

RAPID ON SITE CELL ADEQUACY ASSESSMENT REDUCES THE RATES OF BETHESDA CLASS I (THY1) & CLASS III (THY3A) ASPIRATES AND REDUCES PATIENT TREATMENT COSTS

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Background/Purpose: Thyroid FNA is common with approximately 350,000 thyroid aspirates performed annually in the USA.

Methods: Using published costings for thyroid FNA & rates for Bethesda Class I, II, III, IV, V & VI & expected rates of malignancy an economic costing model was devised to show the expected reduction in care pathway cost if optimum rates of Class I (Thy1) and Class III (Thy3a) FNA's are achieved. The model is available at www.fnathyroid.com on request.

Results: 3 scenarios were used. Baseline Class I 10%, Class II 60%, Class III 5%, Class IV 13%, Class V 9%, Class VI 3%, worst case scenario Class I 15%, Class II 42%, Class III 18%, Class IV 13%, Class V 9%, Class VI 3% & a best case scenario Class I 4%, Class II 68%, Class III 3%, Class IV 13%, Class V 9% & Class VI 3%. The results show an estimated 27.8% cost treatment reduction per patient if low rates of Class I (Thy1) & Class 3 (Thy3a) aspirates are achieved comparing the best case & worse case scenarios.

Discussion & Conclusion: This simple costing model supports the case for introduction of rapid on site assessment of thyroid FNA's across all healthcare systems, as it shows a greater than 25% reduction in the care pathway treatment costs from best case to worst case scenarios. Achieving low rates of Class I (Thy1) & Class III (Thy3a) aspirates requires rapid on site assessment of thyroid FNA specimens for cellular adequacy, which is most economically achieved by use of cytotechnologists (biomedical scientists in the UK).