Appendix A: Factors Influencing Colorectal Cancer Risk

Family History of a single relative presenting over age 60 with CRC or advanced adenomas does not significantly increase patient risk.

Risk Factors

1. Family History of Familial Adenomatous Polyposis (FAP)

FAP is a rare autosomal dominant condition in which affected individuals develop countless colorectal adenomas usually beginning in puberty. These adenomas will inevitably progress to multi-focal colon cancer if colectomy is not undertaken. Genetic counselling and testing should be offered to all 1st degree relatives as soon as possible through the Hereditary Cancer Program at the BC Cancer Agency (www.bccancer.bc.ca). Individuals affected with FAP and their first degree relatives should be followed by a gastroenterologist who, in conjunction with the Hereditary Cancer Program, will determine ongoing medical care.

Attenuated FAP – tends to present at an older age and results in fewer adenomas, often right sided, compared to traditional FAP. Attenuated FAP should be suspected in individuals that have developed > 10 adenomas during their lifetime. These patients should be referred to the Hereditary Cancer Program at the BC Cancer Agency.

2. Family History of Hereditary Nonpolyposis Colon Cancer (HNPCC)

HNPCC is an uncommon familial condition defined by the Amsterdam Criteria II:[1]

a) Three or more family members with CRC, or any Lynch Syndrome malignancy (small bowel, ureter, renal pelvis, endometrium), one of whom must be a first degree relative of the other two.

b) At least two generations must be affected by CRC or Lynch Syndrome malignancy.

c) At least one CRC must be diagnosed before age 50 years.

Individuals with a family history of HNPCC should undergo colonoscopy beginning ten years earlier than the youngest age at which a family member was diagnosed with colorectal cancer; or at age 25. Colonoscopy should be performed every 2 years until age 40, then annually thereafter. Individuals should be referred to the Hereditary Cancer Program at the BC Cancer Agency for assessment, counselling and, if appropriate, genetic testing.

3. Advanced Adenomas

Known to carry a higher cancer risk:

- tubular adenomas ≥ 1 cm,
- villous adenomas,
- adenoma with high grade dysplasia (HGD),
- greater than 1 sessile serrated polyps ≥ 1 cm,
- sessile serrated polyps with dysplasia, or
- traditional serrated adenoma.

[1] *Cruz-Correa M, Giardiello FM. Diagnosis and management of hereditary colon cancer. Gastroenterol Clin North Am 2002;31:537-49.*