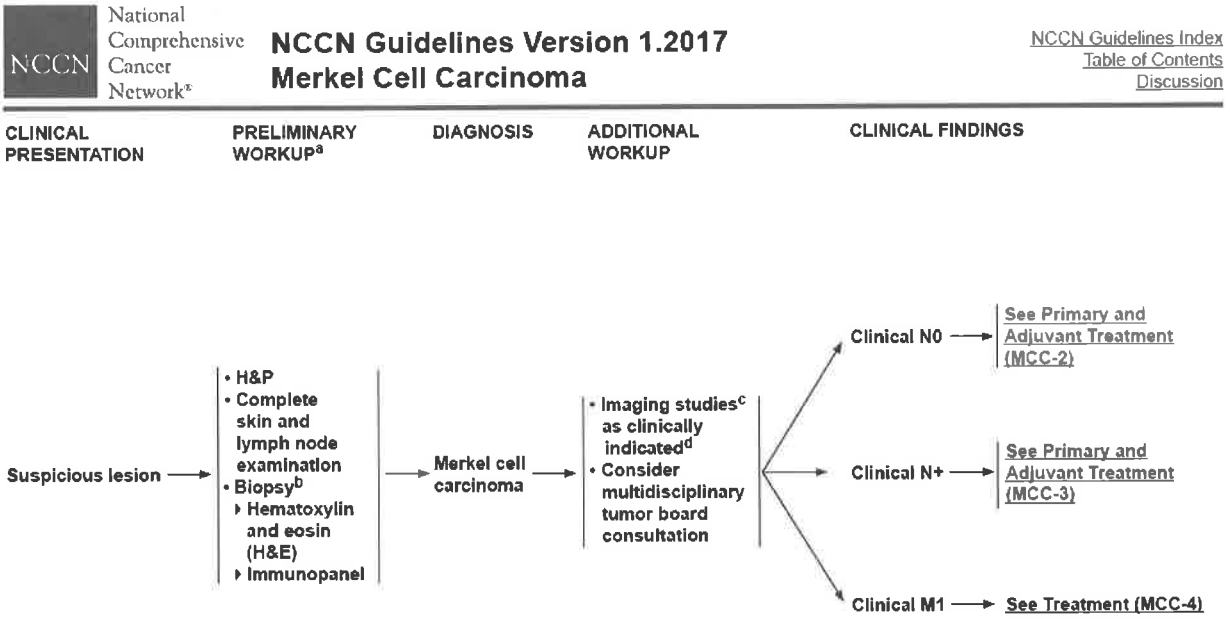
Cancer Committee
Merkel Cell Carcinoma – 2015 Quality Metrics

January 2017

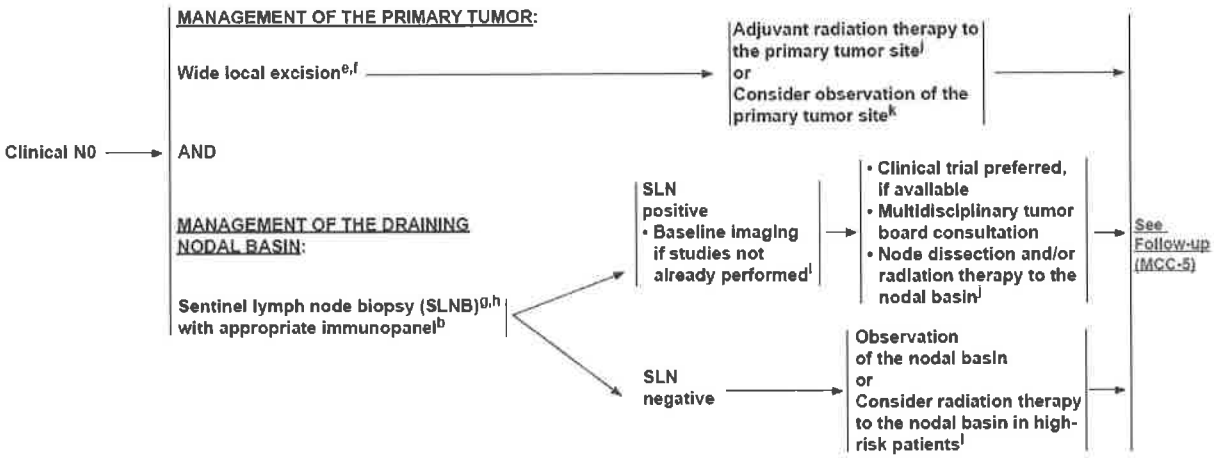
Introduction: Merkel cell carcinoma is an aggressive cutaneous neuroendocrine malignancy with a propensity for local recurrence, regional lymph node spread, and metastasis. It is a rare disease, with an estimated incidence of 0.6 cases per 100,000, but because of its tendency to affect older individuals (median age 76) and involve the head and neck region (43 percent of cases), therapy requires a highly specialized, multimodal team. Considerations include minimizing debilitating side effects and managing patients with multiple co-morbidities.

