

DAFTAR PUSTAKA

1. Sung H, Ferlay J, Siegel RL, Laversanne M, Soerjomataram I, Jemal A, et al. Global cancer statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA Cancer J Clin.* 2021;71(3):209–49.
2. Sutnick AI, Gunawan S. Cancer in Indonesia. *JAMA J Am Med Assoc.* 2021;247(22):1–2.
3. Filetti S, Durante C, Hartl D, Leboulleux S, Locati LD, Newbold K, et al. Thyroid cancer: ESMO clinical practice guidelines for diagnosis, treatment and follow-up. *Ann Oncol.* 2019;30(12):1856–83.
4. Bates MF, Lamas MR, Randle RW, Long KL, Pitt SC, Schneider DF, et al. Back so soon? – Is early recurrence of papillary thyroid cancer really just persistent disease? *Surgery.* 2018 Jan 1;163(1):118.
5. de Carvalho AY, Kohler HF, Gomes CC, Vartanian JG, Kowalski LP. Predictive factors for recurrence of papillary thyroid carcinoma: analysis of 4,085 patients. *Acta Otorhinolaryngol Ital.* 2021;41(3):236.
6. Andresen NS, Buatti JM, Tewfik HH, Pagedar NA, Anderson CM, Watkins JM. Radioiodine ablation following thyroidectomy for differentiated thyroid cancer: Literature review of utility, dose, and toxicity. *Eur Thyroid J.* 2017;6(4):187.
7. Lee K, Anastasopoulou C, Chandran C, Cassaro S. Thyroid cancer. *StatPearls.* 2022 Oct 6;
8. S. Y. Park, H. I. Kim, J.-H. Kim, J. S. Kim, Y. L. Oh, S. W. Kim, J. H. Chung HWJ and THK. Prognostic significance of gross extrathyroidal extension invading only strap muscles in differentiated thyroid carcinoma. *BJS Society Ltd.* 2018. p. 105.
9. De La Vieja A, Santisteban P. Role of iodide metabolism in physiology and cancer. *Endocr Relat Cancer.* 2018;25(4):R225–45.
10. Aryanata IGNGD, Sudarsa IW, Adiputra PAT. Faktor-faktor yang mempengaruhi kualitas hidup pasien kanker tiroid berdiferensiasi baik (DTC) paska tiroidektomi total di Rumah Sakit Umum Pusat (RSUP) Sanglah, Denpasar. *Intisari Sains Medis.* 2019;10(1):197–204.

11. Siregar KB. Kanker Tiroid: Penjelasan Komprehensif Tentang Kanker Tiroid. Perpustakaan Nasional : Katalog Dalam Terbitan (KDT). Medan, Indonesia: USU Press; 2023. 15–60 p.
12. Haugen BR, Alexander EK, Bible KC, Doherty GM, Mandel SJ, Nikiforov YE, et al. 2015 American thyroid association management guidelines for adult patients with thyroid nodules and differentiated thyroid cancer: The american thyroid association guidelines task force on thyroid nodules and differentiated thyroid cancer. *Thyroid*. 2016 Jan 1;26(1):1.
13. Zaydfudim V, Feurer ID, Griffin MR, Phay JE. The impact of lymph node involvement on survival in patients with papillary and follicular thyroid carcinoma. *Surgery*. 2008;144(6):1070–8.
14. X.Cai, R.Wang, J. Tan, Z.Meng NL. Mechanisms of regulating NIS transport to the cell membrane and redifferentiation therapy in thyroid cancer. *Clinical and translational oncology*. *Clinical and Translational Oncology*. 2021. p. 23, 2403–14.
15. Manzil FFP, Kaur H. Radioactive iodine for thyroid malignancies. *StatPearls*. 2023 Oct 5;
16. Vitale M, Di Matola T, D'Ascoli F, Salzano S, Bogazzi F, Fenzi G, et al. Iodide excess induces apoptosis in thyroid cells through a p53-independent mechanism involving oxidative stress. *Endocrinology*. 2000;141(2):598–605.
17. Xie X, Shi X, Guan H, Guo Q, Fan C, Dong W, et al. P21-activated kinase 4 involves TSH induced papillary thyroid cancer cell proliferation. *Oncotarget*. 2017 Apr 4;8(15):24882.
18. Panneels V, Juvenal G, Boeynaems JM, Dumont JE, van Sande J. Iodide effects on the thyroid: biochemical, physiological, pharmacological, and clinical effects of iodide in the thyroid. *Comprehensive Handbook of Iodine: Nutritional, Biochemical, Pathological and Therapeutic Aspects*. Elsevier Inc.; 2009. 303–314 p.
19. Aceves C, Mendieta I, Anguiano B, Delgado-González E. Molecular iodine has extrathyroidal effects as an antioxidant, differentiator, and immunomodulator. *Int J Mol Sci*. 2021;22(3):1–15.

