Cutaneous T-cell Lymphomas (CTCL)[1]

TABLE OF CONTENTS

[1] This algorithm contains the following subtypes: mycosis fungoides and Sezary syndrome. Refer to the Peripheral T-cell Lymphomas (PTCL) algorithm for other T-cell related lymphomas.

Cutaneous T-cell Lymphomas (CTCL)

Note: Consider Clinical Trials as treatment options for eligible patients.

PATHOLOGIC DIAGNOSIS

ESSENTIAL:

- Pathology (dermatopathology or hematopathology) review of all slides with at least one paraffin block or 15 unstained slides representative of the tumor. Fresh punch biopsy if consult material is nondiagnostic or unavailable.
- Adequate morphology and immunophenotyping to establish diagnosis
  - Immunohistochemistry on formalin fixed paraffin embedded tissue: CD3, CD4, CD8, CD7, CD30
- Flow cytometry for MF/SS - Blood

OF USE IN CERTAIN CIRCUMSTANCES TO DETERMINE SUBGROUP:

- Other IHC stains to consider in selected cases: CD5, CD20, TCRB, TCRD, TIA-1, Granzyme B, PD1, ICOS, EBER

STRONGLY RECOMMENDED:

- Molecular studies to detect clonality of the *TCR* genes; consider TCR HTS if available
- Next generation sequencing (NGS) studies (end lymphoma panel) to assess the mutational landscape
- Fine needle aspiration (FNA) or core biopsy for tissue array/banking by protocol

INITIAL EVALUATION

ESSENTIAL:

- Physical exam: attention to node-bearing areas, including Waldeyer's ring, and to liver and spleen
  - Dermatology consult for comprehensive skin assessment including possible skin infections especially at sites of erosions and ulcerations[1], body surface area (BSA) and Modified Severity-Weighted Assessment Tool (mSWAT)
  - Performance status
  - B symptoms (Unexplained fever > 38°C during the previous month; Recurrent drenching night sweats during the previous month; Weight loss > 10% of body weight ≤ 6 months of diagnosis)
  - Calculation of Cutaneous Lymphoma International Prognostic Index if indicated[2]
- CBC with differential, BUN, creatinine, albumin, AST, bilirubin, calcium, uric acid, alkaline phosphatase, LDH
- Beta-2-microglobulin
- HTLV 1/2 serology
- Screening for HIV 1 and 2, hepatitis B and C (HBcAb, HBaAg, HCVAb)
- Autoimmune screening: ANA and rheumatoid factor if clinically indicated
- Lifestyle risk assessment[3]
- Discuss Goal Concordant Care (GCC) with patient or if clinically indicated, with Patient Representative[4]

OF USE IN SELECTED CASES:

- Baseline PET/CT or CT chest/abdomen/pelvis with contrast if palpable lymphadenopathy or aggressive clinical behavior
- Pregnancy test
- Unilateral or bilateral bone marrow biopsy with aspirate
- Multigated acquisition (MUGA) scan or echocardiogram if needed for systemic therapy
- Other work-up for patients at risk for hemophagocytic lymphohistiocytosis (HLH) including EBV by PCR, ferritin, fibrinogen, triglycerides, CRP, natural killer (NK) subset panel, T-NK flow cytometry and cytokine panel which includes IL-2sR (sCD25)
- Serum immunoelectrophoresis (SIEP)
- Discuss fertility options and sperm banking for patients of child bearing potential (refer to Fertility Preservation Prior to Cancer Treatment algorithm)

TREATMENT

MF/SS: Stage IA, IB, IIA → Page 3
MF/SS: Stage IIB → Page 4
MF/SS: Stage III → Page 5
MF/SS: Stage IV → Page 6
MF/SS: Relapsed/ Refractory → Page 7
Large Cell Transformation (LCT) → Page 8

MF = mycosis fungoides SS = Sezary syndrome
TCR = T cell receptor HTS = high throughput sequencing

[1] See Appendix A for Supportive Therapies

[2] Refer to Benton, E. C., Crichton, S., Talpur, R., Agar, N. S., Fields, P. A., Wedgeworth, E., … Whittaker, S. J. (2013). A cutaneous lymphoma international prognostic index (CLIPi) for mycosis fungoides and Sezary syndrome. *European Journal of Cancer*, *49*(13), 2859–2868. doi:10.1016/j.ejca.2013.04.018

[3] See 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

[4] GCC should be initiated by the Primary Treating Physician. If Primary Treating Physician is unavailable, Primary Team/Attending Physician to initiate GCC discussion and notify Primary Treating Physician. 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 document GCC discussion. Refer to GCC home page (for internal use only).

