

Lynch Syndrome testing : Retrospective Audit of Endometrial cancer patients in a DGH

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•**Objective:** We undertook an audit of all patients diagnosed with endometrial cancer over an 18 month period in a district general hospital to assess compliance to NICE guidance DG 42 around testing for Lynch Syndrome

•**Design:** Retrospective audit over an 18 month period

•**Method:** All patients whose primary diagnosis was recorded as 'Malignant neoplasm of endometrium' during the period from January 2021 to June 2022 were retrieved from our IT system and histopathology reports analysed followed by review of notes to assess offer of referral for Germline testing.

•**Results:** Review of the database returned 73 patients recorded to have primary endometrial cancer in the period of 18 months from January 2021 to June 2022. Average age at diagnosis was 63.8 years. Mean BMI was 37.7 kg/m². Analysis of histology results revealed that this number included 3 patients wrongly coded to have endometrial cancer. After data cleansing we had 70 patients diagnosed with endometrial cancer in the reference time frame. 69 /70 patients had MMR status testing. One patient did not have testing. If IHC was abnormal with loss of MLH1, or loss of both MLH1 and PMS2 protein expression, patients went on to have MLH1 promoter hypermethylation testing of tumour DNA. If MLH1 promoter hypermethylation is not detected, germline genetic testing was offered to confirm Lynch syndrome. If IHC is abnormal with loss of MSH2, MSH6 or isolated PMS2 protein expression, patients were offered germline genetic testing. Of those who had MMR status testing, 43 were found to be MMR proficient (pMMR) and 26 MMR deficient (dMMR). We found that 10 patients had concomitant cancer either breast or colorectal.

•**Conclusions:** 98.5% of patients with endometrial cancer had MMR IHC testing. The one patient who did not have testing was diagnosed in the first week of January 2021 and in early phases of implementation of the NICE guideline locally. 100% of patients whose IHC was abnormal with loss of MLH1, or loss of both MLH1 and PMS2 protein expression patients went on to have MLH1 promoter hypermethylation testing of tumour DNA. 100% of patients in whom MLH1 promoter hypermethylation was not detected or with loss of MSH2, MSH6 or isolated PMS2 protein expression, were offered germline genetic testing to confirm Lynch syndrome.

This audit demonstrates local compliance with NICE guideline DG42