20. Aceves C, Anguiano B, Delgado G. The extrathyronine actions of iodine as antioxidant, apoptotic, and differentiation factor in various tissues. *Thyroid*. 2013 Aug 1;23(8):938.
21. Michael Tuttle R, Ahuja S, Avram AM, Bernet VJ, Bourguet P, Daniels GH, et al. Controversies, consensus, and collaboration in the use of ¹³¹I therapy in differentiated thyroid cancer: A joint statement from the american thyroid association, the european association of nuclear medicine, the society of nuclear medicine and molecular I. *Thyroid*. 2019 Apr 1;29(4):461–70.
22. Preparing for radioactive iodine treatment | Thyroid cancer | Cancer Research UK. Cancer research UK. 2023.
23. Tuttle RM, Tala H, Shah J, Leboeuf R, Ghossein R, Gonen M, et al. Estimating risk of recurrence in differentiated thyroid cancer after total thyroidectomy and radioactive iodine remnant ablation: using response to therapy variables to modify the initial risk estimates predicted by the new american thyroid association st. *Thyroid*. 2010 Dec 1;20(12):1341.
24. Klain M, Nappi C, Zampella E, Cantoni V, Green R, Piscopo L, et al. Ablation rate after radioactive iodine therapy in patients with differentiated thyroid cancer at intermediate or high risk of recurrence: a systematic review and a meta-analysis. *Eur J Nucl Med Mol Imaging*. 2021 Dec 1;48(13):4437.
25. Wu R, Liu W, Li N, Wang X, Sun D, Ji Y, et al. Analysis of correlation factors influencing the outcome of initial ¹³¹I remnant ablative therapy in intermediate- to high-risk patients with papillary thyroid microcarcinoma. *Nucl Med Commun*. 2022 Jun 1;43(6):669–74.
26. Zhao H, Gong Y. Radioactive iodine in low- to intermediate-risk papillary thyroid cancer. *Front Endocrinol (Lausanne)*. 2022;13(August):1–10.
27. Pacini F, Fuhrer D, Elisei R, Handkiewicz-Junak D, Leboulleux S, Luster M, et al. 2022 ETA Consensus Statement: What are the indications for post-surgical radioiodine therapy in differentiated thyroid cancer? *Eur Thyroid J*. 2022;11(1).
28. Yasmin T, Adnan S, Younis MN, Fatima A, Shahid A. Comparing High and Low-Dose Radio-Iodine Therapy in Thyroid Remnant Ablation Among Intermediate and Low-Risk Papillary Thyroid Carcinoma Patients—Single

