Competency training and evidence Form: facilitating germline genomic testing in Lynch Syndrome

NHS South West Genomic Medicine Service

The NMC ‘Standards for Competence’ state that nurses are 'responsible and accountable for keeping their knowledge and skills up to date through continued professional development.

The competency framework was developed by Carpenter-Clawson et al., (2023) https://doi.org/10.3389/fgene.2023.1125599. The work was commissioned by NHSE national Genomics Education Programme (Previously Health Education England). The framework also aligns with the genomics nursing competency framework developed by the genomics education programme.
These competencies are for experienced nurses, who already have advanced communication skills, and wish to learn mainstreaming for Lynch Syndrome. They align with the genomics competency framework developed by NHSE’s National Genomics Education Programme (Previously Health Education England) and are deliberately clear and simple to complete.They can be adapted to meet different needs and working environments, both geographical and professional.

Each competency (in grey) has specific sub competencies specific to Lynch Syndrome beneath it.
Each sub-competency needs to be signed off by your trainer or other competent professional when it has been met. Several competencies should be assessed face to face, by observing you demonstrating the required skill or in discussion with your trainer.
The Signposting / Comments section provides guidance for where you can gain the knowledge to meet the competency...

It may be helpful to plan to be assessed at various ‘touch points’ to sign off sub competencies as you meet them: -

- After completing the theoretical knowledge-based learning
- Following a discussion and observation of a genetic counsellor (GC) or mainstreaming nurse carrying out a Lynch Syndrome germline testing appointment
- After being observed by a GC or competent nurse mainstreaming a patient for germline Lynch testing

Your completed competencies should be signed off by your trainer.
Remember, mainstreaming is a fluid skill, if you have not practised it in a while, you may no longer be competent.
This framework can be revisited at any time, any colleague who is competent at mainstreaming can reassess you – do reach out to your other mainstreaming colleagues.

Start date:		**Trainee Name:**		**Position:**	
Trainer(s):					
Assessed and signed by:				**Date:**	

Competency		Completion Date	Signposting / Comments
1 - Demonstrate an understanding of the basic scientific concepts of inheritance, genetics and genomics			
Describe how Lynch Syndrome is inherited			http://www.genomicseducation.hee.nhs.uk/education/videos/autosomal-dominant-inheritance/
Date discussed with trainer:		**E-signature/initials of trainer:**	
2 – Demonstrate an understanding of the difference between a germline and somatic genome and the clinical implications associated with germline or somatic variants			
Demonstrate a knowledge of Lynch Syndrome and its cancer predispositions			Lynch Syndrome Condition Factsheet Lynch Syndrome (colorectal cancer) online training for MDTs: Option 2 - RM Partners (colorectal cancer) Lynch Syndrome online training for MDTs: Option 2 - RM Partners (endometrial cancer)
Describe the different somatic and germline tests and the implications of these results			
Describe the pattern of inheritance pattern of Lynch Syndrome, including the risks to other family members			
Describe what the clinical implications of the diagnosis are, in terms of risk of developing cancer, the risk reducing strategies and the surveillance available			
Date discussed with trainer:		**E-signature/initials of trainer:**	
3 – Describe the local genetic services available and how to refer patients			
Explain which GMSA you are part of, as well as where your genetics laboratory and genetic services are based			Genomics Laboratory Hubs and Genomic Medicine Alliances https://www.genomicseducation.hee.nhs.uk/education/onlinecourses/facilitating-genomic-testing-introduction-to-offering-genomic-tests/
Describe how you would request a Lynch Syndrome germline test and how you would receive the results			
Describe your local genetics referral criteria and when and how you would refer into it			
Date discussed with trainer:		**E-signature/initials of trainer:**	
4 – Demonstrate the ability to carry out appropriate risk assessments to identify patients that might be at higher risk of Lynch Syndrome			
Demonstrate a knowledge of the modified Amsterdam Criteria and the relevance of the age at which cancer is diagnosed			New clinical criteria for hereditary nonpolyposis colorectal cancer (HNPCC, Lynch syndrome) proposed by the International Collaborative Group on HNPCC - Gastroenterology (gastrojournal.org)
Date discussed with trainer:		**E-signature/initials of trainer**	

