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Peritonsillar Abscess Management within LVHN Emergency Departments: A Quality Analysis Study

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Background

Peritonsillar abscesses (PTAs) are common polymicrobial deep neck space infections. Current guidelines and literature show PTAs can be safely, effectively managed in the outpatient setting with antibiotics, needle aspiration, and oral steroids.

PTAs are diagnosed clinically by a “hot potato” voice, unilateral, fluctuating tonsil with uvula deviation towards the unaffected side, and trismus. Bilateral PTAs are uncommon. Imaging of a PTA is not necessary and can cause harm to patients. CT is not recommended due to radiation exposure and should only be used if a patient presents with neck stiffness, toxic appearance, or respiratory obstruction.

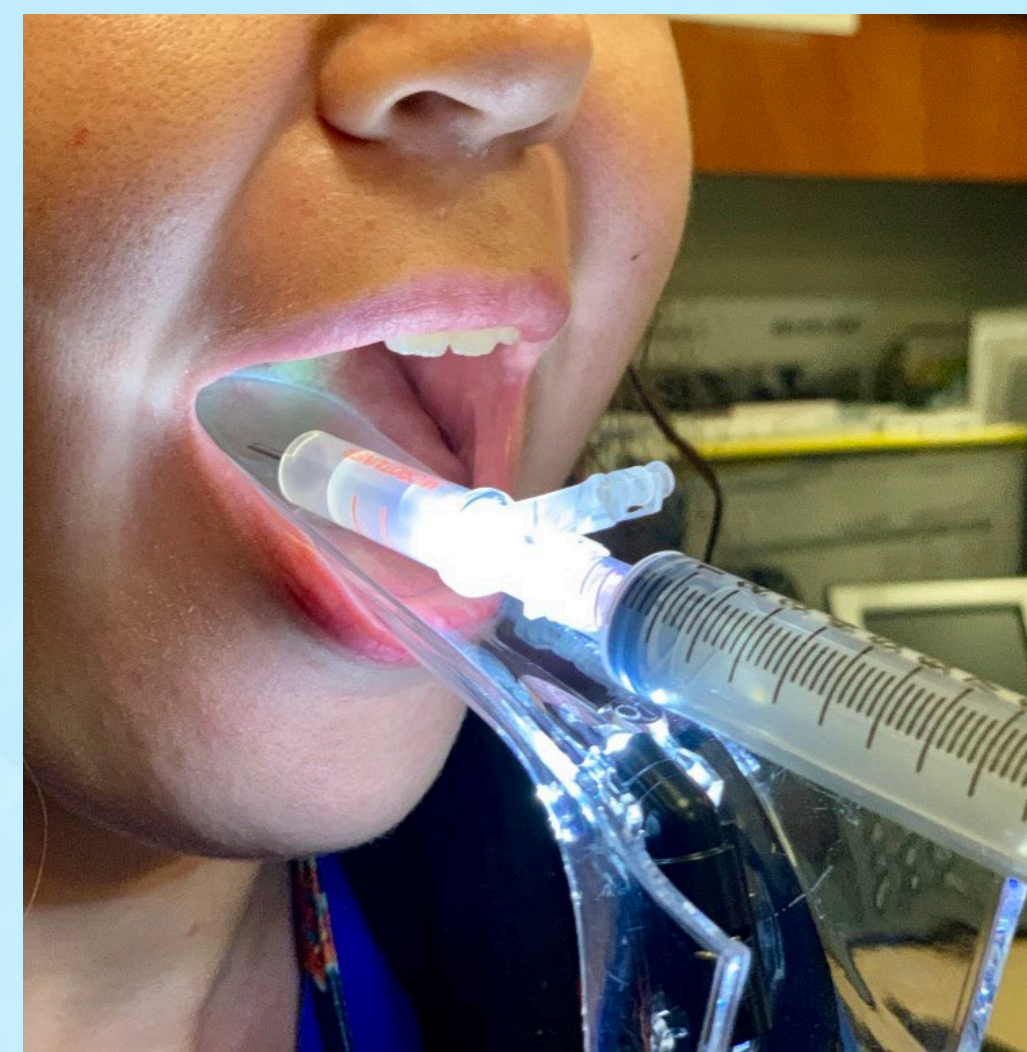
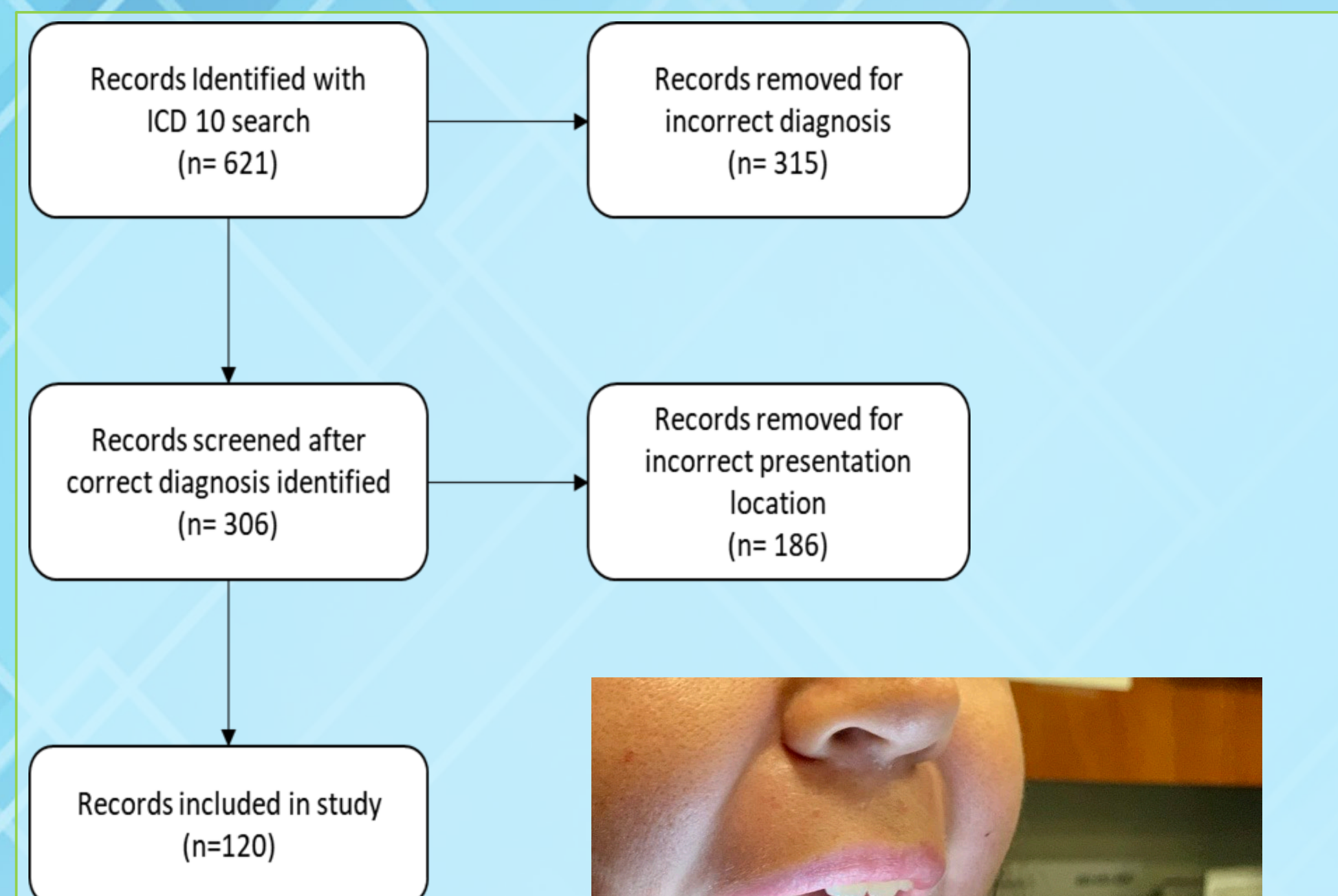
Problem Statement

