

## Management Guidelines for *MSH2* Mutation Carriers

Male <i>MSH2</i> approximate risks*			Female <i>MSH2</i> approximate risks*		
Cancer type	<i>MSH2</i> mutation carrier (up to 75)	Population lifetime risk	Cancer type	<i>MSH2</i> mutation carrier (up to 75)	Population lifetime risk
Colorectal	51%	7%	Colorectal	47%	6%
Endometrial	-	-	Endometrial	49%	3%
Ovarian	-	-	Ovarian	17%	2%
Upper gastrointestinal	20%	5%	Upper gastrointestinal	13%	4%
Ureter/kidney	18%	3%	Ureter/kidney	19%	2%
Urinary Bladder	13%	2%	Urinary Bladder	8%	<1%
Brain	8%	<1%	Brain	3%	<1%
Prostate	24%	18%	Prostate	-	-

### Approximate *MSH2*- age-dependent cumulative cancer risks\*

Current age	Male colorectal	Female colorectal	Endometrial	Ovarian
30	3%	2%	0%	0%
40	10%	7%	2%	2%
50	18%	17%	18%	11%
60	34%	26%	38%	13%
70	46%	42%	47%	17%
75	51%	47%	49%	17%

### Management recommendations\*

- 1 Screening**
  - **Colorectal screening:** 2-yrly colonoscopy from age 25 to 75– review at 75
  - **Gastric screening:** Helicobacter pylori one-off screening
  - **Cervical screening:** As part of the NHS cervical screening programme
  - No additional cancer screening is currently recommended outside of a research setting; **symptom awareness** to be advised
- 2 Risk-reducing surgery**
  - Offer risk-reducing **hysterectomy with BSO**, once childbearing is complete, no earlier than age 35- 40 (risks and benefits to be discussed)
  - HRT should be offered until age 51 in women who have not had a ER positive breast cancer
- 3 Chemoprevention**
  - Discuss pros and cons of **aspirin chemoprevention** from age 25 to 65 (GP to prescribe): 150mg OD if ≤70kg or 300mg OD if >70kg (**expert opinion**)
- 4 Research**
  - **Research studies:** e.g. **IMPACT** (prostate cancer screening study) and **EUROPAC** (pancreatic cancer screening study)
- 5 Cancer management**
  - **Targeted therapies** may be available as a treatment option for certain cancer types (immune checkpoint inhibitors e.g. pembrolizumab)
  - **Surgical management of colon cancer:** discussion regarding pros and cons of segmental vs. extensive resection may be appropriate
  - **Adjuvant 5-FU chemotherapy** may not be appropriate for patients with Dukes' B colorectal cancers
- 6 Family matters**
  - Facilitate **cascade testing** in at-risk family members
  - Discuss **reproductive options**

\*See FAQ document for further information: for questions or comments contact: [Bianca.DeSouza@gstt.nhs.uk](mailto:Bianca.DeSouza@gstt.nhs.uk)