Analysis: A query of our Cancer Registry showed 8 patients diagnosed with Merkel cell carcinoma in 2015. In addition to medical oncology, these patients were seen by physicians across four other disciplines – otolaryngology, surgical oncology, dermatology, and radiation oncology. One patient was not included in the analysis because of a lack of available data.

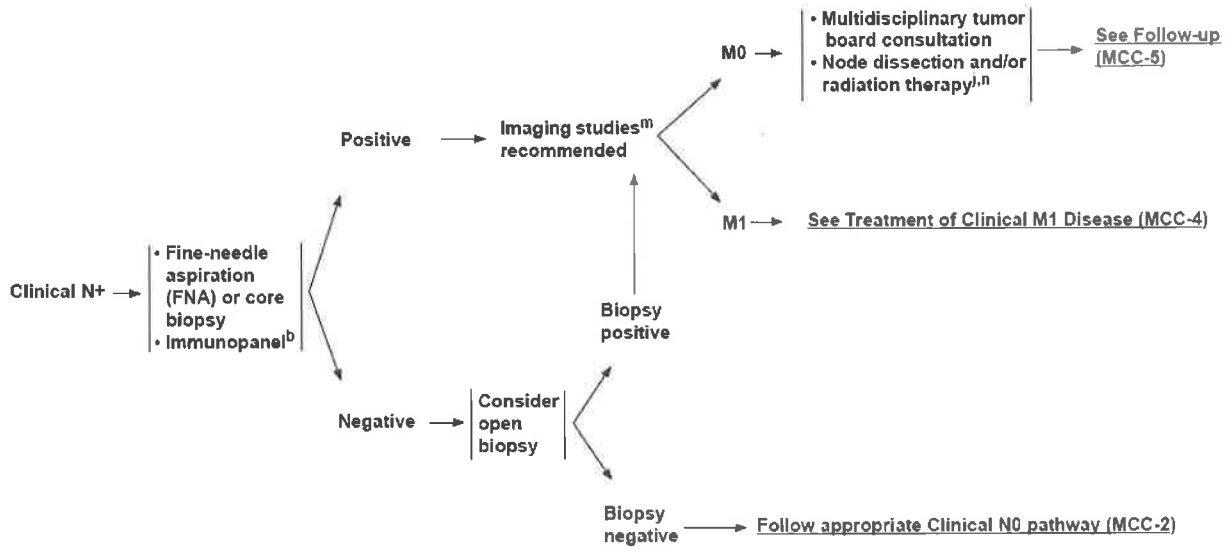
Each patient's chart was reviewed for adherence to the **NCCN Clinical Practice Guideline** for Merkel cell carcinoma. Adherence was evaluated according to three diagnostic/workup criteria (complete skin exam documented, biopsy with immunopanel, sentinel lymph node biopsy with immunopanel), four therapeutic criteria (wide excision, lymph node dissection, radiation therapy, and referral to a clinical trial if appropriate), and timeliness of follow-up. Not all interventions were clinically indicated for all patients, based on stage. In certain cases, physicians recommended evidence-based therapies, but patients declined.



