

Supplemental Online Content

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eTable. MPATH-Dx V2.0 Diagnostic Mapping Tool

eFigure. MPATH-Dx V2.0 Class III: Melanoma <0.8 mm pT1a-Ir

This supplemental material has been provided by the authors to give readers additional information about their work.

eTable. MPATH-Dx V2.0 Diagnostic Mapping Tool

The surgical margins are considered positive and the lesion adequately sampled for the purposes of these recommendations.

MPATH-Dx V2.0 Class I ^a	Management	Diagnosis Terms
<p>Lesions have very low risk for tumor progression</p>	<p>No further treatment.</p> <p>(Note: There are exceptions to all clinical management guidelines, and clinical judgement and common sense are fundamental to clinical management. In the decision process about re-excision or not, it is necessary to consider whether a specimen with positive margins is representative of the entire clinical lesion or not, and whether sampling error may be operative. As a result, re-excision of an incompletely sampled Class I lesion may be discussed for further evaluation of a suspicious clinical lesion, or for other reasons, such as a large congenital nevus.)</p>	<p><u>Common Low UV Radiation (Cumulative Sun Damage (CSD)) WHO Pathway I</u></p> <p><u>Lentigo and related entities</u></p> <p>Ephelis, freckle</p> <p>Lentigo simplex</p> <p><u>Common acquired nevus without atypia</u></p> <p>Common nevus: junctional, compound, intradermal, congenital pattern</p> <p>Lentiginous nevus: junctional, compound</p> <p>Nevus with architectural disorder^b: junctional, compound</p> <p>Halo nevus</p> <p>Nevus spilus, speckled lentiginous nevus</p> <p>Combined nevus (common acquired nevus) with 2nd component: 1) blue nevus, common type.</p> <p><u>Common acquired nevus and related entities with low-grade atypia</u></p> <p>(Includes increased diameter > 5 – 6 mm; architectural disorder, such as asymmetry, poor circumscription, irregular (disordered) junctional nesting with horizontal confluence, bridging of nests, proliferation of melanocytes between epidermal rete, lack of maturation, and cytological atypia) (Table 2).</p> <p>Lentiginous melanocytic proliferation (non-sun damaged skin), low-grade^c</p> <p>Dysplastic nevus, low-grade^c (lentiginous compound or junctional, low-grade dysplasia per WHO 2018; nevus with architectural disorder and low-grade atypia; Clark's nevus with low-grade atypia): junctional, compound^c</p> <p>Halo nevus, low-grade atypia^c</p>

		<p>Nevus spilus, speckled lentiginous nevus, low-grade atypia^c</p> <p>Combined nevus (common acquired nevus, low-grade atypia^c) with 2nd component: 1) blue nevus, common type, or 2) scant plexiform spindle cell/deep-penetrating nevus component (scant discrete dermal nests or fascicles of slightly enlarged pigmented spindle and/or epithelioid melanocytes usually with β-catenin nuclear and cytoplasmic expression in a background common nevus; also sometimes referred to as “clonal” nevus, “inverted type A” nevus, or simply as “combined nevus”; such lesions with more developed cellularity can be termed “melanocytoma”).</p> <p>Atypical nevus of special anatomic site (site specific)^d: Acral and nail-apparatus (nail-matrix; subungual), genital and peri-anal, flexural, milk line and breast, umbilicus, scalp region and ear, conjunctiva, low-grade atypia^c</p> <p>Atypical nevus, NOS, low-grade^c</p> <p><u>High UV Radiation (Cumulative Sun Damage (CSD)) WHO Pathway II</u></p> <p>Solar lentigo</p> <p>Lentiginous melanocytic proliferation, no atypia or low grade (lentigo maligna)^e,</p> <p>Primary acquired melanosis(PAM)/conjunctival melanocytic intraepithelial neoplasia (C-MIN)/conjunctival melanocytic intraepithelial lesion (C-MIL) (conjunctiva), no atypia or low grade^f (WHO low grade (Eye tumors))¹</p> <p>Lentiginous junctional or compound nevus, no atypia or low grade</p> <p><u>Acral nevus and related entities (WHO Pathway V)</u></p> <p>Intra-epidermal/lentiginous melanocytic proliferation, no atypia or low grade</p> <p>Acral lentiginous junctional, compound, or dermal nevus, no atypia or low grade</p> <p>Nail-apparatus nevus (nail-matrix nevus), no atypia or low grade</p> <p><u>Mucosa (WHO Pathway VI)</u></p> <p>Lentigo, lentiginosis, melanosis, lentiginous melanocytic proliferation, no atypia or low grade</p> <p>Genital nevus, no atypia or low grade</p> <p><u>Congenital nevus and related entities (WHO Pathway VII)⁹</u></p>
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		<p>Congenital nevus, congenital nevus spilus, congenital pattern nevus, no atypia or low grade^c</p> <p>Proliferative nodules in congenital melanocytic nevi, no atypia or low grade (no or scant mitotic activity)</p> <p><u>Blue nevus (WHO Pathway VIII)</u></p> <p>Blue nevus, common type, other, no atypia or low grade</p>
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MPATH-Dx V2.0 Class I Footnotes:

