Survivorship – Hodgkin Lymphoma MDAnderson Cancer Center

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ELIGIBILITY CONCURRENT		Years 2-3, every 6 months. Then at year 3, transition to		DISPOSITION	
	COMPONENTS OF VISIT - SURVEILLANCE>	 annually (for pediatric patients ≤ 18 years, transition to 6-12 months). History and physical examination Chest x-ray CBC with differential, CMP, fasting lipid panel, hemoglobin A1C, thyroid-stimulating hormone (TSH), free T4, and vitamin D 25-OH 	Suspected new primary or recurrent disease?	 Return to primary treating physician Primary Oncologist to discuss Goal Concordant Care (GCC) with patient or if clinically indicated, with Patient Representative¹ Continue survivorship monitoring 	
Hodgkin Lymphoma 2 years post- treatment and NED	MONITORING FOR LATE EFFECTS	 Consider: Cardiovascular risk and symptom assessment² Lung cancer screening for high risk smoker and/or treatment with radiation therapy to the thorax (see Lung Cancer Screening algorithm) Colorectal cancer screening if previously treated with abdominal/pelvic radiation therapy (see Colorectal Cance Screening algorithm) Breast cancer screening if previously treated with radiation of the chest/axilla or at age 40; whichever comes first (see Breast Cancer Screening algorithm) Annual MRI breast (bilateral) in addition to screening mammography for patients who received irradiation the chest between the ages of 10 and 30 years old Pediatric: Annual breast screening post radiation treat then every 6 months Annual MRI breast and screening mammography 8 years 	 Annual DEXA scan for bone density more of For all patients ≥ 40 year old For patients < 40 years of age if post charactiotherapy Annual skin examination Annual assessment by an ophthalmologic cataract³ (see Cataract Screening algoritation Annual dental assessment³ Annual gynecologic evaluation of perma (for patients assigned female at birth) Infertility assessment (anti-mullerian hore patients assigned female at birth) Infertility assessment (anti-mullerian hore patients assigned female at birth) Ment to the chest/axilla/TBI beginning at pube years post radiation treatment or at age 25; what 	onitoring as indicated: hemotherapy or ast for risk of hm) anent ovarian failure ³ rmone (AMH) for tosterone for patients erty until age 25, ichever occurs last	
	RISK REDUCTION/ EARLY DETECTION	See Page 2 NED = no evidence of disease DEXA = dual energy x-ray absorptiometry CMP = comprehensive metabolic panel TBI = total body irradiation ¹ GCC should be initiated by the Primary Oncologist . If Primary Oncologist is unavailable, Primary Team/Attending Physician to initiate GCC discussion and notify Primary Oncologist. Patients, or if clinically indicated, the Patient Representative should be informed of therapeutic and/or palliative options. GCC discussion should be consistent timely and re-evaluated as clinically indicated. The Advance Care Planning (ACP) note should be used to			
	FUNCTIONING	document GCC discussion. Refer to GCC home ² For adult patients, see Survivorship – Adult Car	page (for internal use only). diovascular Screening algorithm; for survivors of childh	nood, adolescent, and young adult cancer,	
Copyright 2024 The University of Texas MD Anderson Cancer Center		see Children's Oncology Group (COG) guidelin ³ For patients who received an autologous stem co	es ell transplant Approved by the Execu	Department of Clinical Effectiveness V7 tive Committee of the Medical Staff on 11/19/2024	

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¹See Physical Activity, Nutrition, Obesity Screening and Management and Tobacco Cessation Treatment algorithms; ongoing reassessment of lifestyle risks should be a part of routine clinical practice ² Includes breast, cervical (if appropriate), colorectal, liver, lung, pancreatic, prostate, and skin cancer screening ³Based on American Society of Clinical Oncology (ASCO) guidelines

