CALLBACK

From NASA's Aviation Safety Reporting System

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THE INFLIGHT MEDICAL EMERGENCY

On any given day, relatively few people observe a crew's performance and professionalism during an inflight medical emergency. The seasoned crewmember, however, has most certainly reckoned with several over a career. With a serious emergency, the tenor and tempo of a flight can change dramatically. While flight safety cannot be compromised, the need to get an ill passenger to skilled medical care on the ground as quickly and safely as possible could require a diversion to an alternate destination that is suitable for the circumstances. To complicate matters, a plan to that end must evolve as the ill passenger's medical situation unfolds.

Inflight medical emergencies manifest themselves in many ways, and each event is unique unto itself. Procedures to handle these occurrences in flight are well-developed and mature, but no one size fits all. Crews are frequently called to improvise in one respect or another.

This month, *CALLBACK* looks at reported incidents that reveal the atypical nature of inflight medical emergencies and the corresponding changes in flight tenor but focus on the gravity and consequences of crew decisions and actions that were implemented.

A Pinch Hitter Hero

This C210 pilot experienced an unusual medical emergency that could have been fatal or may have been prevented.

■ *[Enroute] everything was normal. We had a portable oxygen system, which was engaged. I climbed to 17,000 feet and then climbed to 25,000 feet. I observed the passenger leaning forward, as the oxygen line was not long enough to reach the rear seat. I moved the oxygen bottle from between the pilot and copilot seat. I assume my oxygen line kinked, but the passenger's [line] was working well. I subsequently lost consciousness, and the passenger moved to the copilot seat. With help from Air Traffic Controllers, the plane was brought back down to a lower altitude. I recovered and… landed at the nearest airport where emergency personnel checked…our vitals and oxygen. All was normal.*

Authority, Legality, Responsibility, and Obligation

This B737-800 Captain provides a thorough account of a medical emergency that was experienced during flight. Differing opinions, confusion, equipment problems, and time compression were all present.

■ *At cruise altitude of 38,000 feet, roughly 120 miles south of ZZZ, we were notified by the flight attendants (FAs) of an ill passenger vomiting, in-and-out of consciousness, nauseous, male, 60 years old, and…suffering from chronic obstructive pulmonary disorder. There were three doctors onboard tending to the ill passenger. As the Pilot Flying (PF), I handed control over to the First Officer (FO) and contacted STAT-MD [medical assistance]. The FA's headset was not working very well, compounding the issue, so I became the go-between. STAT-MD suggested we "lay the passenger down, head resting, feet elevated 10 inches." STAT-MD…recommended to leave the ill passenger on the floor in this condition for 30 to 45 minutes, and if there was no change to his condition, to call STAT-MD back. I relayed this to the FAs and disconnected with STAT-MD.*

The three doctors on board disagreed with STAT-MD's recommendation and said we need to land "now." I was 100 percent going to take the advice of doctors onboard over STAT-MD. I reconvened as the PF, and we came to the decision to divert to ZZZ. Since the emergency medical kit would be used and the landing would be overweight, Maintenance would need to be involved. A diversion plan was made by Dispatch, and we [advised ATC]. Center cleared us direct to ZZZZZ on the arrival, landing west. Things got busy, real busy. I began an expeditious descent to get on the VNAV PATH. [We were] 80 miles from ZZZ when we began our turn for the arrival.

My FO picked up ATIS and ran the numbers for [Runways] XXL and XXR, including a look at the brake cooling module. We then briefed the arrival and approach. As we got lower, we kept getting turned in on the arrival.… I admit that I was a bit in the yellow [slightly reduced effectiveness] for a while. We were below 10,000 feet when we finally got around to running the Descent, Approach, and Diversion Checklists. I extended the gear early to help lighten our weight… as much as I could.… The soft landing was uneventful. We taxied off the runway and right into the ramp. The FO contacted Ramp, Ops, and Maintenance. Once at the gate, I left the seat belt sign on and made a PA to the passengers to remain seated. The EMTs quickly deplaned the ill passenger and left. As soon as the boarding door was open, the Parking

Checklist completed, and I turned on my phone, I was barraged, to say the least.

Once I was able to talk to the FAs, [I] was made aware… that an IV had been administered to the ill passenger. It ran out as we touched down. The FAs said the ill passenger's condition immediately deteriorated again, further justifying our decision to divert. I feel I made the best decision I could, considering the circumstances, and utilized all necessary resources to reach the desired outcome. [This was] a job well done by my cabin crew and FO.

