National Cancer Control Programme

Lynch Champion Step-by-Step Guide for the Colorectal Tumour Conference

June 2025

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Lynch Champion Step-by-Step Guide for the Colorectal Tumour Conference

This handbook aims to support local systems to implement national Lynch syndrome pathways for colorectal cancer. Practice will need to be adapted to local circumstances.

Note: All information in this booklet is correct at time of publication

What should you think about first?

- The best way to identify how the pathway works within your tumour conference is to conduct a quick audit of 30 patients (one-off audit)
- This will help you to identify gaps and areas that need improvement
- To do this, a list of data fields for the audit is available in Appendix 1.

Following the baseline audit, you can start working on the Lynch syndrome testing pathway. Think about?

Mismatch repair (MMR) immunohistochemistry (IHC):

- Following the NCCP recommendations[1], do patients have MMR IHC in the first available biopsy? If not, should I speak to the team or the pathology team?
- The universal testing pathway for MMR IHC status in colorectal cancer is outlined in Appendix 2.

Further testing if there is loss of MLH1 in MMR IHC

- Do patients that have loss of MLH1 have further testing (either methylation or BRAF)?
- If not, consider speaking to the pathology team to find out if they will be willing to order methylation or BRAF reflex testing (automatically).
- If they do, is there a system to ensure that a clinician/Healthcare Professional (HCP) check the results when available and ensure that the methylation/BRAF results are discussed in the tumour conference (the name of the patient is placed on the tumour conference list for discussion). This is to ensure that mainstreamed genetic testing and pre-test counselling can be offered in-house with support from genetic counsellors regionally or referral to Specialist Cancer Genetics Service can be made if applicable.
- Consider allocating specific responsibilities within your team to make sure that the pathway is as automatic as possible.

- Standard letter sent to the GP to inform them that the patient has possible Lynch syndrome and germline genetic testing will be offered.

The sample GP letter is in Appendix 3.

Have you circulated the Lynch syndrome pathway SOP within your tumour conference?

- This will help members of the tumour conference team to understand the pathway.
- Consider having a CPD session locally to discuss the details of the pathway.
- The SOP is available on the NCCP website; **https://www.hse.ie/eng/services/list/5/cancer/profinfo/hereditary-cancer-genetics/**

Has your pathologist read through the training document for pathologists?

If not, give them a link to the training document - Implementing Lynch syndrome Testing Pathways in Colorectal Cancer which is available here;
https://www.hse.ie/eng/services/list/5/cancer/profinfo/hereditary-cancer-genetics/

and let them know that there are very useful supporting documents that will provide guidance with reporting;
https://rmpartners.nhs.uk/our-work/improving-diagnostic-treatment-pathways/lynch-syndrome-quality-improvement-project/lynch-syndrome-online-training-for-pathologists/

Is there mainstreaming of genetic testing in place for Lynch syndrome?

If yes, ensure you have a pathway in place to the Specialist Cancer Genetics Service as required.
If no, ensure you have a pathway to pre-test genetic counselling for those requiring germline genetic testing.

Consider the implementation of mainstreaming cancer genetic testing in your service

- Support will be offered from a genetic counsellor to help you start the mainstreaming service and create a network to ensure continuous support.

- HSeLanD e-Learning cancer genetic testing modules have been developed to support the staff who will carry out mainstreaming. The e-learning modules include:
  - Module 1:- Mainstreaming Cancer Genetic Testing
  - Module 2:- Obtaining Informed Patient Consent
  - Module 3:- Cancer Genetic Testing for BRCA
  - Module 4:- Cancer Genetic Testing for Lynch syndrome

Useful resources

1. Implementing a universal testing pathway for Lynch syndrome in colorectal, endometrial and endometrioid or clear cell ovarian cancer and the cancer genetics e-learning modules are available here;
https://www.hse.ie/eng/services/list/5/cancer/profinfo/hereditary-cancer-genetics/

*There are very useful documents and resources available in the online training supporting documents webpage from the Royal Marsden website;
https://rmpartners.nhs.uk/our-work/improving-diagnostic-treatment-pathways/lynch-syndrome-quality-improvement-project/lynch-syndrome-early-diagnosis-pathway-colorectal-cancer/lynch-syndrome-supporting-documents/

**Other Resource: Pathway model from NSHE for cancer MDTs;
https://www.england.nhs.uk/wp-content/uploads/2021/07/B0622-Implementing-Lynch-syndrome-testing-and-surveillance-pathways-version-1.2.pdf

