COLORECTAL CANCER IN SINGAPORE TODAY – PREVENTABLE, TREATABLE

WRITTEN BY
DR DEAN C KOH

COLORECTAL CLINIC ASSOCIATES

38 Irrawaddy Road#10-48/49
Mount Elizabeth Novena Specialist Centre
Singapore 329563

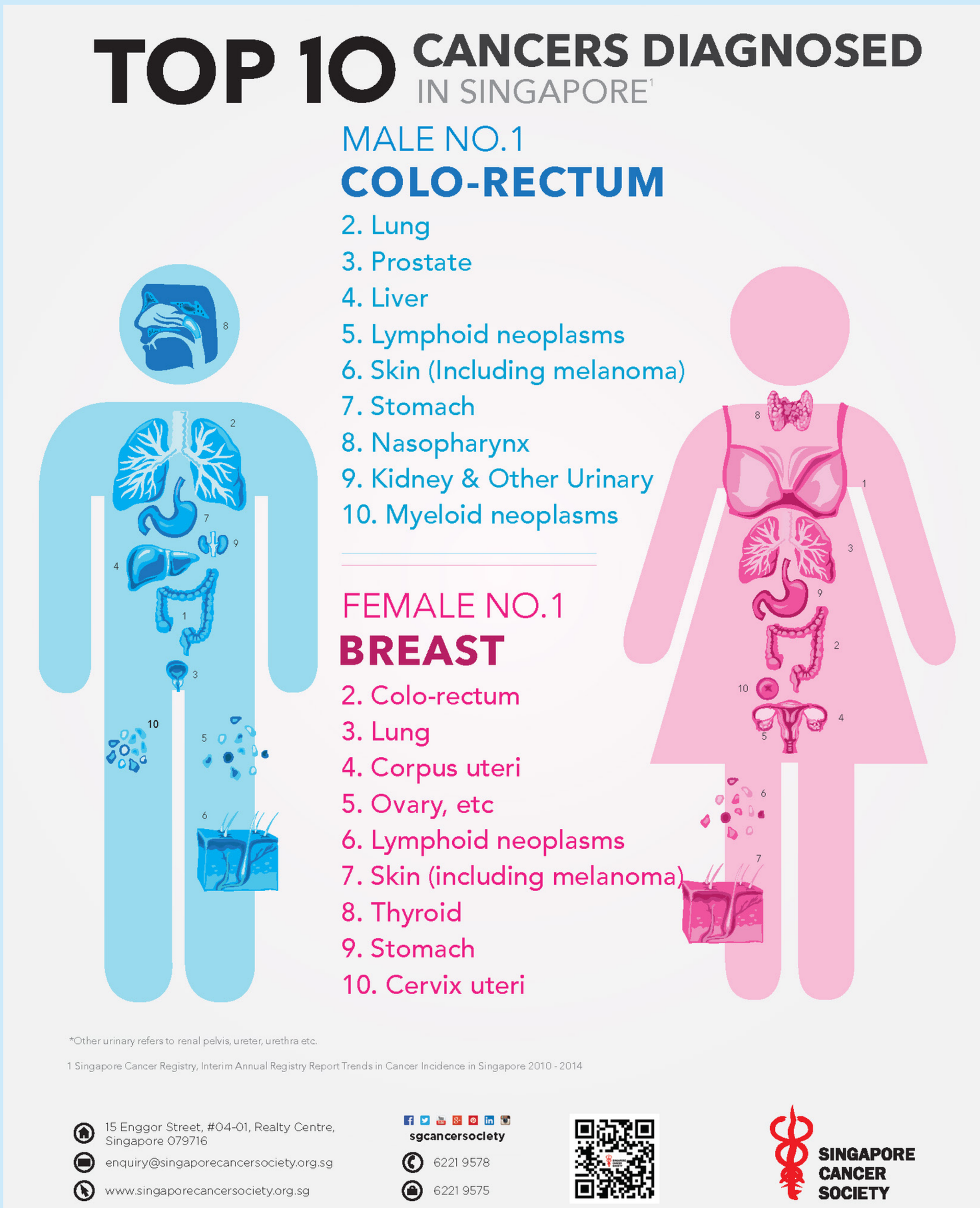
820 Thomson Road #08-62
Mount Alvernia Medical Centre D
Singapore 574623

1 Farrer Park Station Road#14-12
Farrer Park Medical Centre, Connexion
Singapore 217562

319 Joo Chiat Place#05-08
Parkway East Medical Centre
Singapore 427989

Introduction

Cancer incidence rates continue to rise in Singapore. The estimated lifetime risk for developing cancer in the local population is approximately 1 for every 4-5 persons. That is a harrowing thought for most of us! Even more of a concern is that cancer remains the leading cause of death in Singaporeans, beating heart disease, stroke and pneumonia. Of all the cancers, those of the colon and rectum rank highest in incidence. Colorectal cancer is the most common cancer in men, and the second most common cancer in women. Combined, it is still the top ranked cancer in the country. Rates have increased by 13-17% over the past 5 years.

