders of medical certificates who are referring to CPGs to understand their own situation are therefore encouraged to do so in consultation with their DAME.

CPGs include the following sections:

- Aeromedical significance of the diagnosis, symptoms, and treatment.
- Information required at the time of diagnosis or at the initial application for certificate.
- Information required for surveillance of ongoing medical conditions, provided during the period of certification or at the time of renewal.
- Indicators for favourable (certificate is more likely to be issued) or unfavourable (certificate is less likely to be issued) outcomes.
- Specific criteria for safety relevance for decisions made by DAMES (aeromedical decision guides).
- Reference material and resources.

Development and Review Process

CPGs are developed using a comprehensive technical consultation process. This process ensures decisions made based on CPGs are compliant with Australia's obligations to ICAO, are aligned with current Australian and international standards for medical practice and are consistent with the aeromedical and aviation safety decision processes of other similar National Aviation Authorities.

Development of new CPGs is prioritised based on the prevalence of diseases in the Australian population, the safety relevance of diseases with low prevalence, the publication of aeromedical guides by other NAAs, or identification of a priority topic by stakeholders or CASA.

CPGs are developed and reviewed using the following resources:

- Standards and Recommended Practices published by ICAO (Annex 1 Chapter 6)
- ICAO Manual of Civil Aviation Medicine (Doc 8984).
- Current clinical guidelines published by the relevant Specialist College or guideline group (Australian sources are used wherever available).
- Aeromedical guidance materials developed by other National Aviation Authorities.
- Input from senior aeromedical experts in Australia and internationally.
- Input from aviation operational, safety and industry representatives where necessary.
- CPG drafting and review process typically involves:
- Drafted (new CPG) or reviewed (current CPG) by aeromedical expert in collaboration with clinical expert.
- Review by CASA Senior Medical Officer group.
- Circulation for feedback from other NAA aeromedical sections.
- Final endorsement by CASA Aviation Medicine Section (delegated authority: Principal Medical Officer).

CPGs undergo a three-year review cycle, unless an out-of-cycle review is necessary due to a significant change in CASA policy or clinical practice.

Compliance Requirements

While CPGs are by definition "guidelines", they represent the best source of aeromedical information for making decisions regarding Australian aviation medical certificates. DAMEs, DAOs, COs, and other medical practitioners who follow the CPGs will be considered by CASA to have implemented best practice and to have fulfilled their professional obligations for evidence-based practice. Decisions that follow CPGs can be considered to be the safest and the most defensible ones from both aeromedical and medicolegal perspectives.

A decision that deviates from CPGs must be supported by relevant clinical information, clinical guidelines, or literature relevant to the clinical picture, and a detailed aeromedical risk assessment that describes why the alternative approach is safer, or no less safe, than the approach detailed in the CPG.

CASR 67.060 1(a) requires DAMEs to comply with requirements of the Examiner Handbook that apply to them; CASR 67.080 applies in the same way to DAOs. For the avoidance of doubt:

DAMEs and DAOs are required by the Examiner Handbook to:

- follow the CPGs when making decisions about, or providing advice regarding, aviation medical certificates, OR
- provide a detailed aeromedical risk assessment including reference to peer-reviewed literature and current clinical and aeromedical guidelines if the CPGs are not followed.

End of Chapter.

8. Quality Assurance of DAME, DAO, CAAC, and CO Performance

Expectations for Professional Standards and Behaviours

This section provides details on the expectations CASA has for any health care professional who holds a designation or other appointment from CASA and performs medical examinations and assessments for aviation medical certificates. DAMEs and DAOs are required to act in accordance with the conditions of their appointment. While CAACs and COs are not identified in CASR Part 67, they are expected to comply with the relevant ethical and professional standards in the same was as DAMEs and DAOs.

AMA Code of Ethics

In accordance with subregulation 67.060(1)(b) of the CASR, a DAME must observe the Code of Ethics of the Australian Medical Association, as that Code is in effect from time to time. The AMA Code of Ethics is designed to guide the conduct and behaviour of medical practitioners, and ensure that these behaviours meet the ethical, moral, and social obligations and expectations for medical practitioners in the community.

As holders of appointments under the CASRs, DAMEs and DAOs are expected to display the highest standards of professional conduct in their CASA functions and their wider professional role. These behaviours ensure confidence in the capability of CASA to deliver a trusted, fair, and effective aviation safety system.

DAMEs and DAOs who do not demonstrate compliance with the AMA code of ethics are in breach of the requirements of their appointment under CASR Part 67 and may have their appointment suspended or cancelled as a result of this breach.

Medical Board of Australia Code of Conduct

"Good medical practice: a Code of Conduct for doctors in Australia" (MBA Code of Conduct) is published by the Medical Board of Australia. It describes what is expected of all doctors registered to practise medicine in Australia. It sets out the principles that characterise good medical practice and makes explicit the standards of ethical and professional conduct expected of doctors by their professional peers and the community. The MBA Code of Conduct complements the AMA Code of Ethics document.

The MBA Code of Conduct is intended to support individual doctors in the challenging task of providing good medical care and fulfilling their professional roles, and to provide a framework to guide professional judgement. It is supported by a set of Guidelines that further detail expectations for professional performance in specific situations and circumstances.

For CASA's purposes, compliance with the MBA Code of Conduct is an underpinning requirement for compliance with the AMA Code of Ethics under 67.060(1)(b) and is fundamental to the appointment and performance of DAMEs and DAOs. CASA's regulatory philosophy includes reliance on information provided by experts who are acting in accordance with the accepted standards of their profession, so that regulatory decisions can be made using the best available information. In aviation medicine, this means the information provided through medical examinations by DAMEs and DAOs must conform to the professional standards specified in the MBA Code of Conduct.

DAMEs who have been found by AHPRA to have engaged in unprofessional conduct or professional misconduct or have otherwise breached the MBA Code of Conduct in CASA's opinion may have their appointment suspended or cancelled as a result of the AHPRA finding or breach.

CASA AvMed Code of Conduct for DAMEs, DAOs, CAACs, and COs

For the purposes of subregulation 67.060(1)(a) of the CASR, it is a requirement that each DAME must comply with this CASA Avmed Code of Conduct in the performance of his or her duties and functions as a DAME.

This CASA Avmed Code of Conduct supplements the requirements of the AMA Code of Ethics and the MBA Code of Conduct. The Avmed CoC addresses the particular role that DAMEs play in the process of medical certification under Part 67 of the CASR.

DAOs, COs and CAACs are not under the direct authority of CASR 67.060(1)(a) but are nonetheless expected to comply with the principles of this Code of Conduct, as well as that of their professional registration and membership bodies.

DAMEs, DAOs, COs and CAACs who do not demonstrate compliance with the CASA Avmed CoC are in breach of the requirements of their appointment under CASR Part 67 or their credentialing requirements as detailed in this Handbook and may have their appointment suspended or cancelled as a result of this breach. COs may also have their credentialing reviewed by Optometry Australia.

Registration Requirements

It is condition of appointment that DAMEs, DAOs, COs and CAACs are registered to practice in their respective clinical field with AHPRA.

More detail on the registration requirements for CASA aviation medicine appointments is provided in Chapter 3 of this Handbook.

Maintenance Of Professional Knowledge and Skills

Standards for clinical practice are constantly evolving, and DAMEs, DAOs, COs and CAACs are expected to be familiar with the current guidelines and expectations for clinical practice in their field of expertise. This clinical currency is managed through the CPD requirements for AHPRA registration.

Maintenance of knowledge in aerospace medicine relevant to their CASA functions is similarly an expectation for DAMEs, DAOs, COs and CAACs. The CPD requirements for appointment are detailed in Chapter 3 of this Handbook. In selecting activities for CPD, the aviation health care practitioner is expected to ensure that they have current knowledge in four key areas of aeromedical practice:

- Regulatory standards and their implementation
- · Principles of aeromedical risk assessment and decision making
- Clinical aerospace medicine guidelines and practices
- The role of aerospace medicine within the aviation safety system and industry

Requirements For Clinical Site Facilities and Equipment

It is a requirement of appointment that DAMEs, DAOs, and COs have appropriate facilities and equipment to be able to perform the required clinical and administrative tasks for completion of the aviation medical examinations. DAMEs, DAOs, COs and CAACs (where relevant) confirm their compliance with these requirements with their application for appointment using Form 755.

These requirements are:

- suitable examination room that ensures privacy for the applicant and practitioner, including an examination couch
- clinical diagnostic equipment, including:
 - ophthalmoscope and otoscope
 - a height measuring scale (cm)
 - weighing scales (kg)
 - sphygmomanometer
- simple urine testing facilities (urine "dipstick" for glucose, blood, and protein).
- Ishihara pseudoisochromatic chart (24 plate) for colour vision testing.
- visual acuity charts(s) for use at 6 metres.
- N series test types for near vision testing at 30cm and 1m.
- an electrocardiograph machine, or a reliable local source for obtaining ECGs when required (a specimen tracing on a normal subject from this machine may be required).
- computer facilities with reliable connectivity and security for access to MyCASA and MRS, including capacity to upload electronic documents to MRS.

DAOs and COs are required to provide appropriate facilities and equipment for eye examinations as required by CASA. This must include:

- retinoscopy.
- · gonioscopy.
- contrast sensitivity assessment.
- visual field assessment.
- slit lamp examination.
- assessment of visual acuity and refraction.
- Ishihara pseudoisochromatic chart (24 plate) for colour vision testing.

Equipment and consumables used for clinical measurement must be calibrated in accordance with manufacturer's instructions, within expiry dates, and in good working order.

Requirements For Documentation and Record-Keeping

In addition to the privacy, security, and document-handling procedures common to all clinical practice, CASA expects the DAME, DAO, CO or CAAC to maintain records of the following information, and make copies available to CASA on request:

- Record of attendance of the applicant for the aviation medical examination, including date, time, and duration of appointment.
- Record of findings of the clinical examination. MRS should not be used as a substitute for appropriate and compliant clinical record-keeping.
- Record of results of reports, tests and scans used by the DAME, DAO, CO or CAAC to form their aeromedical risk assessment and decisions.
- Where clinical data is collected for the medical examination by a clinician under the supervision of the DAME, DAO, CO or CAAC, the identity and qualifications of the person collecting that data.

Considerations for Conflict of Interest

DAMEs, DAOs, COs and CAACs must consider any real or perceived conflict of interest when they are performing their aviation medicine role. This includes issues where there is a social, personal, or family relationship with the certificate holder or applicant, or the provider may gain financially or otherwise through the outcome of the medical examination. The AMA Code of Ethics and MBA Code of Conduct and Guidelines provide particular advice on managing conflict of interest. In all cases, the most cautious approach is encouraged.

Professional Fees for DAMEs, DAOs, COs and CAACs

CASA does not set or recommend fees for general DAME, DAO, CO or CAAC examinations and attendances. Health care providers are encouraged to be familiar with the requirement of the Medicare Benefits Schedule as it relates to medical assessments for occupational reasons. It may be reasonable for a MBS rebate to be applied to attendances for the purpose of disease surveillance and public health recommendations for screening and early detection, even if the information gathered is also used for CASA reporting. Clinicians and applicants/certificate-holders must make their own decision regarding eligibility for MBS rebates in each case.

Audit and Compliance Activities

Section 9 of the Civil Aviation Act 1988 provides CASA has the function of conducting comprehensive aviation industry surveillance. It is a requirement for Designated Aviation Medical Examiners to demonstrate that they are able to provide a valid and reliable assessment of a person's health status with reference to the medical standard for certification, as specified in CASR Part 67, Examiner Handbook, and ICAO Annex 1 Chapter 6. Key to this demonstration is assurance that the clinical examination is performed by a person who is suitably qualified and currently credentialed to perform the examination (including any clinical staff under their supervision); in a facility that enables the examination to be conducted effectively; using equipment and resources that provide measurements and results that are reliable. This may take the form of an audit of aeromedical files, a practice site visit or both.

Audits may be triggered in any of the following ways:

- Random selection under CASA's normal quality assurance processes.
- Routine arrangements through CASA's normal periodic review processes.
- Focused audit due to identification of increased risk through CASA file reviews or external reports.
- Follow up audit after remediation process.

Audit of Aeromedical Files

In each case, the reviewing officer must consider this guidance in their consideration of the assessed DAME's performance, considering the DAME's level of qualification (DAME Course, Postgraduate qualification, Fellowship). Individual discretion will always be an element of qualitative assessment.

The domains across which the file audit is applied are:

- 1. Clinical. This domain considers the clinical work up, diagnosis and management. While not specifically aeromedical, the safety-critical nature of aeromedical work requires that the DAME's clinical performance is of a consistently high standard, particularly in the application of evidence-based medicine in practice.
- 2. Continuity. This domain considers the documentation of a clinical and aeromedical reasoning process and clinical pathway. The recorded information should be sufficient for a clinician unfamiliar with the details of the case to be able to assume oversight and management without needing to explore the record in detail or reassess the certificate-holder. The information should also be sufficiently detailed to provide a defensible record in the event of an ATSB investigation, ART appeal or other review.
- 3. Aeromedical disposition immediate. This domain considers the aeromedical decision-making process at the time of a clinical encounter (medical examination for certification or other DAME consultation) in terms of immediate or short-term fitness and safety for the certificate-holder to engage in aviation-related duties
- 4. Aeromedical disposition longer term. This domain considers the aeromedical decision-making process arising out of a clinical encounter in terms of medium- and long-term suitability for the certificate-holder to continue to be employed in aviation-related duties.
- 5. Aeromedical risk assessment. This domain considers the application of the aviation and health risk assessment processes to this case.
- 6. External performance reports. This domain captures the nature and number of any reports of unsafe, unsatisfactory, or inappropriate conduct provided to CASA from external sources such as applicants, health care providers or industry bodies.

Performance indicators for each domain are listed at each of four standards:

1. Safety-critical.

The performance has real potential to cause an adverse event in either health or aviation setting. The reviewing officer must initiate immediate (same day) corrective action to ensure an adverse event does not occur.

2. Inadequate.

The performance is not unsafe however does not fully cover the expected content. The omissions and errors are within the capability of the DAME to rectify, with guidance or additional education.

3. Adequate.

The performance meets the expected standards, and any omissions or errors are minor, do not require specific corrective action.

4. Exemplary.

The performance is of a high standard, there are no omissions or errors identified.

Practice Site Visit

The audit checklist includes professional facility and equipment measures that are considered reasonable and appropriate for a DAME to perform their task in accordance with the requirements of CASR Part 67 and this Handbook. It is acknowledged that not all DAMEs will perform all aspects of the medical examination onsite, and in some cases will have ancillary staff or external providers perform some elements of the examination. In those cases, the DAME must provide evidence that the service to which they have referred these elements is also suitably qualified, currently credentialed and using facilities and equipment that are reliable.

Where a standard is required to be demonstrated, the standard to be applied is that of the RACGP Standards for General Practice (current edition). Where the RACGP Standards cannot be demonstrated or the standard is not met, the DAME has the opportunity to demonstrate an alternative means of compliance. CASA must be satisfied that the alternative means of compliance represents a reasonable, safe, and effective approach that delivers against the expectations of Part 67.

Audit Findings

There are four categories of audit outcome for this process:

Tier 1: no concerns. Adequate across all domains.

Tier 2: minor concerns.

- Inadequate in any one domain.
- low-level issues that are not systematic and are not safety critical.

Tier 3: substantial concerns.

- Inadequate performance across multiple domains.
- Certificate-holder or other complaint received.
- Issue identified in unsafe behaviour report.

Tier 4: Safety-relevant concerns.

- Any safety-critical error identified.
- Multiple certificate-holder or other complaints.
- Issue identified from external authority such as AHPRA, ATSB or Coroners Court.

CASA Avmed has discretion to reduce or escalate any audit outcome based on an overall review of performance, risk assessment and discussion with stakeholders. Reduction of Tier 4 or escalation to Tier 4 must be approved by PMO.