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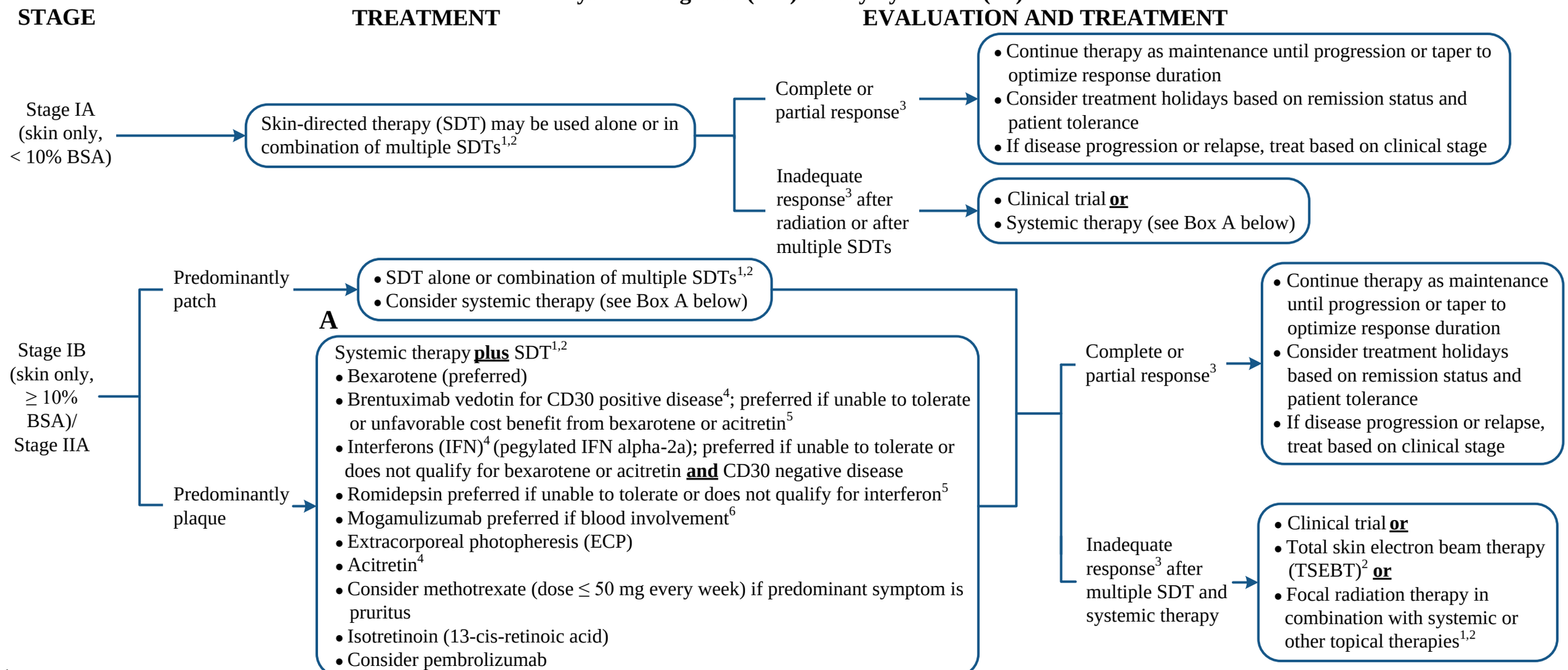
Cutaneous T-cell Lymphomas (CTCL)

Note: Consider Clinical Trials as treatment options for eligible patients.

Mycosis Fungoides (MF)/Sezary Syndrome (SS)