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SUGGESTED READINGS

- American Cancer Society. (2020). American Cancer Society guidelines for the early detection of cancer. Retrieved from http://www.cancer.org/Healthy/FindCancerEarly/ CancerScreeningGuidelines/american-cancer-society-guidelines-for-the-early-detection-of-cancer.html
- Armenian, S. H., Lacchetti, C., Barac, A., Carver, J., Constine, L. S., Denduluri, N., ... Lenihan, D. (2016). Prevention and monitoring of cardiac dysfunction in survivors of adult cancers: American Society of Clinical Oncology clinical practice guideline. Journal of Clinical Oncology, 35(8), 893-911. https://doi.org/10.1200/JCO.2016.70.5400
- Behringer, K., Mueller, H., Goergen, H., Thielen, I., Eibl, A. D., Stumpf, V., ... Borchmann, P. (2013). Gonadal function and fertility in survivors after Hodgkin lymphoma treatment within the German Hodgkin Study Group HD13 to HD15 trials. Journal of Clinical Oncology 31(2), 231-239. https://doi.org/10.1200/JCO.2012.44.3721
- Children's Oncology Group. (2023). Long-term follow-up guidelines for survivors of childhood, adolescent, and young adult cancers. (Version 6.0). Retrieved from http:// www.survivorshipguidelines.org/pdf/2023/COG LTFU Guidelines Comprehensive v6.pdf
- Czyż, A., Łojko-Dankowska, A., Matuszak, M., Dytfeld, D., Kaźmierczak, M., & Komarnicki, M. (2013). Second malignancies after autologous haematopoietic stem cell transplantation following modified BEAM conditioning regimen in patients with Hodgkin lymphoma-characteristics and risk factor analysis. Contemporary Oncology, 17(2), 200-204. https://doi.org/10.5114/wo.2013.34626
- Eichenauer, D. A., Aleman, B. M. P., Andre, M., Federico, M., Hutchings, M., Illidge, T., & Ladetto, M. (2018). Hodgkin's lymphoma: ESMO clinical practice guidelines for diagnosis, treatment and follow-up. Annals of Oncology, 29(4), iv19-iv29. https://doi.org/10.1093/annonc/mdy080
- Elis, A., Blickstein, D., Klein, O., Eliav-Ronen, R., Manor, Y., & Lishner, M. (2002). Detection of relapse in non-Hodgkin's lymphoma: Role of routine follow-up studies. American Journal of Hematology, 69(1), 41-44. https://doi.org/10.1002/ajh.10017
- Frick, M. A., Vachani, C. C., Hampshire, M. K., Bach, C., Arnold-Korzeniowski, K., Metz, J. M., & Hill-Kayser, C. (2018). Patient-reported survivorship care practices and late effects after treatment of Hodgkin and Non-hodgkin lymphoma. JCO Clinical Cancer Informatics, 2, 1-10, https://doi.org/10.1200/CCI.18.00015
- Goldschmidt, N., Or, O., Klein, M., Savitsky, B., & Paltiel, O. (2011). The role of routine imaging procedures in the detection of relapse of patients with Hodgkin lymphoma and aggressive non-Hodgkin lymphoma. Annals of Hematology, 90(2), 165-171. https://doi.org/10.1007/s00277-010-1044-8
- Hodgson, D. C. (2008). Hodgkin lymphoma: The follow-up of long-term survivors. Hematology/Oncology Clinics of North America, 22(2), 233-244. https://doi.org/10.1016/j.hoc.2008.01.004
- Hodgson, D. C., Grunfeld, E., Gunraj, N., & Del Giudice, L. (2010). A population-based study of follow-up care for Hodgkin lymphoma survivors. Cancer, 116(14), 3417-3425. https://doi:10.1002/cncr.25053
- Ibrahim, E. M., Abouelkhair, K. M., Kazkaz, G. A., Elmasri, O. A., & Al-Foheidi, M. (2012). Risk of second breast cancer in female Hodgkin's lymphoma survivors: A meta-analysis. BMC Cancer, 12(1), 197. https://doi:10.1186/1471-2407-12-197
- Ibrahim, E. M., Kazkaz, G. A., Abouelkhair, K. M., Al-Mansour, M. M., Al-Fayea, T. M., Al-Foheidi, M., ... Elmasri, O. A. (2013). Increased risk of second lung cancer in Hodgkin's lymphoma survivors: A meta-analysis. Lung, 191(1), 117-134. https://doi:10.1007/s00408-012-9418-4

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SUGGESTED READINGS - continued

