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## BACKGROUND

- Lymphadenopathy is a commonly identified sign/symptom with a highly variable clinical presentation and significance.
- The work-up and appropriateness for biopsy can be challenging given the extensive differential diagnosis associated with lymphadenopathy.
- Thus, In 2017 The Cleveland Clinic Taussig Cancer Center established an APP-Run Lymphadenopathy clinic to evaluate and manage patients with lymphadenopathy of unknown cause

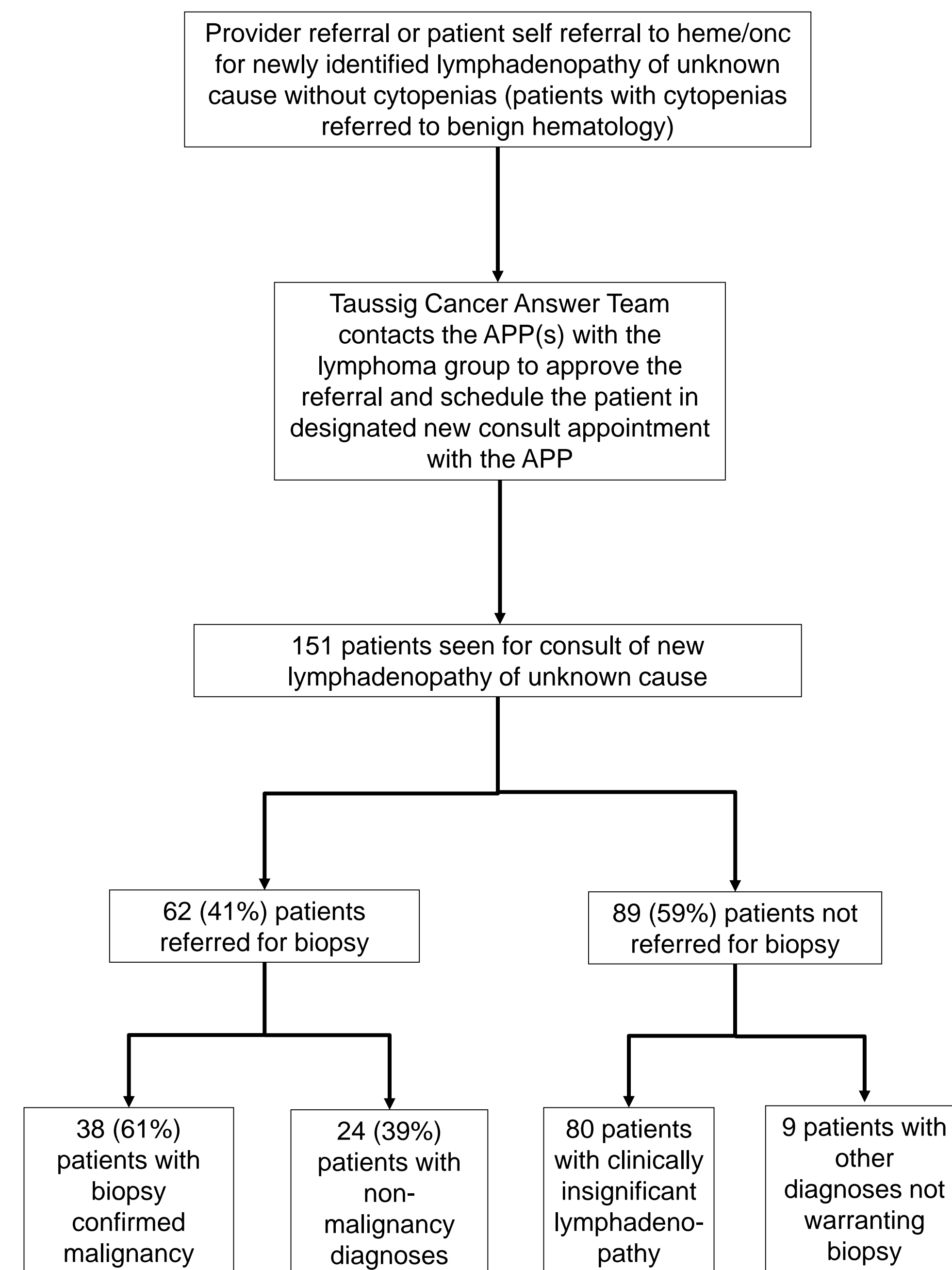
## REFERRAL PROCESS & INCLUSION CRITERIA