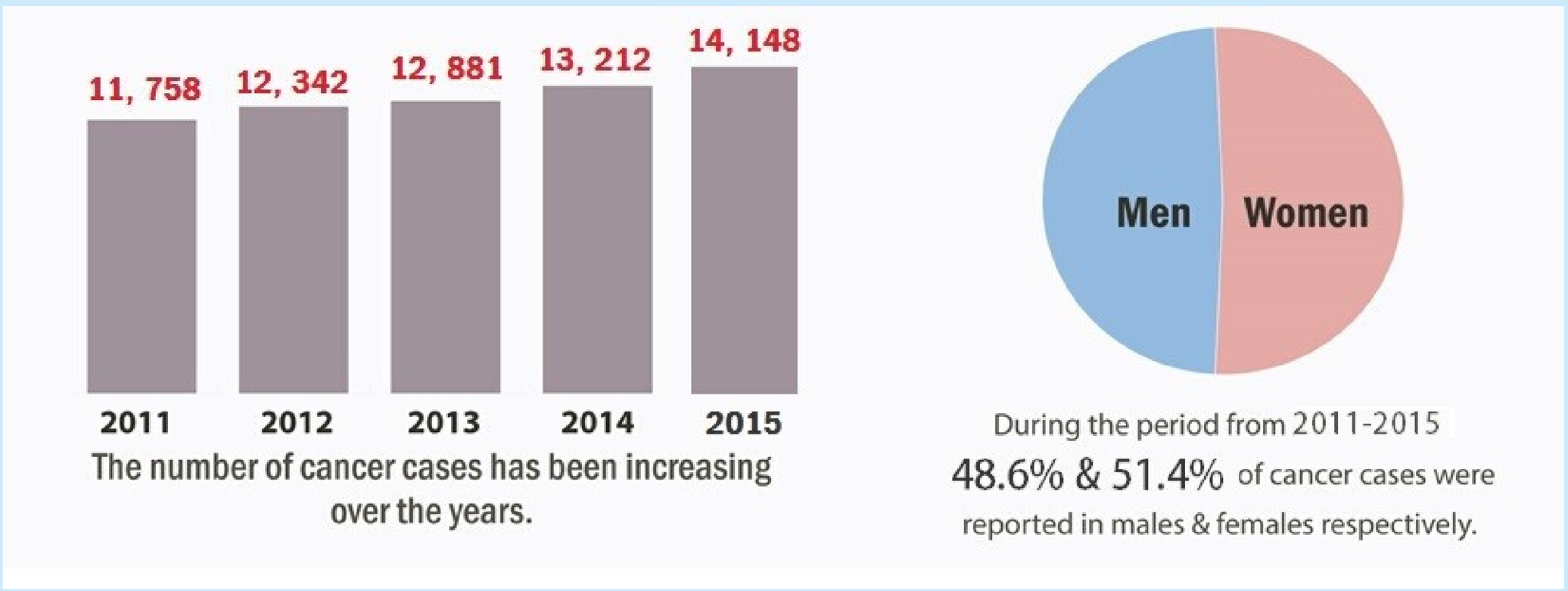


Why is there a need for colonoscopy when I have no symptoms?

Despite these worrisome statistics, colorectal cancer remains a very treatable disease and more importantly, very preventable. A good screening programme with substantial public uptake has been shown to successfully decrease colorectal cancer rates in the United States, as reported by the American Cancer Society. This is after many years of steady increase. This is largely attributable to the successful detection of the pre-malignant lesions which are polyps. Endoscopic removal of these during screening effectively prevent them from ever developing into cancer, thereby reducing the mortality rates arising from the related cancer.

The key message that the public needs to understand is that polyps at the early stages are almost always not associated with any symptoms at all. There will not be any abdominal pain, no alteration of bowel habits or even noticeable bleeding. It is at this early stage that removal will almost remove the risk of it developing into cancer in the future.

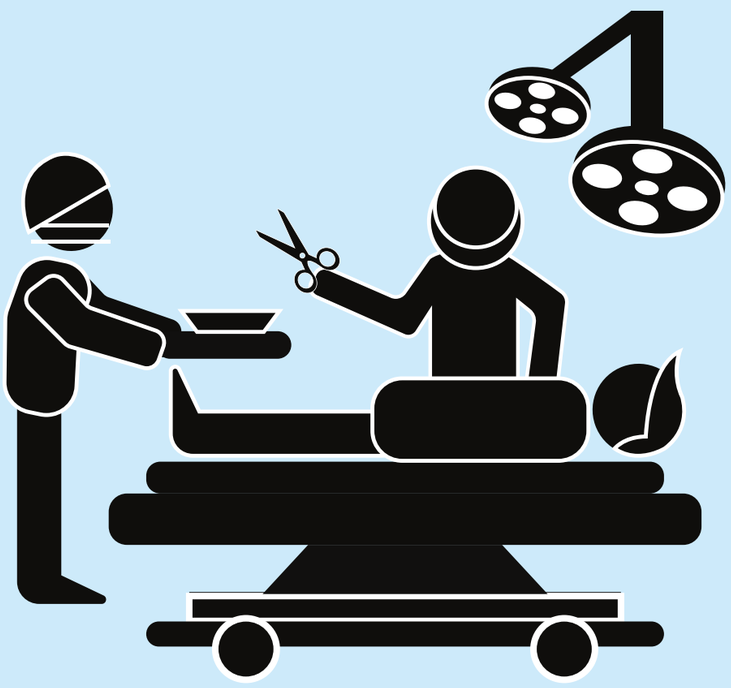
There is no requirement for yearly colonoscopy for the majority of patients once. The interval for such surveillance is well established internationally. Much depends on the findings noted at the index (first) colonoscopy. In general, an interval of 5-10 years is recommended for healthy patients.