Performance Management

When an issue is identified, based on the risk assessment of that issue the following actions may be taken:

- 1. Where the risk level is assessed as low or very low (remediation plan Tier 1-2)
 - a. CASA Avmed provide routine reminder/update regarding the issue in the Examiner newsletter and CPD activities.
- 2. Where the risk level is assessed as medium (remediation plan Tier 3)
 - a. CASA Avmed provide individual feedback to the DAME as a focused case review/s within 28 days.
 - b. CASA Avmed provide routine reminder/update regarding the issue in the Examiner newsletter and CPD activities.
- 3. Where the risk level is assessed as high (remediation plan Tier 4)
 - a. CASA Avmed provide individual feedback to the DAME as a focused case review within 7 days
 - b. DAME, DAO, CO or CAAC may be required to complete additional CPD or other educational activities to retain their appointment.
 - c. CASA Avmed provide routine reminder/update regarding the issue in the Examiner newsletter and CPD activities.
- 4. Where the risk level is assessed as very high (immediate action, individualised)
 - a. CASA PMO or DPMO provide individual feedback to the DAME as a focused case review on the same or next business day.
 - b. DAME, DAO, CO or CAAC is likely to be required to complete additional CPD or other educational activities to retain their appointment.
 - c. CASA may consider raising concerns with AHPRA.

In cases where a safety-relevant finding is identified through the file audit, the case will also be reviewed by a CASA SMO and any certificate action taken as required. Communication with the affected certificate-holder must also be done early in this process.

Suspension or cancellation of a DAME, DAO, CO or CAAC appointment may be considered in circumstances such as:

- multiple non-compliances or concerns are identified in an audit,
- continued issues are identified in follow-up audits despite remediation, if the DAME, DAO, CO or CAAC
 does not comply with the audit and performance management process, or
- The performance or behaviour of the DAME, DAO, CO or CAAC may result in non-compliance with CASRs, ICAO SARPs or may lead to a hazard to the safety of air navigation.

End of Chapter.

9. Guide to Medical Certification for Non-AMEs and Treating Doctors

The Class 5 medical self-declaration

Eligible private and recreational pilots who wish to perform limited non-commercial activities may choose to record a Class 5 medical self-declaration. These restrictions are provided in the Class 5 medical self-declaration instrument of exemption, and include:

- Aircraft MTOW up to 2000kg.
- 2 people on board (Class 5 pilot and one other).
- Maximum altitude 10,000 feet AMSL.
- Day Visual Flight Rules only.
- No aerobatics or formation flying.

The eligibility requirements are provided in the Class 5 medical self-declaration instrument of exemption. The essence of these requirements include that the pilot must:

- not have an excluded medical condition or medication
- consider the information in the Guidelines for Medical Assessment document, including consultation
 with a medical practitioner or other health care provider where recommended.
- not have ever had an aviation medical certificate cancelled or refused.
- provide a copy of any driver's license medical examination that they are required to undergo.
- renew their medical self-declaration at the prescribed interval.
- self-suspend or surrender their declaration if they become ineligible.

A requirement of the self-declaration is for pilots to seek advice from health care professionals when there is any doubt about the pilot's eligibility to self-declare. This would be the case when the pilot has a medical condition that requires a medical or clinical assessment to determine its severity, stability, or safety. The *Guidelines* provide detailed information for the majority of common or serious medical conditions, with information on the kind of medical or clinical assessment that should be performed and the compatibility of disease status and severity with safe flying (and therefore eligibility for self-declaration).

In general terms, the pilot should seek medical advice for any medical condition that requires:

- regular (annual or more often) review by their treating specialist.
- checks or surveillance using blood tests, scans or office tests that need to be done and interpreted by a medical practitioner or other health care provider.
- treatment with long-term medication.
- a driver's license medical certificate.

For the Class 5 self-declaration, the medical practitioner is not expected to provide advice on fitness to fly, they are providing advice to the pilot about the status, severity, and stability of their disease. The pilot then makes their own decision and declaration of eligibility.

The Basic Class 2 Medical Exemption

Private pilots can also fly under certain circumstances where a medical practitioner certifies that the pilot meets the **Australian Fitness to Drive unconditional commercial driver's license medical standard**. This is enabled by the instrument CASA EX86/24 – Medical Certification (Private Pilot Licence Holders with Basic Class 2 Medical Certificate) (CASA EX49/24 – Repeal Date) Amendment Instrument 2024.

Apart from the use of glasses and hearing aids, pilots wishing to fly under the Basic Class 2 exemption must meet the **unconditional** commercial driver's license standard specified in the AFTD document. In general, this means that the pilot must not have any medical condition or diagnosis that requires a **conditional** drivers licence. A **conditional** commercial driver's licence typically includes those that require periodic medical tests, reviews, or assessments, or requires the driver to have a driver's license medical assessment for the renewal of their commercial driver's license. This includes diseases not explicitly listed in the AFTD standards (for example, cancer or lung disease) where the treating doctor may still require the driver to hold a conditional driver's license under the provisions of AFTD Part A *Fitness to Drive Principles and Practices*.

Pilots seeking to fly under the Basic Class 2 exemption will make arrangements to see a medical practitioner and provide the doctor with a completed applicant questionnaire (CASA forms 1473). The doctor will be asked to perform a clinical assessment and complete forms 1474 (medical practitioner fitness report) and 1475 (medical practitioner clinical assessment record). The pilot will then notify CASA through MRS that the forms have been completed, and the decision of the medical practitioner. CASA may request the pilot to provide copies of all the forms and may also require the medical practitioner to provide further information about the pilot's medical condition and the basis for the medical practitioner's assessment. It is recommended that the medical practitioner retain a copy of all forms in their own records, as well as providing the originals to the pilot.

It is important for pilots and doctors to be aware that there is **no discretion** relating to the requirements of the Basic Class 2 exemption, even if the medical condition itself might be considered safe for flying. The legal basis of the exemption is determined by the eligibility for the **unconditional** commercial driver's license, and not by the nature, severity, or clinical status of the medical condition. If the **unconditional** commercial driver's license standard is not met, CASA has no option but to cancel the pilot's Basic Class 2 exemption.

In the majority of cases, a person who is not eligible for the Basic Class 2 exemption due to not meeting the unconditional commercial driver's license standards is likely to be eligible for a CASA-issued Class 2 medical certificate or a Class 5 medical self-declaration.

The Recreational Aviation Medical Practitioners Certificate

Under CASR Subpart 67D a recreational pilot can be issued a medical certificate by a medical practitioner, provided the pilot meets the modified Austroads medical standards specified in CASRs 67.263.

The applicant completes the applicant questionnaire section of CASA Form 166 and then undergoes examination and assessment by a Medical Practitioner. If the applicant meets the *Modified Austroads Medical Standards* as specified in CASR 67.263 the Medical Practitioner completes the relevant section of CASA Form 166 and submits that to CASA Aviation Medicine section.

The medical standard required for the RAMPC is the Austroads private driver's license standard (including the general considerations in AFTD Part A *Fitness to Drive Principles and Practices*), as well as the following requirements:

- No history of cancer in the preceding 5 years except where all of the following apply:
 - Basal cell carcinoma (BCC) of skin.
 - No metastases or other complications of the BCC, and
 - The RAMPC assessment is being completed by a specialist oncologist responsible for treatment of, or a medical practitioner with knowledge of the history of, the pilot's BCC.
- No history of any pathological ECG changes, even if there are no symptoms.
- · No history of heart failure, unless all of the following apply:
 - No symptoms of heart failure for at least 3 years
 - Has been assessed and is under the continuing care of a specialist cardiologist, and
 - The RAMPC assessment is being completed by a medical practitioner responsible for treatment of, or with knowledge of the history of, pilot's heart failure.
- Must be able to hear conversational voice at a distance of 2 metres with or without hearing assistance devices (see Chapter 6 of this handbook for guidance on assessing hearing function)
- No musculoskeletal or other movement or motor disorder that restricts the ability to operate aircraft controls or requires modified aircraft controls.
- No history of transient ischaemic attack or stroke
- No history of multiple sclerosis, cerebral palsy, or Parkinson's Disease.
- No history of renal colic or renal calculi.
- No active vertigo or history of benign paroxysmal positional vertigo.
- No history of head injury complicated by any of:
 - Loss of consciousness.
 - Post traumatic amnesia: and/or
 - Abnormal findings on brain CT or MRI.

Fitness to Fly for Aviation Self-Administering Organisations (ASAOs)

Organisations operating under CASR Part 149 as ASAOs are required to include an assessment of medical fitness for flying as part of their aviation safety systems and processes. While these organisations are responsible for setting the medical standards and providing guidance to pilots and treating doctors, the information in this Handbook and the Medical Guidelines can be used as a comprehensive resource for any pilot, controller or health professional. CASR Part 149 includes provisions for CASA to audit ASAOs in their medical standards and assessments, which would be expected to be consistent with the medical standards and assessments detailed in this Handbook and the Guidelines.

Passenger Fitness to Fly

The aviation environment presents the same physiological stressors to passengers as it does to pilots, and these should be considered when a person with medical problems chooses to fly as a passenger. Passenger impairment and incapacity may not present a direct hazard to safe air navigation; however, an in-flight medical emergency can still impact the safety of a flight through requiring an unplanned change to the flight plan, landing at an unfamiliar airfield, and the distraction of an acutely unwell or distressed passenger for the pilot to consider while flying, navigating and communicating.

Commercial air transport operators, particularly major national and international operators, will usually have processes in place for assessment of passenger fitness for air travel. The International Air Transport Association (IATA) guidelines are also a useful resource.

General considerations should follow the following principles; with consideration of the duration of travel not just in the air, but also travel to and from the airport, through security and customs, through the terminal, and the impact of any delays, cancellations or diversions.

- Would the passenger's health status be likely to get worse in an environment with low oxygen pressures, or with a reduced arterial oxygen saturation (below 92%)?
- Is the passenger's health status at risk of deterioration during the journey?
- Can the passenger manage their own medical requirements, including medications, devices, dressings, personal cares, and mobility, throughout the journey?
- Can the passenger carry and access their medications, devices, and other needs throughout the journey?
- Has the passenger's medical device or equipment (such as supplemental oxygen, CPAP device, insulin pump) been checked for safe operation in aircraft?
- Can the passenger safely mobilise throughout the journey, and within the aircraft cabin? Consider the physical environment such as the size of the seat, aisle width, toilet size and access?
- Can the passenger effectively manage any in-flight emergencies such as donning emergency oxygen
 mask and life jackets, fitting and releasing their seatbelt, and evacuating the aircraft using equipment
 such as emergency doors and slides?

Health care workers who are supporting a patient in their decision to travel by air should contact the airline or operator and seek advice as early as possible, to make sure the patient-traveller and their aircrew can enjoy a safe and easy journey.

Aviation Medicine for Treating Doctors

With tens of thousands of pilots and controllers in Australia, it is likely that most medical specialists have provided care to an aviation worker at some stage. Understanding a patient's occupational and recreational activities is part of the provision of comprehensive care for all people, so treating doctors should also enquire about whether their patient is a pilot or air traffic controller.

Doctors and other health care workers should understand how the aviation environment might impact their patient, and how the patient's health condition may impact the ability of the pilot or controller to participate safely in aviation duties.

This includes an understanding of:

- the aviation and altitude environment.
- the principles of flying operations.
- the critical physiological functions for safe flight (vision, hearing, orientation, cardiovascular and respiratory systems, neurological and cognitive functions in particular).
- · the physical and physiological stressors experienced during flight.
- the medical standards and regulatory processes required for flying in Australia and internationally.

Information can be found in this Handbook, in the Guidelines, and through education and training events provided by CASA, the Australasian Society of Aerospace Medicine, and other medical training and education providers. Using this information to inform the approach to care of pilots and controllers will help health care providers to engage with their patient, their employer and workplace, and the regulatory authorities to avoid or minimise the impact on their aviation duties.

Treating doctors also have an important role in providing advice and support to CASA in making decisions about aviation medical certificates. A positive and collaborative relationship that is informed by a full appreciation of the medical standards and the physiological demands of aviation roles is important for these doctors to be able to positively contribute to decisions for their pilot/controller patients and reduce the likelihood of delays or administrative challenges for their aviation medical certificates.

End of Chapter.

10. Medical Records System User Guide for DAMEs and DAME2s

CASA Medical Records System (MRS) is an online system that allows medical certificate applicants and examiners to perform all tasks related to the assessment and issuing of aviation medical certificates. This includes:

- Recording the applicant's medical history and symptoms.
- Recording the clinical information and measurements performed by the medical examiner.
- Providing a system for performing and documenting the risk assessment of medically significant and safety relevant medical problems.
- Providing a platform where documentation related to the medical examination and assessment can be securely stored and accessed.
- Generating the aviation medical certificate.
- Allowing secure payments to be made.
- Supporting secure communication between CASA, medical examiners and applicants relating to their aviation medical certificate.

Examiner key steps for using MRS

Examiners are required to complete each of these steps during the medical examination process. DAMEs not attending to details in their completion, for example by not providing important information relating to symptoms or investigations, is a common cause for delays in applicants receiving their aviation medical certificate.

Key steps for DAMEs are:

- Confirm identity of applicant.
- Complete medical assessment questions.
- Provide more information where required.
- Upload reports / tests as required.
- Finalise Problem list (problem mapping).

Other functions and roles within MRS

In addition to the core function of MRS, which is built around Class 1, 2 and 3 applications for DAMEs to manage, there are a number of other roles and functions within the system. All roles and functions are subject to the same obligations in terms of data security, privacy, and compliance under the CASRs.

Registered Nurses and other medical practice clinical support staff

DAMEs often use clinical staff in their practices to perform clinical measurements and enter the data into MRS. These staff must have their own Aviation Reference Number, which will be linked with the DAME(s) with whom they work. DAMEs retain full responsibility for the accuracy of any information collected and entered into MRS by their clinical staff.

Practice Managers

Administration staff within a DAMEs practice can access a limited set of MRS information, including information about when a certificate expires, and the required reports based on the Class of medical certificate and the applicant's age. This helps the applicant and DAME to arrange the examination appointment at the correct time, and to request the required tests in advance of the appointment. The Practice Manager is not able to access the CSR letters, which means the applicant must notify the DAME or their practice team of any tests and reports required for renewal of the medical certificate.

Applicants for Basic Class 2 Exemptions

Applicants generate the documents required to be completed for their Basic Class 2 medical certificate exemption.

Applicants for Class 5 Self-Declarations

Applicants complete their declaration and generate their Class 5 record in MRS. They can also upload any required documents such as their State or Territory drivers licence medical examination.

MRS also provides CASA with a highly specialised system for storing, searching, and reviewing medical information for the many thousands of pilots, air traffic controllers and aviation medical examiners involved in our aviation safety system. MRS provides a system for direct and secure communication with certificate holders and examiners, specialist medical practitioners and other authorised providers involved in medical assessments. The system ensures our data remains secure while being accessible and compliant with Australia's obligations to ICAO and the safety system.

Accessing MRS

MRS is accessed using the internet. If you have difficulty getting into the site, check your internet connection is working correctly.

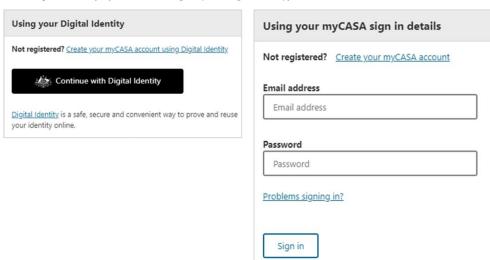
This can be done by searching for another site like www.google.com, if this search does not work there may be issues with your internet connection and you should contact your provider.

If your internet is working for other sites, but not the myCASA portal or MRS site please contact CASA.