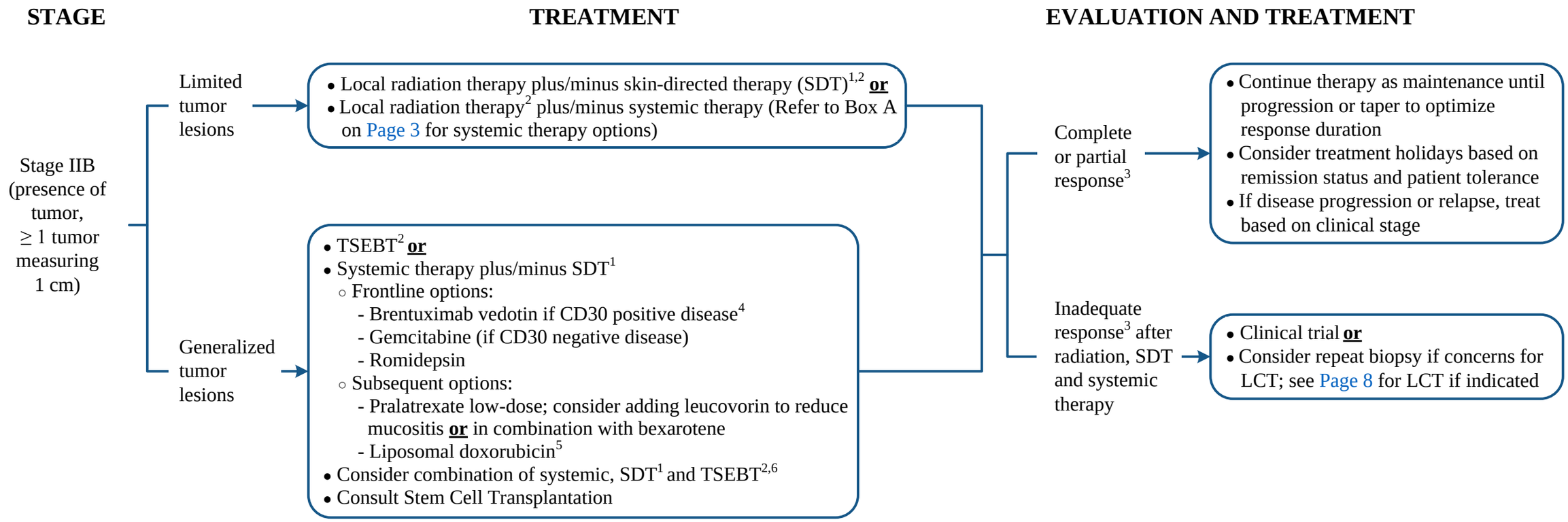


[1] See Appendix B for Skin Directed Therapies
[2] See Appendix C for Principles of Radiation Therapy
[3] For response assessment, refer to: Olsen, E. A., Whittaker, S., Willemze, R., Pinter-Brown, L., Foss, F., Geskin, L., … Scarisbrick, J. (2022). Primary cutaneous lymphoma: Recommendations for clinical trial design and staging update from the ISCL, USCLC, and EORTC. *Blood, 140*(5), 419-437. doi:10.1182/blood.2021012057
[4] Excludes SS
[5] Not FDA approved
[6] Excludes LCT

Cutaneous T-cell Lymphomas (CTCL)

Note: Consider Clinical Trials as treatment options for eligible patients.

Mycosis Fungoides (MF)/Sezary Syndrome (SS)



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[4] Excludes SS
[5] Final results of phase II trial did not benefit when bexarotene was added
[6] Limited data exists on the safety of these combinations. Institutional experience on the safety of drugs and combination with radiation:
- Therapies that appear safe: brentuximab vedotin, romidepsin, bexarotene, ECP
- Concern for toxicity including radiation sensitization and/or radiation recall: gemcitabine, doxorubicin, pralatrexate, methotrexate

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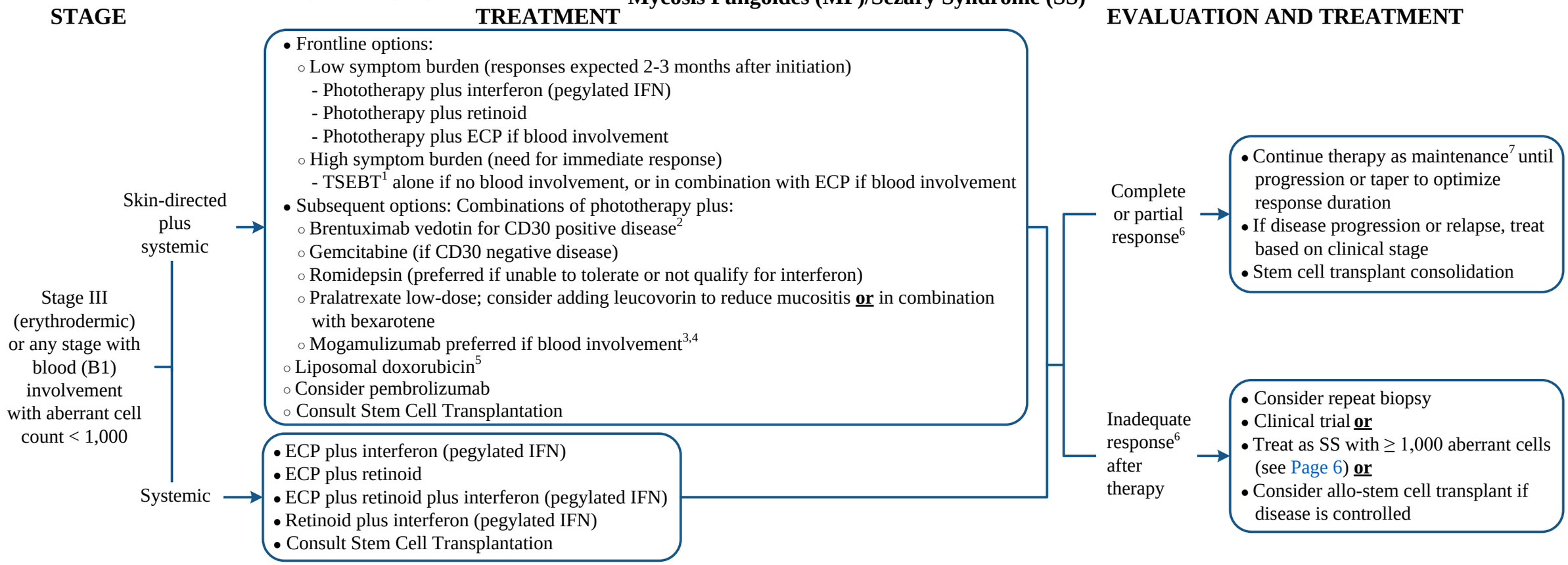

