POSTERS

Colorectal/Anorectal

PTU-001 REVISED BETHESDA GUIDELINES: COMPLIANCE IN IDENTIFYING HNPCC AFFECTED FAMILIES

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Introduction Hereditary non-polyposis colorectal cancer (HNPCC) causes approximately 3% of colorectal cancer cases in the UK and has significant implications for screening families with multiple affected members. It is usually caused by germ-line mutations in *MLH1*, *MSH2* and *MSH6* mismatch repair genes. The revised Bethesda guidelines are designed to identify colorectal cancer patients who should have immunohistochemistry (IHC) and microsatellite instability (MSI) screening tests for HNPCC. These guidelines are designed to streamline the clinical diagnostic pathways used to identify mutation carriers in patients with colorectal cancer who might or might not fulfil the Amsterdam II criteria, thus increasing diagnostic yield of HNPCC screening. This audit looks at the compliance with revised Bethesda guidelines to identify HNPCC families and their referral for genetic testing.

Methods Patients were identified from colorectal MDT Imperial College Healthcare NHS Trust from the UK National Bowel Cancer Audit Programme (NBOCAP) data over a period of 18 months up to May 2010. Pathology results were obtained for IHC and MSI testing. Patients who underwent IHC testing at St Mary's Hospital, London, and referrals to the Kennedy-Galton Clinical Genetics Centre were identified. The number of patients whose tumours were resected was identified and the histology reports reviewed.

Results 336 patients discussed in colorectal MDT in Hammersmith and Charing Cross Hospitals, London were assessed according to the revised Bethesda guidelines. 18.5% of the reviewed patients satisfied one or more of the revised Bethesda criteria. 5% of these patients were referred to Kennedy-Galton Centre or underwent MSI testing, and none underwent IHC testing. 188 patients of assessed patients had their tumour resected. 7.4% of resected tumours had histology typical of HNPCC (tumour infiltrating lymphocytes, Crohn's like inflammation, Signet ring cells, medullary growth pattern).

Conclusion Based on these results, there is a marked incompliance with revised Bethesda guidelines when assessing patients

Table 1 PTU-001 Results summary

	Number	%
Total number of patients reviewed	336	100%
Number of patients satisfying >1 revised Bethesda Criteria	62	18.5%
Out of 62 patients fulfilling revised Bethesda criteria: Number of patients referred to Kennedy-Galton centre/ MSI tested	3	5%
Number of patients referred for IHC testing	0	0%
Number of patients who underwent tumour resection	188	56%
Tumours with HNPCC histology	14	7.4%

with colorectal cancer. This has a significant impact on clinical pathways for the management of HNPCC families.

Competing interests None.
Keywords HNPCC, IHC, MSI, revised Bethesda guidelines.