Log In

Follow these steps to log into and access myCASA and MRS.

- 1. Open your web browser for example; Chrome Firefox, Internet Explorer. We recommend using Chrome for the best experience.
- 2. Type in the nominated email address provided for the initial set-up of the myCASA profile, to get into the MRS system (myCASA Login (b2clogin.com))



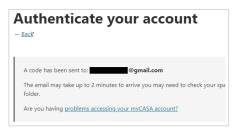
- 3. You should save this as your favourite, for easier access next time. To do this: click the star at the top left of the screen.
- 4. Should you have any issues with logging in, please contact CASA on 131 757 or by email at: applications@casa.gov.au.
- 5. Continue to 'Authenticate your account'

Authenticate Your Account:

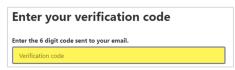
Follow these steps to authenticate your account.

What I need to do:

1. After logging in, you will be prompted to authenticate your account.



- 2. A code will be sent to your registered email address.
 - a. Enter the 6-digit verification code, sent to your email.



b. Click the 'Verify code' button to complete the authentication process.



Note: If you did not receive a code, click 'Send new code' button to request another code.

Once you are successfully logged in, you will be redirected to the myCASA portal.
 This is where you need to select (click on) 'Medical records system (MRS) – Examiners,' which will navigate you directly to MRS.



Note: If you do not see this option/system, please contact us on 131 757 or via email at: dame.liaison@casagov.au.

4. The acknowledgement agreement will pop-up.



- a. If you agree with the acknowledgement, mark (a tick will appear) the checkbox, then
- b. Click the 'Launch MRS' button.



5. Click the 'Begin' button.



End of Instructions.

Using MRS for the Medical examination

The process for completing a medical examination in MRS is listed below. Each step will be explained in detail in later sections.

- 1. Confirm the applicant has completed their initial steps.
- 2. Find the applicant in MRS.
- 3. Review the General details in the General tab.
- 4. Review the Applicant Questionnaire in the History tab.
- 5. Review the Clinical Measurements.
- 6. Complete the Examination tab (DAME Questionnaire).
- 7. Process the medical administratively:
 - a. Mandatory attachments.
 - b. Submission and declarations.
- 8. Complete the aeromedical process:
 - a. Problem mapping.
 - b. Upload further documents and reports.
 - c. Submission to CASA.
- 9. The Medical Assessment Report.

In order to submit a medical application all tabs must be completed. Switching between tabs can be done by clicking the tab labels and or the Previous / Next navigation keys.

Within each main tab there are sub tabs to the left of the screen, each sub tab focusses on different medical information required in order to complete the medical. You may navigate back and forth as desired between tabs.

Any tab marked with an in front of the tab label indicates that there is something within that tab that needs to be completed.

No changes to the application can be made once the application has been submitted to CASA. N.B: Once the application is in a DAMEs account, the applicant cannot update the history portion.

Applicant initial steps

Aviation medicals are conducted within MRS. Applicants will make the appointment with the DAME and should have completed their online medical application and obtained age based standard testing prior to the appointment. If an applicant has not completed and submitted their application prior to attending the medical examination with their DAME, the medical can still be conducted however, the applicant will still be required to complete the application and pay submit the application prior to the DAME conducting their examination. This may increase the time required to conduct the medical examination and in cases where the applicant's online medical application was partially completed and not submitted prior to seeing the DAME, advise the applicant to complete and submit the application.

Applicants need the following before having their medical assessment:

- An Aviation Reference Number (ARN).
- A Valid email address.
- Access to My CASA portal.
- Completed applicant questionnaire and Credit card payment.
- Completion of all required tests, with test results and reports available to the DAME at or before the Medical Examination appointment.

Find the Applicant file in MRS

The DAME home page allows you to see assessments in your work tray.

You can search for new applicants or find previous applicants you have assessed.

To the left of the screen, you can check and update your personal details, refer to the quick access useful links and a shortcut to email CASA.

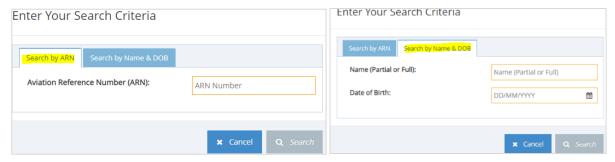
What I need to do:

- 1. To one the below:
 - a. Begin a new application, or
 - b. Notify CASA of a change in a medical condition, or
 - c. Perform a search on what age-based tests are required

Locate the 'Find Applicant' option/button.



2. Enter the ARN or select 'Search by Name and DOB' and enter the relevant details.



- 3. Select the appropriate option:
 - View Reports:

Determines exactly what age-based reports are required.

Notify CASA:

Where the applicant is not due for a medical, but their medical circumstances have changed, you can notify CASA using this option.

Begin Exam:

Where the applicant is due for renewal or wishes to apply for a CASA medical certificate.



End of Instructions.

Examination details - General tab

If the Applicant Questionnaire has been completed, the DAME will begin the medical examination starting with the "General" tab.

This tab allows you to see the applicant's details, a list of examiners the applicant has previously seen and certificate details.

What I need to do:

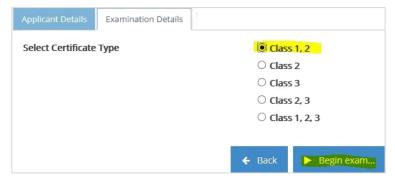
1. After searching for the applicant select 'Begin Exam' to start an application for medical certificate.



2. Check the applicant's details and select 'Next'



3. Select the Class type the applicant is applying for and then **Begin Exam**



4. You can now commence the exam (questionnaire).

If the applicant has not pre-filled the application, you will need to go through and enter/review the details for every question with the applicant in the 'History' tab.



End of Instructions.

General tab

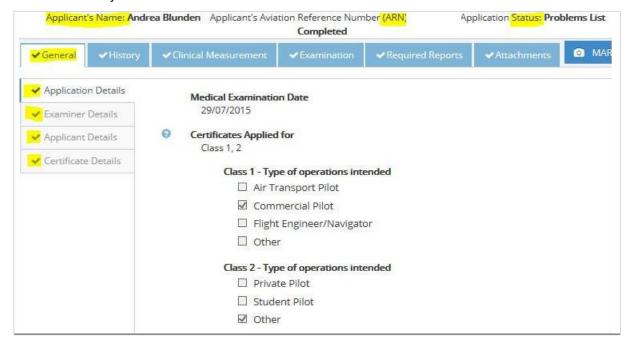
This tab includes the identifying and contact details for the applicant, the examiner, and previous examiners. The applicant's full name, ARN and application status details will always be visible at the top of the screen.

Application details

This section confirms the medical certificates for which the examination is being performed.

What I need to do:

Ask the applicant about the kind of operations they will be performing.
 This will inform the risk assessment and may guide any medical certificate conditions that are necessary to maintain safety.

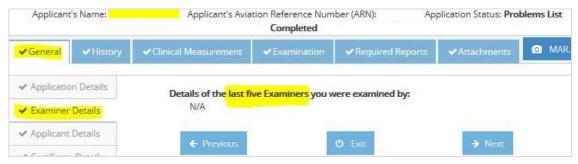


Examiner details

The examiner section allows you to see the last five DAMEs who performed examinations for this applicant.

What I need to do

1. DAMEs may consider discussing examination findings with a previous examiner.



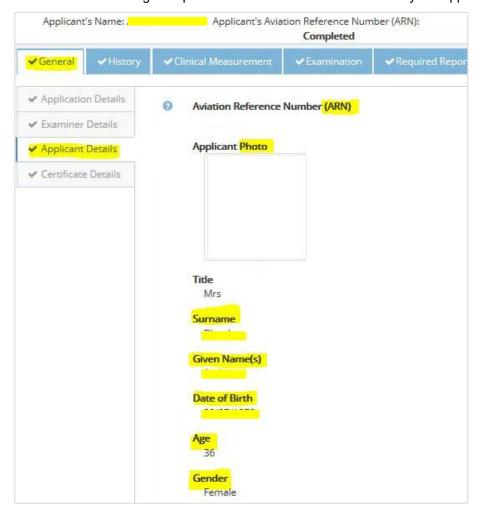
Applicant details

Confirmation of the applicant identity is a necessary step in conducting the online medical. The declaration completed at the end of the exam will prompt the DAME to confirm the applicant's identity.

What I need to do:

- Confirm the applicant's details to ensure the person attending the consultation is the applicant for the medical certificate.
 - If this is not the right applicant end the consultation and contact CASA.
 - If the applicant's details have changed like their postal address, contact numbers or email, please update these within the online application.

 All other changes of personal details will need to be done by the applicant directly with CASA.



2. Once you have completed the section, click 'Next'

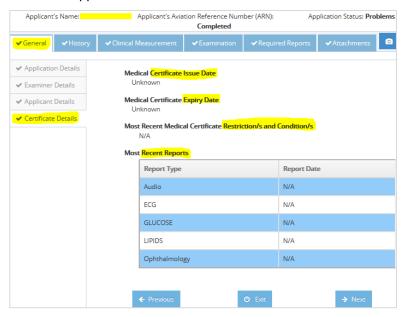
End of Instructions.

Certificate details

Certificate Details section allows you to see a snapshot view of the applicant's most recent certificate such as issue and expiry date, any restrictions or conditions and recent reports dates.

What I need to do:

1. Check the applicant's certificate details.



- 2. Review any restrictions or conditions that have previously been placed on the applicant's medical certificate.
- 3. Review recent reports undertaken.
- 4. Once you have completed the section, click 'Next.'

End of Instructions.

History: Reviewing applicant responses

Applicants are encouraged to complete the Applicant Questionnaire before attending for their DAME appointment. If they do not, the DAME will need to begin the exam and complete the relevant questions and medical history with the applicant. Some DAMEs will require the applicant to re-book their appointment due to the time required for the Applicant Questionnaire to be completed.

When reviewing applicants answers within the online medical questionnaire, the following may assist DAMEs while conducting assessments:

- Review any question answered 'Yes' or 'Unsure' by the applicant, ensure they have adequate
 information in the description field. DAMEs can update the entry where required by selecting the Add
 New button completing and updating the information as required.
- If any question has been answered 'No' but the answer should be yes, as the examiner you may update the response to that question.
- To view any previous answers to a question, select the information icon 1 located within the online questionnaire. Details will only be displayed where the information has been previously entered.
- Applicants may not always remember exact dates of medical significant events. The system only
 requires a month and year where required. The system also allows users to leave the month blank (year
 is mandatory). DAMEs should enter a year even if it is an estimate of when the event.

History - Medications

Applicants need to list all medication they have taken over the last four years. This includes medication or supplements that one can purchase over the counter, prescriptions that were provided to the applicant, but they did not take and intermittent medicine that maybe used. This information will be retained for subsequent applications.

The medication list requires the applicant and DAME to include:

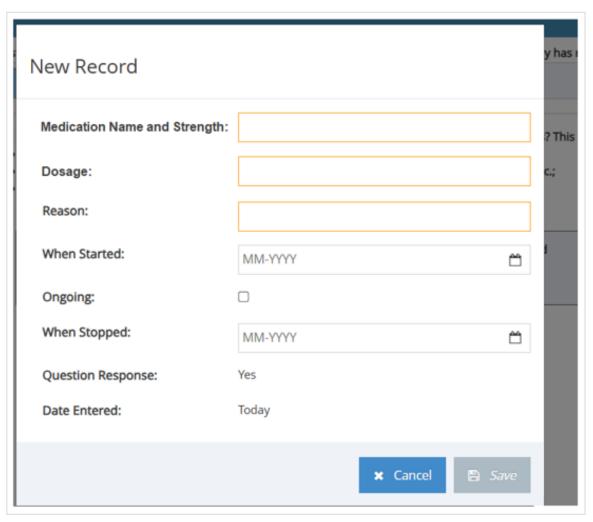
- Medication name and strength generic is preferred. For example, enter "omeprazole 20mg" instead of "Losec 20mg".
 - Medication dose for example, "one tablet daily."

Note: The reason (clinical indication) for medication.Note: If the medication is still being used (ongoing).

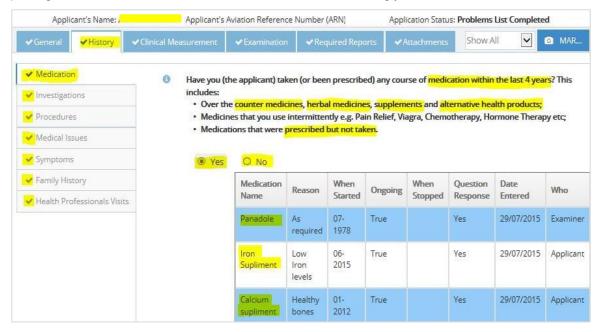
If not ongoing, note the date the medication was ceased.

If this is not completed, CASA will assume the medication is still in use and may require further information from the applicant.

- 1. Go through the list of medications the applicant has provided.
- 2. After talking with the applicant, add any medication over the counter or prescribed that is missing from the list.



3. Pay particular attention to any items listed that applicant should not be taking while exercising the privileges of their CASA medical certificate and advise accordingly.



End of Instructions.

History - Other Sections

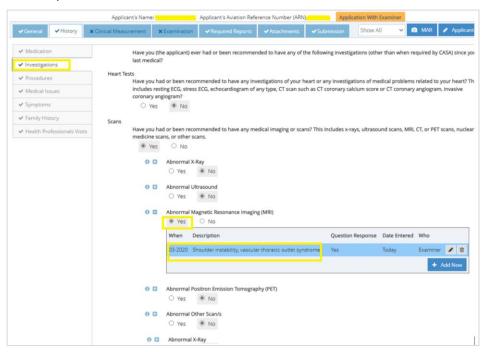
The History tab requires applicants to enter any medical event or concern that has happened to them. At their first medical examination, they will need to enter **all** medical information, whether they think it is safety relevant or not. At subsequent applications (renewals), they will be asked to provide updated information about their health **since their last medical**.

The History tab includes sections for:

- Medications currently being used or used in the last 4 years (including any that were recommended but the applicant did not take).
- Investigations, tests, and scans.
- Diagnosis of an diseases or medical conditions.
- Symptoms of illness, even if a diagnosis has not been made.
- Family history of any significant illnesses.
- Visits to any health professionals, even if no diagnosis or treatment took place.

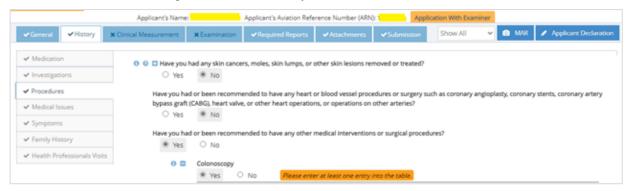
Example: Investigations

- Review all answers provided by the applicant and ensure they have adequate information in the description field.
 - DAMEs can update the entry where required.
- 2. If any relevant question to a medical condition has been answered 'No' and you would like to add a comment, click the add button \(\overline{\overline{1}}\) beside the question to add a comment (completing the date and description).
- 3. To review any previous answers to a question, select ①. If any information has previously been entered in the last five medical examinations, this will display on the screen.
- Applicants may not always remember exact dates>
 The system allow users to enter a year only, leaving the month blank.
 The day is not required.
- 5. Where applicants have had multiple events for one condition, for example, multiple obstetric ultrasounds for pregnancies, entering a single date with a note regarding the nature of the multiple events is acceptable.



Example: Procedures

- 1. Review the questions.
- 2. Ensure if 'Yes' has been selected there is adequate information in the description field so the safety relevance can be determined.
 - For example, in this case it may have been a screening colonoscopy due to family history, or it may have been done for a new diagnosis of inflammatory bowel disease.