^a The Classes I. and II. describe the spectrum of benign melanocytic lesions from common nevi (and related entities) without atypia up to but not including pT1a melanoma. Categorization of lesions into these two classes is based on histopathological criteria including the degree of disordered architecture and cytological atypia, as outlined in Table 2, and the perceived probabilistic risk for neoplastic transformation. The size of nuclei of at least 5 junctional melanocytes in the most atypical high-power field, compared to those of nearby resting keratinocytes, is a principal criterion for this classification as Class I. or Class II. Class I. lesions exhibit junctional melanocytic nuclei < 1.5 x the size of nearby resting basal keratinocytic nuclei; whereas, Class II. lesions have nuclei > 1.5 x the size of keratinocytic nuclei. The corresponding histopathological criteria for Class I. and II. lesions are listed in Table 2.

Class I. lesions comprise benign lesions with no atypia or mild to moderate atypia (atypia up to the 1.5 nuclear size cutoff, see above and Table 2.). It must be emphasized that Class I. contains some percentage of nevi that would have been previously diagnosed by some observers as “moderately atypical or dysplastic” nevi. Thus, some of these lesions may be considered to exhibit “low-end moderate” atypia.

^bUse of the term “mild dysplasia” is discouraged because these lesions are now considered to be no different from other common acquired nevi as potential precursors to melanoma, or as risk markers for the development of melanoma in the future.

^cIncludes some proportion of, **but not all**, nevi, often junctional or compound, previously graded as mild and mild to **moderate**. In general, nevi with cytological atypia characterized by nuclei in junctional melanocytes measuring 1 to < 1.5 x the size of nearby resting keratinocyte nuclei in greatest diameter, and probably lacking DNA aneuploidy (Table 2).

^dSuch nevi remain controversial as to how they deviate from other common acquired nevi and atypical/dysplastic nevi, if at all, and whether they merit such distinction. The principal criteria for apparent recognition and distinction of special-site nevi from the latter two entities are that particular anatomic sites influence the baseline architectural and cytological features of nevi. Acral, nail-apparatus (nail-matrix), and genital nevi are also listed in their respective pathways.

^eAlthough controversial, the above entities with low-grade to high-grade (even mild alone for some) atypia are considered to be melanoma in situ by many. Lentigo maligna (LM) is a controversial historical term that is utilized to depict a clinico-pathological entity developing in chronically sun-exposed (high CSD) skin. For some observers, LM constitutes : 1) an entity with two phases: a) an atypical lentiginous melanocytic proliferation (or melanocytic dysplasia) and precursor to melanoma in situ and/or invasive melanoma, and b) melanoma in situ, lentigo maligna type; and for other observers: 2) melanoma in situ developing in chronically sun-damaged (high CSD) skin. This controversy has never been entirely resolved. The essential criteria for lentigo maligna include clear-cut increased numbers of solitary basilar melanocytes and at least mild cytological atypia. The

criteria utilized to recognize melanoma in situ, lentigo maligna type, by many observers include one or more of the following: confluence of basilar melanocytes (back-to-back melanocytes with formation of one or more layers), junctional and/or adnexal nesting of atypical melanocytes, conspicuous pagetoid spread (at least one high-power field), and conspicuous adnexal (hair follicular and/or eccrine ductal) involvement by atypical melanocytic proliferation); and mild to severe cytological atypia.