Note: Patients with extensive skin lesions (*e.g.*, erythrodermic disease, ulcerative lesions) are at increased risk for secondary infection with skin pathogens; systemic antibiotic therapy should be considered

[1] See Appendix C for Principles of Radiation Therapy

[2] Excludes SS

[3] Excludes LCT

[4] Concern for increased risk for acute graft versus host disease (GVHD) in patients receiving therapy approximately 60 days prior to transplant

[5] Final results of phase II trial did not benefit when bexarotene was added

[6] For response assessment, refer to: Olsen, E. A., Whittaker, S., Willemze, R., Pinter-Brown, L., Foss, F., Geskin, L., … Scarisbrick, J. (2022). Primary cutaneous lymphoma: Recommendations for clinical trial design and staging update from the ISCL, USCLC, and EORTC. *Blood*, *140*(5), 419-437. doi:10.1182/blood.2021012057

[7] For patients treated with TSEBT, maintenance options may include phototherapy with or without oral regimens

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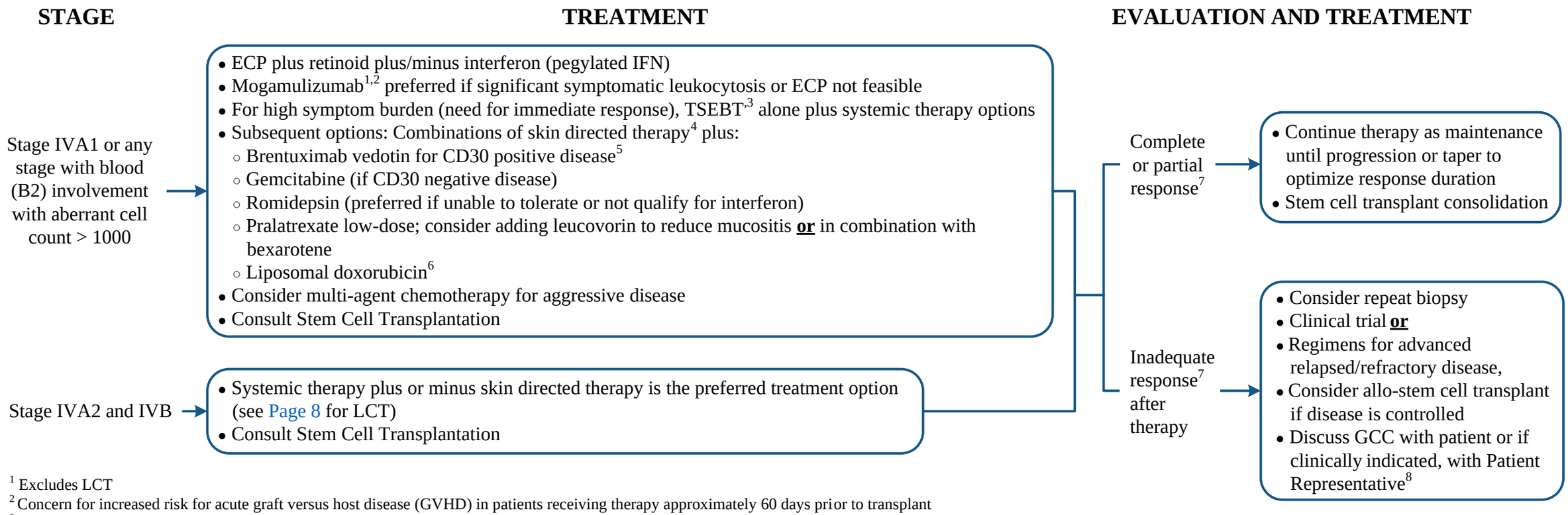
Cutaneous T-cell Lymphomas (CTCL)

Note: Consider Clinical Trials as treatment options for eligible patients.