Safety Relevant / Non-Safety Relevant Options:

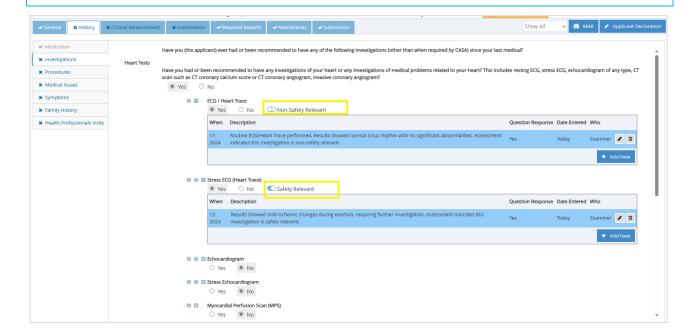
This function asks DAMEs to identify whether certain medical issues identified during a medical examination are safety relevant. Within MRS, when medical information is provided by the applicant or the DAME during the medical examination, the DAME will be provided with an option to advise whether the medical information or condition is safety relevant.

What I need to do:

- The toggle becomes visible after selecting 'Yes' for specific child questions under the following sections in MRS
- 2. A comment must be provided whenever selecting either 'Safety Relevant' or 'Non-Safety Relevant'

Note: CASA can lock a Problem as Safety Relevant.

Locked Problems cannot be changed to Non-Safety Relevant by DAMEs.

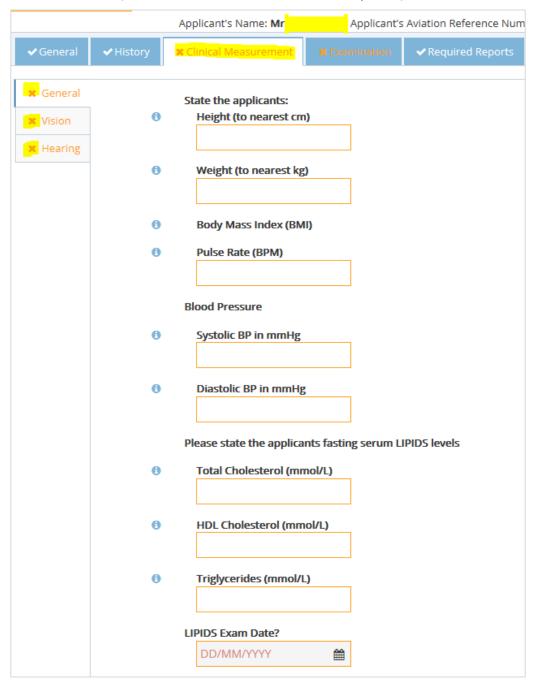


DAME: Clinical Measurements

This section looks at recording the clinical measurements for the applicant as shown below.

- 1. Review the questions adding in the appropriate results.
- 2. Make sure the information entered is correct and consistent with the clinical examination.

 Data entry errors will delay the assessment and issuance of the medical certificate (for example, transcription errors in recording the blood pressure or weight).
- 3. DAMEs remain responsible for data entered on the behalf by their practice clinical team.

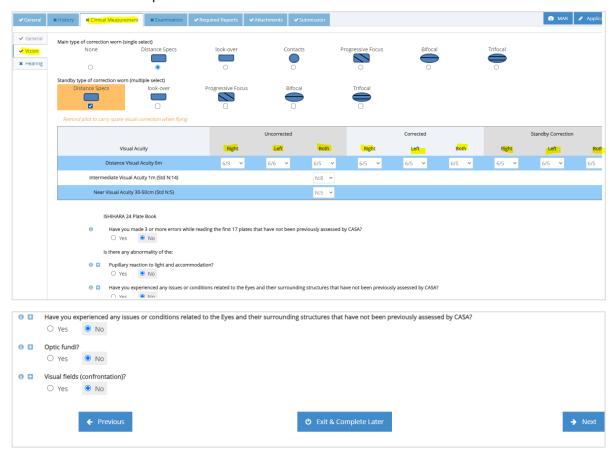


Vision Testing

Aged, based requirements may indicate the applicant needs to be seen by other specialists for example an ophthalmologist. Once the applicant has seen the ophthalmologist, the report will be attached to the applicants file which can be viewed from the document tree which is located at the end of the questionnaire. In any case the following visual acuity testing is required to be completed by the DAME.

- Conduct the eye examination entering the correct results in the tables and questions contained in this tab.
- 2. If there is an abnormality of the vision examination, the DAME should make arrangements for a further assessment, preferably by a DAO or CO.

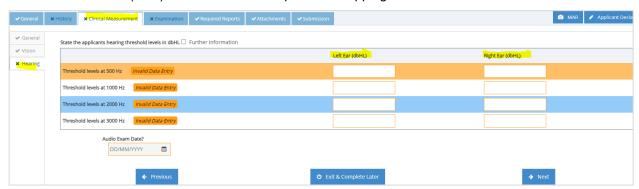
 Notify CASA that this has been done in the 'submission' tab by selecting 'yes' to the question 'Has further information been requested?'



Hearing

Age based requirements may indicate that a person is required to complete a hearing test.

- 1. Conduct the hearing test with the applicant and enter the values into the fields and the audio exam date and click 'Next'
- 2. If you are not completing the audio test on the day or, a third party is completing the test you can enter the values as '0' (zero) and note this in the problem mapping.

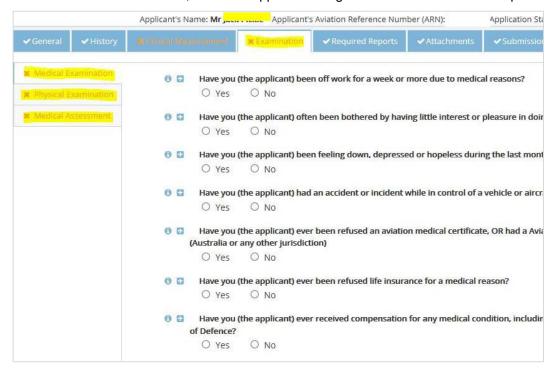


DAME – Examination Tab

This section looks at the medical examination (DAME assessment questions), the physical examination and the medical assessment. More details on the requirements for performing the physical examination are provided in Chapter X of this Handbook.

The "Safety Relevant" option described above in the Applicant Questionnaire section is also available in parts of the Examination tab, for the DAME to provide their opinion of the aeromedical risk presented by any of the positive examination findings.

- 1. Review each of the questions with the applicant in each of the tabs.
- 2. If 'Yes' has been selected, a box will appear seeking a date and a detailed description.

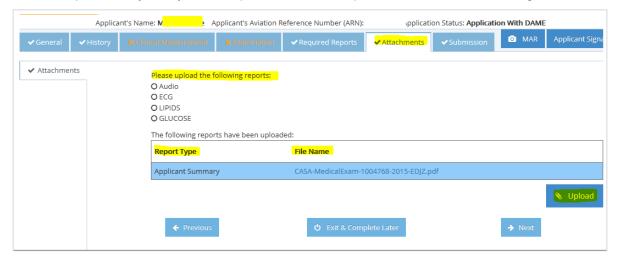


Completing the Process - Administration

Attachments

This section looks at reports the applicant is required to complete for mandatory age-related testing.

- 1. Select the 'Upload' button to upload relevant documents relating to the examination This includes:
 - Relevant age-related mandatory tests.
 - Reports of any safety-relevant procedures, health professional visits and investigations.



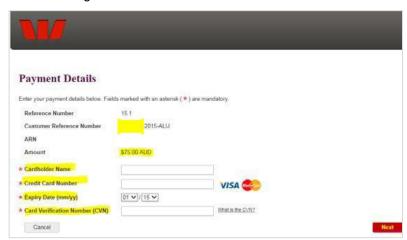
Make Payment

Applicants should have already completed the CASA processing fee process for a Class 1, Class 2, Class 3, Basic Class 2, or Class 5 medical certificate.

If they have not, the option for making payment is available from the DAMEs by selecting the 'Make Payment' button. This will direct you to the secure Westpac payments gateway.

Where payment has been *previously* made the 'Make Payment' button will be deactivated.

- 1. Select the 'Make Payment' button.
- 2. Confirm the ARN and amount with the applicant.
- Enter in the applicable credit card details, or Allow the applicant to enter the details, then Select 'Next'
- 4. Confirm payment by typing in the verification code.
- 5. If the 'I confirm that I want to process this duplicate payment' appears, it means the applicant has already used this particular credit card in MRS and may not be required.
- 6. Confirm with the applicant if they have paid.
- 7. If they have *not* paid for this medical, tick the box then select the 'Confirm' button.
- 8. If they **have** already paid for **THIS** medical certificate, select the 'Cancel' button and proceed to submitting the examination.



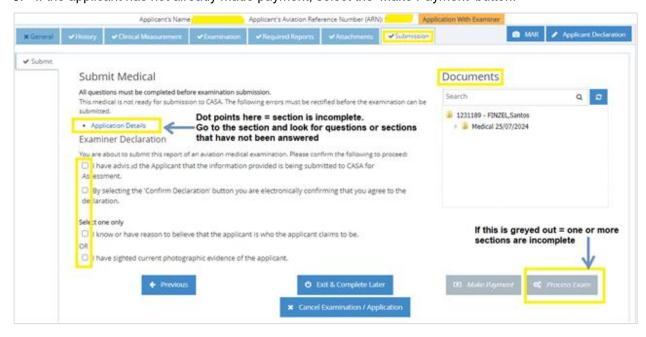


Submission and Declarations

This section allows you to process the exam.

The examiner confirms they have checked the applicant's identity and allows the declarations to be presented to the applicant and examiner for signature.

- 1. Ensure all documents have been uploaded.
- 2. Complete the declaration.
- 3. If the applicant has not already made payment, select the 'Make Payment' button.



Declaration

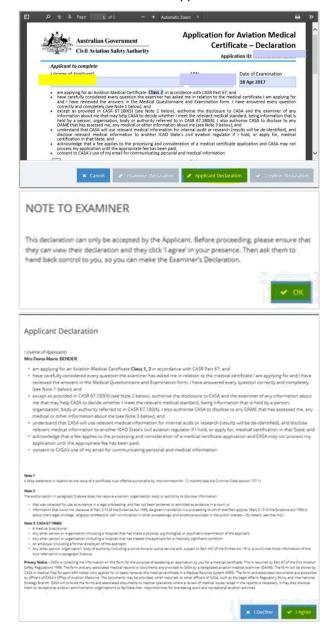
This section allows the examiner and applicant to complete the declaration form.

Applicant declaration:

The applicant must read the declaration and acknowledge that they are required to comply with the requirements. This includes:

- · Answering all questions completely and correctly
- Authorising disclosure to and by CASA of information relating to their application and certificate
- · Acknowledge the use of information by CASA for audit and research purposes
- Acknowledge the requirement to pay the processing fee
- Consent to CASA communicating with the applicant by email

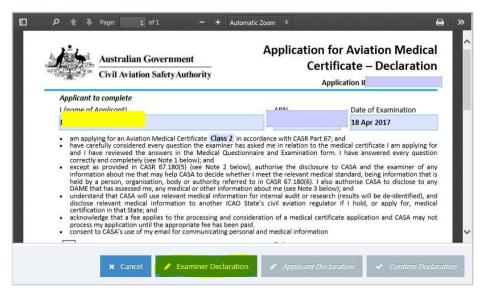
- 1. Select the 'Applicant Declaration' button.
- 2. At this stage, a notification will appear explaining the applicant must complete the declaration.
- 3. Once the 'OK' button has been selected:
 - A box will appear allowing the applicant to Agree to the declaration.
 - Please let the applicant read this declaration and tick the box if they agree.



Examiner declaration:

The examiner must read the declaration and acknowledge that they are required to comply with the requirements.

- 1. Repeat step for the Examiner.
- 2. Select the 'Examiner Declaration' button.
- 3. Select the 'I Agree' button.
- Once both the Applicant and Examiner have agreed to the declarations, then you can select the 'Confirm Declaration' button.

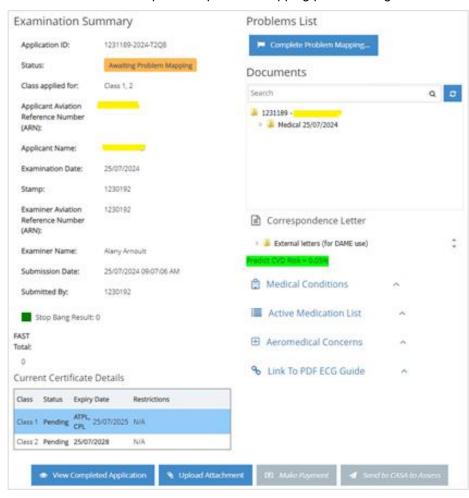




Aeromedical assessment and reporting

This section allows you to review the Examination, upload required attachments and complete the problem mapping.

- 1. View the completed application if required.
- 2. Upload any further documents.
- 3. You will need to complete the problem mapping prior to being able to send it to CASA for assessment.



Problem Mapping

For each relevant response in the Applicant Questionnaire and the Examination, MRS will generate an Unallocated Finding. SNOMED coding is the system used by CASA to record this data.

Problem Mapping is the process where Unallocated Findings are be mapped to a SNOMED code.

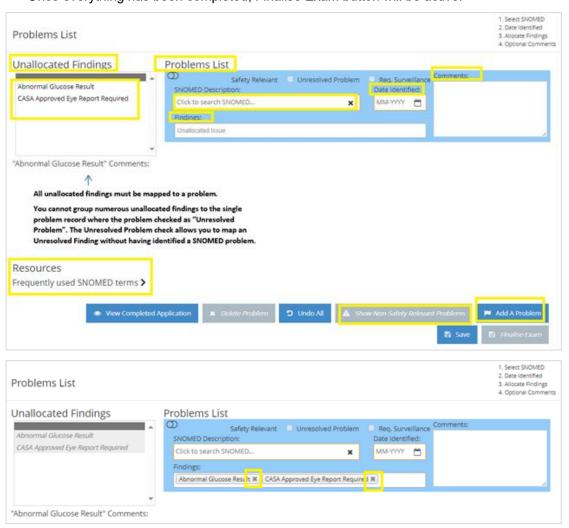
The SNOMED problem codes are for diagnoses, not treatments.

For example, you would search for "cholelithiasis" and not "cholecystectomy."

Findings may be related to each other for the same diagnosis, for example "abdominal pain," "ultrasound," and "liver function tests" are all related to the problem "cholelithiasis" so should all be mapped to the same Problem.

You can add Problems to the list by clicking the 'Add A Problem' button.

- 1. By selecting the toggle this provides a link between Unallocated Findings and the Problem. This allows you to select a range of findings allocating them to a single problem.
- 2. By selecting the 'Undo All' button this will undo ALL changes made on this tab.
- 3. If you mapped a Finding to a problem by mistake, select the 'X' at the end of the Findings label. This will send the finding back to the Unallocated Findings list.
- 4. When adding a new problem, ensure you select the toggle on that problem otherwise the findings will map to whichever problem was toggled.
- Ensure all details are complete, including date identified, unallocated findings mapped to a SNOMED code are entered (comments optional).
 Once everything has been completed, Finalise Exam button will be active.



SNOMED Confirmation Popup:

When DAME selects a SNOMED term from the "Search SNOMED" popup.

- 1. Marking as "Safety Relevant" checks the Safety Relevant checkbox.
- 2. Marking as "Non-Safety Relevant" unchecks it.