- Kambhampathi, S. & Herrera, A. F. (2022). Incorporating novel agents into frontline treatment of Hodgkin lymphoma. Hematology, ASH Education Program, 2022(1), 709-716. https://doi.org/10.1182/hematology.2022000363
- Kamboj, M., Bohlke, K., Baptiste, D. M., Dunleavy, K., Fueger, A., Jones, L., ... Kohn, E. C. (2024). Vaccination of adults with cancer: ASCO guideline. Journal of Clinical Oncology, 42(14), 1699-1721. https://doi.org/10.1200/JCO.24.00032
- Keller, S. F., Kelly, J. L., Sensenig, E., Andreozzi, J., Oliva, J., Rich, L., ... Friedberg, J. W. (2012). Late relapses following high-dose autologous stem cell transplantation (HD-ASCT) for Hodgkin's lymphoma (HL) in the ABVD therapeutic era. Biology of Blood and Marrow Transplantation, 18(4), 640-647. https://doi:10.1016/j.bbmt.2011.08.012
- Kiserud, C. E., Fosså, A., Bjøro, T., Holte, H., Cvancarova, M., & Fosså, S. D. (2009). Gonadal function in male patients after treatment for malignant lymphomas, with emphasis on chemotherapy. British Journal of Cancer, 100(3), 455-463. https://doi:10.1038/sj.bjc.6604892
- MD Anderson Institutional Policy #CLN1202 Advance Care Planning Policy. Advance Care Planning (ACP) Conversation Workflow (ATT1925)
- National Comprehensive Cancer Network. (2024). Hodgkin lymphoma (NCCN Guideline Version 3.2024). Retrieved from https://www.nccn.org/professionals/physician_gls/pdf/hodgkins.pdf
- Ng, A. K. (2014). Current survivorship recommendations for patients with Hodgkin lymphoma: Focus on late effects. Blood, 124(23), 3373-3379. https://doi.org/10.1182/blood-2014-05-579193
- Ng, A., Constine, L. S., Advani, R., Das, P., Flowers, C., Friedberg, J., ... Yunes, M. J. (2010). ACR appropriateness criteria: Follow-up of hodgkin's lymphoma. Current Problems in Cancer, 34(3), 211-227. https://doi:10.1016/j.currproblcancer.2010.04.007
- Ng, A. K., Garber, J. E., Diller, L. R., Birdwell, R. L., Feng, Y., Neuberg, D. S., ... Mauch, P. M. (2013). Prospective study of the efficacy of breast magnetic resonance imaging and mammographic screening in survivors of Hodgkin lymphoma. Journal of Clinical Oncology, 31(18), 2282-2288. https://doi:10.1200/JCO.2012.46.5732
- Ng, A. K. & van Leeuwen, F. E. (2016). Hodgkin lymphoma: Late effects of treatment and guidelines for surveillance. Seminars in Hematology, 53(3), 209-215. https://doi.org/10.1053/j.seminhematol.2016.05.008
- Pinczes, L., Miltenyi, Z. & Illes, A. (2018). Young adults diagnosed with Hodgkin lymphoma are at risk of relapsing later: A comprehensive analysis of late relapse in Hodgkin lymphoma. Journal of Cancer Research and Clinical Oncology, 144(5), 935-943. https://doi.org/10.1007/s00432-018-2613-9
- Shanbhag, S. & Ambinder, R. F. (2018). Hodgkin lymphoma: A review and update on recent progress. CA: A Cancer Journal for Clinicians, 68(2), 116-132. doi:10.3322/caac.21438
- Sieniawski, M., Reineke, T., Josting, A., Nogova, L., Behringer, K., Halbsguth, T., ... Engert, A. (2008). Assessment of male fertility in patients with hodgkin's lymphoma treated in the German hodgkin study proup (GHSG) clinical trials. Annals of Oncology, 19(10), 1795-1801. https://doi:10.1093/annonc/mdn376
- Van Der Kaaij, M. A. E., Heutte, N., Meijnders P., Abeilard-Lemoisson, E., Spina, M., Moser, E. C., ... Kluin-Nelemans, H. C. (2012). Premature ovarian failure and fertility in long-term survivors of hodgkin's lymphoma: A European organization for research and treatment of cancer lymphoma group and groupe d'Etude des lymphomes de l'Adulte cohort study. Journal of Clinical Oncology 30(3), 291-299. https://doi:10.1200/JCO.2011.37.1989

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DEVELOPMENT CREDITS

This survivorship algorithm is based on majority expert opinion of the Lymphoma Survivorship workgroup at the University of Texas MD Anderson Cancer Center. It was developed using a multidisciplinary approach that included input from the following:

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