^fPAM and C-MIN are controversial terms utilized to describe a clinico-pathological spectrum of high-CSD conjunctival melanocytic proliferations directly comparable to lentigo maligna but with differences due to anatomic site, i.e., location in the conjunctival epithelium which may be only three cell layers in thickness. Both terms PAM without and with atypia and C-MIN have been developed to aid in the management of such lesions and to avoid overdiagnosis of melanoma in situ and overly-aggressive therapy of these lesions. Historically, grading of such lesions has been associated with suboptimal reproducibility and concordance. As a result, a simplified two-tiered low-grade and high-grade system, termed C-MIL (conjunctival melanocytic intra-epithelial lesion) has recently been introduced by the WHO¹ in effort to bring about more standardized classification and management of these lesions. Many consider that Low-grade C-MIL (formerly PAM/C-MIN with no or “mild” atypia) have negligible or very low risk for progression to invasive melanoma; whereas, High-grade C-MIL (PAM/C-MIN with “moderate to severe” atypia/melanoma in situ) is associated with substantial risk for the development of invasive melanoma.

^gLarger varieties of congenital nevi may merit discussion of excision because of increased risk of melanoma.

<p>MPATH-Dx V2.0 Class II^{a,h}</p> <p>Lesions have low risk for tumor progression</p>	<p>Manage by excision with < 1 cm margins.</p> <p>(Note: Because of poor reproducibility in the diagnosis and grading of Class II lesions (atypical nevi, lentigo maligna, Spitz nevi/tumors/melanocytomas, other melanocytomas, and uncertain lesions) and potential sampling error, all such lesions with positive margins should be completely removed with clear surgical margins. However, <u>one may consider not to re-excite particular lesions on a case-by-case basis</u> based on the following factors: age of the patient (e.g., age < 10 to 20 years); anatomic site; a judgement that the lesion has</p>	<p><u>Common Low UV Radiation (Cumulative Sun Damage (CSD)) WHO Pathway I</u></p> <p><u>Common acquired nevus and related lesions with high-grade atypia</u></p> <p>(Includes increased diameter > 5 – 6 mm, esp. > 10 mm; architectural disorder, such as asymmetry, poor circumscription, irregular (disordered) junctional nesting with horizontal confluence, bridging of nests, proliferation of melanocytes between epidermal rete, pagetoid spread, epidermal effacement/ulceration, lack of maturation, confluent (nodular) configuration; mitotic activity; necrosis; and cytological atypia). Includes a subset of lesions previously termed “moderate to severe”, as well as those categorized as “severe”.</p> <p>Lentiginous melanocytic proliferation (non-sun-damaged skin), high gradeⁱ</p> <p>Dysplastic nevus, high grade (nevus with architectural disorder and high-grade cytologic atypia ; high-grade dysplasia WHO 2018; Clark's nevus, junctional or compound with high-grade atypiaⁱ)</p> <p>Halo nevus, high gradeⁱ</p> <p>Nevus spilus, speckled lentiginous nevus, high gradeⁱ</p> <p>Persistent/recurrent nevus, high gradeⁱ</p> <p>Atypical nevus, NOS, high gradeⁱ</p>
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	<p>been appropriately sampled; a general absence of particular concerning clinical and histopathological features; and possibly other pertinent clinical considerations.)</p>	<p>Atypical nevus of special anatomic site (site specific). Acral and nail-apparatus (nail-matrix; subungual), genital and peri-anal, flexural, milk line and breast, umbilicus, scalp region and ear, conjunctiva, high gradeⁱ</p> <p>Combined nevus (common acquired nevus with or without atypia) with 2nd component (melanocytoma): deep penetrating/plexiform spindle cell nevus/tumor/melanocytoma; epithelioid cell BAP1-inactivated nevus/tumor, melanocytoma; epithelioid cell, NOS melanocytoma; pigmented epithelioid melanocytoma; melanocytoma with NRAS and IDH mutations, high gradeⁱ (see Intermediate lesions below).</p> <p><u>Other intermediate lesions (melanocytomas)</u> (varying degrees of atypia are present by definition, Table 3).</p> <p>Plexiform spindle cell nevus/tumor or deep-penetrating nevus (DPN)/tumor/melanocytoma</p> <p>Pigmented epithelioid melanocytoma (PEM, epithelioid blue nevus) and subtypes</p> <p>BAP1-inactivated melanocytic nevus/tumor/melanocytoma</p> <p>Melanocytoma with NRAS and IDH mutations</p> <p>Clear cell tumor with melanocytic differentiation and <i>ACTIN::MITF</i> translocation</p> <p><u>Intraepidermal melanocytic proliferations with atypia</u> (includes increased lesional diameter, architectural disorder, and cytological atypia), high-grade atypia</p> <p>Pagetoid intraepidermal melanocytic proliferation (PIMP)</p> <p>Intraepidermal atypical melanocytic proliferation of uncertain significance (IAMPUS)</p> <p><u>High UV Radiation (Cumulative Sun Damage (CSD)) WHO Pathway II</u></p> <p><u>Atypical lentiginous melanocytic proliferations of sun-damaged skin</u></p> <p>Lentiginous melanocytic proliferation (lentigo maligna), high grade^j</p> <p>Primary acquired melanosis (PAM)/conjunctival melanocytic intraepithelial neoplasia (C-MIN)/conjunctival melanocytic intraepithelial lesion (C-MIL), high grade^k (WHO high grade (eye tumors))^l</p> <p>Lentiginous junctional or compound nevus^l (lentiginous dysplastic nevus of the elderly), high grade</p> <p><u>Spitz tumor (WHO Pathway IV)^m</u></p>
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		Lentiginous, non-solar (acral, mucosal) Not otherwise specified (NOS)
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MPATH-Dx V2.0 Class II Footnotes:

