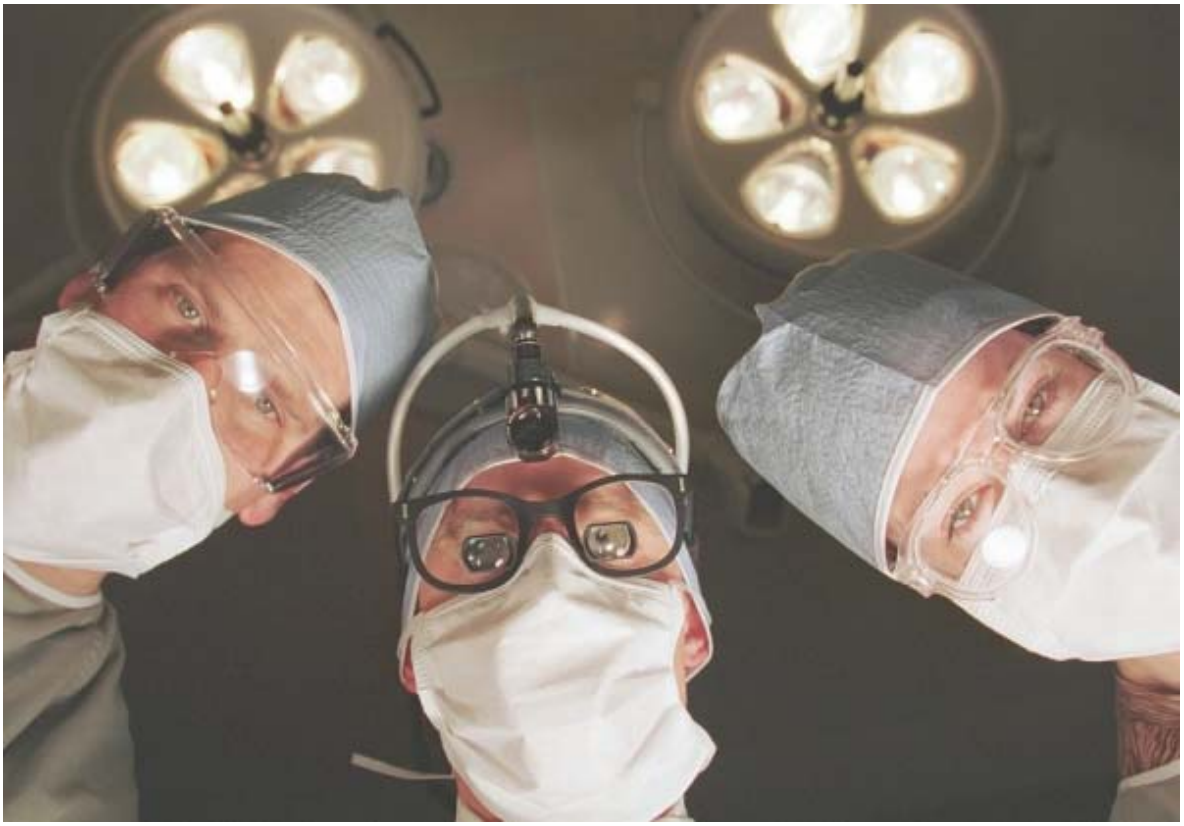
Human error the main cause of BC's operating rooms deaths, injuries

Checklist of surgical procedures now required

BY PAMELA FAYERMAN, VANCOUVER SUN JUNE 30, 2010



Human error is behind the vast majority of operating room mistakes leading to death or injury, and that's precisely why all B.C. hospitals must now use surgical checklists to cut down on infections and other complications.

Photograph by: Chris Schwarz, CNS, Vancouver Sun

VANCOUVER - Human error is behind the vast majority of operating room mistakes leading to death or injury, and that's precisely why all B.C. hospitals must now use surgical checklists to cut down on infections and other complications.

"Surgical patient safety checklists are a series of checks and balances and they are proven to reduce adverse events and save patients' lives," said Dr. Doug Cochrane, a neurosurgeon at B.C. Children's Hospital who is also chairman of the B.C. Patient Safety and Quality Council.

Using figures extrapolated from a national study on adverse events, Cochrane said there are complications in about 7.5 per cent of operations and, of those, nearly 40 per cent are considered preventable. He estimates up to 920 B.C. patients die each year from preventable, adverse events suffered in surgery.

A 2009 study published in the New England Journal of Medicine – which looked at eight hospitals around the world, including one in Toronto – showed that complication rates dropped to seven per cent from 11 per cent when operating room teams followed a step-by-step checklist. The in-hospital death rate dropped to 0.8 per cent from 1.5 per cent.

Checklists are typically laminated and affixed to the walls of operating rooms. Surgical teams must review and complete them before, during and after surgical procedures. While there's nothing new about the mandated actions, what is new is having a formalized checklist that forces teams to methodically communicate about each item.

Cochrane said the checklist procedure is not unlike what pilots go through before they take off.

"It forces the team to have an interactive discussion and it is not time consuming at all," he said.

In 2011, the body that accredits Canadian hospitals is going to insist that hospitals show they are using the checklists. At Children's Hospital, an auditing firm has been hired to track compliance with the checklist procedure. Cochrane said that means there's someone observing compliance in the operating room.

About 500,000 operations are performed in B.C. each year. Based on studies around the world, the death rate for surgery is said to range from 0.4 per cent to 0.8 per cent and the rate of major complications varies from three to 17 per cent. Each complication leads to longer hospital stays.

In an article in the current issue of the B.C. Medical Journal, Cochrane said checklists reduce the occurrence of "mistakes, slips and lapses" and human error is implicated in up to 80 per cent of surgical or anesthetic mishaps.

With checklists, medical teams would:

• Introduce each other by name and role.

• Safety check equipment before a patient is put to sleep.

• Confirm the surgery site and side of the body.

• Review medication.

• Verbally confirm other measures, such as whether the patient has been given recommended preventive antibiotics in the preceding hour.

• Discuss questions or concerns about the case.

• Post-surgery, count instruments, sponges and needles to ensure nothing has been left inside the

body.

Michelle Stewart, a spokeswoman for the B.C. government, said checklists are a relatively simple and inexpensive way to improve patient safety.

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