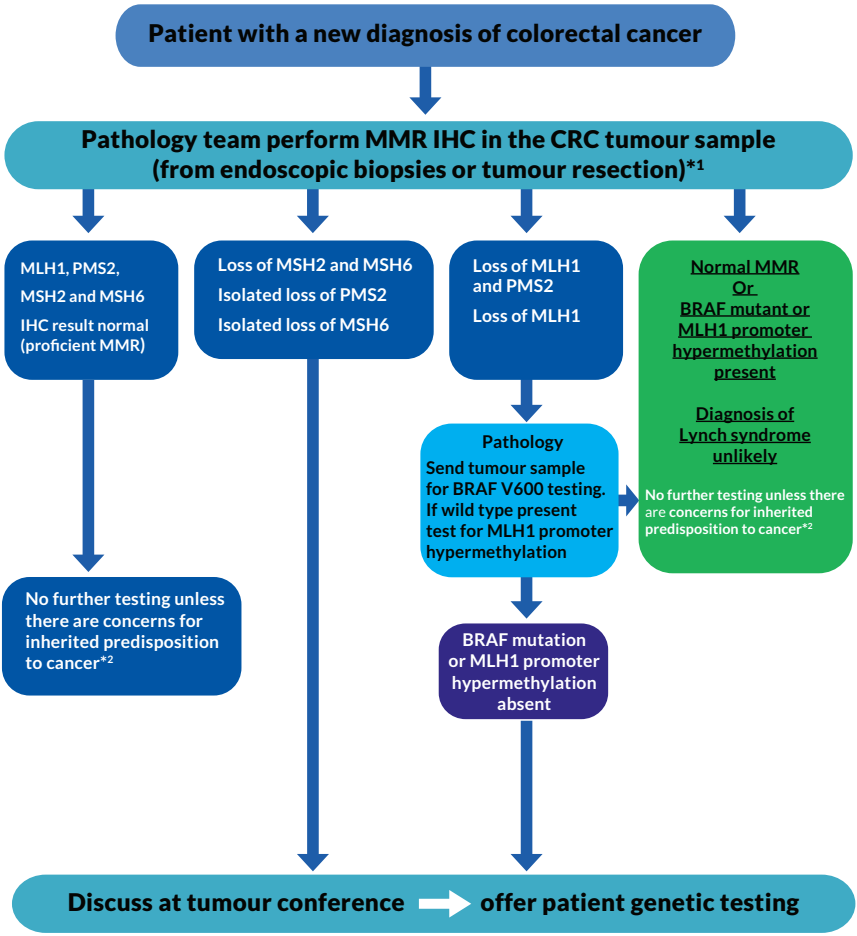
Appendix 1

Audit tool data fields for Lynch syndrome testing in Colorectal Cancer

Forename	Surname	DOB	MRN	Sex	Age at Diagnosis
Date of Diagnosis	Tumour Stage (TNM)	Date of Surgical/ endoscopic samples	Endoscopic biopsies tested Yes/No	Surgical specimen testing Yes/No	MMR tested Yes/No
MMR test date	Date MMR report added	MSI Yes/No	MLH1 loss Yes/No	MSH2 loss Yes/No	MSH6 loss Yes/No
PMS2 loss Yes/No	Date of tumour conference discussion	MMR discussed at tumour conference Yes/No	BRAF tested Yes/No	BRAF test date	BRAF mutant Yes/No
MLH1 promoter methylation tested Yes/No	MLH1 promoter methylation test date	MLH1 promoter hypermethy-lation Yes/No	Referral for germline testing Yes/No	Date tested	Date result back
Date result given	Additional testing required	Double somatic testing Yes/No	Result	Referred to Genetic Counsellor	

Appendix 2

Universal Testing Pathway for MMR Status using Immunohistochemistry (IHC) in Colorectal Cancer (CRC)



*1 PCR/molecular testing may be indicated if MMRP IHC is equivocal

*2 A referral to the Specialist Cancer Genetics Services should be considered if you have concerns for inherited predispositions to cancer on the basis of multiple primary cancers or a strong family history of cancer, such as multiple relatives with colon and/or endometrial cancers or meeting Amsterdam or revised Bethesda criteria.

Appendix 3

Insert Hospital Header

Patient label – affix here

Dr GP

Address

Date: .....

Dear Dr .....

Mr/Mrs/Ms has been discussed in our colorectal tumour conference meeting. According to current guidelines for hereditary colorectal cancer, Patient name requires pre-test genetic counselling, and possible genetic testing for Lynch syndrome for the following reason:

IHC result shows loss of ..... ☐

If loss of MLH1, further testing performed ..... ☐

Result:

-MLH1 promoter hypermethylation absent..... ☐

or

-BRAF mutation absent..... ☐

We are offering the patient germline genetic testing for Lynch syndrome.

Kind regards,

Referrer signature

cc. Patient

cc. Trained member of the multidisciplinary team

National Cancer Control Programme

Document name:	**Lynch Champion Step-by-Step Guide for the Colorectal Tumour Conference**
Version No:	V1
Produced by:	HSE National Cancer Control Programme
Issue date: Review date:	June 2025 June 2028