Note: Adding Safety-Relevant findings to a Non-Safety Relevant problem is blocked, with a warning popup:



Send to CASA for assessment

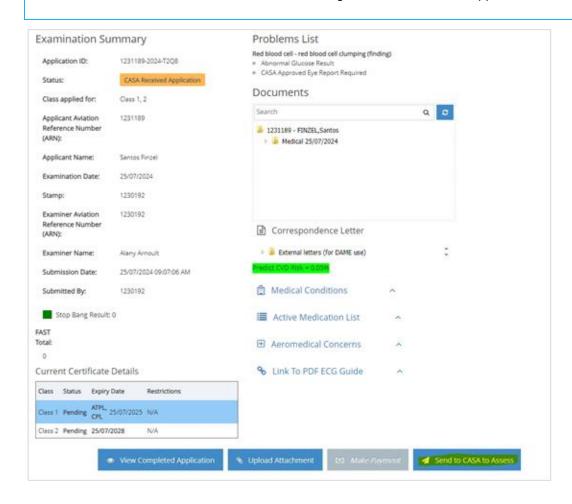
Once everything is complete you will be able to send the examination to CASA.

What I need to do:

- 1. Select the 'Sent to CASA to Assess' button.
- 2. A confirmation message will be displayed advising you that the send was successful.

Note: If CASA fee has been paid and the Problem Mapping is complete, the system will automatically submit the examination to CASA.

This will be reflected in the 'status' change to CASA Received Application.





Medical Assessment Report (MAR)

The MAR allows an examiner to look at the applicant's medical history with CASA, when a condition was identified, the SNOMED description, comments, and any safety relevant or surveillance requirements.

This is a read only view of the applicant medical history record with CASA. Details cannot be modified in this view of the MAR.

1. Select the MAR icon at the top right-hand side of any application.

MAR may be opened in a separate window by selecting the pop-out icon () Note: Application Status: Problems List MAR. ✓ Attachments Safety Requires Date Identified SNOMED Description Comments Relevant Surveillance Mild Asthma - daily Mild persistent 06-2009 preventative prescribed asthma to manage symptoms Patient sustained an injury resulting in unstable shoulder, bursitis - these were operated on - patient left Vascular thoracic 06-2008 with ongoing vascular outlet syndrome thoracic outlet syndrome, causing ongoing numbness in R/Hand. Sees Chiro every 6 weeks for realignment Medical Certificate Restrictions Class Valid to End Restrictions & Conditions

End of Chapter.

Class 1

29/07/2016 (Class 1 Air Transport Pilot)

29/07/2016 (Class 1 Commercial Pilot)

DAME2 Assessor

CASA Instrument CASA 26/18 — Issue of Class 2 Medical Certificates (Designated Aviation Medical Examiners) Delegation 2018 authorises DAMEs to receive, assess and issue aviation medical certificates for Class 2 pilots. The Medical Records System (MRS) therefore includes a function for DAME2s to perform this function using the "DAME Assessor" role. This process adds to the pathways for the majority of Class 2 medical certificates to be issued without requiring referral for assessment by CASA SMOs.

The DAME Assessor role provides for a complete start-to-finish process to be completed by the DAME2 during medical examination attendance by the pilot. This means that even those pilots with safety-relevant medical conditions can have a timely review and issuance of their medical certificate, and CASA can be assured that the assessment is being performed by a medical practitioner with suitable aerospace medical qualifications aligned with the risk acceptance level for Class 2 medical certificates.

Purpose

There are two main purposes of this user guide. They are:

- Set rules for how MRS is used as CASA official record of the DAME2's assessment of the medical status of a Class 2 pilot; and
- Provide education and reference materials DAME Assessors (DAME2s) to guide them in the proper and approved use of MRS.

This document should be read in conjunction with the CASA AvMed Work Instructions Manual, and with regard to the content of the DAME2 online training materials and the Examiner Handbook.

DAME2 Tasks

This section details the MRS tasks required in order to complete a DAME2 medical certificate application within MRS.

These tasks follow the completion of the Applicant Questionnaire by the Class 2 applicant, and the completion of the Medical Examination and Problem Mapping tasks by the DAME2. For detail on completion of those tasks, refer to the DAME MRS User Guide.

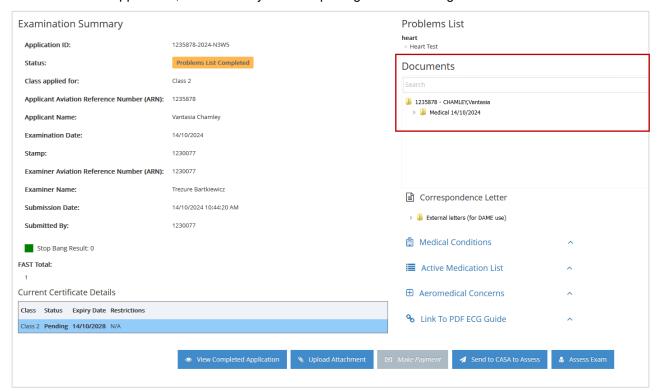
Reviewing the Medical Information

Refer to and follow the below four (4) steps when reviewing the medical information:

Step One

On the Examination Summary page, expand the Documents dropdown from the panel on the right, to show the applicant's previous medical examinations.

If this is an initial application, there will only be the reports generated during the current medical examination.



Continue to Step Two in Reviewing the Medical Information.

Step Two

Select and expand the relevant medical examination folder.



Continue to <u>Step Three</u> in Reviewing the Medical Information.

Step Three

Review the documents within the Medical folders from the previous medicals, in particular the most recent Medical. In particular, review any letters with 'CSR' in the title. These letters provide detail on the medical information that is required for the assessment of the current medical, based on the safety-relevant medical issues identified at the previous medical.

Double clicking the summary to display in a pdf viewer form.

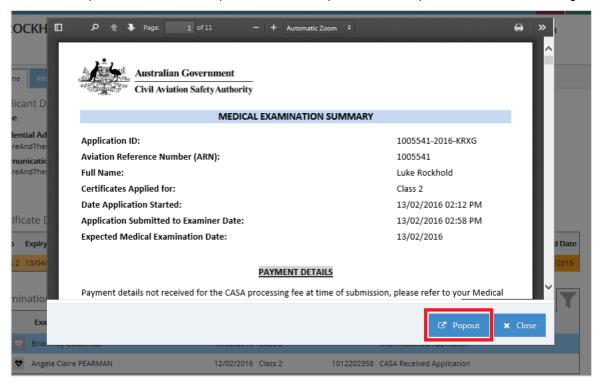
The information from previous examinations plus the information gathered during the current examination will provide the required details for the Problem list that must be confirmed when generating the Medical Assessment Report.



Continue to Step Four in Reviewing the Medical Information.

Step Four

Select the Pop-out button to create pdf version in a separate window (for view whilst still working in MRS).



End of Activity.

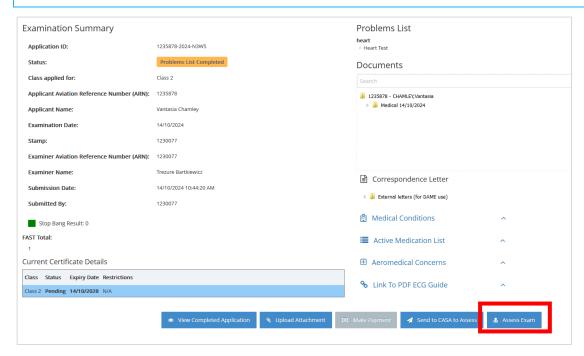
Assessing the Medical

Refer to and follow the below seven (7) steps when assessing the medical:

Step One

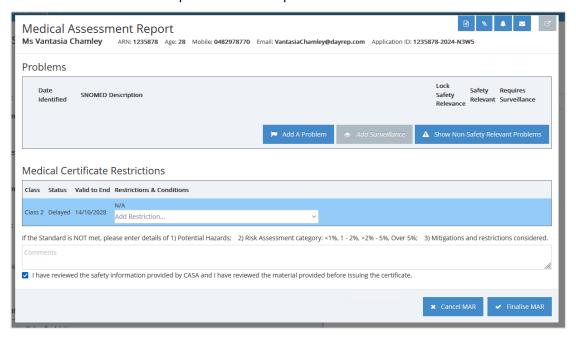
Open the Medical Assessment Report by selecting 'Assess Medical' on the Examination Summary screen.

Note: The 'Assess Medical' button will only be enabled (blue) after the applicant has completed the payment step using the 'Make Payment' button.



Result:

The Medical Assessment Report window will open:

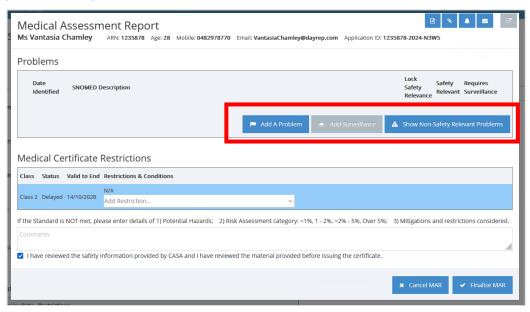


Continue to Step Two in Assessing the Medical.

Step Two

Review the Problems list, including the Non-Safety Relevant Problems, to ensure all Problems identified during current and previous medical examinations are captured in the Medical Assessment Report.

If information is missing or needs to be updated, select 'Add a Problem' or select an existing problem to provide the required information.



Continue to Step Three in Assessing the Medical.

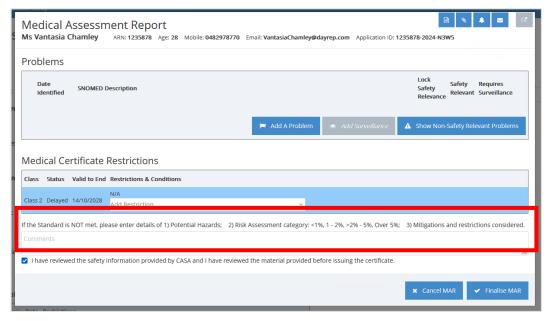
Step Three

Perform Risk Assessment

Using the DAME2 risk assessment guidance in the Examiner Handbook and DAME2 online learning, formulate a risk assessment for the current medical certificate to decide whether the certificate should be:

- Issued (see <u>Step Four</u> below)
- Issued with restrictions (See Step Five below)
- Send to CASA for assessment (See Step Six below)

Provide details of your risk assessment for each Safety Relevant Problem in the provided text box.



Step Three continued over next page...

Step Three Continued...

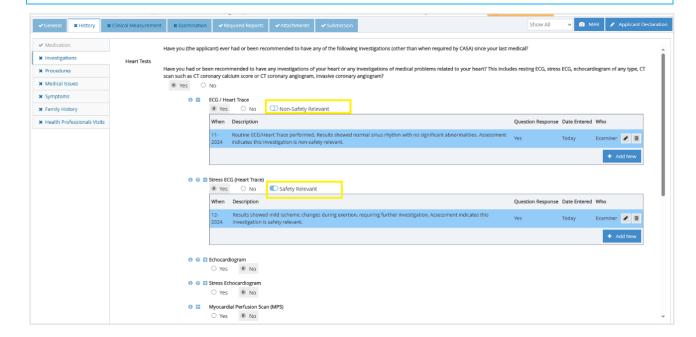
Safety Relevant and/or Non-Safety Relevant Toggle

This function asks DAMEs to identify whether certain medical issues identified during a medical examination are safety relevant.

Within MRS, when medical information is provided by the applicant or the DAME during the medical examination, the DAME will be provided with an option to advise whether the medical information or condition is safety relevant.

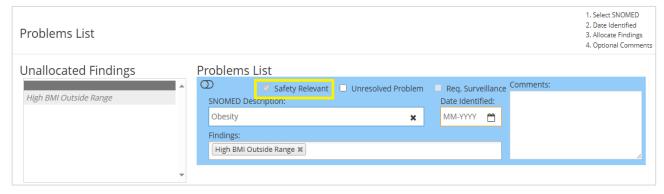
- The toggle becomes visible after selecting 'Yes' for specific child questions under the following sections in MRS:
- 2. A comment must be provided whenever selecting either 'Safety Relevant' or 'Non-Safety Relevant'

Note: CASA can lock a Problem as Safety Relevant.
Locked Problems cannot be changed to Non-Safety Relevant by DAMEs.



Problem Mapping Screen

- 1. A disabled checkbox for 'Safety Relevant' will appear at the top of the Problem.
- If checked, the Problem is 'Safety Relevant.' If unchecked, the Problem is 'Non-Safety Relevant.'



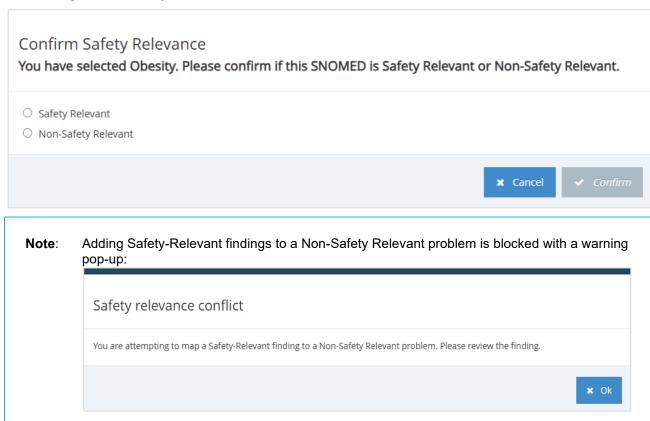
Step Three continued over next page...

Step Three Continued...

SNOMED Confirmation

When DAME2 selects a SNOMED term from the 'Search SNOMED' pop-up.

- 1. Marking as 'Safety Relevant' checks the Safety Relevant checkbox.
- 2. Marking as 'Non-Safety Relevant' unchecks it.

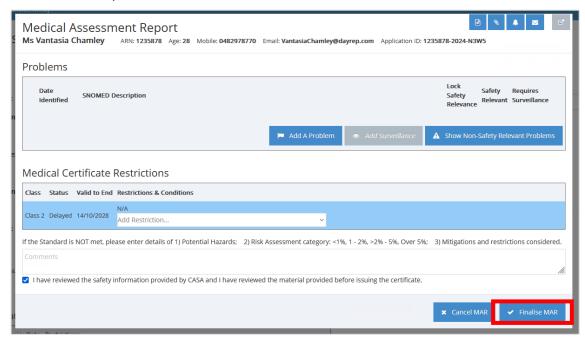


Continue to the appropriate Step, as directed in Perform Risk Assessment above.

Step Four

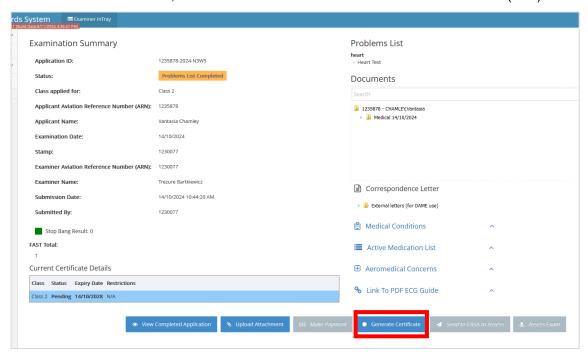
Finalise the Medical Assessment Report - No Restrictions

If there are no requirements for certificate restrictions, select 'Finalise MAR.'



Result:

The MAR window will close, and the button for 'Generate Certificate' will be enabled (blue).



Proceed directly to **Generating the Certificate** Instructions.

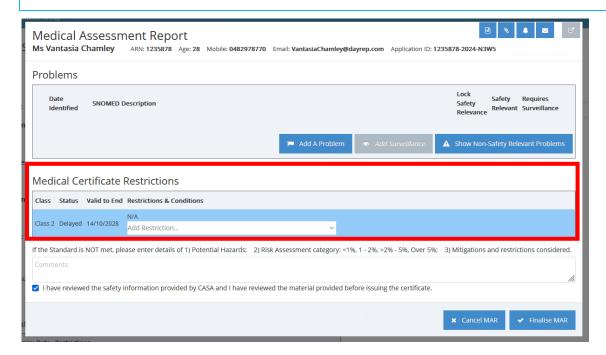
Step Five

Finalise the Medical Assessment Report - With Restrictions

If there are requirements for certificate restrictions as rick controls for the safety-relevant medical conditions, select the required restrictions from the list.