- Centre Experience. Dose-Response. 2021 Dec 13;19(4):1–7.
29. Iizuka Y, Katagiri T, Ogura K, Mizowaki T. Comparison between the different doses of radioactive iodine ablation prescribed in patients with intermediate-to-high-risk differentiated thyroid cancer. *Ann Nucl Med*. 2019;33(7):495–501.
 30. Sun JH, Li YR, Chang KH, Liou MJ, Lin SF, Tsai SS, et al. Evaluation of recurrence risk in patients with papillary thyroid cancer through tumor-node-metastasis staging: A single-center observational study in Taiwan. *Biomed J*. 2022;45(6):923–30.
 31. Yang Y, Jiao Y, Yu J, Wang C. Clinical treatment efficacy of total thyroidectomy combined with radioactive iodine on treatment of Tthyroid cancer and its effect on the quality of life of patients. *Iran J Public Health*. 2019 Aug 1;48(8):1461.
 32. Kelly A, Barres B, Kwiatkowski F, Batisse-Lignier M, Aubert B, Valla C, et al. Age, thyroglobulin levels and ATA risk stratification predict 10-year survival rate of differentiated thyroid cancer patients. *PLoS One*. 2019;14(8):1–16.
 33. Nguyen QT, Lee EJ, Huang MG, Park YI, Khullar A, Plodkowski RA. Diagnosis and treatment of patients with thyroid cancer. *Am Heal Drug Benefits*. 2015;8(1):30.
 34. Sun Y, Gong J, Guo B, Shang J, Cheng Y, Xu H. Association of adjuvant radioactive iodine therapy with survival in node-positive papillary thyroid cancer. *Oral Oncol*. 2018 Dec 1;87:152–7.
 35. Schmidt M, Görges R, Drzezga A, Dietlein M. A matter of controversy: Is radioiodine therapy favorable in differentiated thyroid carcinoma? *J Nucl Med*. 2018;59(8):1195–201.
 36. Haymart MR, Esfandiari NH, Stang MT, Sosa JA. Controversies in the management of low-risk differentiated thyroid cancer. *Endocr Rev*. 2017;38(4):351–78.
 37. Orosco RK, Hussain T, Brumund KT, Oh DK, Chang DC, Bouvet M. Analysis of Age and Disease Status as Predictors of Thyroid Cancer-Specific Mortality Using the Surveillance, Epidemiology, and End Results Database.

- Thyroid. 2015 Jan 1;25(1):125.
38. Zimmermann MB. Iodine Deficiency. *Endocr Rev.* 2009 Jun 1;30(4):376–408.
 39. Nicola JP, Reyna-Neyra A, Carrasco N, Masini-Repiso AM. Dietary iodide controls its own absorption through post-transcriptional regulation of the intestinal Na⁺/I⁻ symporter. *J Physiol.* 2012 Dec 12;590(Pt 23):6013.
 40. Nicola JP, Basquin C, Portulano C, Reyna-Neyra A, Paroder M, Carrasco N. The Na⁺/I⁻ symporter mediates active iodide uptake in the intestine. *Am J Physiol - Cell Physiol.* 2009 Apr;296(4):C654.
 41. Pesce L, Kopp P. Iodide transport: implications for health and disease. *Int J Pediatr Endocrinol* 2014 20141. 2014 May 30;2014(1):1–12.
 42. Ruf J, Carayon P. Structural and functional aspects of thyroid peroxidase. *Arch Biochem Biophys.* 2006;445(2):269–77.
 43. Grasberger H. Defects of thyroidal hydrogen peroxide generation in congenital hypothyroidism. *Mol Cell Endocrinol.* 2010;322(1–2):99–106.
 44. Chung HR. Iodine and thyroid function. *Ann Pediatr Endocrinol Metab.* 2014;19(1):8.
 45. Kartamihardja AH. Radiasi interna pada kanker tiroid indikasi dan komplikasi. *Pertem Ilm Tah Perhimpun Ahli Bedah Onkol Indones XX.* 2011;25–6.
 46. Mutohar A, Setiabudi W, Shintawati R. Laju paparan dan dosis radiasi dari pasien terapi kelainan kelenjar tiroid dengan pemberian radiofarmaka Iodium-131. *Youngster Phys J.* 2017;6(1):22–31.
 47. Bombardieri E, Seregini E, Evangelista L, Chiesa C, Chiti A. Clinical Applications of Nuclear Medicine Targeted Therapy. *Clin Appl Nucl Med Target Ther.* 2018;1–503.
 48. Mody V V., Singh AN, Deshmukh R, Shah S. Thyroid hormones, iodine and iodides, and antithyroid drugs. *Side Eff Drugs Annu.* 2015;37:513–9.
 49. Demarco C. Radioactive iodine therapy: 9 things to know | MD Anderson Cancer Center. MD Anderson Cancer Center. 2021.
 50. Wyszomirska A. Iodine-131 for therapy of thyroid diseases. Physical and biological basis. *Nucl Med Rev.* 2012;15(2):120–3.

