Risk Management for Individuals at Moderately Increased Risk of Colorectal Cancer

ID: 001425 *(V.1)* | Approved: 20 Jan 2014 | Last Modified: 21 Jan 2014 | Review Due:20 Jan 2015

1–2% of the population are at moderately increased risk of colorectal cancer (CRC) based on their family history. The main risk factors for CRC are increasing age and family history. Family history does not necessarily imply an inherited monogenic cause. Most people in this risk group will not develop CRC.

Target group

People who have not had CRC or polyps, but are at moderately increased risk of CRC based on their family history*, including those with:

- one first degree relative with CRC diagnosed before the age of 55yrs
- two first degree or one first degree and one second degree relative/s on the same side of the family with CRC diagnosed at any age (without potentially high risk features)

Exclusion criteria

- people who have had CRC
- where an inherited cancer syndrome associated with a predisposition to CRC is suspected or confirmed
- inflammatory bowel disease, documented colorectal polyps, adenomas

***Risk stratification from the Australian Cancer Network "Familial Aspects Of Bowel Cancer: A Guide For Health Professionals" (July 2008)**

Lifetime risk of cancer

Cancer	In individuals at moderately increased risk of CRC by age 80 yrs	General population by age 85 yrs
Colorectal	up to 30%[1]	8%**

**This data does not take into account the impact of surveillance.
Data Source: NSW Central Cancer Registry 2008 final dataset and NSW Health Outcomes Information Statistical Toolkit (HOIST).

Cancer risk management guidelines

Cancer type	Recommendations	
Colorectal	Surveillance	▪ colonoscopy every 5yrs from 45yrs Interval may vary as recommended by an appropriate specialist based on findings at time of colonoscopy, should not be supplemented with regular Faecal Occult Blood Test (FOBT) ▪ flexible sigmoidoscopy plus double contrast barium enema or CT colonography may be used if colonoscopy is contraindicated
	Risk-reducing medication	▪ consider low dose aspirin (unless contraindicated)

Evidence for risk management guidelines

Colorectal

Surveillance

It is currently widely recommended that people at moderate-risk of CRC be referred for colonoscopy at five-yearly intervals starting at age 50yrs, or ten years younger than the age of the earliest diagnosis of CRC in the family, whichever comes first.

Insufficient evidence regarding the optimal screening strategy for this population means that a number of different screening recommendations exist differing in the definition of risk, type and frequency of tests recommended, and the age at which individuals should start screening. There has been a lack of evidence for a specific screening strategy in the moderate risk population.

A UK study shows that colonoscopy every 5 years from age 25yrs decreases mortality in the moderate-risk group by 81%. However, the risk of cancer or high-risk polyps under the age of 45yrs is low (less than 5%)[2].

Although flexible sigmoidoscopy or CT colonography may be considered if colonoscopy is contra-indicated, as yet there is insufficient evidence of reduction in CRC incidence or mortality to recommend either method for routine screening[3]. There is no specific data for moderately-increased risk groups.

Risk-reducing medication

Considerable evidence supports the effectiveness of aspirin as risk-reducing medication for CRC in high-risk Lynch syndrome patients (>50% reduction in CRC risk)[4].
This effect has also been seen in the general population (34% reduction in 20yr mortality, 17-28% reduction in adenoma occurrence). However, there is insufficient cost-benefit data to recommend aspirin as risk-reducing medication for CRC in the general population.

There is no specific evidence for the moderate risk group.

Modifiable lifestyle risk factors for bowel cancer

For a summary of the evidence for modifiable lifestyle risk factors for CRC, see NHMRC **"Clinical Practice Guidelines for the Prevention, Early Detection and Management of Colorectal Cancer"** ***, supported by **Australian data from the Melbourne Colorectal Cancer Study**. These recommendations apply to the general population; there is no specific evidence for the moderate-risk group.

*** NHMRC "**Clinical Practice Guidelines for the Prevention, Early Detection and Management of Colorectal Cancer"** (2005) Reference number: CP106 (Guidelines and Summary: Section 1, page xv and Chapter 2: Primary Prevention, page 8-31)

Support and information

Seek advice from a familial cancer service for further risk assessment.

Website Resources

Centre for Genetics Education NSW Health
Association of Genetic Support of Australasia INC (AGSA)
Cancer Council Australia
Cancer Australia

Further references

For further references used to develop this protocol please see the History tab

References

1. **St John, D. J., F. T. McDermott, J. L. Hopper, et al. 1993. "Cancer risk in relatives of patients with common colorectal cancer." Ann Intern Med 118(10):785-790**
2. **Dove-Edwin, I., P. Sasieni, J. Adams, et al. 2005. "Prevention of colorectal cancer by colonoscopic surveillance in individuals with a family history of colorectal cancer: 16 year, prospective, follow-up study." BMJ 331 (7524):1047**
3. **Lieberman, D. A. 2009. "Clinical practice. Screening for colorectal cancer." N Engl J Med 361(12):1179-1187**
4. **Chan, A. T., N. Arber, J. Burn, et al. 2012. "Aspirin in the chemoprevention of colorectal neoplasia: an overview." Cancer Prev Res (Phila) 5(2):164-178**

- 15 Jun 2014