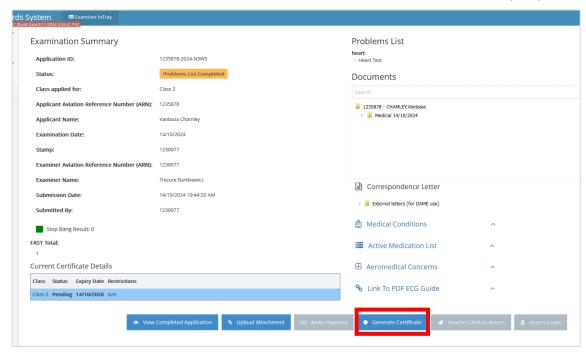
On completion, select 'Finalise MAR.'

Note: The DAME2 must provide risk assessment information in the text box to explain each of the restrictions selected with reference to the Problems.



Result:

The MAR window will close, and the button for 'Generate Certificate' will be enabled (blue).



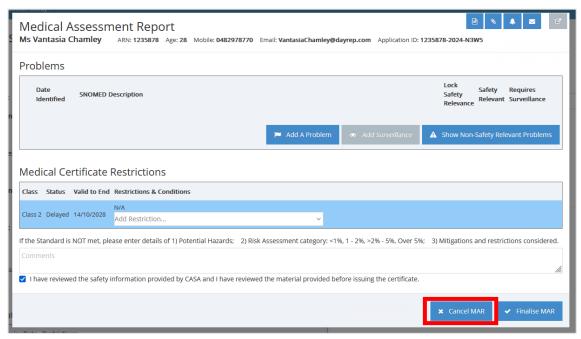
Proceed directly to **Generating the Certificate** Instructions.

Step Six

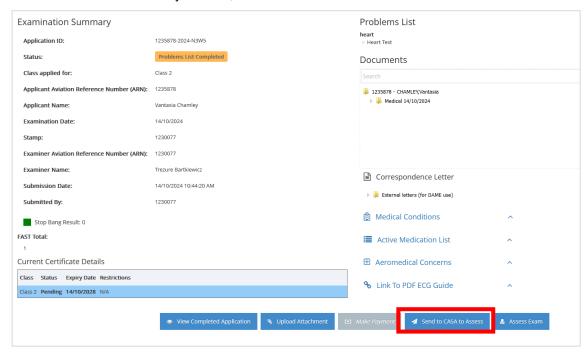
Send to CASA for Assessment.

If the risk assessment process identifies a safety-relevant problem which cannot be controlled using certificate restrictions or is beyond the scope of the DAME2's assessment role due to complexity, the DAME2 assessor should refer the certificate to CASA for assessment.

In that case, select 'Cancel MAR' to close the MAR window.



In the Examination Summary window, select 'Send to CASA to assess'



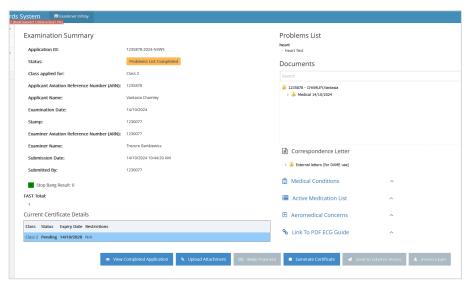
End of Activity.

Generating the Certificate

Step One

Generate the Certificate.

Select the 'Generate Certificate' button.



Result:

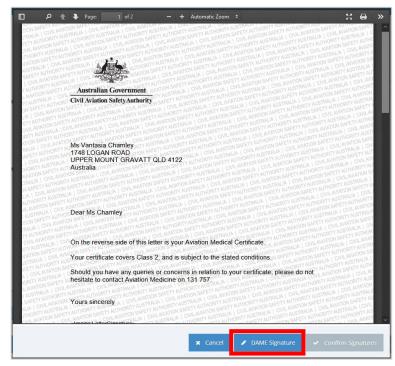
The DAME Declaration and Signature will open.

Continue to Step Two in Generating the Certificate.

Step Two

Sign the Certificate.

Select the 'DAME Signature' to open the window for the DAME to sign the certificate using your mouse cursor (or other tablet/stylus device if installed).

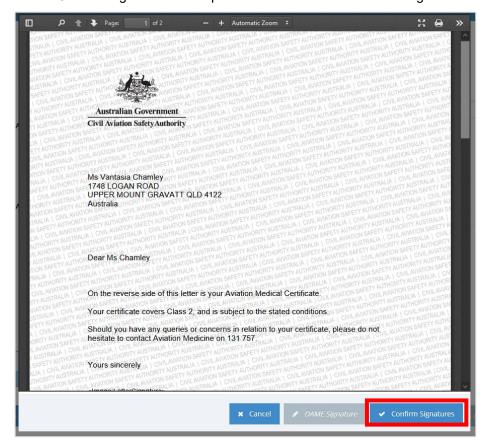


Continue to Step Three in Generating the Certificate.

Step Three

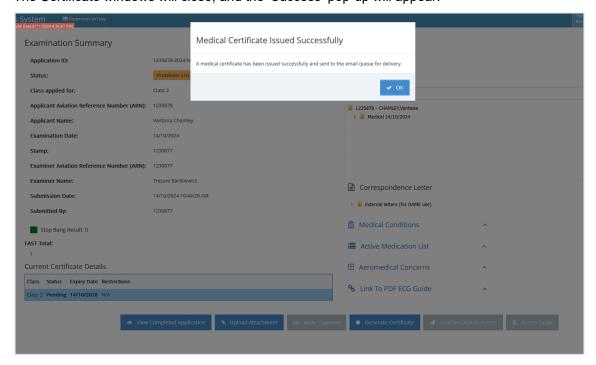
Confirm the Signature.

Select 'Confirm Signature' to complete the insertion of the DAME2 signature on the electronic certificate.



Result:

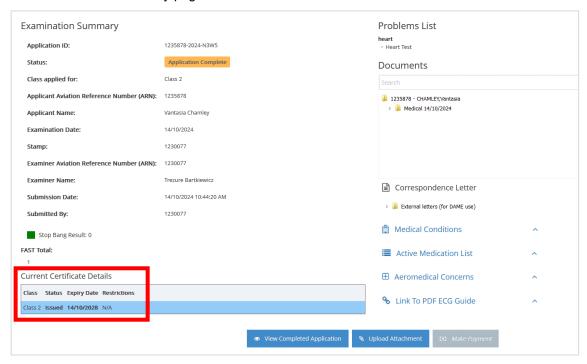
The Certificate windows will close, and the 'Success' pop-up will appear.



Continue to Step Four in Generating the Certificate.

Step Four

The Examination Summary page will show the Current Certificate Details status as 'Issued.'

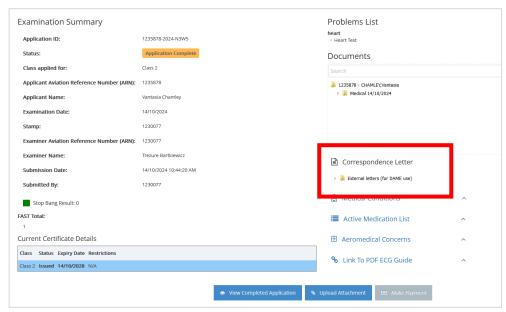


End of Activity.

Generating Surveillance Letters

Step One

Expand the 'External Letters (for DAME use)' tree in the Correspondence Letter section of the Examination Summary page.



Continue to Step Two in Generating Surveillance Letters.

Step Two

Select the required letter template from the list and edit the letter to match the surveillance requirements identified during the problem mapping and risk assessment steps.

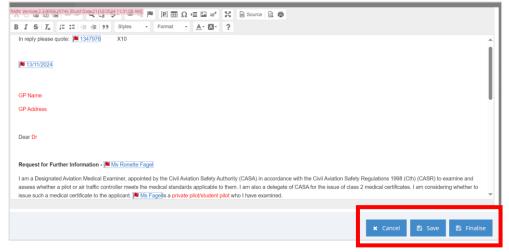
When the letter is completed, select 'Finalise.'

Note:

To save the letter for further editing later, for example, if more research or test results are required, select 'Save' in this situation, the letter will be saved in draft form in the Document tree for this medical so the DAME can return to it later for finalisation.

To discard this letter entirely, select 'Cancel.'

This action cannot be undone.

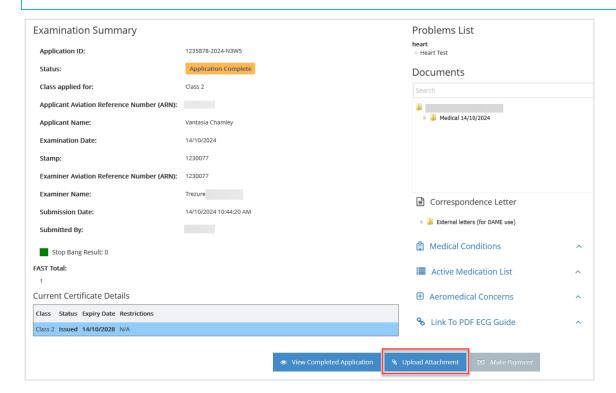


Continue to Step Three in Generating Surveillance Letters.

Step Three

Provide the Surveillance Letter to the Pilot, and Upload a copy to MRS as an attachment for the current medical.

Note: Finalised letters will appear in the 'Documents' tree for the current medical.



End of Activity. End of Chapter.

11. Requirements for DAME2s

This chapter outlines the administrative and performance requirements for DAMEs who are exercising their delegation to assess and issue Class 2 aviation medical certificates. DAME2s are also required to comply with the requirements of all DAMEs outlined in CASR Part 67, and in the other chapters of this Handbook regarding appointment, currency, responsibilities, and performance.

DAME2 Instrument

CASA Instrument EX 26/18 Issue of Class 2 Medical Certificates (Designated Aviation Medical Examiners) Delegation 2018 was made in April 2018, replacing the earlier version from 2016. The intent of this Instrument is to allow DAMEs to take on the role of Class 2 medical certification for private and recreational pilots, reducing the need for these medical certificates to be referred to CASA for management.

The instrument provides for any DAMEs with a current designation to function as DAME2s, provided they:

- Complete the required CASA training;
- Are familiar with and comply with CASR Part 67 and the requirements of the Examiner Handbook;
- Are familiar with and comply with the CASA Clinical Practice Guidelines and related guidance materials outlined in the Examiner Handbook,
- Use the online Medical Records System to issue aviation medical certificates;
- Maintain personal indemnity insurance of at least \$20 million per occurrence and in the aggregate, covering their actions as a DAME2.

The instrument delegates to DAMEs the authority to:

- Assess an applicant against the Class 2 medical certification standards detailed in CASR Part 67;
- Require the applicant to provide any information the DAME2 decides is necessary to complete the assessment and determination:
- Determine whether the standard is met, or where the standard is not met that the way I which it is not meat does not present a hazard to the safety of air navigation;
- Issue a Class 2 aviation medical certificate including with any restrictions or conditions necessary to maintain the safety of air navigation.

As a matter of policy, DAME2s are excluded from issuing medical certificates in three situations. These are:

- Psychosis (or an illness that causes psychotic features)
- Dementia (or an illness that causes permanent memory impairment)
- Epilepsy (or an illness that causes seizures)

If a DAME2 decides that an applicant does not meet the medical standard (even with conditions/restrictions) or has provided false or misleading information in their application the DAME2 can decline to issue the aviation medical certificate and send it to CASA for assessment. DAME2s are not authorised to refuse applications or to suspend or cancel current aviation medical certificates.

Appointment as a DAME2

DAMEs who seek to exercise their delegation as a DAME2 under this Instrument can have this function activated in their MRS profile by providing the CASA Examiner Coordinator with the following information:

- A copy of their certificate of currency from their indemnity insurance provider indicating \$20 million coverage for their actions as a CASA DAME2
- A copy of their record of training completion of the required CASA Avmed online course (available through the AvWorx online training platform)

Renewal of DAME2 appointment is automatic at each renewal of DAME appointment. CASA may also request an updated copy of the indemnity insurance certificate of currency indicating \$20 million coverage for the doctor's actions as a DAME2 at any time, including at the time of renewal of the DAME appointment.

If a DAME elects not to continue to exercise the DAME2 delegation, they do not need to notify CASA Avmed. However, if the DAME wants to remove the DAME2 assessment function from their MRS profile, they can request this from CASA Avmed at any time. Reinstatement of the DAME2 functions in MRS more than 12 months after de-activation will require further evidence of insurance as detailed above.

Performance Expectations for DAME2s

DAME2s are required to comply with the DAME duties, medical examination requirements and professional behaviours detailed in the Examiner Handbook chapters 2, 3, 4 and 8, respectively.

As the DAME2 is taking responsibility for assessing and issuing aviation medical certificates, they are individually accountable for their decision and must be able to explain their decision in the event of audit by CASA. More importantly, they must also be able to defend their decision if it is questioned by applicants or external entities such as insurance companies or as part of safety investigations. For these reasons, DAME2s are supported by CASA's production of detailed guidance material and opportunities for ongoing education and professional development. CASA also supports DAME2s with direct advice in making Class 2 certificate decisions. DAME2s are required to avail themselves of all these resources in a manner that aligns with the normal expectations of medical practitioner performance.

Performance Management for DAME2s

With the increasing responsibility of risk assessment and decision making taken on by DAME2s, they also will have increased oversight by CASA Avmed in the certification decisions the DAME2s make. This is an expectation of ICAO whenever assessments and certificate issuances are done by medical examiners. DAME2 certificates will be audited at the same rate as other DAME medical examinations, but a stricter threshold for performance and provision of evidence for decisions will be applied to DAME2 audits. As a guide, an issue identified for a DAME that is assessed at Tier 2 (minor concern) is more likely to be assessed as Tier 3 (substantial concern) for a DAME2 (refer to Chapter 8, in particular 'Audit Findings' of this Handbook for more information on DAME performance management and remediation).

Aeromedical Decision-making Expectations

In formulating their decisions on Class 2 certificate issuances, DAME2s are required to comply with the aeromedical risk assessment and decision process detailed in Chapter 2 of this Handbook.

Compliance With CASA AvMed Guidelines

CASA has prepared a comprehensive set of medical guidance material for DAMEs and DAME2s to follow in making their aeromedical risk assessments and decisions on medical certification. These are published as Clinical Practice Guidelines and Aeromedical Decision Guides through the CASA website and on MRS. CASA also promulgates aeromedical guidelines through webinars and seminars, the Examiner Newsletter, and direct communication to Examiners. The DAME2 Instrument of Delegation explicitly requires DAME2s to comply with CASA's Guidelines in order to exercise their delegation to issue Class 2 certificates.

This means that DAME2s do not have the discretion not to follow the CASA Guidelines if they are available and are clearly applicable to the application under assessment. If a DAME2 does not follow CASA Guidelines, CASA may decide that the medical certificate they issue may not be valid. The DAME2 may also be exposed to risk of not being covered by their indemnity insurance and will likely be subject to performance management under CASA Avmed's DAME and DAME2 performance management processes.

Reporting Expectations – When to Notify CASA, When to Refer to CASA

Of particular importance is the requirement to upload to MRS all reports and other information on which the DAME2 relies in making their decision. For other situations, CASA Avmed will pursue these records while completing the medical assessment process, but for DAME2s issuing Class 2s, the DAME2 is entirely responsible for providing evidence relating to their aeromedical decision.

If a DAME2 decides that the assessment of a particular application is beyond their scope or expertise, they may refer the application to CASA for assessment and decision. DAME2s are expected to assess and issue the majority of Class 2 medical certificate applications that are made through them and may be required to undergo additional training or review of their DAME status if they consistently decline to fulfil their DAME2 role.

If a DAME2 declines to issue an aviation medical certificate or considers that a current medical certificate should be suspended or cancelled, they must notify CASA within five days (under CASR 67.125) as it is by definition a safety-relevant matter.

