

Supplementary protocol 2: Protocol and reporting of *CDH1* mutation-related gastrectomy specimens

Macroscopic examination and sampling of prophylactic gastrectomies should follow specific protocols. After painting the margins or removing the margins before fixation, dissection of the omentum and retrieval of lymph nodes, fresh gastrectomy specimens should be opened along the greater curve and pinned onto a cork board. A life size specimen photo should be used as a template to identify the exact location of the tissue blocks. The collection of fresh tissue samples from any macroscopic lesion and normal looking mucosa should be considered for research purposes. Overnight fixation in buffered formalin is recommended before sampling for routine histopathology, including any macroscopically abnormal areas such as pale lesions. Sections of the margins should be taken (and labelled) and the remainder of the stomach should be sectioned completely (each section 2 cm x 0.3 cm, full thickness) and blocked (paraffin embedded). The location of each section should be marked on the map of the stomach. Any macroscopic lesions identified should be precisely localized within the map. This method usually results in 200-300 tissue blocks per stomach. An alternative is to use an adaptive version of the Swiss roll technique.[1] However, in case a carcinoma of >T1a is discovered unexpectedly, this option is suboptimal as it may be difficult to localize the remainder of the tumour or it may be lost in the processing. Another technique is to use giant histological sections with the whole-mount technique, also called large-format histology. This method will save time and blocks, as each stomach is represented in approximately 25 blocks. The histological examination should be made using a checklist focusing on the items listed in Table 2.

Reference

- 1 Park CM, Reid PE, Walker DC, MacPherson BR. A simple, practical 'swiss roll' method of preparing tissues for paraffin or methacrylate embedding. *J Microsc* 1987;**145**(Pt 1):115-20.