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Thyroid Cancer: Iodine-131 Intervention and Dosimetric Analysis: A Review

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Abstract: *There has been a notable global escalation in the incidence of thyroid carcinoma, with a particularly pronounced surge of 240% in the incidence of papillary thyroid carcinoma over the past three decades. It is imperative to elucidate its etiological factors, diagnostic methodologies, and therapeutic strategies to enhance patient prognoses. Research into thyroid malignancies is essential for the advancement of diagnostic precision and the evolution of targeted oncological therapies. Investigations advocate for the optimization of Iodine-131 radioisotope therapy as the most efficacious treatment modality for thyroid cancer. This discourse offers a comprehensive examination of the etiology, diagnostic frameworks, and therapeutic interventions, as well as the utilization of Iodine-131, dosimetric considerations, associated risks, and the prevailing challenges in this domain*

Keywords: Thyroid carcinoma, diagnosis, therapy, dosimetry, Iodine-131