



FOR
Health Professionals

When do I suspect
lymphoma and how do I
investigate?

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Disclosures

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Objectives

1. To review the clinical pathway developed by IN SIXTY for Lymphoma
2. Overview of clinical features that increase the likelihood of lymphoma highlighting best next steps to aid in a timely diagnosis for your patient
3. To discuss the role of primary care, hematologists, surgeons and Navigation Services in the diagnostic process

Introduction

- Lymphoma is the 5th most common cancer
 - ~ 300 Manitobans diagnosed each year
- Time to diagnosis longer than other cancers
- Primary Care likely to diagnosis one NHL every 2-3 years and one HL in career

Referral

Reason for Referral:

Thanks so much for seeing this lady
re: large mass left upper arm. She
initially presented July 4th @ adm swelled.
(@ adm 38cm @ 25cm) This has continued to increase
X-ray, CT, US, MRI have been done
Biopsy req has been sent to HSC.

Please see reports enclosed.

I discussed case w/ DR [redacted] - he feels
this is likely lymphoma

PM Hx: type II DM

Meds: Monopril 20mg OD
Adalat XL 50mg OD
HCTZ 25mg OD
Lipitor 10mg TID
Nifedipine 30mg BID
Methotrexate 2.5mg 9 tabs/week
folic acid 5mg 2x/week

MAN
Hx

phenytoin
macular degeneration

Suspicion of Lymphoma

- Canadian lifetime probability NHL 1:43 men (2.3%), 1:50 women (2%)
- Very few factors greatly increase risk
 - Primary Immune Disorders (incidence lymphoma 12-25%)
 - Autoimmune Disease, Organ Transplant, HIV, Drugs that modulate immune system

