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Sommario/riassunto	Pilots who are considered hypertensive are closely monitored by the Federal Aviation Administration (FAA) to ensure that their hypertension is properly controlled. During the investigation of fatal civil aviation

accidents, postmortem samples obtained from pilots are submitted to the FAA's Civil Aerospace Medical Institute (CAMI) for toxicological evaluation. During such evaluation, submitted samples are analyzed for prescription and nonprescription drugs, and it is common to find beta-blocker antihypertensives such as atenolol, metoprolol, and propranolol in the submitted biological samples. During a 10-year period of 1993-2002, postmortem samples from 3290 civil aviation accident pilot fatalities (cases) were received by CAMI. Toxicological evaluation of these cases revealed that 50 of the 3290 fatalities had the commonly prescribed beta-blockers, atenolol, metoprolol, and propranolol. Out of the 50 fatalities, atenolol, metoprolol, and propranolol were found to be present in 24, 19, and 7 fatalities, respectively, but the initial analysis indicated the presence of atenolol and metoprolol in 4 of these pilot fatalities. Since (i) the combined use of both drugs was not consistent with the history of the drug use by those pilots, (ii) it is uncommon to simultaneously prescribe 2 beta-blockers, and (iii) these commonly used antihypertensives have considerable amount of chemical and structural similarity (6), further examination was undertaken for those fatality cases wherein atenolol and metoprolol were initially detected. Such examination entailed selectively and simultaneously analyzing the 3 commonly used beta-blockers in the submitted biological samples and rectifying any possible analytical interference with the antihypertensives.

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