OESOPHAGEAL SECTION FREE PAPERS

OC-065

ACETIC ACID ENHANCED CHROMOENDOSCOPY IS MORE COST EFFECTIVE THAN PROTOCOL GUIDED BIOPSIES IN A HIGH RISK BARRETT'S POPULATION; RESULTS FROM A LARGE PROSPECTIVE SERIES

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Introduction Barrett's dysplasia is difficult to visualise on routine endoscopy. When assessing patients with suspected

dysplasia standard practice is to take protocol guided quadrantic biopsies, with each biopsy sent in a separate cassette in an attempt to localise the dysplasia. Acetic acid chromoendoscopy is a method for visualising dysplastic areas and perform targeted therapies like biopsy or EMR. We examine the efficacy of this technique in detection of neoplasia and the potential cost implications.

Methods We reviewed all patients referred with suspected early neoplasia between 2005 and 2010. Procedures were performed on a dedicated list with high resolution fujinon gastroscopes and EPX4400 processor. A thorough inspection of Barrett's was performed with white light (WLI) and visible neoplasia noted. This was followed by acetic acid (AA) chromoendoscopy. Additional neoplastic areas were noted and targeted biopsies performed. This was followed by quadrantic biopsies of the remaining Barrett's. Cases where acetic acid failed to identify the dysplastic areas were noted. The cost of each biopsy cassette for histological evaluation was £58.90. By looking at the average length of Barrett's the cost per area of dysplasia located by Seattle and Cleveland clinic protocol biopsies was compared to targeted histology.

Results 263 procedures were examined. High risk Neoplasia was found on 143 procedures. Using acetic acid it was correctly identified in 96% of the cases. With white light this was possible in 55% of cases. In 5 of 143 procedures additional dysplasia was picked up on quadrantic biopsy. The cost of histological evaluation in this cohort by Seattle protocol, Cleveland Protocol and acetic acid targeted biopsy protocols are shown in table 1. A potential cost saving of £269,292.80 could be achieved in a population with suspected dysplasia.

Conclusion Acetic acid chromoendoscopy helps localise dysplasia in the majority of patients and is superior to WLI evaluation. This strategy could potentially represent a significant cost saving in patients with suspected dysplasia. We believe that AA chromoendoscopy should become a standard practice in the evaluation of dysplasia.

Competing interests None.

Keywords acetic acid, Barrett's oesophagus, chromoendoscopy, cost-effectiveness.

Table 1 OC-065 Evaluation of histopathology costs by biopsy protocol

	Whole cohort Mean Barrett's length (4.5 cm)	Per patient Mean Barrett's length (4.5 cm)	Range (1–18 cm)
Seattle Protocol	£278,832.60	£1060.20	£234.40–£4240.80
Cleveland Protocol	£139,416.30	£530.1	£117.20–£2120.40
Portsmouth protocol (targeted biopsies in cassette 1+ random biopsies in cassette 2)	£25,032.5	£95.18	£58.90–£117.80
Modified Portsmouth protocol (AA targeted biopsies cassette 1. Random biopsies in single cassette only if nothing found with AA)	£15,490.70	£58.90	NA
Futuristic Protocol	£9541.8	£30.91	N/A