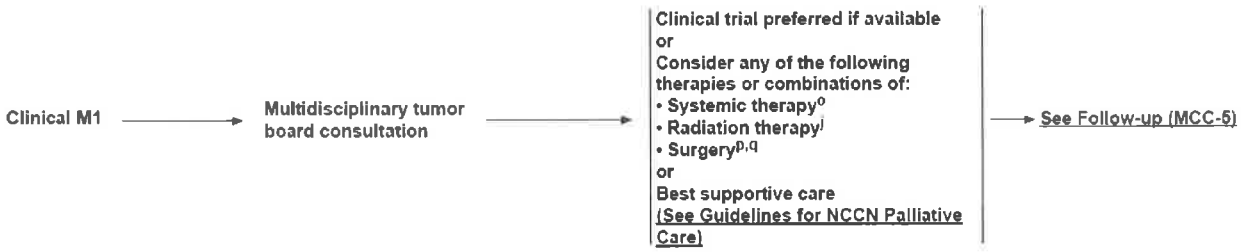
PRIMARY AND ADJUVANT TREATMENT OF CLINICAL N0 DISEASE



PRIMARY AND ADJUVANT TREATMENT OF CLINICAL N+ DISEASE



TREATMENT OF CLINICAL M1 DISEASE



Results:

Stage	IA	IB	IIA	IIB	IIC	IIIA	IIIB	IV	N/A
# patients	1	1	0	0	0	1	2	1	2

Diagnostic Criteria:

Patient #	Stage	Anatomic Site	Complete Skin Exam Documented	Biopsy w/ Immuno	SLNB w/ Immuno
1	IIIB	Lower extremity	No	Yes	Yes
2	IB	Head & neck	Yes	Yes	MD recommended
3	IIIB	Head & neck	No	Yes	Yes
4	IA	Upper extremity	No	Yes	Yes
5	IIIA	Lower extremity	Yes	Yes	Yes
6	IV	Head & neck	No	Yes	Yes
7	Unknown	Head & neck	No	Yes	Yes

Therapeutic Criteria:

Patient #	Wide Excision	Node Dissection	XRT	Clinical Trial
1	Yes	Yes	Yes	Yes
2	Yes	MD recommended	MD recommended	Not indicated
3	Yes	Yes	MD recommended	Yes
4	Yes	Not indicated	Yes	Not indicated
5	Yes	Not indicated	MD recommended	Not indicated
6	Yes	Yes	Not indicated	Unknown
7	Yes	Not indicated	Not indicated	Not indicated

Follow-up Criteria:

Patient #	3-6 month Follow-up Scheduled
1	Yes
2	Yes
3	Yes
4	Yes
5	Yes
6	Yes
7	Yes

Criterion	% Adherence to Guidelines	Proposals for Improvement
Diagnosis		
Complete skin exam documented	29% (2/7)	• Templated note for all cutaneous malignancies, including full skin exam • Education for medical oncology/ radiation oncology providers re: components of full skin exam
Biopsy with immunopanel	100% (7/7)	
Sentinel lymph node biopsy with immunopanel	100% (7/7)	
Therapy		
Wide excision	100% (7/7)	
Lymph node dissection	100% (4/4)	
XRT	100% (5/5)	
Referral to clinical trial	67% (2/3)	• Education on available national Merkel cell trials • Dissemination of Jefferson's clinical trial mobile app
Follow-up		
Follow-up scheduled within 3-6 months	100% (7/7)	

Summary:

Merkel cell carcinoma represents an incredibly difficult disease to treat, as it affects older patients and requires a multidisciplinary treatment team, including medical oncology, otolaryngology, surgical oncology, radiation oncology, and dermatology. Its aggressive nature also puts a premium on time, so care must be coordinated quickly and efficiently.

A review of our Cancer Registry showed that 8 new patients were diagnosed and treated with Merkel cell carcinoma in 2015, of whom 7 had analyzable data. We excelled in our adherence to NCCN clinical practice guidelines across the spectrum of care. All patients received a biopsy with proper immunostaining, a sentinel node biopsy, and a wide excision. Every patient with an indication for lymph node dissection or radiation therapy received the proper therapy. And follow-up was consistently coordinated in a timely fashion for all patients. The only major area for improvement is in documentation of a full skin exam, for which we suggest a brief awareness campaign for physicians in the disciplines that treat Merkel cell carcinoma.