Screening for colorectal cancer vital to reduce mortality

As a leading cause of death in the Western world, colorectal cancer (CRC) is currently the third most common cancer in both men and women in the US. Improvements in screening and prevention have partially led to a decline in the incidence and mortality rates since the 1980s. However, the long-term survival has not improved.

"The best way to successfully treat cancer is to make an early diagnosis. The sooner the disease is identified, the more likely treatment is to be effective," says Prof Christo van Rensburg, head of the division of Gastroenterology at Stellenbosch University.

He explains that risk factors include a family history of CRC, a personal history of chronic inflammatory bowel disease, advancing age and excessive alcohol consumption, smoking, obesity and physical inactivity.

CRC are grouped into two broad categories: sporadic where there is no known family history of disease and familial where cancers tend to occur in several generations of a family and affected individuals often has close relatives with the same cancer type. Inherited CRC only accounts for approximately 5% of all CRC cases.

Familial adenomatous polyposis (FAP) (an inherited condition in which numerous adenomatous polyps form mainly in the epithelium of the large intestine) and hereditary non-polyposis colorectal cancer (HNPCC) are the two major colorectal cancer susceptibility syndromes.

"There is evidence that non-steroidal anti-inflammatory drugs (NSAIDs), such as aspirin, can reduce the development of colon and rectal cancer, but it is linked to increased bleeding risk and therefore not routinely advised," says Van Rensburg. "The consumption of milk and calcium as well as higher blood levels of Vitamin D appears to decrease CRC risk."

There are usually no symptoms associated with early-stage colorectal cancer. At a more advance stage there might be bleeding per rectum, bloody stools, a change in bowel habits, non-specific abdominal pain, anaemia due to blood loss, as well as loss of weight and appetite. These symptoms are non-specific to the disease.

Screening for colorectal cancer has proven to be effective in reducing colorectal cancer incidence and mortality. Several screening options are available, but unfortunately, many negative perceptions exist about some of the procedures.

Screening begins at 50

Currently the American Cancer Society's National Guidelines recommend that those 50 and over at normal risk should have regular screening with detection techniques that identify polyps or cancer every 5 years (sigmoidoscopy, double contrast barium enema or virtual colonoscopy) or a colonoscopy every 10 years.

Screening methods that primarily detect cancer include digital rectal examination, faecal occult blood test (sample of stool tested to detect small quantities of blood) and immunochemical test on a yearly basis as well as a stool DNA test.

"Those at higher risk for colon cancer due to bowel disorders or a family history of the disease should be screened more often and earlier," says Van Rensburg.

While the precise benefit of screening exclusively by colonoscopy is not yet known, unquestionably, the examination is central to the success of any screening programme. The test affords the opportunity to detect and resect neoplasia (the development of new tissue without a useful function) across the entire large bowel and is the definitive examination when other screening tests are positive.

However, colonoscopy is invasive and often requires sedation as well as extensive bowel preparation, all of which puts the patient at risk. Furthermore, the test can technically be demanding and, certainly, there is variation in how it is performed.

"This variation in performance has now been definitively linked to important outcome measures. For example, interval cancers (cancer detected in the intervals between routine screenings) are more common in low adenoma detectors as compared with high adenoma detectors," says Van Rensburg. According to him, robust quality assurance programmes and high-quality training can optimise this procedure.