



Cost analysis for somatic and germline SyBr Green PCR method screening for parathyroid gland; a cost analysis from Thailand

Sora Yasri^{1*}, Viroj Wiwanitkit²

The use of new molecular diagnostic technique for detection of parathyroid cancer is very interesting (1). The new molecular approach is expected to be the effective biomarker tool for using as tumor marker. In Thailand, the new diagnostic tool has just been introduced for a few years. In a recent report, Niramitmahapanya et al mentioned that “*HRPT2 mutations by SyBr Green PCR sensitive technique to identify parathyroid cancers or atypical adenoma from benign parathyroid tissue* (2).” Here, the authors performed a cost analysis on the available for somatic and germline SyBr Green PCR method screening for parathyroid gland; a cost analysis in Thailand. The cost is referred to the data from tertiary referencing center in Bangkok, Thailand. The utility is according to the previous report by Niramitmahapanya et al, on using for somatic and germline SyBr Green PCR method screening for parathyroid gland in the tertiary referencing center in Bangkok (Rajvithi hospital), Thailand (2). According to this study, the cost and utility of somatic and germline SyBr Green PCR method screening for parathyroid gland is shown in Table 1. According to the cost analysis, the cost utility for using the new technique is still high and might

■ Implication for health policy/practice/research/ medical education

The cost and utility of somatic and germline SyBr Green PCR method screening for parathyroid gland is discussed in this paper. According to the cost analysis, the cost utility for using the new technique is still high and might be a problem for future implementation of the technique in Thailand.

be a problem for future implementation of the technique in Thailand.

Authors' contribution

SY and VW wrote the manuscript equally.

Conflicts of interest

The authors declare no conflicting interest.

Ethical considerations

Ethical issues (including plagiarism, data fabrication, double publication) have been completely observed by the authors.

Funding/Support

None.

References

1. Duan K, Mete Ö. Parathyroid carcinoma: diagnosis and clinical implications. *Turk Patoloji Derg.* 2015;31 Suppl 1:80-97. doi: 10.5146/tjpath.2015.01316.
2. Niramitmahapanya S, Sunthornthepvarakul T, Deerochanawong C, Sarinapakorn V, Athipan P, Harnsomboonvana P, et al. Sensitivity of HRPT2 mutation screening to detect parathyroid carcinoma and atypical parathyroid adenoma of Thai patients. *J Med Assoc Thai.* 2011; 94 Suppl 2:S17-22.

Table 1. The cost and utility of somatic and germline SyBr Green PCR method screening for parathyroid gland

	Somatic	Germline
Cost (USD)*	45.36	45.36
Utility (%) **	19.2	11.5
Cost per utility (USD)***	236.25	394.43

* The cost is referred to the data from tertiary referencing center in Bangkok, Thailand.

** The utility is according to the previous report by Niramitmahapanya et al (2). The utility is determined as detection rate by each technique.

***Cost per utility means cost per a diagnosis of parathyroid cancer.

Please cite this paper as: Yasri S, Wiwanitkit V. Cost analysis for somatic and germline SyBr Green PCR method screening for parathyroid gland; a cost analysis from Thailand. *J Parathyroid Dis.* 2018;6(2):32. DOI: 10.15171/jpd.2018.11.

Copyright © 2018 The Author(s); Published by Nickan Research Institute. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Received: 11 August 2017, Accepted: 17 September 2017, ePublished: 20 September 2017

¹KMT Primary Care Center, Bangkok Thailand. ²Visiting professor, Hainan Medical University, China

*Corresponding author: Sora Yasri, Email: sorayasri@outlook.co.th