1. Evaluate how the LVHN emergency department compared to generally accepted guidelines regarding diagnosis and management of PTAs with respect to attempted drainage, appropriate antimicrobial therapy, and outpatient management.
2. Quality of patient care and costs associated with
 - imaging studies performed,
 - medications prescribed,
 - and level of care provided.

Methods

Following IRB exemption, We performed a retrospective chart review to identify patients with peritonsillar abscesses in five LVHN EDs over a calendar year. Multiple ICD codes were used to ensure all eligible patients were included. Patients presenting to a location other than an in-network ED or less than 18 years old were excluded. Information pertaining to diagnostic tests, treatment, and airway status was also collected. Descriptive analysis with JASP was used to assess if EDs were consistent with generally accepted guidelines.

Results



Diet	N(%)
NPO	51 (42.5%)
Liquid	21 (17.5%)
Soft Food	2 (1.7%)
Normal	15 (12.5%)
No Diet	31 (25.8%)

Imaging	N (%)
CT Scan	94 (78%)
US and CT Scan	4 (3%)
X-Ray	2 (2%)
No Imaging	20 (17%)

- 7 (5.8 %) patients were readmitted within 10 days of discharge
- 7/14(50%) patients with no documented dysphagia, odynophagia, or hoarseness were placed on a NPO diet,
 - 1(7%) was placed on a liquid diet,
 - 2(14%) were placed on a normal diet,
 - and 4(29%) did not have a diet ordered.
- 22 patients were transferred to Cedar Crest
 - 10 were placed in the ICU
 - 1 had an oxygen desaturation
 - None were intubated

Drainage Performed	N (%)
ED Provider	19 (16%)
ENT Provider	25 (21%)
OR Drainage	12 (10%)
ED and ENT Provider	1 (1%)
ED Provider and OR	1 (1%)
No Procedure	62 (51%)

Medications Given	N (%)
Penicillin Derivative	78 (65%)
Penicillin and additional ABX	7 (6%)
Clindamycin	33 (28%)
No antibiotics	2 (1%)
Steroids Given	95 (79%)

Discussion

- PTA management is inconsistent with current guidelines
- Nearly 80% of patients received a CT scan
- Less than half of patients received PTA drainage
 - Only 16% was performed by an ED provider
- Over 40% of patients were placed on an NPO diet
- 50% of patients with no documented dysphagia, odynophagia, or hoarseness were given an NPO diet.
- Over 50% of patients admitted for PTA management and the majority were treated conservatively.
- No transferred patients required airway support.
- Our readmission rate was higher than other similar studies (5.8% v 2%).
- The majority of patients received appropriate medications.

LVHN has room for improvement with management of PTAs. Future recommendations should be inquiry into why needle aspiration is not commonly performed, limiting transfer of patients at Pocono, Schuylkill, and Hazleton to those requiring additional resources, and providing training to ED providers and residents. These implementations will lessen costs associated with PTA management and improve the quality of patient care. Patients will be more comfortable with primary drainage.

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