Mycosis Fungoides (MF)/Sezary Syndrome (SS)



[1] Excludes LCT
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[3] See Appendix C for Principles of Radiation Therapy
[4] See Appendix B for Skin Directed Therapies
[5] Excludes SS
[6] Final results of phase II trial did not benefit when bexarotene was added
[7] For response assessment, refer to: Olsen, E. A., Whittaker, S., Willemze, R., Pinter-Brown, L., Foss, F., Geskin, L., … Scarisbrick, J. (2022). Primary cutaneous lymphoma: Recommendations for clinical trial design and staging update from the ISCL, USCLC, and EORTC. *Blood*, *140*(5), 419-437. doi:10.1182/blood.2021012057
[8] GCC should be initiated by the Primary Treating Physician. If Primary Treating Physician is unavailable, Primary Team/Attending Physician to initiate GCC discussion and notify Primary Treating Physician. 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 document GCC discussion. Refer to GCC home page (for internal use only).

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Cutaneous T-cell Lymphomas (CTCL)

Note: Consider Clinical Trials as treatment options for eligible patients.

Mycosis Fungoides (MF)/Sezary Syndrome (SS)

STAGE	TREATMENT
Clinically aggressive/relapsed and refractory MF/SS requiring systemic therapy →	• Clinical trial preferred • **Outside of a trial, institutional practice**: ○ Mogamulizumab preferred if blood involvement[1,2] • Regimens for peripheral T-cell lymphoma not otherwise specified (PTCL-NOS) if intention is for transplant; see Page 8 for LCT • Alemtuzumab • Pembrolizumab • Consider multi-agent chemotherapy for aggressive disease • Discuss GCC with patient or if clinically indicated, with Patient Representative[3]

[1] Excludes LCT
[2] Concern for increased risk for acute graft versus host disease (GVHD) in patients receiving therapy approximately 80 days prior to transplant
[3] GCC should be initiated by the Primary Treating Physician. If Primary Treating Physician is unavailable, Primary Team/Attending Physician to initiate GCC discussion and notify Primary Treating Physician. 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 document GCC discussion. Refer to GCC home page (for internal use only).

Cutaneous T-cell Lymphomas (CTCL)

Note: Consider Clinical Trials as treatment options for eligible patients.

Large Cell Transformation (LCT)

PRESENTATION

LCT

- Limited cutaneous lesions with LCT/Clinically indolent behavior
- Generalized cutaneous or extracutaneous lesions with LCT/Clinically aggressive behavior

TREATMENT

- Consider radiation therapy to lesions with LCT along with management of co-existing disease[1]
- Consult Stem Cell Transplantation

- Refer to Peripheral T-cell Lymphomas (PTCL) algorithm for imaging and monitoring recommendations

Preferred front line regimen

- Brentuximab vedotin if CD30 positive disease
- Romidepsin
- Gemcitabine
- Regimens for PTCL-NOS if intention is for transplant[3]
  - CHP-Bv (cyclophosphamide, doxorubicin, prednisone, brentuximab vedotin)
  - EPOCH (etoposide, prednisone, vincristine, cyclophosphamide, doxorubicin)
  - DHAP (dexamethasone, cytarabine, cisplatin)
  - ICE (ifosfamide, carboplatin, etoposide)
  - DHAX (dexamethasone, cytarabine, oxaliplatin)
  - ESHAP (etoposide, methylprednisolone, cytarabine) plus platinum (cisplatin or oxaliplatin)
  - GDP (gemcitabine, dexamethasone, cisplatin)
  - GemOx (gemcitabine, oxaliplatin)

Subsequent options

- Pralatrexate low-dose; consider adding leucovorin to reduce mucositis **or** in combination with bexarotene
- Liposomal doxorubicin[4]
- Consult Stem Cell Transplantation

EVALUATION AND TREATMENT

- Complete or partial response[2]
  - Continue therapy as maintenance until progression or taper to optimize response duration
  - If disease progression or relapse, treat based on clinical stage
  - Stem cell transplant consolidation
- Inadequate response[2]
  - Clinical trial
  - Consider allo-stem cell transplant if disease is controlled
  - Discuss GCC with patient or if clinically indicated, with Patient Representative[5]

[1] See Appendix C for Principles of Radiation Therapy

[2] For response assessment, refer to: Olsen, E. A., Whittaker, S., Willemze, R., Pinter-Brown, L., Foss, F., Geskin, L., … Scarisbrick, J. (2022). Primary cutaneous lymphoma: Recommendations for clinical trial design and staging update from the ISCL, USCLC, and EORTC. *Blood, 140*(5), 419-437. doi:10.1182/blood.2021012057

[3] Non-CHOP preferred over CHOP-like regimens; however, overall data is limited to guide optimal therapy

[4] Final results of phase II trial did not benefit when bexarotene was added

[5] GCC should be initiated by the Primary Treating Physician. If Primary Treating Physician is unavailable, Primary Team/ Attending Physician to initiate GCC discussion and notify Primary Treating Physician. 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 document GCC discussion. Refer to GCC home page (for internal use only).