51. Rachman T. Sistem lingkungan industri. 2018;11:1–25.
52. Islamiaty RR, Halimah E. Review: Tinjauan pustaka mengenai karakter radioisotop yang digunakan pada pembuatan radiofarmaka. *Farmaka*. 2018;16(1):222–30.
53. Bolus NE. Basic review of radiation biology and terminology. *J Nucl Med Technol*. 2017;45(4):259–64.
54. Rösner H, Möller W, Groebner S, Torremante P. Antiproliferative/cytotoxic effects of molecular iodine, povidone-iodine and lugol’s solution in different human carcinoma cell lines. *Oncol Lett*. 2016 Sep 1;12(3):2159.
55. Elliyanti A. Molecular Radiobiology and Radionuclides Therapy Concepts. In: *The Evolution of Radionanotargeting towards Clinical Precision Oncology: a Festschrift in Honor of Kalevi Kairemo*. Finland: Bentham Books; 2022. p. 395–408.
56. Dagueneat E, Louati S, Wozny AS, Vial N, Gras M, Guy JB, et al. Radiation-induced bystander and abscopal effects: important lessons from preclinical models. *Br J Cancer*. 2020;123(3):339–48.
57. Widel M. Radionuclides in radiation-induced bystander effect; may it share in radionuclide therapy? *Neoplasma*. 2017;64(5):641–54.
58. Noone AM, Cronin KA, Altekruse SF, Howlader N, Lewis DR, Petkov VI, et al. Cancer incidence and survival trends by subtype using data from the surveillance epidemiology and end results program, 1992–2013. *Cancer Epidemiol Biomarkers Prev*. 2017 Apr 1;26(4):632.
59. Araque KA, Gubbi S, Klubo-Gwiezdzinska J. Updates on the management of thyroid cancer. *Horm Metab Res*. 2020 Aug 1;52(8):562.
60. Gotwals J, Turley R MR. Thyroid cancer: Radioactive iodine therapy - health encyclopedia - university of rochester medical center. University of Rochester Medical Center Rochester. 2023.
61. MPH WM. Radioactive Iodine (Radioiodine) Therapy for Thyroid Cancer | American Cancer Society. The American Cancer Society. 2021. p. 8–9.
62. Mary S. A Low-Iodine Diet Before Radioactive Iodine Treatment. 2023.
63. Lim CY, Kim JY, Yoon MJ, Chang HS, Park CS, Chung WY. Effect of a low iodine diet vs. restricted iodine diet on postsurgical preparation for

- radioiodine ablation therapy in thyroid carcinoma patients. *Yonsei Med J*. 2015 Jul 1;56(4):1021–7.
64. Özdoğan Ö, Aksu A, Doğan E, Bülbül O, Güray M, Ali D, et al. Applying postoperative radioiodine therapy before 3 months seems to decrease ablation success in patients with differentiated thyroid carcinoma. 2021;223–31.
65. Krajewska J, Jarzab M, Kukulska A, Czarniecka A, Roskosz J, Puch Z, et al. Postoperative Radioiodine Treatment within 9 Months from Diagnosis Significantly Reduces the Risk of Relapse in Low-Risk Differentiated Thyroid Carcinoma. *Nucl Med Mol Imaging* (2010), 2019 Oct 1;53(5):320.
66. Schull WJ, Weiss KM. Radiation carcinogenesis in humans. 1992;215–58.
67. Thyroidectomy | Johns Hopkins Medicine. [cited 2024 Feb 22]. Available from: <https://www.hopkinsmedicine.org/health/treatment-tests-and-therapies/thyroidectomy>
68. Hatipoğlu F, Karapolat İ, Ömür Ö, Akgün A, Yanarateş A, Kumanlıoğlu K. Recurrence Incidence in Differentiated Thyroid Cancers and the Importance of Diagnostic Iodine-131 Scintigraphy in Clinical Follow-up. *Mol Imaging Radionucl Ther*. 2016 Jun 8 [cited 2023 May 19];25(2):85. Available from: [/pmc/articles/PMC5096625/](https://pubmed.ncbi.nlm.nih.gov/2596625/)
69. NCI. Definition of survival rate - NCI Dictionary of Cancer Terms. 2024 [cited 2024 Feb 22]. Available from: <https://www.cancer.gov/publications/dictionaries/cancer-terms/def/survival-rate>
70. Lee BJ, Kim SW, Kim JJ, Yu JC, Lee KY, Won SH, et al. Defining Treatment Response, Remission, Relapse, and Recovery in First-Episode Psychosis: A Survey among Korean Experts. *Psychiatry Investig*. 2020 Feb 1;17(2):163.
71. Zhao Y, Zhong L, Yi H. A review on the mechanism of iodide metabolic dysfunction in differentiated thyroid cancer. *Mol Cell Endocrinol*. 2019;479:71–7.
72. Liu J, Liu Y, Lin Y, Liang J. Radioactive Iodine-Refractory Differentiated Thyroid Cancer and Redifferentiation Therapy. *Endocrinol Metab*.