^aThe Classes I and II describe the spectrum of benign melanocytic lesions from common nevi (and related entities) without atypia up to but not including pT1a melanoma. Categorization of lesions into these two classes is based on histopathological criteria including the degree of disordered architecture and cytological atypia, as outlined in Table 2, and the perceived probabilistic risk for neoplastic transformation. The size of nuclei of at least 5 junctional melanocytes in the most atypical high-power field, compared to those of nearby resting keratinocytes, is a principal criterion for this classification as Class I or Class II. Class I lesions exhibit junctional melanocytic nuclei < 1.5 x the size of nearby resting basal keratinocytic nuclei; whereas, Class II lesions have nuclei > 1.5 x the size of keratinocytic nuclei. The corresponding histopathological criteria for Class I. and II. lesions are listed in Table 2.

^bClass II lesions comprise benign intermediate lesions with higher-grade atypia, i.e., high-end moderate to severe atypia, (atypia greater than the 1.5 nuclear size cutoff, see above and Tables 2. and 3.) and melanoma in situ. The term “melanocytoma” also applies to particular lesions in this category. It must be emphasized that Class II contains some percentage of nevi and related lesions that would have been previously diagnosed by some observers as “moderately atypical or moderately dysplastic” nevi. Thus, some of these lesions may be considered to exhibit “high-end moderate” atypia. These lesions are intermediate between the Class I lesions and invasive melanomas in Classes III and IV.

ⁱIncludes some proportion of, **but not all**, nevi previously graded as **moderate**. In general, nevi with cytological atypia characterized by nuclei in junctional melanocytes measuring > 1.5 x and especially > 2 x (for severe atypia) the size of nearby resting keratinocyte nuclei in greatest diameter, and possibly having DNA aneuploidy. This also includes consideration of increased lesional diameter, asymmetry, architectural disorder, and limited mitotic activity, as described above (Tables 2 and 3). In the lentiginous proliferations, architectural disorder may carry greater weight than cytologic atypia.

^jAlthough controversial, the above entities with **low-grade to high-grade** (even **mild alone** for some) atypia are considered to be melanoma in situ by many. Lentigo maligna (LM) is a controversial historical term that is utilized to depict a clinico-pathological entity developing in chronically sun-exposed (high CSD) skin. For some observers, LM constitutes : 1) an entity with two phases: a) an atypical lentiginous melanocytic proliferation or melanocytic dysplasia) and precursor to melanoma in situ and/or invasive melanoma, and b) melanoma in situ, lentigo maligna type; and for other observers: 2) melanoma in situ developing in chronically sun-damaged (high CSD) skin. This controversy has never been entirely resolved. The essential criteria for lentigo maligna include clear-cut increased numbers of solitary basilar melanocytes and at least mild cytological atypia. The criteria utilized to recognize melanoma in situ, lentigo maligna type, by many observers include one or more of the following: confluence of basilar melanocytes (back-to-back melanocytes with formation of one or more layers), junctional and/or adnexal nesting of atypical melanocytes, conspicuous pagetoid spread (at least one high-power field), and conspicuous adnexal (hair follicular and/or eccrine ductal) involvement by atypical melanocytic proliferation); and mild to severe cytological atypia.

