

# Journal Pre-proof

United States Cutaneous Lymphoma Consortium Recommendations for Treatment of Cutaneous Lymphomas During the COVID-19 Pandemic

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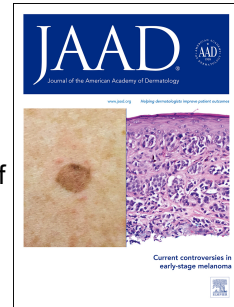
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Evidence suggests that patients with malignancy<sup>2</sup> and older age have a higher risk of severe events including death<sup>3,4</sup> due to coronavirus disease (COVID-19).<sup>1</sup> Patients with primary cutaneous lymphoma (PCL) tend to be older and remain on immunosuppressive therapy long-term for disease control. Since both, the cutaneous lymphoma and the type of immunosuppressive treatments can contribute to development of more severe complications from COVID-19, we propose strategies for treating patients with PCLs by dividing both into low, intermediate, and high-risk categories (see recommendations for individual therapies in Supplementary Table).

#### Cutaneous Lymphomas:

- A. Low risk: pagetoid reticulosis, acral CD8(+) T-cell lymphoma (TCL), CD4(+) pleomorphic small/medium T-cell lymphoproliferative disorder, lymphomatoid papulosis, and mycosis fungoides (MF) stage IA, MF stage IB (patch only or limited body surface area), primary cutaneous (PC) marginal zone or PC follicle center B-cell lymphoma
- B. Intermediate-low risk: primary cutaneous anaplastic large cell lymphoma, folliculotropic MF, granulomatous MF, granulomatous slack skin, MF stage IB (extensive patches/plaques) and IIA (reactive lymphadenopathy), subcutaneous panniculitis-like TCL.
- C. Intermediate-high risk: MF stage IIB (tumors) and III (erythrodermic), PC diffuse large B-cell lymphoma (DLBCL) (not leg type).
- D. High risk: Sézary syndrome, MF Stage IV or transformed, primary cutaneous gamma-delta T-cell lymphoma, CD8(+) aggressive epidermotropic cytotoxic T-cell lymphoma, extranodal NK/T-cell lymphoma, PC-DLBCL, leg-type.

#### Therapies:

- A. Low risk: topical retinoids, mechlorethamine gel or ointment, topical steroids with or without occlusion, imiquimod, home narrowband UVB phototherapy (NBUVB), heliotherapy, oral antibiotics, oral antipruritics, dilute vinegar or bleach soaks/baths, and aggressive moisturization.
- B. Intermediate risk: oral retinoids (bexarotene, acitretin, isotretinoin), methotrexate, oral steroids, vorinostat, and interferons (alpha or gamma).
- C. High risk: pralatrexate, romidepsin, mogamulizumab, brentuximab, gemcitabine and other chemotherapies. Skin radiotherapy, photopheresis and office-based UV therapy are high risk due to travel.

Low-risk therapies that can be utilized at home should be continued for all patients. The risks of travel and exposure likely outweigh the benefit of in-office treatments such as ultraviolet light therapy and total body electron beam radiation therapy. Home-based NBUVB and heliotherapy can be continued or initiated. For patients with low-risk disease only low-risk therapies are recommended.

Intermediate-risk therapies may be continued, but dose adjustments may be advised on an individual basis. The least frequent lab monitoring possible should be performed to limit exposure while ensuring patient safety. Initiation of these therapies may be postponed using low-risk bridge therapies short term. Increasing or initiation of a retinoid or interferon should be considered in cases that necessitate the removal of other high-risk therapies.

High-risk therapies, in addition to their inherent risks, may require travel to the clinic or hospital. These should only be utilized in the highest risk patients and the additional risks of therapy-related travel should be considered. Infusion regimens may be adjusted to increase treatment intervals. Romidepsin and mogamulizumab may be considered on individual basis with extended intervals and lower doses. Allogeneic stem cell transplant and treatment with CHOP, alemtuzumab, fludarabine are strongly discouraged during the pandemic because they often lead to significant cytopenias that are known risk factors for COVID-19 complications.<sup>3,4</sup> Consider alternative lower risk therapies whenever possible.

Telemedicine visits should be utilized to avoid unnecessary exposure except for critical in-person evaluation and/or therapy. We must dynamically adjust treatment plans to provide optimal care for our lymphoma patients while protecting them from COVID-19 complications.

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Supplemental Table - United States Cutaneous Lymphoma Consortium Recommendations for Treatment of Cutaneous Lymphomas During the COVID-19 Pandemic

Table with columns for lymphoma types (e.g., Sézary syndrome, Extranodal Natural Killer/T-cell lymphoma) and treatment options (e.g., Imiquimod, Topical retinoids, Mechlorethamine gel, etc.). Rows are categorized by risk level (High, Intermediate, Low) and immunosuppression level (High, Intermediate, Low). A color-coded legend at the bottom indicates 'Least Concern', 'Caution', and 'Most Concern'.

LPD = lymphoproliferative disorder
MF = mycosis fungoides
TCL = T-cell lymphoma

CA = Consider alternative therapy during pandemic
DC = Discontinue during pandemic
DD = Decrease dose during pandemic
II = Increase intervals between treatments during pandemic
NC = No change necessary during pandemic
NR = Not recommended during pandemic
PBT = Possible Bridge Therapy during pandemic
PP = Postpone therapy to limit travel during pandemic

\* For rapidly growing or ulcerated tumors consider short course
\*\* Home NBUBV or sun light exposure (heliotherapy) preferred during the pandemic
\*\*\* Increase intervals for lab testing
\*\*\*\* May be an important short term bridge therapy to help control symptoms during the pandemic.
# The benefits of photopheresis should be balanced against the risk of travel during COVID-19 pandemic.
^ Dose reduction if lymphopenic
^^ Recommendations may also apply to other single agent chemotherapy.
^^^ Postpone due to high risk of infectious complications and to limit travel during the pandemic
^^^^ DC applies to patients presently receiving that specific therapy.
^^^^^ NR implies that this therapy should not be started during the pandemic based on benefit/risk ratio. It does not imply that these therapies are recommended after the pandemic.

ECP = extracorporeal photochemotherapy (photopheresis)
EBRT = electron beam radiotherapy
IFN = interferon
IV = intravenous
MTX = methotrexate
phototx = phototherapy
PUVA = psoralen and ultraviolet A
sc = subcutaneous