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Cutaneous T-cell Lymphomas (CTCL)

APPENDIX A: Supportive Therapies

- Wound care assessment by Dermatology
- Whirlpool Therapy consultation for extensive wounds if available
- Infections
  - Swab and culture
  - Topical and oral treatment as indicated
    - Empiric therapy with anti-staphylococcus aureus coverage if erythrodermic
    - Gram negative coverage for tumors
  - Infectious Diseases consult for multi-drug resistant lesions
  - Assess erosions for herpes simplex virus (HSV) and varicella zoster virus (VZV) reactivation
  - For colonization, diluted bleach baths and hibiclens wash at least weekly
- Physical Therapy and Occupational Consult, as indicated
- Puritis: consider gabapentin, pregabalin, antihistamines, and/or mirtazapine
- Supportive Care consult and/or Psychiatry consult, as indicated (*e.g.*, depression, anxiety)

APPENDIX B: Skin-Directed Therapies (SDT)

- Radiation Therapy (see Appendix C: Principles of Radiation Therapy)
- Phototherapy (UVB, NB-UVB for patch/thin plaques; PUVA/UVA1 for thicker plaques)
  - Preferred in widespread lesions
  - For thicker plaques or tumors, combine phototherapy with localized radiation therapy
- Topical management
  - First-line: high-potency corticosteroids
  - Second-line: topical mechlorethamine (nitrogen mustard)
  - Third-line: topical imiquimod
  - Less preferred
    - Topical carmustine (concern for toxicity)
    - Topical retinoids (bexarotene, tazarotene) (unfavorable cost:benefit ratio)

APPENDIX C: Principles of Radiation Therapy

- Dosing
  - Patch/plaque disease is typically treated with 4-8 Gy in 2-4 fractions
  - Plaque/tumor disease is typically treated with 8-12 Gy in 3-6 fractions
  - Refractory disease resistant to prior radiation therapy courses may require higher dose
  - Treatment is typically delivered with superficial electrons
- Focal versus TSEBT
  - Focal therapy can be given for individual lesions or groups of lesions when TSEBT is not indicated
  - Decision for TSEBT should be made based on multidisciplinary discussion and is typically reserved for patients with higher BSA involvement
  - TSEBT is typically given as 12 Gy delivered over 2-3 weeks. Boost dose is given to shielded areas (*e.g.*, axillae, perianal region, perineum)
  - Patients intended to undergo allogeneic stem cell transplant often receive pre-transplant TSEBT to a dose of 28-32 Gy over 6-8 weeks

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SUGGESTED READINGS

Benton, E. C., Crichton, S., Talpur, R., Agar, N. S., Fields, P. A., Wedgeworth, E., … Whittaker, S. J. (2013). A cutaneous lymphoma international prognostic index (CLIPi) for mycosis fungoides and Sezary syndrome. *European Journal of Cancer, 49*(13), 2859-2868. doi:10.1016/j.ejca.2013.04.018

Bhangoo, R. S., Bhangoo, M. S., Mangold, A. R., & Wong, W. W. (2019). Radiation recall dermatitis after the use of pralatrexate for peripheral T-cell lymphoma. *Advances in Radiation Oncology, 4*(1), 31-34. doi:10.1016/j.adro.2018.10.001

Burris III, H. A., & Hurtig, J. (2010). Radiation recall with anticancer agents. *The Oncologist, 15*(11), 1227-1237. doi:10.1634/theoncologist.2009-0090

Cheeley, J., Sahn, R., E., DeLong, L., K. & Parker, S., R. (2013). Acitretin for the treatment of cutaneous T-cell lymphoma. *Journal of American Academy of Dermatology, 68*(2), 247-254. doi: 10.1016/j.jaad.2012.07.013

Dummer, R., Quaglino, P., Becker, J. C., Hasan, B., Karrasch, M., Whittaker, S., ... Knobler, R. (2012). Prospective international multicenter phase II trial of intravenous pegylated liposomal doxorubicin monochemotherapy in patients with stage IIB, IVA, or IVB advanced mycosis fungoides: Final results from EORTC 21012. *Journal of Clinical Oncology, 30*(33), 4091-4097. doi:10.1200/JCO.2011.39.8065

