Introduction: Testing of pilots and other aviation personnel for the presence of Alcohol and Other Drugs (AOD) has been implemented or recommended by states as an aviation safety measure. Over 25 years’ experience in the United States with AOD testing allows for observations and conclusions regarding the impact of testing programs on safety. Europe is currently considering implementing AOD testing.

Background: Testing of aviation personnel in the US falls into two categories, non-random for specific events and random in the conduct of routine duties. In theory, random testing is implemented to serve as a deterrent to use while potentially impaired. Rates for positive random AOD tests have been remarkably steady over years with no apparent deterrent effect on use. Rates for pilots are substantially lower than other airline personnel.

For pilots, a positive AOD test results in referral to a joint FAA, airline, union and medical professional rehabilitation program termed “HIMS”. Pilots successfully participating in the HIMS are medically certified to return to flight duties with careful medical and operational monitoring for multiple years. AOD testing identifies approximately 6-12% of pilots in the HIMS program. The majority of pilot HIMS entrants come from self-referral to the well-known program, peer interventions or FAA review of pilot driving records. Airlines without HIMS programs do not allow pilots with AOD dependence problems to identify themselves and seek help with job protection benefits. Pilots employed by these airlines hide their AOD problem and restrict AOD use to avoid testing windows. They continue to fly with the medical sequelae and cognitive compromise of their disease. Operations safety is degraded.

Summary: Random AOD testing is a small source of identification of pilots with AOD dependence and has little deterrent effect on AOD use in pilots. When paired with programs allowing self and peer identification with job protection, AOD testing may enhance aviation safety.