^kPAM and C-MIN are controversial terms utilized to describe a clinico-pathological spectrum of high-CSD conjunctival melanocytic proliferations directly comparable to lentigo maligna but with differences due to anatomic site, i.e., location in the conjunctival epithelium which may be only three cell layers in thickness. Both terms primary acquired melanosis (PAM) without and with atypia and C-MIN have been developed to aid in the management of such lesions and to avoid overdiagnosis of melanoma in situ and overly-aggressive therapy of these lesions. Historically, grading

of such lesions has been associated with suboptimal reproducibility and concordance. As a result, a simplified two-tiered low-grade and high-grade system, termed C-MIL (conjunctival melanocytic intra-epithelial lesion) has recently been introduced by the WHO¹ in effort to bring about more standardized classification and management of these lesions. Many consider that Low-grade C-MIL (formerly PAM/C-MIN with no or “mild” atypia) have negligible or very low risk for progression to invasive melanoma; whereas, High-grade C-MIL (PAM/C-MIN with “moderate to severe” atypia/melanoma in situ) is associated with substantial risk for the development of invasive melanoma.

^lThis entity may be classified by many as a “dysplastic” nevus and may overlap with lentigo maligna.

^mBecause of the lack of reproducibility in diagnosis and grading of Spitz nevi/tumors and potential sampling error, all Spitz nevi/tumors with positive margins should be considered for complete removal with clear surgical margins². However, one may consider not to re-excite particular lesions on a case-by-case basis based on the following factors: especially age of the patient < 10 years, but also up to 20 years; anatomic site; a judgement that the lesion has been adequately sampled; the absence of particular concerning clinical and histopathological features; and possibly other pertinent clinical considerations including feasibility of observation of the site (by patients, families and/or physicians).

ⁿGrading and significance of atypia in the “blue lesions” are poorly defined and warrant further discussion and study.

<p>MPATH-Dx V2.0 Class III</p> <p>Invasive melanoma, T1a Ir have low risk for progression.</p> <p>Invasive melanoma, T1a have relatively low risk for local and regional metastasis.</p>	<p>Manage according to National Guidelines, e.g., excision with 1 cm margins.</p>	<p><u>Invasive melanoma, < 0.8 mm T1a Ir^o</u></p> <p>Low CSD (superficial spreading melanoma)</p> <p>High CSD (lentigo maligna melanoma)</p> <p>Acral lentiginous melanoma</p> <p>Invasive melanoma, unclassifiable</p> <p><u>Invasive melanoma, < 0.8 mm T1a^p</u></p> <p>Low CSD melanoma (superficial spreading melanoma)</p> <p>High CSD melanoma (lentigo maligna melanoma)</p> <p>Desmoplastic melanoma</p> <p>Acral lentiginous melanoma</p> <p>Mucosal melanoma</p> <p>Invasive melanoma, unclassifiable</p> <p>Nevoid melanoma</p> <p>Nodular melanoma</p> <p>Spitz or spitzoid melanoma</p>
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MPATH-Dx V2.0 Class III Footnotes:

<p>°“Invasive melanoma, T1a Ir” (Ir – low risk): AJCC Stage T1a with absence of ulceration and Breslow thickness < 0.8 mm, and presence of the following: radial growth phase, Clark level II (dermal invasion by single cells or small clusters of tumor cells in papillary dermis), and <u>absence of the following</u>: Clark level III or greater, vertical growth phase (distinct nodule formation), dermal mitoses, and extensive regression (> 50% of tumor). As a group, these tumors may have a low risk of recurrence and metastasis with overall 5- and 10-year survival approaching or exceeding 99%. However, these lesions are quite heterogeneous and require more detailed study as to their biological nature and risk stratification. With greater study, some proportion of these lesions may prove to be severely atypical nevi or dysplasias and merit classification in the MPATH- Class II. It is also important to emphasize that overdiagnosis of melanoma is discouraged, and that some low risk lesions after careful scrutiny may justify tentative description as “Melanocytic neoplasm with low (uncertain) malignant potential”.</p> <p>¶Invasive melanoma, T1a with at least one of the following features: dermal mitoses, a vertical growth phase (distinct nodule formation), and/or Clark level III or greater, extensive regression (> 50% of tumor), lympho-vascular invasion, and angiotropism.</p>		
<p>MPATH-Dx V2.0 Class IV[¶]</p> <p>Moderate to increased risk for regional and/or distant metastasis.</p>	<p>Manage according to National Guidelines: e.g., excision with 1 to 2 cm margins, consideration of sentinel lymph node staging and other therapies.</p>	<p><u>Invasive melanoma, 0.8 – 1.0 mm T1b, or greater</u></p> <ul style="list-style-type: none"> Low CSD melanoma (superficial spreading melanoma) High CSD melanoma (lentigo maligna melanoma) Desmoplastic melanoma Acral lentiginous melanoma Mucosal melanoma Invasive melanoma, unclassifiable Melanoma arising in a congenital nevus (tumorigenic) Nevoid melanoma Nodular melanoma Spitz or spitzoid melanoma Melanoma arising in blue nevus, blue nevus-like melanoma Melanocytic tumor of uncertain malignant potential (T1b or greater by definition)
<p>MPATH-Dx V2.0 Class IV Footnotes:</p> <p>¶Includes invasive melanoma < 0.8 mm Breslow thickness with ulceration and invasive melanoma ≥ 0.8 mm.</p>		
<p>Variable Classification</p>		<p><u>Melanocytic lesions of uncertain malignant potential!</u></p> <p>Superficial atypical melanocytic proliferations of uncertain significance (SAMPUS) – usually maps to: Class I, II, or III.</p>

