

May 23, 2018

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By email: [consultation@caa.govt.nz](mailto:consultation@caa.govt.nz)

Dear Mr Brady,

### Re: Consultation on the definition of crew member

Thank you for the opportunity to provide feedback on the above consultation. The Australian and New Zealand College of Anaesthetists (ANZCA), which includes the Faculty of Pain Medicine, is responsible for the training, examination and specialist accreditation of anaesthetists and pain medicine specialists and for the standards of clinical practice in Australia and New Zealand. ANZCA's mission is to serve the community by fostering safety and high quality patient care in anaesthesia, perioperative medicine, and pain medicine.

Retrieval and transport of critically ill patients is an area of medicine in which the profession of anaesthesia has been integral, so the Civil Aviation Authority's consultation is of interest to ANZCA and its New Zealand National Committee (NZNC). Anaesthetists are actively involved in training, governance and provision of aeromedical services in New Zealand and Australia, and ANZCA has established guidelines relevant to aeromedical services. ANZCA's professional document [PS52 Guidelines for Transport of Critically Ill Patients](#), aims to minimise risks and maximise safety for patients during transport.

In considering the consultation, the NZNC sought feedback from anaesthetists involved in retrieval medicine services in New Zealand, and from members of its special interest group in Anaesthesia and Critical Care in Unusual and Transport Environments.

#### 1. *General feedback*

The NZNC recognises that the aviation environment has a number of risks, and encourages any reasonable means by which these risks can be mitigated. Providing healthcare in an aviation environment brings an additional set of risks that need to be considered, as detailed in Appendix A of this submission.

Overall, the NZNC accepts the logic of the CAA's proposed approach to establish new risk-based definitions that clearly differentiate the types of persons on board the aircraft, and are tailored towards the purpose of a specific operation. This proposal includes establishing a third category of person on board an aircraft – a supplementary crew member.

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## 2. *Proposed definition of a supplementary crew member*

Paragraph 42 of the consultation document defines that a person would be a supplementary crew member if they:

- are essential to the purpose of the flight; and
- are trained in aviation safety, and the safety of the flight/operation could be compromised if they do not complete their task competently; and
- have received the prescribed health, safety briefings and operational training and are aware of the risks associated with the flight; and
- are assigned by the operator to a specialised role-critical task and the intended operation cannot be implemented without this person on board; or
- are trained in, and can safely use, specialist equipment installed on a modified aircraft.

In terms of the above definition, the NZNC notes that for the most part, anaesthetists working in retrieval medicine services would likely meet the above definition, and so fall into the category of supplementary crew member. It is possible, however, that there may be occasions with some operators, where the second and third criteria are not met.

For context, anaesthetists providing healthcare in the aeromedical area are likely to do so in three broad scenarios:

- a) Some anaesthetists are routinely involved with aeromedical organisations and retrieval activities, and are involved with operational or safety sensitive activities. This includes personnel involved with winching or static line activities; communications; navigation; patient/passenger briefing; patient security; traffic observation; and clearances. This is the group likely to meet the new definition of supplementary crew member.
- b) Other anaesthetists will occasionally care for a critically unwell patient in an aeromedical transport environment in which they may not be familiar. This could include domestic and international retrievals. In this scenario, the clinician best-placed to care for the patient, may not have training and experience in the aviation environment.
- c) Another group of anaesthetists are involved in aeromedical transport where a patient is not being carried. This includes transport teams retrieving organs for transplant purposes. The expertise of the medical personnel involved is critical to the purpose of the flight, and to the successful retrieval of organs. Anaesthetists involved in organ retrieval via air transport may do this only very occasionally, so may not have substantial experience or training in aviation medicine. Organ retrieval tends to be a time critical scenario.

## 3. *Benefits and disadvantages of the supplementary crew member definition*

In general, the NZNC considers that introducing the 'supplementary crew member' definition would have a number of benefits. These include ensuring the risk profile is based on the specific operation and personnel involved; ensuring an acceptable level of aviation training for non-aviation personnel; encouraging team development where all members are involved in briefings and can be confident of the level and type of expertise of other crew; and clarifying expected obligations of medical staff on board. These benefits are consistent with ANZCA's PS52, which sets standards for anaesthetists in terms of risk management, training and communication, and governance for services that transport critically-ill patients.

However, the NZNC also considers there are several factors that the CAA needs to take into account and resolve, prior to implementing the proposed supplementary crew member definition. These are as follows:

### *Scenarios where non-aviation trained medical personnel may be required*

The NZNC queries whether the establishment of a supplementary crew member position would prevent the occasional transport of non-aviation trained medical personnel performing medical tasks, such as those outlined in scenarios b and c above. Such a person may not fit into the categories of either 'supplementary crew member' or 'passenger' as defined in the consultation document. As described above, on occasions, it may be necessary for patient safety to have non-aviation medical personnel available in life-threatening situations, for example if the only suitable medical attendant to safely transport the patient is not trained in or involved in aviation. The NZNC acknowledges that the risk of placing untrained personnel in an unfamiliar transport environment must be balanced with the benefit to the patient, and considers there are two ways the CAA could maintain a degree of flexibility to address this issue:

- a) The CAA could ensure that any training requirements for supplementary crew members are scalable and proportional to their level of involvement in the operation. For example, if a circumstance occurs where a doctor not trained in aviation is required as the most suitable clinician for the safe transport of a patient (or an organ) in a once-off situation, then adequate training for that clinician may consist of receiving the relevant health, safety and risk briefings before embarking. The NZNC notes however, that those involved in air retrieval on more than a once-off basis, should have more rigorous aviation training, as per ANZCA's PS52.
- b) Another option to address the scenario where non-aviation trained medical personnel may be required, would be to allow them to travel under the passenger category. The NZNC notes that paragraph 52 of the consultation document refers to non-aviation trained paramedics as passengers. This definition could also be extended to non-aviation trained doctors. The NZNC notes that because a patient will be being carried in the majority of these scenarios (except organ transfer), the extra safety and oversight measure of requiring an Air Operators Certificate for the safe transport of passengers, would most likely already be in place.

