

HEAD OF UNIVERSITY CENTRES OF BIOMEDICAL SCIENCES

HUCBMS SEPTEMBER 6-8, 2005

UNIVERSITY OF WEST OF ENGLAND

ABSTRACT

Liquid Based Cytology – Training outcomes of an inexperienced screener

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As part of a training programme for an inexperienced cytology screener Liqui-PREP (Vector laboratories) was evaluated against our existing protocol (Easy-prep, Surgipath), using respiratory cytology samples from patients with suspected lung malignancy. Study objectives were to educate a new screener about a range of cytopathologies together with a limited technical evaluation of a new product.

98 bronchial lavage specimens were prepared using our existing Easy-prep protocol. Once reported by the pathologist, the remaining sample was then used to prepare a further slide using a modified Liqui-prep method and blinded as to case number. Study samples were then screened, mock-reported and correlated to the pathologists result.

Liqui-prep produced good results within a quick preparation time. The trainee screener detected 93.75% (30/32) lung malignancies, missing 2 cases of small-cell carcinoma, and 'overcalled' 5.1% (5/98) of cases malignant which the pathologist, often aided by biopsy material, called 'suspicious' from the original Easy-prep slides.

Liqui-prep cytology was technically straightforward, cost-effective and produced a similar microscopic and cytological appearance to our existing protocol. Liqui-prep provided similar results to Easy-prep considering we used '2nd prep' material and a different fixative to that recommended by Vector laboratories. The screener detected a range of cytopathologies including small cell, non-small lung carcinoma and fungal infestation and was a valuable learning experience. Liqui-prep cytology system is an accurate diagnostic system for respiratory cytology