5- Conduct a comprehensive family history exercise to understand potential high risk for inherited conditions		
Demonstrate an understanding of family members at risk of Lynch Syndrome		Genomics 101: Taking and Drawing a Genetic Family History - Genomics Education Programme (hee.nhs.uk)
Draw a 3-generation family pedigree showing confidentiality of other family members		
Demonstrate the ability to conduct genetic consenting with the use of appropriate genetic counselling tools to aid patient diagnosis.		
Date discussed with trainer:		**E-signature/initials of trainer:**
6 – Understand the wider roles and services offered by local clinical genetics teams		
Describe the referral pathway to your local clinical genetics, and timelines, following all 3 possible results		https://rmpartners.nhs.uk/our-work/improving-diagnostic-treatment-pathways/lynch-syndrome-quality-improvement-project/lynch-syndrome-patient-information-leaflets/ Bowel Cancer | Lynch Syndrome UK (lynch-syndrome-uk.org) Lynch Syndrome | The Eve Appeal
Explain who would add confirmed Lynch Syndrome patients to the National Bowel Cancer Screening Programme (NBCSP)		
Explain what the 'To whom it may concern' letter is and how it is generated		
Explain who and where predictive testing for Lynch Syndrome will be carried out		
Describe where you would signpost patients and their families who are looking for further support and information		
Date discussed with trainer:		**E-signature/initials of trainer:**
7 – Understand the national genomic test directory and its potential relevance for your patients and practice		
Demonstrate a familiarity with the National Genomic Test Directory		https://www.england.nhs.uk/publication/national-genomic-test-directories/ Panelapp Genomics England
Describe which test directory Lynch Syndrome is found in and what the test is called		
Date discussed with trainer:		**E-signature/initials of trainer:**
8 – Understand the targeted therapies available for patients		
Explain where to find the relevant guidelines for prescribing precision (test to treat) medicines in your cancer file		Guidelines for the management of hereditary colorectal cancer The Manchester recommendations for the management of gynaecological cancers in Lynch syndrome

		NHS England Implementing Lynch syndrome testing and surveillance pathways Version 1.2 (updated 12 September 2023)
Demonstrate a basic understanding of the National Guidelines for management of Lynch Syndrome and how to access them		https://www.bgcs.org.uk/wp-content/uploads/2021/11/British-Gynaecological-Cancer-Society-v13-for-website-with-figure1.pdf (endometrial) https://www.nice.org.uk/guidance/ng151 (colorectal) ACPGBI for colorectal cancer
Date discussed with trainer:		**E-signature/initials of trainer:**
9 – Understand the broad mechanism of action of targeted therapies		
Demonstrate an understanding that dMMR cancers respond differently to immunotherapy and are less likely to respond to traditional chemotherapy		Neoadjuvant Immunotherapy in dMMR colon cancer (esmo.org)
Date discussed with trainer:		**E-signature/initials of trainer:**
10 – Understand how genomics data can be used in the context of patient prognosis		
Demonstrate an awareness that cancers that develop due to Lynch are more survivable than those that are not, and explain briefly why		MSI testing and its role in the management of colorectal cancer
Date discussed with trainer:		**E-signature/initials of trainer:**
11 – Understand how genetic data can be used in the context of prevention and earlier diagnosis		
Describe the 3 possible results that a patient may receive		https://patientinfolibrary.royalmarsden.nhs.uk/lynchsyndrome https://www.genomicseducation.hee.nhs.uk/education/onlinecourses/facilitating-genomic-testing-discussing-diagnostic-germline-genomic-tests/
Explain the basic principles of which gene is affected and how this will change a patient's cancer risk and targeted surveillance		
Describe the potential implications to family members of the possible results of Lynch testing		
Write an appropriate clinic letter for a patient on a mainstreaming pathway, reference appropriate local documentation that you would include		
Date discussed with trainer:	**E-signature / initials of trainer:**	
12 – Understanding how genomic data is analysed and the potential implications of the analysis process on the outcome on patient management		
Describes how samples and data may be used, stored and accessed		Facilitating Genomic Testing: Data and Sample Management in the NHS GMS
Describe the potential benefits and risks of data and sample use, storage and sharing on personal and familial levels		

Date discussed with trainer:		**E-signature/initials of trainer:**	
13 – Understand the wider, legal, social and ethical considerations of genetic testing for patients			
Demonstrates knowledge and understanding of possible ethical scenarios, such as nondisclosure, and that duty of care may extend beyond the initial feedback of genomic findings			https://www.rcplondon.ac.uk/projects/outputs/consent-and-confidentiality-genomic-medicine
Describe the process to inform relevant professionals involved in managing a patient's care			
Describe the process to initiate onward referrals to other specialists			
Date discussed with trainer:		**E-signature/initials of trainer:**	