- 2019;34(3):215–25.
73. Kim Y, Roh JL, Song D, Cho KJ, Choi SH, Nam SY, et al. Predictors of recurrence after total thyroidectomy plus neck dissection and radioactive iodine ablation for high-risk papillary thyroid carcinoma. *J Surg Oncol.* 2020;122(5):906–13.
 74. Kim K, Bae JS, Kim JS. Long-Term Oncological Outcome Comparison between Intermediate- and High-Dose Radioactive Iodine Ablation in Patients with Differentiated Thyroid Carcinoma: A Propensity Score Matching Study. *Int J Endocrinol.* 2021;2021.
 75. Gómez-Pérez AM, García-Alemán J, Molina-Vega M, Ochoa AS, García PP, Doblaz IM, et al. Efficacy of Low-Dose Radioiodine Ablation in Low- and Intermediate-Risk Differentiated Thyroid Cancer: A Retrospective Comparative Analysis. *J Clin Med.* 2020 Feb 1;9(2).
 76. Faro FN, Bezerra ÂMLB, Scalissi NM, Cury AN, Marone MM, Ferraz C, et al. Intermediate-risk thyroid carcinoma: Indicators of a poor prognosis. *Arch Endocrinol Metab.* 2020;64(6):764–71.
 77. Yang Y, Jiao Y, Yu J, Wang C. Clinical Treatment Efficacy of Total Thyroidectomy Combined with Radioactive Iodine on Treatment of Thyroid Cancer and Its Effect on the Quality of Life of Patients. *Iran J Public Health.* 2019 Aug 1;48(8):1461.
 78. Li Y, Rao M, Zheng C, Huang J, Fang D, Xiong Y, et al. Analysis of factors influencing the clinical outcome after surgery and ¹³¹I therapy in patients with moderate-risk thyroid papillary carcinoma. *Front Endocrinol (Lausanne).* 2022 Oct 14;13:1015798.
 79. Ahmed L, Elrefai E, Elsayed M, Allam H, Saad M, El-Zahi ED, et al. Impact of Ablative Low Dose Radio-Active Iodine after Thyroidectomy in Low-Risk Differentiated Thyroid Cancer. *Egypt J Hosp Med.* 2022;89(2).
 80. Súss SKA, Mesa CO, de Carvalho GA, Miasaki FY, Chaves CP, Fuser DC, et al. Clinical outcomes of low and intermediate risk differentiated thyroid cancer patients treated with 30mCi for ablation or without radioactive iodine therapy. *Arch Endocrinol Metab.* 2018 May 1;62(2):149.
 81. Liu X, Fan Y, Liu Y, He X, Zheng X, Tan J, et al. The impact of radioactive