End of Chapter.

12. MRS Online and Conditions

DAME Activities

In accordance with sub regulation 67.180(2) of the CASR, DAMEs examine Applicants to assist CASA in determining the Applicants' suitability for medical certification.

In performing this role, DAMEs will require access to MRS Online.

A DAMEs functions under the CASR May also include:

- Extending a current medical certificate under sub regulation 67.2220(1), and
- Issuing a new medical certificate under sub regulations 67.225(3) where a medical certificate has expired.

Sections '<u>DAME and DAO Powers under the CASRs</u>' and '<u>Examiner Key Steps for using MRS</u>' provide further information about the role of DAMEs and the purpose of the medical examinations they perform.

Overview of MRS 2.0

MRS 2.0 is a tool for processing applications for aviation medical certificates. It provides an online portal for applications to do the following:

- · Appy for a medical certificate
- Record medical information
- Submit examinations
- Make Payments
- · Check the status of their application
- Update their contact information

MRS 2.0 also allows DAMEs, in real time within a secure online environment, to do the following:

- · Carry out examinations and to submit examination findings
- Identify an applicant and receive alerts regarding the applicant's medical history
- Liaise with CASA

MRS 2.0 retains all information entered so DAMEs can reuse it at future examinations.

The information contained in MRS Online (MRS Records) comprises Sensitive Information about Applicants and their physical/mental health or disabilities.

For the purpose of DAME Activities, CASA will provide DAMEs with access to MRS Online subject to these Terms and Conditions.

CASA's Privacy Obligations

CASA's ability to use personal information contained in MRS Records is regulated by the privacy Act.

The APPs impose various duties on CASA to appropriately manage and protect the personal information it holds, especially sensitive information. These duties include obligations to make reasonable steps to undertake the following:

- Implement practices, procedures, and systems for ensuring compliance with the APPs (APP 1.2).
- Ensure the personal information it collects, and uses is up-to-date, complete, and secure (APP 10).
- Protect the personal information it holds from misuse and unauthorised disclosure (APP11.1).

Aside from its legal obligations, CASA is accountable for ensuring that Individuals can trust it to appropriately handle and protect their personal information.

These terms and conditions have therefore been designed to ensure CASA can satisfy not only its obligations in the regard but community expectations as well.

Access Rights to MRS 2.0

DAMEs can access MRS 2.0 for training or clinical purposes related to examinations. As appropriate, they can also use MRS 2.0 to:

- Upload reports and information for CASA to consider in assessing an Applicant's suitability to hold, or continue to hold, an aviation medical certificate and,
- In relation to applicants they examine, email those applicants (and only those applicants) certain MRS records relating to them.

CASA has configured the MRS 2.0 to grant DAMEs access rights to all MRS records, other than CASA's internal records. However, those rights are subject to DAMEs complying with these terms and conditions, including the duty only to access records they require for a legitimate purpose. To enforce this requirement, CASA monitors and routinely audits access to MRS online.

Where relevant to their duties, DAME personnel will also be able to access MRS 2.0 as authorised DAME personnel, though their access rights will be restricted to prevent them from accessing more information than they reasonably require to perform duties in support of DAME activities.

DAMEs are liable for:

- Actions logged under MRS online logins assigned to them or to authorised DAME personnel; and
- Access to MRS online by any DAME personnel.

Part 2 - Guide to terms and conditions

Objectives

These terms and conditions set out various security measures DAMEs must adopt to protect MRS records from misuse and unauthorised access/disclosure. These measures include ensuring the records are only accessed by those who are permitted to have them and who require them for a legitimate purpose.

CASA has taken certain security measures to protect MRS records. These measures include ensuring that MRS Online is only accessible to DAMEs and Authorised DAME Personnel using individual logins. CASA conducts regular audits of system access and may contact DAME as part of the audit process. CASA also has tools for detecting excessive or inappropriate use of MRS online and will investigate any suspected instances of these sorts.

Overview of Main Parts

The detailed requirements for DAMEs in using MRS online are set out at Part 4 to Part 8. Part 9 and Part 10 relate to arrangements for administering MRS online.

Part 4 requires DAMEs to establish a privacy management framework for handling and protecting MRS records. This is principally to ensure compliance with APPS 1.2 and 1.3.

Part 5 sets out the circumstances in which DAMEs can collect, use, and disclose MRS records it prohibits DAMEs from doing these things otherwise. This is principally to ensure compliance with APP 11.1.

Part 6 describes requirements for DAMEs to do each of the following:

- Ensure the quality personal information contained in MRS records whenever they collect, use, or disclose this information.
- Not upload material that is defamatory, misleading, inflammatory, or offensive.
- Store MRS Records securely.
- Destroy or de-identify Personal Information in Disused Records, where authorised by CASA.
- Destroy or return MRS Records (other than Relevant Records) where demanded by CASA.
- Remone and, if required, replace a Relevant Record that CASA reasonably objects to.

These requirements are to satisfy APPs 10 and 11. They assist to ensure that, whenever a DAME uploads a Relevant Record, the Personal Information in those records is as accurate as possible and up to date at the time of uploading.

Part 7 describes requirements for DAMEs to correct or alter Personal Information in Relevant Records, but generally only where it has notified CASA first. These requirements are to ensure compliance with APP 13. They include a duty for DAMEs to upload corrected versions of Relevant Records that are to contain incorrect, inaccurate, or incomplete Personal Information.

Part 8 details security measures DAMEs must adopt to protect MRS Records. These are to ensure compliance with APP 11 and to protect CASA's reputation as a trusted holder of sensitive information.

Part 9 sets out arrangements for managing IP Rights. The purposes of these provisions are as follows:

- Enable Material to be uploaded to MRS Online and shared without breaching IP Rights or Moral rights.
- Prohibit DAMEs from uploading Material if this would infringe another person's IP rights or Moral Rights.
- Permit DAMEs to continue to own IP Rights in the Material they create and upload.
- Grant CASA rights to use Relevant Records, including a right to license it to others for DAME Activities.

Part 10 relates to the general terms and conditions such as:

- The duty of DAMEs to cooperate in CASA's running of MRS Online, including a duty to assist in resolving an MRS Online inquiry, investigation, or complaint; and
- A disclaimer of CASA's liability for any loss resulting from errors in MRS Records.

Relationships to Code of Ethics

The obligations imposed on DAMEs through these Terms and Conditions parallel many of the ethical and privacy obligations of all medical practitioners to safeguard a patient's personal health record. These include the obligations of doctors under:

Clause 1.1 of the AMA Code of Ethics to:

- Maintain patient confidentially; and
- Ensure patient information is stored, accesses, and utilised securely.

The medical Board of Australia's Good medical practice: A code of conduct for doctors in Australia to:

- Protect patient privacy and confidentiality (clause 3.4); and
- Ensure medical records are held securely and protected against unauthorised access (clause 8.4.2).

AHPRA Shared Code of Conduct:

• The code describes the professional behaviour and conduct National Boards expect from registered health practitioners.

Breach of Terms and Conditions

In relation to DAMEs subject to Part 67 of the CASR. Any DAME who breaches these Terms and Conditions will be regarded by CASA as having breached their conditions of appointment under regulation 67.0606 or 67.080 of the CASR.

This includes conditions under sub regulations 67.060 (1) and 67.080 (1) that DAME observe the AMA Code of Ethics. Consequently, any breach of these Terms and Conditions may result in CASA cancelling the DAME's appointment under paragraph 67.095(1)(c) of the CASR for failing to meet a requirement for holding their appointment.

COs are not subject to Part 67 of the CARS. Optometry Australia appoint each CO to perform particular DAME activities (i.e., aviation eye examinations) under an agreement made between them, CASA, and Optometry Australia. This agreement includes the Credentialed Optometrist Rules (CO Rules). The CO rules oblige Cos to comply with:

- The Optometry Board of Australia's Code of Conduct for optometrists (paragraph 3.1(d)); and
- The Examiner Handbook (paragraph 3.1(f)(Viii)).

Consequently, any breach of these Terms and Conditions by a CO may result in Optometry Australia cancelling the CO's appointment under tule 3.4 of the CO Rules.

CASA may, in writing, cancel or suspend MRS Online access of any DAME or Authorised DAME Personnel if CASA is satisfied that any of the following has occurred:

- The DAME or any DAME Personnel has breached these Terms and Conditions.
- The cancellation or suspension is reasonably necessary to prevent a breach of these Terms and conditions.
- MRS online 's security or integrity has been, or may be, Compromised by the ICT System of their DAME organisation.
- The cancellation or suspension is otherwise appropriate, having regard to the need to protect MRS Online's security integrity.

CASA may, in writing, suspend MRS access of any DAME or Authorised DAME Personnel while it investigates whether to act under subsection 13.18.4 in relation to that person's access.

End of Part 2.

Part 3- Terminology

Definitions

The following terms and abbreviations have the following meanings:

Definition Meaning

- AMA Code of Ethics is the Australian Medical Association's Code of Ethics. AMA Privacy and Health Record.
- Resource Handbook means the Australian Medical Association's Privacy and health record resources handbook.
- Applicant means a pilot or air traffic controller who applies to CASA for an aviation medical certificate under Part 67 of the CASR.
- Authorised DAME personnel means and DAME Personnel who needs access to MRS. Online because
 of their duties in supporting DAME activities. This includes a nurse, receptionist responsible for assisting
 an applicant to book medical examination with a DAME.
- CISS means the Royal Australian College of General Practice's Computer and information security standards.

Definition Meaning

- ICT system means an information technology system used by a DAME Organisation that enables
 DAMEs and authorised DAME Personnel to access MRS Online to perform or support DAME activities. It
 includes all data, software, applications, and business systems held within, or transmitted over, the
 organisations ICT environment.
- Individuals means, in relation to personal information, the individual to whim the information relates.
- Intellectual property rights/IP Rights means all copyright, patents, registered and unregistered trademarks (including service marks), registered designs, and other rights resulting from intellectual activity (other than moral rights).
- Law means any applicable statute, regulation, or subordinate legislation in force from time in Australia, whether, made by a State, Territory, or the commonwealth. It includes the common law and rules of equity applicable from time to time.
- Material includes documents, equipment, software (including source code and object code versions), goods information and data stored by any means including all copies and extracts of them.
- Moral right has the meaning given at section 189 of the Copyright Act.
- MRS 2.0 means the new version of MRS Online, as described at clause 13.2. MRS online includes MRS 2.0
- MRS Records means the information contained in MRS Online, as described at subsection 13.2.3. It
 includes Personal Information contained in a record, as well as specialist medical reports and clinical test
 results.
- OAIC means the Office of the Australian Information Commissioner.
- Privacy Policy means a DAME Organisation's privacy policy, as described at subsection 13.11.1.
- Reasonable Steps has the meaning give at subsection 13.9.2.
- Redundant Account means, in relation to a user account on an ICT System, the account of an Authorised DAME Personnel who has left the DAME Organisation or who no longer requires access to MRS 2.0.
- Relevant Record means an MRS Record created, or uploaded to MRS, by or at the direction of a DAME for a DAME activity.
- Terms and Conditions means the terms and conditions on which CASA permits DAMEs to Use MRS Online, as set out in Chapter 13.
- Use includes, in relation to the use of Personal Information or an MRS Record, accessing, viewing, handling, cross-matching, searching, downloading, copying, printing, storing or otherwise handling that information/record.

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The term Reasonable Steps means, in relation to ensuring the quality and security of MRS Records, or to correcting or destroying an MRS Record, such steps as are reasonable in the circumstances, having regard to the following:

- the amount and sensitivity of the information.
- the resources and business model of the DAME Organisation.
- the risks and possible adverse consequences for the Individual if the steps are not taken.
- the information handling practices of the DAME Organisation, as set out in its Privacy Policy.
- the practicability of taking the steps, including the time and cost involved.
- in relation to steps taken to verify an Individual's identity, the steps are not unduly invasive and do not require the Individual to supply more information than is necessary for verification.

For further guidance about Reasonable Steps required to protect Personal Information in MRS Records, DAMEs should have regard to Part A of the OAIC's Guide to Securing Personal Information.

The terms DAME and doctor have the meanings given at definitions above.

The terms Australian Privacy Principles (APPs), Personal Information and Sensitive Information have the meanings given in section 6 of the Privacy Act.

Other abbreviations used in this chapter (e.g., CASA, CASR, CO and MRS Online) have the meanings given in the References section of this Handbook.

Interpretation

In this Chapter, unless otherwise stated:

- Words in the singular number include the plural and words in the plural number include the singular.
- Headings are inserted for convenience only and do not affect the interpretation of these Terms and Conditions.
- Words in text boxes operate as guidance notes only and are not to be regarded as obligatory provisions.
- All references to parts, sections and subsections are to parts, sections, and subsections of this chapter.
- All references to chapters are to chapters of this Handbook, and
- Where any word or phrase is given a defined meaning, any other part of speech or other grammatical form in respect of that word or phrase has a corresponding meaning.

To the extent that there is any inconsistency between this chapter and any other chapter, the provisions of this chapter will prevail.

End of Part 3.

Part 4 - Privacy Management Framework

Establish Privacy practices, procedures, and systems

Each DAME must ensure their DAME Organisation develops, implements, communicates, and enforces a Privacy Policy applicable to the organisation's management of MRS Records. The policy must be:

- · clearly expressed; and
- reviewed at least annually or whenever any new risk is identified.

If the DAME Organisation already has a Privacy Policy that can be applied or adapted to the DAMEs management of MRS Records, the DAME can satisfy subsection 13.11.1 by using that policy and updating it as required.

As a minimum, the privacy policy must describe processes for each of the following:

- Ensuring the Personal Information, the DAME Organisation collects and discloses is accurate, up-to date, and complete.
- Using, storing, and disclosing Personal Information.
- · Receiving and responding to privacy enquiries and complaints.
- Allowing individuals to access and correct their Personal Information promptly and easily.
- Employing appropriate measures (e.g., access control mechanisms, Firewalls, routing controls, copy protection and encryption measures) to ensure access is limited to:
 - DAMEs
 - on a need-to-know basis Authorised DAME Personnel
- Identifying, assessing, and managing security risks with Personal Information, including steps for:
 - ensuring Personal Information is appropriately handled by DAMEs and DAME Personnel (e.g., staff training and accountability/oversight measures).
 - safely transferring and tracking the movement of Personal Information inside the DAME organisation (e.g., measures for controlling the use of portable storage devices).
 - suspending or deactivating any Compromised Account or Redundant Account.
 - conducting regular reviews of security controls.
- Responding to any Data Breach in accordance with a DBR Plan.
- Destroying Personal Information that is no longer required for any legitimate business purpose, as required by APPs 4.3 and 11.2 (but in the case of MRS Records only where directed or authorised by CASA).

DAMEs must ensure these processes are systematically reviewed to ensure they remain effective and appropriate. Their Privacy Policy must demonstrate how and how often these reviews will occur. DAMEs should prepare their Privacy Policy in accordance with the OAIC's Guide to developing an APP privacy policy. The RACGP's privacy policy template on handling patients' health records can be policy template on handling patients' health records can be amended to include MRS Records.

CASA may, at any time, request a DAME to provide their Privacy Policy to check it is adequate for the purposes of this Part 4. The DAME must promptly comply with any request of this sort.

Date Breach Response (DBR) Plan

This section applies to DBR Plans, to the extent they can be applied to Data Breaches.

Each DAME must ensure their DAME Organisation develops, implements, communicates, and enforces a DBR plan setting out actions to be taken in response to a Data Breach and the personnel responsible for performing them. The plan must be:

- Clearly expressed
- · Reviewed at least annually or whenever any new risk is identified.

If the DAME Organisation already has a DBR Plan that can be applied or adapted to the DAME's management of MRS Records, the DAME can satisfy subsection 13.12.1 by using that plan and updating it as required.