Can colorectal cancer be treated?

Even with the development of the cancer stage, colorectal cancers are still amenable to effective curative treatment. This is especially if detected at an early stage. Therein lies the importance of recognizing alarm symptoms which necessitate diagnostic tests for detection.

The mainstay of treatment for cure is still surgery. The surgical technique of resection of the colon or rectum is critical because it bears a direct correlation to the oncologic outcomes for the patient. Conventional teaching mandates a complete resection of the tumour with gross clear margins proximally and distally, together with a complete lymphadenectomy (removal of all draining lymph nodes in the region of the cancer) of the vascular pedicle that supplies the segment of bowel. This is followed lastly by the re-establishment of bowel continuity. The concepts of complete mesocolic excision for colon cancers and total mesorectal excision for rectal cancers are now considered standard of surgical care.



What's new in colorectal surgery – the role of minimally invasive techniques in colorectal surgery today

Current Evidence

It is no longer a disputed fact – laparoscopy in colorectal resections be it for benign conditions or cancer, is associated with improved perioperative outcomes – less pain, less wound and pulmonary complications, less bowel ileus, shorter hospitalization and quicker return to normal function. There is now level one evidence to prove that laparoscopic colon resections for colon cancers are associated with equivalent oncologic outcomes compared to traditional open techniques, whilst at the same time retaining the benefits described above. Exactly 10 years following the emergence of high-powered data for laparoscopic colon cancer resection, the data for rectal cancer is now maturing and points towards the same findings.

What's new in colorectal surgery –
the role of minimally invasive techniques in colorectal surgery today

Penetration

Worldwide, the uptake of laparoscopic colorectal surgery has increased significantly, especially over the past 5 years. Even so, several surveys performed in the major developed economies demonstrated penetration of <50% despite the evidence. Australia, the UK and US reports indicate uptake rates ranging from 25% to almost 50%. The numbers in East Asia are more encouraging with Japan and South Korea taking the lead. The latter currently leads the world in terms of laparoscopic penetration in colorectal resections, with adoption in up to 90% of all cases performed nationwide. How is Singapore doing? Whilst there are no national registries to refer to, anecdotal evidence indicates a rather disappointing 20-30% adoption rate. Despite the advanced standard of healthcare provided by our highly trained surgeons, laparoscopy especially in colorectal resections remains a work in progress. We still have some ways to ensure that the best available treatment option is universally applied nationwide.

Robotics and Single Site

Technological advances and innovation in surgical instrumentation lags behind that of communication and entertainment devices. Nevertheless, the same platforms are applicable. The benefits of that technology today include 3-dimensional binocular high definition optics, motion scaling, tremor reduction, 'wrist' like seven degrees of rotation of the instruments culminating in improved precision in dissection. All these come at an increased cost to both hospitals and the patient. The question is of course – 'is this all worth it?'. It will be unwise to issue an all-encompassing declaration one way or another. Suffice to say, there is now evidence to demonstrate the benefits of robotic assisted laparoscopic colorectal resections in selected instances, mostly confined to pelvic dissections for rectal cancer where the precision improves the quality of oncologic clearance (total mesorectal excision quality), reduces the incidence of urinary and sexual dysfunction postoperatively and improves the sphincter salvage rate for the very low rectal cancers..

Chemotherapy and Radiotherapy

As in any advances in Science, the development of chemotherapeutic agents for use against colorectal cancer has seen dramatic changes in the last 2 decades. There now exists an impressive armamentarium of agents available to the medical oncologist to effectively treat these cancers. This has resulted in improved disease-free survival and overall survival in treated patients. Combination therapy is now standard and the addition of radiotherapy for rectal cancers has even allowed a larger proportion of these cancers to be down-staged prior to curative surgery, allowing more patients to avoid the dreaded stoma. The latest chemotherapeutic agents now allow for targeted therapy which means more effective cancer cell eradication with less collateral damage.

Conclusion

Colorectal cancer remains a preventable and treatable cancer. The earlier the detection, the better the survival when diagnosed. The goal nationwide should be the effective prevention of the country's top cancer by means of prevention using effective screening.