Duvic, M., Kim, Y. H., Zinzani, P. L., & Horwitz, S. M. (2017). Results from a phase I/II open-label, dose-finding study of pralatrexate and oral bexarotene in patients with relapsed/refractory cutaneous T-cell lymphoma. *Clinical Cancer Research, 23*(14), 3552-3556. doi:10.1158/1078-0432.CCR-16-2064

Duvic, M., Martin, A. G., Kim, Y., Olsen, E., Wood, G. S., Crowley, C. A., … Worldwide Bexarotene Study Group. (2001). Phase 2 and 3 clinical trial of oral bexarotene (Targretin capsules) for the treatment of refractory or persistent early-stage cutaneous T-cell lymphoma. *Archives of Dermatology, 137*(5), 581-593. doi:10-1001/pubs.Arch Dermatol.-ISSN-0003-987x-137-5-dst0039

Duvic, M., Talpur, R., Ni, X., Zhang, C., Hazarika, P., Kelly, C., … Frankel, S. R. (2007). Phase 2 trial of oral vorinostat (suberoylanilide hydroxamic acid, SAHA) for refractory cutaneous T-cell lymphoma (CTCL). *Blood, 109*(1), 31-39. doi:10.1182/blood-2006-06-025999

Duvic, M., Talpur, R., Wen, S., Kurzrock, R., David, C. L., & Apisarnthanarax, N. (2006). Phase II evaluation of gemcitabine monotherapy for cutaneous T-cell lymphoma. *Clinical Lymphoma and Myeloma, 7*(1), 51-58. doi:10.3816/CLM.2006.n.039.

Horwitz, S. M., Kim, Y. H., Foss, F., Zain, J. M., Myskowski, P. L., Lechowicz, M. J., … Duvic, M. (2012). Identification of an active, well-tolerated dose of pralatrexate in patients with relapsed or refractory cutaneous T-cell lymphoma. *Blood, The Journal of the American Society of Hematology, 119*(18), 4115-4122. doi:10.1182/blood-2011-11-390211

Huen, A (2022). Cutaneous lymphomas. In Kantarjian, H. M., Wolff, R. A., & Rieber, A. G.(Eds.), The MD Anderson Manual of Medical Oncology, 4e. McGraw Hill Education. https://accessmedicine.mhmedical.com/content.aspx?bookid=3151&sectionid=264036390

Hughes, C. F., Khot, A., McCormack, C., Lade, S., Westerman, D. A., Twigger, R., … Prince, H. M. (2015). Lack of durable disease control with chemotherapy for mycosis fungoides and Sézary syndrome: A comparative study of systemic therapy. *Blood, The Journal of the American Society of Hematology, 125*(1), 71-81. doi:10.1182/blood-2014-07-58823

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SUGGESTED READINGS - continued

Illidge, T., Chan, C., Counsell, N., Morris, S., Scarisbrick, J., Gilson, D., … Cowan, R. (2013). Phase II study of gemcitabine and bexarotene (GEMBEX) in the treatment of cutaneous T-cell lymphoma. *British Journal of Cancer*, *109*(10), 2566-2573. doi:10.1038/bjc.2013.616

Jothishankar, B., Almazan, T., Kim, Y., Liauw, S., Smith, S., Kline, J., & Abdulla, F. (2019). Romidepsin and total skin electron beam therapy in advanced stage mycosis fungoides and Sezary syndrome. *British Journal of Haematology*, *186*(2), 377-379. doi:10.1111/bjh.15905

Kim, Y. H., Bagot, M., Pinter-Brown, L., Rook, A. H., Porcu, P., Horwitz, S. M., … Duvic, M. (2018). Mogamulizumab versus vorinostat in previously treated cutaneous T-cell lymphoma (MAVORIC): An international, open-label, randomised, controlled phase 3 trial. *The Lancet Oncology*, *19*(9), 1192-1204. doi:10.1016/S1470-2045(18)30379-6

Lundin, J., Hagberg, H., Repp, R., Cavallin-Ståhl, E., Fredén, S., Juliusson, G., … Osterborg, A. (2003). Phase 2 study of alemtuzumab (anti-CD52 monoclonal antibody) in patients with advanced mycosis fungoides/Sezary syndrome. *Blood*, *101*(11), 4267-4272. doi:10.1182/blood-2002-09-2802

Mann, B. S., Johnson, J. R., He, K., Sridhara, R., Abraham, S., Booth, B. P., … Pazdur, R. (2007). Vorinostat for treatment of cutaneous manifestations of advanced primary cutaneous T-cell lymphoma. *Clinical Cancer Research*, *13*(8), 2318-2322. doi:10.1158/1078-0432.CCR-06-2672

