

## Human resources

# Former pilot applies aviation skills to perioperative nursing

**A**s a Navy veteran, airline pilot, and flight nurse, Lisa Reeves, RN, performed safety checklists for nearly 15 years.

When Reeves became a perioperative nurse 2 years ago, she was pleasantly surprised to find she would continue to use checklists and that ORs had been studying aviation safety practices.

"The aviation and OR environments are so similar, I felt like I was right back at the airline," Reeves told OR Manager.

Among the similarities:

- Both are high-risk occupations, where one mistake can cost a life.
- Both involve complex, multistep procedures.
- Both are associated with accidents or events that usually are caused by a chain of events.

### Breaking the error chain

Surgical and aviation checklists both help to break the error chain and encourage all team members to speak up. "We have learned in aviation that a chain of events usually leads up to an accident, and that several people along the way could have broken the chain if they had spoken up," says Reeves. The same holds true for the OR.

Checklists create a culture that encourages communication and contributions from all team members. "Checklists help us back up ourselves and each other to stop errors before they happen," she says.

In both fields, there is a desire to fit as much as possible into a day, says Reeves, but people still have to be safe doing that. "The checklist is a good way to ensure safety because it makes sure that in the desire to be fast and efficient, important considerations aren't overlooked," she notes.

### Same steps, different outcomes

A surgical case is similar to a flight in that the basic steps are always the same, but no two flights and no two surgical procedures are exactly alike, says Reeves.

"You can fly between the same two cities twice in a row, and they will be different," she says. The number of passengers on board adds to the weight of the plane. This affects how much runway is needed to take off and how much fuel is needed. The weather is another variable.

In the OR, the surgical team can perform the same procedures back to back, but every patient is different in size and age, and has comorbidities that can affect the outcomes. "You have to think of every case and every flight as unique and take into account the differences," says Reeves. "If you get complacent, you could have a bad outcome for the patient or the flight."

### Turnaround parallels

Turnarounds between surgical cases and airlines flights are another parallel Reeves sees between the OR and aviation. The airline focuses on on-time departures and fast flight turnarounds. The OR focuses on on-time case starts and fast room turnarounds.

If the first flight of the day or the first case of the day is late, it can affect the sched-



*Lisa Reeves, RN, flight nurse with the North Carolina Air National Guard, performs safety checklist.*

ule for the entire day. If flight or case turnarounds are excessively long, the schedule can be delayed further.

The airlines have a goal of 30 minutes or less for the time planes spend at the gate in between flights (door open to pushback). OR staff aim for 20 minutes or less for the time the room is empty in between patients (wheels out to wheels in).

“In the OR, you’re cleaning up the room after the patient is out, bringing in new instruments, and setting up the next case. In the airplane, you are cleaning up the garbage the passengers left behind, bringing in new snacks and drinks, and refueling,” says Reeves. “In both, there is a lot to do in a short amount of time, and there is a team of people working together to make it happen,” she says.

### **Similar duties**

Reeves also sees similarities between the work of pilots and circulating nurses. “Their tasks are different, but the workflows are so similar,” she says.

For a long flight, pilots are very busy getting the plane ready, setting up the flight instruments, performing a flight control check, checking the flight plan, and then taking off. While they are cruising, they aren’t too busy except for monitoring the flight. Then when it is time to land, they are busy again.

In a long surgical procedure, the circulating nurse is very busy at the beginning of the case, setting up the room and equipment, getting the patient positioned on the OR bed, doing counts, helping the surgeon and anesthesiologist, and assisting in the safety checklist. During surgery, the nurse does charting and monitors the case and team, but isn’t as busy. At the end of the case, the nurse is busy doing counts, getting the patient’s bed ready for transfer to the postanesthesia care unit or intensive care unit, and assisting the anesthesiologist.

Short flights and short cases also are similar because pilots and circulating nurses are very busy the entire time, she says.

### **Bringing the past and present together**

“I have been so lucky to have the careers I have had,” says Reeves. “It’s been a lot of fun.”

Reeves “got the urge to fly” in high school and joined the Navy so she could be a fighter pilot. As it turned out, she was too short to fly for the Navy, but this didn’t stop her. While in the Navy, she took flying lessons wherever she was stationed.

After fulfilling her commitment to the Navy, she started flying for US Airways, and she was a pilot for 7 years.

About 5 years ago, she decided to become a nurse. When she graduated, she joined the cardiac/thoracic/vascular surgical team at Carolinas Medical Center, Charlotte, North Carolina.

Thanks to a nursing school classmate’s suggestion, Reeves joined the North Carolina Air National Guard after graduation.

“I thought being a flight nurse was a perfect way to bring my past and present together,” says Reeves. “It allows me to still be on airplanes and do nursing.”

Reeves recently struck out on a new adventure. She now works in the emergency department. ♦

—Judith M. Mathias, MA, RN

### **Reference**

Reeves L M, Rowden A B. Checklists: They’re not just for pilots. Poster session, 2014 AORN Surgical Conference & Expo.