It's Not Always a Passenger

This B747 flight crew was faced with an inflight incapacitation that required some unusual decisions and coordination. The plan of action evolved with the situation.

From the First Officer's report:

■ *While in cruise, after what appeared to be a medical event, the Captain became unresponsive. I assumed PF duties while the other crew members, deadheading and operating, helped remove the Captain from his station. I [advised medical with ATC] and chose to divert to the nearest suitable airport, ZZZZ. After some amount of time, the Captain became responsive again and did not appear to be in any immediate danger. After contacting Medlink [medical assistance], Dispatch, and the [Chief Pilot], the crew agreed to change our diversion airport to ZZZ2, about an hour further than ZZZZ. The weather at ZZZ2 was CAVOK [cloud and visibility OK] with light winds. The senior operating FO occupied the Captain's station and assumed Pilot Monitoring…duties. The crew agreed that the landing should be made from the right seat. The approach, landing, taxi, and parking at ZZZ2 were uneventful.*

From the Relief Pilot's report:

■ *The Captain was the PF.… I and the FO in the fourth seat would take the first break, so we went to the bunks after top of climb. About 4 hours into our break, I was awakened by a cockpit interphone call from the flight deck. Upon leaving the bunk, I observed the Captain lying on the floor of the upper deck in an unresponsive state, being attended to by some of the four deadheading crewmembers. The remaining deadheading crewmembers were in the flight deck assisting the operating FO with the medical emergency. I…was told that the Captain was in his seat in casual conversation when he became unresponsive and was removed from his seat.… I quickly got dressed and took station in the third seat, relieving deadheading crewmembers of their communication and coordination with Company, ATC, and Medlink.*

PIC Emergency Authority

This A321 flight crew took appropriate action to get a critically ill passenger the needed medical attention.

From the First Officer's report:

■ *The Captain and I [PF] received notification from the cabin crew of a medical emergency onboard. A passenger had become unconscious and unresponsive in the forward lavatory, and CPR/AED efforts were being administered. Between ZZZ2 & ZZZ airports, medical personnel onboard advised us to land as soon as possible in the hopes of resuscitating the passenger. We, therefore, expedited to ZZZ…from our cruising altitude of 36,000 feet, to include exceeding the FAR 250-knot airspeed restriction below 10,000 feet in [our] descent to the airport area. This was done under the Captain's emergency authority.… The conditions were VFR…with minimal traffic in the airspace. The risk was deemed to be very low.*

From the Captain's report:

■ *[We] exceeded the speed limit below 10,000 feet attempting to get a passenger having a heart attack…to [medical] help. A flight attendant and [a] nurse were doing CPR. A defibrillator was connected. No pulse [was present].*

The Attending Flight Attendants

These A320 flight attendants adapted their responsibilities and duties in response to an ill passenger. The passenger needed care, but risk of contact had to be mitigated, as well.

■ *After service, a passenger onboard became ill, vomiting between the aft lavatories. [She] stated that she had experienced shortness of breath earlier in the day. The passenger's condition improved after vomiting, so we opted not to page for medical assistance in order to keep from unnecessarily exposing other passengers in case it was contagious. I was picking up trash at row six when this occurred. The D FA signaled for A FA to come to the back. Both D FA and A FA were vomited on, lightly. They retrieved the clean-up kit and cleaned themselves and the area to the best of their abilities while also tending to the passenger. A FA and I decided to switch positions, thoroughly briefing our changes in responsibilities, in an effort to keep me from being exposed. I stayed up front taking care of [first class] and the pilots and supporting D FA and A FA to the best of my abilities. I landed in A FA's jumpseat, A FA landed in my jumpseat, and D FA had to take the E/F jumpseat, since the C jumpseat was contaminated with vomit. We debriefed with the Base Manager, and D FA and A FA completed the exposure forms. We called the paramedics and had them check on the passenger. She was released after being evaluated.*

ASRS Alerts Issued in May 2022	
Subject of Alert	**No. of Alerts**
Airport Facility or Procedure	5
ATC Equipment or Procedure	2
Hazard to Flight	1
TOTAL	**8**

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May 2022 Report Intake	
Air Carrier/Air Taxi Pilots	4,784
General Aviation Pilots	1,635
Flight Attendants	1,105
Controllers	500
Military/Other	249
Mechanics	178
Dispatchers	142
TOTAL	**8,593**