MD Anderson Institutional Policy #CLN1202 - Advance Care Planning Policy
Advance Care Planning (ACP) Conversation Workflow (ATT1925)

Neelis, K. J., Schimmel, E. C., Vermeer, M. H., Senff, N. J., Willemze, R., & Noordijk, E. M. (2009). Low-dose palliative radiotherapy for cutaneous B-and T-cell lymphomas. *International Journal of Radiation Oncology* Biology* Physics*, *74*(1), 154-158. doi:10.1016/j.ijrobp.2008.06.1918

Olsen, E. A., Whittaker, S., Willemze, R., Pinter-Brown, L., Foss, F., Geskin, L., … Scarisbrick, J. (2022). Primary cutaneous lymphoma: Recommendations for clinical trial design and staging update from the ISCL, USCLC, and EORTC. *Blood*, *140*(5), 419-437. doi:10.1182/blood.2021012057

Piekarz, R. L., Frye, R., Turner, M., Wright, J. J., Allen, S. L., Kirschbaum, M. H., … Bates, S. E. (2009). Phase II multi-institutional trial of the histone deacetylase inhibitor romidepsin as monotherapy for patients with cutaneous T-cell lymphoma. *Journal of Clinical Oncology*, *27*(32), 5410-5417. doi:10.1200/JCO.2008.21.6150

Prince, H. M., Kim, Y. H., Horwitz, S. M., Dummer, R., Scarisbrick, J., Quaglino, P., … Duvic, M. (2017). Brentuximab vedotin or physician's choice in CD30-positive cutaneous T-cell lymphoma (ALCANZA): An international, open-label, randomised, phase 3, multicentre trial. *The Lancet*, *390*(10094), 555-566. doi:10.1016/S0140-6736(17)31266-7

Schiller, M., Tsianakas, A., Sterry, W., Dummer, R., Hinke, A., Nashan, D., & Stadler, R. (2017). Dose-escalation study evaluating pegylated interferon alpha-2a in patients with cutaneous T-cell lymphoma. *Journal of the European Academy of Dermatology and Venereology*, *31*(11), 1841-1847. doi:10.1111/jdv.14366

Stewart, J. R., Desai, N., Rizvi, S., Zhu, H., & Goff, H. W. (2018). Alemtuzumab is an effective third-line treatment versus single-agent gemcitabine or pralatrexate for refractory Sézary syndrome: A systematic review. *European Journal of Dermatology*, *28*(6), 764-774. doi:10.1684/ejd.2018.3444

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SUGGESTED READINGS - continued

Straus, D. J., Duvic, M., Horwitz, S. M., Hymes, K., Goy, A., Hernandez-Ilizaliturri, F. J., … Myskowski, P. L. (2014). Final results of phase II trial of doxorubicin HCl liposome injection followed by bexarotene in advanced cutaneous T-cell lymphoma. *Annals of Oncology*, *25*(1), 206-210. doi:10.1093/annonc/mdt480

Sugio, T., Kato, K., Aoki, T., Ohta, T., Saito, N., Yoshida, S., … Akashi, K. (2016). Mogamulizumab treatment prior to allogeneic hematopoietic stem cell transplantation induces severe acute graft-versus-host disease. *Biology of Blood and Marrow Transplantation*, *22*(9), 1608-1614. doi:10.1016/j.bbmt.2016.05.017

Whittaker, S. J., Demierre, M. F., Kim, E. J., Rook, A. H., Lerner, A., Duvic, M., … Kim, Y. H. (2010). Final results from a multicenter, international, pivotal study of romidepsin in refractory cutaneous T-cell lymphoma. *Journal of Clinical Oncology*, *28*(29), 4485-4491. doi:10.1200/JCO.2010.28.9066

Wilson, L. D., Jones, G. W., Kim, D., Rosenthal, D., Christensen, I. R., Edelson, R. L., & Kacinski, B. M. (2000). Experience with total skin electron beam therapy in combination with extracorporeal photopheresis in the management of patients with erythrodermic (T4) mycosis fungoides. *Journal of the American Academy of Dermatology*, *43*(1), 54-60. doi:10.1067/mjd.2000.105510

Yu, S. Y., Mills, M., Figura, N., & Kim, S. (2020). Clinical outcomes for patients with lymphoma treated with radiation therapy and brentuximab: Tolerability and efficacy. Retrieved from: https:// www.hmpgloballearningnetwork.com/site/onc/meeting-materials/clinical-outcomes-patients-lymphoma-treated-radiation-therapy-and-brentuximab

DEVELOPMENT CREDITS

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