As a minimum, the DBR Plan must describe the following:

- A strategy for assessing and containing Data Breaches, including the roles of personnel responsible for implementing the strategy.
- Procedures for detecting Data Breaches, such as:
 - network 'security alarm' tools (e.g., intrusion detection/data loss prevention software, audit analysis and countermeasures against malicious code).
 - Training for DAMEs and DAME personnel to information.
- How a breach can be identified and what constitutes a breach (including internal errors or failures to follow information handling processes).
- When and how a breach should be:
 - Notified to the affected individual and other third parties (which, in the case of MRS Records, include CASA) so they can take steps to mitigate its effects.
 - If required escalated to the DAME Organisation's response team.
- How the identification and response to a Data breach will be recorded.

Processes for evaluating the risks associated with a breach and for implementing measures to prevent future breaches.

DAMEs should prepare their DBR Plan in accordance with the OAIC's Data breach notification guide: a guide to handling personal information and security breaches.

Further guidance on preparing a DBR Plan available is available at section 2 of the CISS.

Note: CASA may, at any time, request a DAME to provide their DBR Plan to check whether it is adequate for the purposes of this section 13.12. The DAME must promptly comply with any request of this sort.

End of Part 4.

Part 5 – Dealings by DAMEs

Dealings by DAMEs

A DAME must not Collect, Use or Disclose an MRS Record except in accordance with this section 13.13. A DAME must not Use an MRS Record unless they genuinely need to do so for a DAME Activity.

A DAME may Collect, Use and Disclose an MRS Record where the collection, Use or disclosure is for any of the following:

- For the purpose of performing a DAME activity
- For the purpose of managing or operating MRS online
- In response to a request by CASA

A DAME may Use or Disclose an MRS Record containing Personal Information in any of the circumstances:

- They reasonably believe that:
- The use or disclosure is necessary to lessen or prevent a serious threat to an individual's life, health, or safety; and
- It is unreasonable or impracticable to obtain the individual's consent.
- They notify CASA of the matters in paragraph and identify any person to whom an MRS Record is disclosed.
- Where the notice under paragraph b relates to a disclosure, the disclosure occurs within five days after the notice is given.

A DAME may collect, Use and Disclose an MRS Record if the collection, Use, or disclosure is required or authorised by law.

Where the DAME discloses an MRS Record under subsection 13.13.4, the DAME must notify CASA of the reasons for the disclosure and the identity of the entity to which the record was disclosed.

A DAME may Disclose an MRS Record containing Personal Information to an Individual if the DAME is reasonably satisfied the disclosure is reasonably necessary for a DAME Activity or for the individuals health treatment.

If:

- An Individual asks a DAME for access to an MRS Record containing Personal Information; but
- The DAME determines the request cannot be granted under subsection 13.13.6, the DAME may not disclose the record but may notify the individual they can request it from CASA under APP 12.1 or under the Federal of information ACT 1982 (Cth).

Where a DAME is permitted under subsection 13.13.6 to Disclose to an Individual an MRS Record containing Personal Information, the DAME may not disclose it to anyone else unless that disclosure is permitted under another provision of this Section 13.13.

Dealings by Authorised DAME Personnel

This section applies to any Authorised DAME Personnel for whom a DAME or their DAME organisation is responsible.

A DAME must ensure Authorised DAME Personnel do not Collect, Use or Disclose an MRS Record except in accordance with this section 13.14. A DAME must ensure that Authorised DAME Personnel do not use an MRS Record unless they genuinely need to do so in support of DAME Activities.

Authorised DAME Personnel may only Collect and Use an MRS Record where the collection, Use or disclosure is for the following:

- For the purpose of performing a duty in support of DAME Activities.
- For the purpose of administrative management or operation of MRS Online.
- In response to a request by CASA.

Where an Individual requests Personal Information contained in an MRS Record, such information must only be disclosed by the DAME, excepting system information about periodic and special test requirements relating to medical certification.

For further guidance about the Use and Disclosure of Personal Information in MRS Records, DAMEs should have regard to:

- The CISS.
- Section 3 of the AMA Privacy and Health Record Resource Handbook.
- Part B of the OAICs Guide to securing Personal Information.

End of Part 5.

Part 6 - Integrity of MRS Records

Quality of MRS Records

DAMEs must take Reasonable Steps to ensure that, whenever they Collect, Use or Disclose personal information contained in MRS Records, that information is accurate, up-to-date, and complete.

As appropriate, the steps a DAME must take under subsection 13.15.1 may include the following:

- Implementing procedures to monitor the quality and accuracy of the Personal Information it holds and where practical, to update that information on a regular basis.
- Ensuring that updated or new Personal Information, once verified, is promptly added to relevant MRS records.
- Where the DAME proposes to Use or Disclose Personal Information that has not been verified recently, contacting the individual to check it is still accurate and up to date.
- Conducting due diligence to ensure that Personal Information Collected from a third party is reliable (e.g., by checking that it has appropriate quality practices).
- Assessing the quality of Personal Information before using it for a new purpose.

DAMEs must not upload or create an MRS Record that contains defamatory, misleading, inflammatory, or offensive material.

Storage and Security of MRS Records

DAMEs will take Reasonable Steps to protect against Data Breaches in relation to any MRS Records they hold or use, or their DAME organisation holds or uses.

DAMEs must ensure that all MRS Records containing Personal Information are stored and managed and in compliance with the security requirements described at Part 8.

In accordance with those requirements, DAMEs must ensure access to those records will be restricted to themselves and to Authorised DAME Personnel within their DAME Organisation.

Destruction of Personal Information in Disused Records

This section applies to MRS Records containing Personal Information, being records the DAME no longer requires for any Use or disclosure allowed under the APPs (Disused Records).

DAMEs must not destroy or de-identify any MRS Records except as authorised or required in writing by CASA.

In relation to any Disused Record a DAME Holds, the DAME must destroy or de-identify any Personal Information in that record where authorised or required by CASA under subsection 13.17.2.

Where a DAME is required to keep a Disused Record, they must ensure the record is stored separately from the DAME Organisation's operational information and preserved in accordance with any reasonable requirements set by CASA.

Destruction of MRS Records On Demand

CASA may, at any time, request in writing for a DAME to destroy an MRS Record Held by the DAME (other than a Relevant Record).

Unless subsection 13.18.3 applies, a DAME must do the following:

- Promptly comply with any demand made by CASA under subsection 13.18.1.
- If required by CASA provide CASA with an assurance, it has complied with the request.

A DAME is not required to comply with a request by CASA under subsection 12.18.1 to destroy material in an MRS Record if the DAME is required by Law to retain the material and has so informed CASA in writing.

If CASA makes a request under subsection 12.18.1 relating to material contained in an MRS record that the DAME:

- Has Disclosed to another person pursuant to subsections 13.13.3 or 13.13.4. or
- Knows has otherwise been placed so that it is beyond the possession or control of the DAME or the DAME organisation.

The DAME must provide full particulars (so far as they are known to the DAME) of the whereabouts of that material and the identities of those who possess or control it.

Removal of Relevant Records

CASA may effectively remove from MRS, or may direct a DAME to effectively remove from MRS, a Relevant Record to the extend CASA reasonably considers that the record:

- Contains a defamatory, misleading, inflammatory, or offensive statement; or
- Affects, or is likely to affect, MRS online 's security or integrity.

Where CASA exercises its rights under subsection 13.19.1:

- It must give the responsible DAME written notice of the removal and provide reasons for its decision; and
- It may direct the DAME to:
 - Upload a replacement record addressing CASAs concerns; and
 - Notify CASA when it has done so.

End of Part 6.

Part 7 - Correction of Relevant Records

Correction of Relevant Records

This part applies where CASA is required under APP 13 to correct or alter Personal Information contained in relevant record.

CASA may request a DAME to do the following:

- · Correct or alter Personal Information in a Relevant Record.
- Upload the amended record to MRS.
- Notify CASA when it has done so.

If a DAME refuses to comply with a request under subsection 13.20.2, CASA may direct the DAME to do the following:

- Attach to the record a statement prepared by the Individual in relation to the Personal Information contained in the record.
- Upload the record and statement to MRS.
- Notify CASA when it has done so.

Correction of Relevant Record on DAMEs Initiative

Where a DAME is satisfied a Relevant Record, it Holds is incorrect, or an Individual is able to establish it is incorrect, the DAME must (subject to subsection 13.21.3) take Reasonable Steps to correct the information so that it is accurate, complete, and up to date.

Where this information is in a Relevant Record that is over 15 years old, the DAME must not alter the record, but must do the following:

- Prepare a statement to:
 - Note the information is not correct.
 - Describe the correct information or else identify where it is held.
 - Attach the statement to the record.
 - Upload the record and the statement to MRS.
 - Notify CASA when it has done so.

The DAME must not correct, alter, or attach a statement to any Relevant Record without first notifying CASA in writing that the DAME intends to do so.

A DAME must not alter any MRS Record other than a Relevant Record except as authorised or required in writing by CASA.

Correction of Relevant Record at Individuals Request

Where an Individual requests a DAME to correct Personal Information in a Relevant Record, the DAME must respond to the request within 30 days and must not charge for the request or for any corrections it makes.

If the DAME refuses an Individual's request under subsection 13.22.1, the DAME must:

- Give the individual a written notice setting out the reasons for its refusals.
- Provide CASA with a copy of that notice.

If the DAME agrees to an Individual's request under subsection 13.22.1, it may correct or alter the Relevant Record in accordance with the procedure described in section 13.21.

End of Part 7.

Part 8 – Security Measures

Overview of Security Measures

DAMEs must ensure that their DAME Organisations implement appropriate safeguards to protect MRS Records they Collect, Hold or Use. These safeguards must include measures for maintaining the following security types for the purposes required under the organisation's Privacy Policy.

- Physical security includes physical measures designed to:
 - Prevent Data Breaches and to detect and respond to intruders.
 - Ensure appropriate storage of MRS Records Held by the organisation; and
 - Ensure the secure destruction of MRS Records, or of Personal Information in Disused Records, where required or authorised by CASA.
- Information security means a procedural system implemented to protect against Data Breaches.
- ICT security means technological measures designed to ensure the ICT System:
 - Restricts MRS access to DAMEs and Authorised DAME Personnel (e.g., access control mechanisms and encryption measures).
 - Can monitor and audit the Use of MRS Records within the DAME Organisation; and
 - prevent and detect Data Breaches (e.g., copy protection, Firewalls, routing controls, intrusion detection/data loss prevention software).
- Personnel security means a procedural system implemented to ensure that the only people who can access MRS are:
 - DAMEs
 - Authorised DAME Personnel whose suitability for having access has been determined by an appropriate evaluation process.

The security safeguards required under subsection 13.23.1 must reflect:

- · The sensitivity of the MRS Records they are designed to protect, and
- the damage CASA or the Individual could suffer as a result of any Data Breach relating to those records.

For further guidance about security measures required to protect Personal Information in MRS Records, DAMEs should have regard to:

- The CISS
- Section 3 and 4 of the AMA Privacy and Health Record Resource Handbook, and
- Part B of the OIAC's Guide to securing personal information.

User Account Management within DAME Organisation

This section applies to ICT Systems, to the extent they allow access to MRS.

Each DAME must ensure their DAME Organisation employs an ICT System with the following features to managing user accounts:

- Control mechanisms to ensure access to the system is limited to:
 - DAMEs
 - On a need-to-know basis Authorised DAME Personnel
- Access Mechanisms (e.g., passwords) that:
 - Are sufficiently secure and robust to manage the risk of Data Breaches.
 - Oblige users to change their password at least every 90 days or whenever they suspect their password has been compromised.
 - Do not permit users to reuse any password they have used within a past year.
 - Suspend access after five unsuccessful log-on attempts or where an account has been inactive for more than 60 days.
- Audit logs and security controls to:
 - Monitor and audit the Use of MRS Records within each account.
 - Identify any Data Breach or misuse of access privileges, whether attempted or actual.
 - Protect the integrity of MRS Records held by the organisation.

Each DAME must ensure their DAME Organisation employs the following practices for managing user accounts on ICT systems:

- Any Redundant Account is deactivated within a reasonable period after it becomes redundant.
- Any Compromised Account is suspended or deactivated as soon as practicable after the DAME
 Organisation becomes aware it has been compromised, in accordance with the procedures documented
 in the organisation's Privacy Plan, as required under paragraph 13.11.3f(iii).

Notification of Changes and Data Breaches

A DAME must promptly notify CASA if any of the following occur:

- Their contact details change.
- There is a material change in the legal structure or beneficial control of the DAME Organisation.
- Any Authorised DAME Personnel no longer require MRS access (e.g., due to a change in their Position or responsibilities).
- The DAME knows or suspects MRS Online's security has been Compromised by a Data Breach.

End of Part 8.

Part 9 - Intellectual Property

Scope of Intellectual Property

This Part 9 applies to Relevant Records and other Material uploaded to MRS by a DAME.

Existing Material

Nothing in this Part 9 affects the ownership of IP rights in any Material to which this part applies or any IP rights in existing material.

IP Rights in Material uploaded to MRS

A DAME must not upload Material to MRS unless they are satisfying either of the following:

- Own the IP Rights in that material
- Have all rights and licenses to upload it and to allow it to be used for DAME activities or other MRS purposes.

Each DAME grants to CASA a fee-free, non-exclusive, irrevocable, world-wide licence to Use, reproduce, adapt, communicate, and publish the material for any purpose relating to its functions under section 9 of the Civil aviation Act 1988 (Cth). The licence granted to CASA under this subsection 13.28.2 includes rights to:

- Sublicense the material to any person; and
- to Disclose the Material to any of the persons described at sub regulation 67.180 (4) of the CASR for the purpose of an examination under sub regulation 67.180(2) of the CASR.

CASA grants to each DAME a fee-free, non-exclusive, irrevocable, world-wide licence to Use, reproduce, adapt, communicate, and publish the material they have accessed or downloaded from MRS for DAME activities. The license granted to DAMEs under this subsection is subject to the restrictions imposed by Part 5.

To the extent permitted by Law and for the benefit of CASA, a DAME consents and must use best endeavours to ensure that each author of the material consents in writing to use by CASA of the material, even if the use may otherwise be an infringement of the author's Moral Rights (other than the right not to have authorship of their work falsely attributed).

End of Part 9.

Part 10 - General terms and conditions

Duty to Provide Assistance

Where requested by CASA, a DAME must provide reasonable assistance in relation to any inquiry, investigation, or complaint in connection with MRS Online's operating, including any Data Breach.

Duty to Provide Evidence of Compliance Measures

CASA may, at any time, request a DAME to provide any information CASA may reasonably require (including details about what security measures or procedures its DAME Organisation has implemented) to be satisfied the DAME has complied with its obligations under Part 4 to Part 8.

A DAME must promptly comply with any request made by CASA under subsection 13.30.1.

Duty to Improve Compliance Measures where Directed

If CASA reasonably considers the compliance measures a DAME or their DAME Organisation has employed are insufficient to fulfil any of the DAME's obligations under Part 4 to Part 8, it may direct the DAME to implement whatever improvements CASA reasonably considers are required to remedy that deficiency.

A DAME must promptly comply with any direction made by CASA under subsection 13.31.1.

No Warranty for Accuracy of MRS Records

CASA operates MRS Online so that DAMEs can upload and access MRS records, subject to any access controls. However, CASA is not responsible for the quality or content of any MRS Records uploaded by DAMEs.

These Terms and Conditions reference several external resources on Personal Information security. CASA is not responsible for those publications and does not warrant the accuracy of their contents.

CASA accepts no liability for any loss a DAME may suffer as a result of using or relying on the contents of any of the following:

- An MRS records.
- Any other Material accessed through MRS.
- Any external resource referred to in these terms and conditions.
- CASA does not guarantee continuity of access to, or operation of, MRS.

End of Part 10.

End of Examiner Handbook.