Introduction
Colorectal cancer (CRC) is one of the top killer in Hong Kong, detecting a cancer early is not an easy clinical question. Carcinoembryonic antigen (CEA) is known to be a tumor marker for colorectal cancer but is neither specific nor sensitive. Current evidence suggested screening test for those aged 50 years or above but not to use CEA as a screening or diagnostic tools. However, it is not uncommon to encounter patient with CEA ordered to as an investigation for colorectal cancer. What does the result meant to primary care physician?

Objectives
To review the outcome of patient aged 50 years or above with CEA test done in primary care clinic in Hong Kong population.

Methodology
All patients aged 50 or above with CEA checked in two Primary Care Clinic in New Territories West Cluster from 09/2012 to 08/2014 are searched via CDARS. Patients’ demographic data, CEA result and diagnosis were reviewed by CMS record.

Result
A total of 254 cases were found. 208 patients with normal CEA while 46 patient with elevated CEA. In the elevated CEA group, average age was 67.6, male to female ratio was 1:0.8. 31 patients (67%) cases were offered endoscope with 8 CRC (17%) found and 11 cases (24%) with colonic polyps. In normal CEA group, average age was 61.8, male to female ratio was 1:1.1. 61 patients (29%) cases were offered endoscope with 4 CRC found (1.9%) and 24 polyps (12%). There are a number of biases in this study. The elevated CEA group had average age of 6 years older and higher male to female ratio. Some baseline risk factors such as smoking status and family history were not controlled. Percentage of endoscope offered to elevated CEA group was much higher. However, the number of CRC detected in the elevated CEA group is nearly 10 times higher than the normal CEA group. Would the use of CEA in high risk group be helpful to determine whom to offer earlier assessment and endoscope? A better designed study should be proceed to investigate further for the current findings.