		<p>Atypical melanocytic neoplasm, junctional – usually maps to: Class I or II.</p> <p>Atypical intraepithelial melanocytic proliferation (AIMP) – usually maps to: Class I or II</p> <p>Melanocytic tumor of uncertain malignant potential (MELTUMP) – usually maps to: Class II, III, or IV (i.e., worst case scenario)</p> <p>Atypical melanocytic neoplasm, compound – usually maps to: Class I, II, III or IV^s</p>
<p>Variable Classification Footnotes:</p> <p>^rClassification of melanocytic lesions of uncertain malignant potential is defined as follows (from WHO 2018):</p> <p>Superficial atypical melanocytic proliferation of uncertain significance (SAMPUS): An atypical melanocytic proliferation confined to the epidermis and superficial dermis, with features insufficient for definitive diagnosis but not ruling out radial growth phase (RGP) malignancy, lacking a tumorigenic vertical growth phase (VGP). Melanocytic tumor of uncertain malignant potential (MELTUMP): An atypical melanocytic proliferation in the dermis that is tumorigenic but lacks the specific criteria needed to distinguish between benign and malignant proliferations. RGP: An atypical melanocytic proliferation confined to the epidermis and superficial dermis, meeting the criteria for melanoma (in situ or invasive), but lacking a tumorigenic component (VGP). VGP: A melanocytic proliferation in the dermis characterized by expansile growth (tumorigenic proliferation) and/or mitotic activity, meeting the criteria for melanoma. In the limiting case, there is a nest in the dermis larger than the largest intraepidermal nest. In a lentiginous melanoma with no nests, this criterion is necessarily more subjective.</p> <p>Classified as any Class I-IV, based on the suggested treatment consideration (worst case scenario).</p> <p>^sMELTUMP, Atypical melanocytic neoplasm, compound is classified as a Class IV if the suggested treatment consideration is wide excision (>= 1cm) AND sentinel lymph node sampling OR immunotherapy is selected on the histology form.</p>		

References:

1. Milman T, Eiger-Moscovich M, Henry RK, et al. Validation of the Newly Proposed World Health Organization Classification System for Conjunctival Melanocytic Intraepithelial Lesions: A Comparison with the C-MIN and PAM Classification Schemes. *Am J Ophthalmol.* 03 2021;223:60-74. doi:10.1016/j.ajo.2020.10.020
2. Barnhill RL, Argenyi ZB, From L, Glass LF, Maize JC, Mihm MC Jr, Rabkin MS, Ronan SG, White WL, Piepkorn M. Atypical Spitz nevi/tumors: lack of consensus for diagnosis, discrimination from melanoma, and prediction of outcome. *Hum Pathol.* 1999 May;30(5):513-20. doi: 10.1016/s0046-8177(99)90193-4.

eFigure. MPATH-Dx V2.0 Class III: Melanoma <0.8 mm pT1a-lr

This neoplasm exhibits the low risk properties of Breslow thickness of 0.36 mm, radial growth phase, Clark level II (absence of the vertical growth phase), absence of ulceration, absence of mitotic activity, and absence of extensive regression. This lesion was originally interpreted as invasive melanoma of the superficial spreading type by the Expert Panel and by consensus classified as original MPATH-Dx V1.0 Class IV. “Invasive melanoma pT1a”. Based on utilization of the above criteria (Supplemental eTable), the lesion is re-classified by consensus as new Class III. Melanoma < 0.8 mm pT1a-lr by the Expert Consensus Panel.

