

National Transportation Safety Board

Office of Research and Engineering

Washington, DC 20594



Medical Factual Memorandum for Record

November 12, 2024

A. CASE

NTSB ID: WPR23FA323
Location: West Jordan, Utah
Date: February 15, 2023

B. MEDICAL SPECIALIST

Specialist JE Tuttle MD MHA FACS
National Transportation Safety Board
Washington, DC

C. DETAILS

1.0 Description of Review

For purposes of evaluating the pilot for potentially impairing medical conditions and substances, the above Medical Specialist reviewed the following sources of medical information, along with selected relevant regulation, medical literature, and investigator reports.

- Federal Aviation Administration (FAA) final medical case review
- Autopsy report - pilot
- Toxicology report - pilot

2.0 Summary of Medical Facts

According to the FAA medical case review, the 50-year-old male pilot's last aviation medical examination was December 11, 2012. At that time, he was 72 inches tall and weighed 361 pounds (164 kg). He reported hypothyroidism and taking the prescription thyroid hormone replacement medication levothyroxine. The Aviation Medical Examiner (AME) issued him a third-class medical certificate by AME-Assisted Special Issuance (AASI), limited by a requirement to wear corrective lenses and carrying a time limitation.¹ The pilot's medical certificate expired in 2014. The pilot completed a BasicMed course and reported completing a BasicMed Comprehensive Medical Examination Checklist (CMEC), most recently in October 2018.² The pilot's BasicMed status was not current at the time of the accident.

The Office of the Medical Examiner, Utah Department of Health and Human Services performed the autopsy of the pilot. According to the autopsy report, the pilot's cause of death was blunt force injuries, and the manner of death was accident. Coronary artery disease was identified, including 75% narrowing of the left anterior descending coronary artery by plaque. The remainder of the exam, including visual examination of the heart, did not identify other significant natural disease.

The Office of the Medical Examiner, Utah Public Health Laboratories, Forensic Toxicology Laboratory performed toxicological testing of postmortem femoral blood of the pilot. No tested-for substances were detected.³

The FAA Forensic Sciences Laboratory performed toxicology testing of postmortem specimens from the pilot.⁴ Ibuprofen, hydrochlorothiazide, and chlorothiazide were detected.

¹ AASI is a process by which an AME may issue a medical certificate under the provisions of an applicant's FAA Authorization for Special Issuance if the applicant provides specific required medical information from treating physician(s). AASI determinations are subject to review by the FAA. Additional information about the AASI process is available on the [FAA AME Guide website](#).

² BasicMed provisions allow pilots who meet certain requirements to fly (as pilot in command or as a required flight crew member) without current medical certification. Among those requirements, a pilot must have completed a BasicMed education course within 24 calendar months and must have had a medical examination with a state-licensed physician using the CMEC within 48 months. Aircraft and operating restrictions apply. For details, see [14 Code of Federal Regulations \(CFR\) Part 68](#), [14 CFR 61.113\(i\)](#), [14 CFR 61.23\(c\)\(3\)](#), and https://www.faa.gov/licenses_certificates/airmen_certification/BasicMed/.

³ Tested-for substances were listed as: cocaine, methamphetamine, morphine, THC metabolites, ethanol, acetone, isopropanol, and methanol.

⁴ The FAA Forensic Sciences laboratory has the capability to test for around a thousand substances including toxins, prescription and over-the-counter medications, and illicit drugs.

Ibuprofen is an over-the-counter non-steroidal anti-inflammatory medication commonly used to treat mild to moderate pain, symptoms of arthritis, and fever.⁵ Hydrochlorothiazide is a prescription medication that may be used to treat high blood pressure.⁶ Chlorothiazide can be found as an impurity in hydrochlorothiazide production. Chlorothiazide is also a prescription diuretic injection, used in hospitals for congestive heart failure.⁷ Ibuprofen, hydrochlorothiazide, and chlorothiazide are not generally considered impairing.

Submitted by:

JE Tuttle MD MHA FACS
Medical Officer

⁵ National Institutes of Health National Library of Medicine. Ibuprofen tablet. DailyMed. <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=9ce036ef-a22d-4fca-9a62-1b10978f7b26>. Updated March 16, 2021. Accessed November 12, 2024.

⁶ National Institutes of Health National Library of Medicine. Amiloride hydrochloride and hydrochlorothiazide tablet. DailyMed. <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=8b2c581a-f955-4a8e-bf85-e768e903fd10>. Updated December 27, 2022. Accessed November 12, 2024.

⁷ National Institutes of Health National Library of Medicine. Chlorothiazide sodium injection, powder, lyophilized, for solution. DailyMed. <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=5b5d8a97-1428-4047-8e6c-b778429a26e4>. Updated December 1, 2023. Accessed November 12, 2024.