### *Cost of additional training requirements*

There will be cost involved with the aviation training required to become supplementary crew members, additional to that of acquiring and maintaining an Air Operators Certificate. Although the NZNC supports the definition and considers adequate aviation medicine training essential, the NZNC notes that the increasing cost and organisation necessary to conform to the regulations may act as a disincentive to the future development of aviation-based retrieval medicine. This risk will need to be considered and managed, so that patients are not inadvertently disadvantaged.

### *Working hours*

The NZNC is aware the CAA prescribes working hours for flight crew members, and queries whether the CAA intends to prescribe working hours for supplementary crew members. If so, the NZNC would have concerns that the CAA interpretation of rostered duty hours of supplementary crew may be too rigid for the ongoing economical provision of medical services. If this were the case, the ability to provide adequate services for the retrieval and transport of critically ill patients could be compromised.

However, the NZNC acknowledges that fatigue management is an important issue, and notes that ANZCA has guidelines for anaesthetists for managing fatigue, in its professional document [PS43 Statement on Fatigue and the Anaesthetist](#). If the CAA undertakes work

in the area of fatigue management for supplementary crew members, the NZNC would like to be consulted and involved from an early stage.

The above issues will need to be resolved to ensure the proposed change does not inadvertently compromise services and quality of care for patients. The NZNC is confident the CAA could resolve such issues by incorporating a degree of flexibility into the new proposal.

*4. Guidance material to support preferred option*

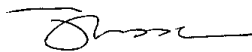
The consultation document notes that the CAA will produce and communicate guidance material, including any rules around the criteria and training needed to be classed as a supplementary crew member. As mentioned above, the NZNC considers it important that training requirements are scalable and proportional to the particular role of the supplementary crew member and the extent of their involvement in the operation, or likely involvement in future operations. The NZNC also recommends that the CAA consult on any guidance it produces about training requirements, to assess the impact different requirements might have on retrieval medicine services.

*5. National Ambulance Sector Office (NASO) review*

The NZNC is aware that NASO within the Ministry of Health, is conducting an extensive review of air ambulance services, and has signalled extensive change to the sector. The outcomes of the NASO review will not be available until later in the year. The NZNC presumes that the CAA will engage with NASO over the review, so that each organisation is aware of the impact of the other's work.

Thank you once again for the opportunity to comment. If you have any questions, or would like to discuss this submission further, please contact Virginia Mills (Senior Policy Adviser) in the first instance at [vmills@anzca.org.nz](mailto:vmills@anzca.org.nz), or on 04 499 1213.

Yours sincerely,



Dr Jennifer Woods  
Chair, New Zealand National Committee

## Appendix A

The aviation environment carries a number of aviation risks of which the CAA is already aware. Aeromedicine and air-rescue activities are associated with a number of aviation hazards, and have resulted in aircraft crashes in New Zealand, and have high crash rates internationally. From a healthcare perspective, providing healthcare in an aviation environment brings an additional set of risks, worth highlighting to the CAA. Many of these risks are issues relevant to the provision of anaesthesia or medical care in general, and are issues where ANZCA takes an active role in mitigation strategies. Anaesthetists have expertise in assessing and managing these risks. If the CAA wishes to address these risks in its policies, ANZCA would like to be involved in policy development for this and work collaboratively with the CAA. A summary of the non-aviation risks related to aeromedicine is provided below.

### **Risks related to aeromedicine (other than aviation specific risks)**

**Fatigue:** the demands of shift work, long hours, and high-intensity workloads makes fatigue a significant risk factor for healthcare workers, and is well recognised in medical specialties involved in aeromedicine, such as anaesthesia, intensive care, and emergency medicine. Fatigue has implications for both patient safety, and aircraft safety. ANZCA is proactive in encouraging anaesthetists to consider fatigue management, and has developed guidelines in its professional document [PS43 Statement on Fatigue and the Anaesthetist](#).

**Burn-out, mental health, and substance abuse issues:** Factors related to well-being are also risk factors for anaesthetists in general, and those involved in aeromedicine. Burn-out is well described among healthcare providers involved in aeromedicine, and like fatigue, is associated with reduced safety and increased risk. Anaesthetists are also over represented in mental health and substance abuse issues. Both can result in absenteeism, tardiness, reduced clinical performance, and suicide, and could contribute significant risk in an aeromedicine environment. ANZCA takes the wellbeing of anaesthesia trainees and fellows seriously, and has identified workforce wellbeing as a key focus in its [Strategic Plan 2018-2022](#). ANZCA also supports a Welfare of Anaesthetists Special Interest Group, which has produced a number of resources on health and wellbeing for anaesthetists.

**Patients:** Caring for patients in aeromedicine carries significant risk and is a high-stress environment. Many of the patients being transported are critically unwell. Critically unwell patients pose significant challenge to teams working in well-resourced resuscitation rooms, and these challenges are exacerbated in the aeromedical environment with limited access to sufficient space, necessary medical equipment, and the ability to summon additional help. Also, as outlined in ANZCA's [PS52 Guidelines for Transport of Critically Ill Patients](#), the process of moving a patient is associated with increased risk for that patient. These factors contribute to a high-stress environment for the healthcare team.