

## Development of a Core Set of Clinical Indicators to Measure Quality of Care for Thyroid Cancer: A Modified-Delphi Approach

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**Abstract :** BACKGROUND: There are significant variations in the management, treatment and outcomes of thyroid cancer, particularly in the role of: diagnostic investigation and pre-treatment scanning; optimal extent of surgery (total or hemi-thyroidectomy); use of active surveillance for small low-risk cancers; central lymph node dissections (therapeutic or prophylactic); outcomes following surgery (e.g. recurrent laryngeal nerve palsy, hypocalcaemia, hypoparathyroidism); post-surgical hormone, calcium and vitamin D therapy; and provision and dosage of radioactive iodine treatment. A proven strategy to reduce variations in the outcome and to improve survival is to measure and compare it using high-quality clinical registry data. Clinical registries provide the most effective means of collecting high-quality data and are a tool for quality improvement. Where they have been introduced at a state or national level, registries have become one of the most clinically valued tools for quality improvement. To benchmark clinical care, clinical quality registries require systematic measurement at predefined intervals and the capacity to report back information to participating clinical units. OBJECTIVE: The aim of this study was to develop a core set clinical indicators that enable measurement and reporting of quality of care for patients with thyroid cancer. We hypothesise that measuring clinical quality indicators, developed to identify differences in quality of care across sites, will reduce variation and improve patient outcomes and survival, thereby lessening costs and healthcare burden to the Australian community. METHOD: Preparatory work and scoping was conducted to identify existing high quality, clinical guidelines and best practice for thyroid cancer both nationally and internationally, as well as relevant literature. A bi-national panel was invited to participate in a modified Delphi process. Panelists were asked to rate each proposed indicator on a Likert scale of 1-9 in a three-round iterative process. RESULTS: A total of 236 potential quality indicators were identified. One hundred and ninety-two indicators were removed to reflect the data capture by the Australian and New Zealand Thyroid Cancer Registry (ANZTCR) (from diagnosis to 90-days post-surgery). The remaining 44 indicators were presented to the panelists for voting. A further 21 indicators were later added by the panelists bringing the total potential quality indicators to 65. Of these, 21 were considered the most important and feasible indicators to measure quality of care in thyroid cancer, of which 12 were recommended for inclusion in the final set. The consensus indicator set spans the spectrum of care, including: preoperative; surgery; surgical complications; staging and post-surgical treatment planning; and post-surgical treatment. CONCLUSIONS: This study provides a core set of quality indicators to measure quality of care in thyroid cancer. This indicator set can be applied as a tool for internal quality improvement, comparative quality reporting, public reporting and research. Inclusion of these quality indicators into monitoring databases such as clinical quality registries will enable opportunities for benchmarking and feedback on best practice care to clinicians involved in the management of thyroid cancer.

**Keywords :** clinical registry, Delphi survey, quality indicators, quality of care

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