

Check Lists - Just a Box Ticking Exercise?

by James Willis of AIM

A professor of surgery at Harvard Medical School concerned by infection and fatality rates following surgery found that doctors often overlooked or omitted steps in the multitude of procedures they performed on a daily basis. He proposed that using checklists helps people apply knowledge consistently and correctly. He found that, in one case, a five point check list implemented in a hospital intensive care unit in 2001 virtually eradicated infections following just one procedure (the insertion of a central line catheter), preventing an estimated 43 infections and 8 deaths over 27 months. When it was later introduced elsewhere the checklist reduced infections by 66% within 3 months and probably saved more than 1,500 lives in 18 months.

In the aviation world, checklists are universal and not only help pilots 'get the mundane stuff right', but foster the communication required to deal with the unexpected. Checklists are produced by the manufacturers for each type of aircraft and are updated following real life incidents; they attempt to cover every situation which is then practiced in the pilot's flight simulator training. In 1989 an electrical fault caused the cargo door of a 747 to open at 22,000ft, resulting in decompression that blew out windows and 9 passengers. Bits of debris damaged one wing and caused an engine fire, yet the crew were able to bring the damaged aircraft down to 8,000 feet, restore oxygen and land, with a checklist spelling out the steps. Following the incident the door was redesigned and the checklist and pilot simulator practice was amended based on the experience gained.

A good checklist is not simply a box ticking exercise. The right kind of checklist liberates rather than stifles professional intuition. It encourages communication and by defining roles can empower junior staff. For instance, in the operating theatre the checklist may be a nurse's responsibility with the authority to stop the surgeon should a step have been missed. A concise précis of what might go wrong and what to do if it does galvanises groups of professionals into tighter teams and rehearsing the basics out loud is a kind of inoculation against the complacency of the expert.

Checklists of varying kinds are widely used in outdoor and adventurous activities in risk assessments, staff manuals and standard operating procedures, registration procedures and pre activity briefings and dynamic risk assessments. In the aftermath of an incident or accident, however minor, the checklist provides the opportunity to investigate whether all aspects of the activity had been covered.

The story of the Airbus A320 flight that successfully landed in the Hudson River, having hit a flight of geese and lost both engines, is another example. Initial media reporting gave the Captain the credit, but as the details trickled out about the procedures and the checklists, it started to become clear that credit was due to the team effort of the whole crew, none of whom had ever been in an aircraft accident before. The outcome, the captain said, was the result of teamwork and adherence to procedure as much as of any individual skill he may have had.

Many professions have romantic fantasies about themselves. Images of the doctor / lawyer / policeman / teacher as an intuitive maverick loner are reinforced by the appeal of the 'guy who gets things done but not always by the book'. Yet most of the time the true test in an emergency is how well you stick to procedure. When members of the staff at eight hospitals were surveyed about a checklist developed by a research team at Harvard that nearly halved the number of surgical deaths, 20% said that they thought it wasn't easy to use and did not improve safety. But when asked whether they would want the checklist used if they were having an operation, 93% said Yes!

The book 'The Checklist Manifesto – How to Get Things Right' by Atul Gawande (the Harvard Professor who did much of the research into the effect of medical checklists) is a thought provoking read particularly for those involved in the management of activities involving inherent risk of injury or death. It is available online to download for those with an interest. ■



ABOUT THE AUTHOR

James Willis of AIM. The Activities Industry Mutual provides liability and property cover exclusively to organisations and participants in the outdoors. It is owned and controlled by its members, now standing at over 750, who elect the board chaired by Andrew Gardiner of Acorn Venture. Now in its 10th year of trading, AIM is happy to share its experience in managing, defending and taking lessons from personal injury claims. Photo: by Marko Karppinen with Creative Commons License.