- iodine treatment on survival among papillary thyroid cancer patients according to the 7th and 8th editions of the AJCC/TNM staging system: a SEER-based study. *Updates Surg.* 2020;72(3):871–84.
82. Siraj AK, Parvathareddy SK, Qadri Z, Siddiqui K, Al-Sobhi SS, Al-Dayel F, et al. Annual Hazard Rate of Recurrence in Middle Eastern Papillary Thyroid Cancer over a Long-Term Follow-Up. *Cancers (Basel)*. 2020 Dec 1;12(12):1–13.
83. Gray KD, Bannani S, Caillard C, Amanat S, Ullmann TM, Romanov P, et al. High-dose radioactive iodine therapy is associated with decreased risk of recurrence in high-risk papillary thyroid cancer. *Surg (United States)*. 2019;165(1):37–43.
84. Wang X, Zheng X, Zhu J, Li Z, Wei T. Radioactive iodine therapy may not improve disease-specific survival in follicular variant papillary thyroid cancer without distant metastasis: A propensity score-matched analysis. *Head Neck*. 2021;43(6):1730–8.
85. Li F, Li W, Gray KD, Zarnegar R, Wang D, Fahey TJ. Ablation therapy using a low dose of radioiodine may be sufficient in low- to intermediate-risk patients with follicular variant papillary thyroid carcinoma. *J Int Med Res*. 2020;48(11):1–11.
86. Fujiwara T, Yoshizawa A, Mizuta M, Tamaki H. Is surgical resection without radioactive iodine treatment a safe alternative treatment for T1–2N1bM0 papillary thyroid carcinoma? *Auris Nasus Larynx*. 2021;48(1):148–53.
87. Hong CM, Ahn BC. Factors Associated with Dose Determination of Radioactive Iodine Therapy for Differentiated Thyroid Cancer. *Nucl Med Mol Imaging (2010)*. 2018 Aug 1;52(4):247.
88. Rumman M, Sabarna K. The Radioactive Iodine I-131 Efficiency in Thyroid Cancer Treatment At Al-Ahli Hospital, West Bank-Palestine. *J Med Dent Sci Res*. 2021;8(2):36–46.
89. Dong P, Qu Y, Yang L, Xiao L, Huang R, Li L. Outcomes after radioiodine ablation in patients with thyroid cancer: Long-term follow-up of a Chinese randomized clinicaltrial. *Clin Endocrinol (Oxf)*. 2021;95(5):782–9.

90. Chu KP, Baker S, Zenke J, Morad A, Ghosh S, Morrish DW, et al. Low-Activity Radioactive Iodine Therapy for Thyroid Carcinomas Exhibiting Nodal Metastases and Extrathyroidal Extension May Lead to Early Disease Recurrence. *Thyroid*. 2018;28(7):902–12.
91. Cao J, Yun C, Zhu X, Li X, Sun Y, Zhang W. Clinical Analysis of the Short-Term Outcome of Papillary Thyroid Micro Carcinoma After ¹³¹I Treatment. *Cancer Manag Res*. 2021 Jun 14;13:4691.
92. Wei WJ, Lu ZW, Wen D, Liao T, Li DS, Wang Y, et al. The Positive Lymph Node Number and Postoperative N-Staging Used to Estimate Survival in Patients with Differentiated Thyroid Cancer: Results from the Surveillance, Epidemiology, and End Results Dataset (1988–2008). *World J Surg*. 2018;42(6):1762–71.
93. Wang X, Zhu J, Li Z, Weii T. The benefits of radioactive iodine ablation for patients with intermediate-risk papillary thyroid cancer. *PLoS One*. 2020 Jun 1;15(6).
94. Shanguan L, Fang S, Zhang P, Han S, Shen X, Geng Y, et al. Impact factors for the outcome of the first ¹³¹I radiotherapy in patients with papillary thyroid carcinoma after total thyroidectomy. *Ann Nucl Med*. 2019;33(3):177–83.
95. Tang J, Kong D, Cui Q, Wang K, Zhang D, Liao X, et al. The role of radioactive iodine therapy in papillary thyroid cancer: An observational study based on SEER. *Onco Targets Ther*. 2018;11:3551–60.
96. Zheng W, Wang X, Rui Z, Wang Y, Meng Z, Wang R. Clinical features and therapeutic outcomes of patients with papillary thyroid microcarcinomas and larger tumors. *Nucl Med Commun*. 2019;40(5):477–83.