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SCREENING AND IMAGING FOR CORONARY DISEASE IN AIRCREW

DÉPISTAGE POUR LA MALADIE CORONARIENNE EN ÉQUIPAGE AÉRIEN

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Introduction: Coronary artery disease (CAD) remains the leading cause of loss of aeromedical certification in both civilian and military aircrew. Coronary events often occur without prior symptoms, and in many cases, with sudden death. The role of the AME and specialist is to try and identify aircrew at increased risk prior to an acute coronary event, and to initiate appropriate risk factor modification. This includes the use of various screening tools and increasingly non-invasive coronary imaging.

Methods: The NATO aviation cardiology working group (HFM 251) has developed consensus recommendations for screening aircrew for underlying CAD. The recommendations are based on the observation that most acute coronary events occur as a result of the rupture of non-obstructive coronary plaque. Hence, functional screening for obstructive, flow-limiting disease (eg stress testing), which has been traditionally used, has limited utility. Anatomic imaging for plaque with CT provides better identification of individuals with significant plaque burden who are at increased risk for a coronary event.

Discussion: This paper will present the NATO consensus approach to screening and investigation of potential CAD and highlight areas of discussion around the use of various imaging techniques using illustrative cases.

Conclusion: CAD remains a major cause of loss of license; a standardised, evidence based approach to screening and investigation of potential CAD, including CT imaging, may allow early detection of aeromedically important CAD.