- Consult to heme/onc for patients with newly identified lymphadenopathy of unclear cause. Patients with cytopenias were excluded and referred to benign hematology
- Taussig Cancer Answer Team contacts the APP(s) from the lymphoma team to review the case and approve the consult.
- Once the lymphoma APP approves the consult the patient is scheduled in a pre-designated new consult appointment with the APP

## METHODS

- Prospective analysis of lymphadenopathy clinic consults from August 2017 – February 2022
- Primary data points were rate of biopsy referrals and diagnostic outcome following biopsy

## BACKGROUND



## RESULTS

Patients referred to lymphadenopathy clinic (August 2017 – February 2022)		Total Patients = 151
Patient Demographics		
Median Age, (range) in years		51.2 (18 – 89)
Male		82 (54.3%)
Female		69 (45.7%)
Race		
Caucasian		119 (79%)
Black / African American		26 (17%)
Other / declined to answer / data not available		6 (4%)
Lymphadenopathy Presentation		
Imaging for Acute Symptom Assessment		68 (45%)
Exam (self or provider)		48 (32%)
Incidental Finding		35 (23%)
Patients referred for tissue assessment (biopsy)		62 (41.1%)
Patients not referred for tissue assessment		89 (58.9%)

Patients referred for biopsy found to have non-malignant diagnosis (% of all patients referred for biopsy) (% of all lymphadenopathy consults)		Total patients = 24 (39%) (16%)
Non-Malignant Diagnoses		
Negative / Benign / Reactive Lymphoid tissue		12 (50%)
Follicular Hyperplasia		3 (12.5%)
Non-Caseating Granuloma / Sarcoidosis		3 (12.5%)
Castleman's Disease		1 (4%)
Dermatitis (skin biopsy)		1 (4%)
Granulomatous Inflammation		1 (4%)
IgG4 Related Disease		1 (4%)
Unknown		1 (4%)
Whipple's Disease		1 (4%)

## RESULTS

Patients referred for biopsy found to have malignant diagnosis (% of all patients referred for biopsy) (% of all lymphadenopathy consults)		Total patients = 38 (61%) (25%)
Lymphoma		
Follicular Lymphoma, grade 1-2		11 (32%)
Chronic Lymphocytic Leukemia / Small Lymphocytic Lymphoma		8 (23%)
Diffuse Large B-Cell Lymphoma		4 (12%)
B-Cell Lymphoma, NOS		3 (9%)
Mantle Cell Lymphoma		2 (6%)
Anaplastic Large Cell Lymphoma		1 (3%)
Classical Hodgkin Lymphoma		1 (3%)
Follicular Lymphoma, grade 3A		1 (3%)
Marginal Zone Lymphoma		1 (3%)
Nodular Lymphocyte Predominant Hodgkin Lymphoma		1 (3%)
Peripheral T-Cell Lymphoma, NOS		1 (3%)
Other Malignant Diagnoses		
Cholangiocarcinoma		1 (25%)
Prostate Cancer		1 (25%)
Small Cell Lung Cancer		1 (25%)
Unknown Primary		1 (25%)

## CONCLUSIONS

- Approximately 1 in 4 patients with lymphadenopathy were found to have a malignancy diagnosis, most frequently lymphoma (89.5%)
- Less than half of all patients were referred for biopsy (41%) but of the patients referred for biopsy the majority were found to have a malignancy (61%) vs non-malignancy (39%) diagnosis indicating consistent high value biopsy referrals from experienced APPs
- Our lymphadenopathy clinic provides a valuable service for providers managing new cases of lymphadenopathy of unknown cause, and patients whose care can be expedited with heme/onc expertise. High volume referral centers may consider establishing a similar APP-run clinic