



Q & A's Infection and Endoscopy.....

Dr Alistair Cowen responds to questions from a patient about to undergo a colonoscopy.

Q: I am due to have a colonoscopy but I have heard reports, particularly from overseas, of people getting infections after a colonoscopy and endoscopy.

A: Endoscopy & colonoscopy performed at any Hospital Day Endoscopy Centre or Day Surgery facility where GastroIntestinal Endoscopy (GIE) operates carry negligible risk of getting infections such as AIDS, Hepatitis or Tuberculosis.

Q: How can I be sure of this? Do you actually know or are you just the spin Doctor for the organization?

A: I am one of the founding Doctors of GIE. I have been the Principal author of "Infection Control in Endoscopy" for the past twenty years. This comprehensive manual is published by the Gastroenterological Society of Australia and is used in all Endoscopy facilities. At three successive World Congresses of Gastroenterology, I have been invited to give the 'State of Art' paper on Infection Control.

Q: Ok, but I am sure I have heard of people getting infections overseas.

A: Unfortunately that is correct. Let me start by explaining how we clean and disinfect endoscopes.

A simple piece of steel- a scalpel- obviously is easy to clean and place in a steam sterilizer and one can know that it is sterilized. Endoscopes are much more complicated because of the plastic materials involved. They therefore can't be put in a steam sterilizer as there are significant difficulties cleaning the fine channels which pass the length of the endoscope. After use, the instruments are cleaned externally, flushed with combinations of enzymes and detergent and the fine channels are repeatedly brushed. Once the instrument is thoroughly cleaned it is immersed in, and all its channels are filled with a high level disinfectant which remains there long enough to guarantee destruction of any bacteria, virus, or fungi which might cause infection. Mostly this is done in automated machines.

Q: What happens if something goes wrong with the machine?

A: Modern machines now have alarms so that if any channel is blocked or a connector comes loose then the machine omits a loud alarm and the problem is rectified and the whole process started again.

Q: How do I know that this actually works?

A: Good point. There are two areas of verification:-

1. Firstly numerous patients who have had endoscopy and colonoscopy have been followed up after their procedures and where proper protocols have been followed there is no evidence of and infections being transmitted.

2. The machines that the endoscopes are processed in and the endoscopes themselves are frequently flushed and brushed and samples taken to be examined in the bacteriology laboratory to see if there are any remaining infecting organisms.

Q: Why then are there reports of infections overseas?

A: Unfortunately standards in many countries are either not as high or are not followed as rigorously as in Australia. There are no documented cases of transmission of serious infection by endoscopy or colonoscopy in Australia where proper guidelines have been followed.

Q: I have been told by a friend they have antibiotics when they have a colonoscopy. If there is no risk of infection why are they given antibiotics?

A: This is quite a different problem. So far we have been talking about the risk that blood from a patient with, for example, hepatitis will be transferred to the next patient examined. This is quite different from a patient's own bacteria or fungus being moved from one part of the body to another to cause infection. For example, if you have an abscess on your leg and you massage it vigorously, then the bacteria in that abscess may spread into the blood stream causing Septicemia, a very serious infection. In the same way, if you have a peri-diverticular abscess on your colon at the time of colonoscopy, then those bugs could shower into the blood stream causing major problems. For this reason we avoid doing colonoscopy during the acute phases of diverticular abscess. But if one is unexpectedly found we would administer antibiotics to prevent infection elsewhere in the body and to treat the existing diverticular abscess. In the same way simple processes such as vigorous teeth cleaning- if there is poor dental hygiene - can shower bacteria into the blood stream. Normally the body's defenses can deal with this but where there are severely damaged heart valves or artificial heart valves or other artificial surfaces (e.g. Portacaths) then the bacteria may lodge on these and result in serious infection. In the medical history form you will be given, we question you about problems such as artificial heart valves. Where these exist we would administer antibiotics to prevent your own bacteria spreading from a localized site where they are doing no harm to a generalized blood stream infection or lodging on an artificial surface such as a heart valve replacement.

So it doesn't matter whether you are first, last or in the middle of a list, each endoscope will have undergone a full high level disinfection process and be free of infecting agents.