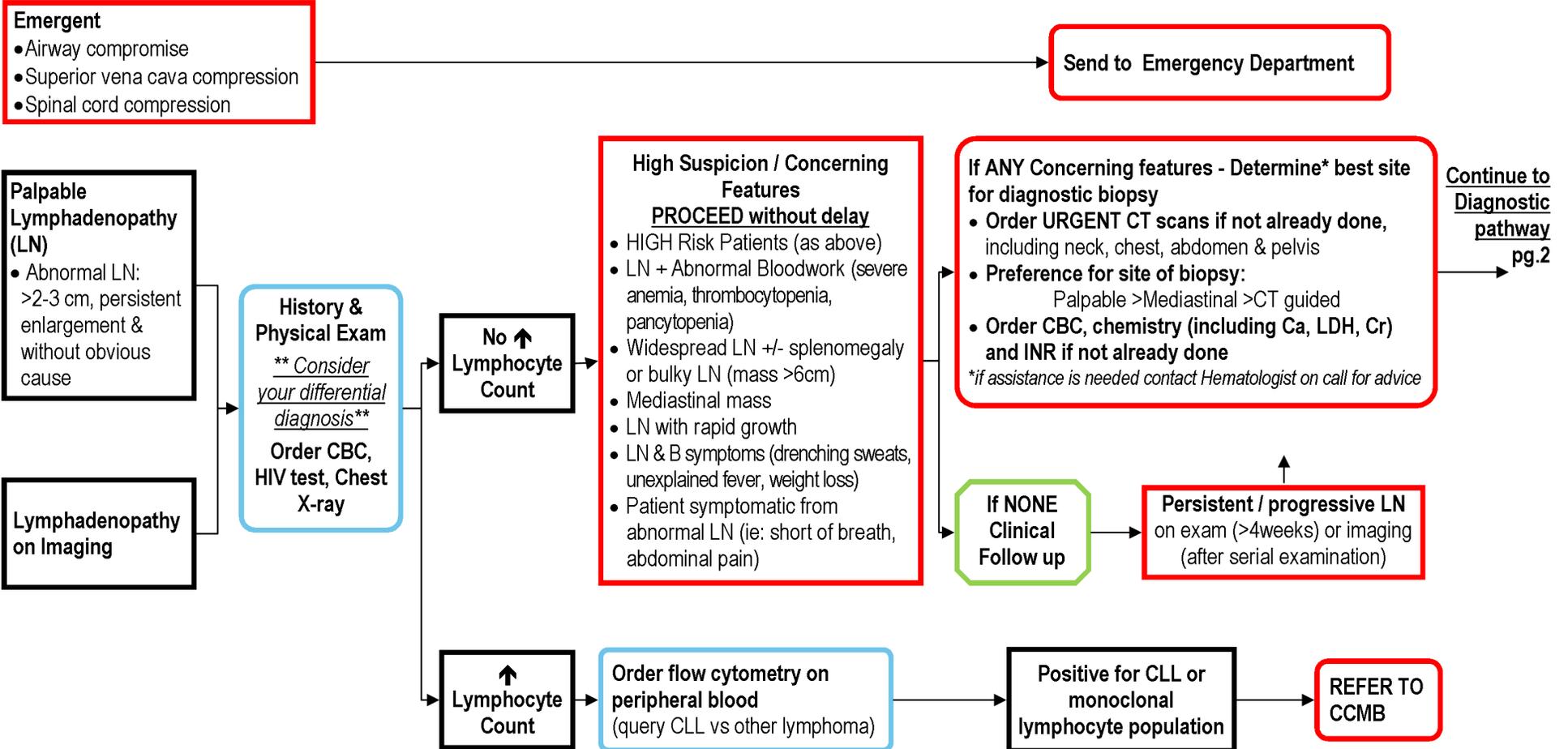
Suspicion of Lymphoma

- Lifetime probability NHL ~ 2%
- IF first degree relative with NHL, HL or CLL ~1.7 fold, 3.1 fold and 8.5 fold risk respectively of same diagnosis
 - Thus lifetime risk NHL ~ 3.4% *even lower specific lymphoma subtypes*
 - NO role for surveillance

RISK FACTORS: HIGH risk: immune deficiency (ie. HIV or organ transplant), autoimmune disease +/- immune suppressing medications, and history of lymphoma

PRACTICE POINTS: ****Consider your differential diagnosis**** -reactive LN due to infection (ie:TB) or inflammation, metastatic malignancy and autoimmune disease. This document applies to adults 17 years of age or older.

PRACTICE POINTS: All referrals sent within 24 hrs of visit. Provide complete information as requested to avoid delays. Ensure patient and family is well informed and receives appointment information. If patient is in distress, offer referral to local counsellor. See **Supporting Information for Clinicians** (pg 4) for contacts and resources. Contact the **Cancer Question Helpline for Primary Care** for assistance.



In Sixty → In Sixty timeline starts with evidence of concerning features

In Sixty → All imaging done within 2 weeks

Suspicion of Lymphoma

- Most patients initially present to primary care provider
- Most cases NHL and HL present with lymphadenopathy (LN)
 - Positive Predictive Value [PPV] 18.6% (patients > 40)
- B symptoms seen in aggressive lymphomas especially with high disease burden
 - In isolation neither PPV or Negative Predictive Value (NPV) that high

1. Shephard, E.A., et al., *Quantifying the risk of non-Hodgkin lymphoma in symptomatic primary care patients aged ≥ 40 years: a large case-control study using electronic records*. Br J Gen Pract, 2015. **65**(634): p. e281-8.
2. Shephard, E.A., et al., *Quantifying the risk of Hodgkin lymphoma in symptomatic primary care patients aged ≥ 40 years: a case-control study using electronic records*. Br J Gen Pract, 2015. **65**(634): p. e289-94.

Suspicion of Lymphoma

- Other clinical symptoms or signs as single features of low predictive value
- Further ↑ PPV of LN when combined with
 - Weight loss, abdominal complaints, dyspnea
 - Leucocytosis, cytopenias, increased liver enzymes, increased inflammatory markers

1. Shephard, E.A., et al., *Quantifying the risk of non-Hodgkin lymphoma in symptomatic primary care patients aged ≥ 40 years: a large case-control study using electronic records*. Br J Gen Pract, 2015. **65**(634): p. e281-8.
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Suspicion of Lymphoma

- >30% patients with NHL and > 40% HL have more than 3 visits to Primary Care before investigations/ referrals
- No screening tests
- No “symptom signature”

Approach to Lymphadenopathy

- History, Examine all LN group
 - Size, consistency, fixation, rapidity of growth
 - <http://stanfordmedicine25.stanford.edu/the25/lymph.html>
 - Local cause
 - oropharynx, liver, spleen, testes
- **CBC, Chest X-ray, HIV test**
- **Suspicion of malignancy – order CT scan (imaging test of choice in adults)**

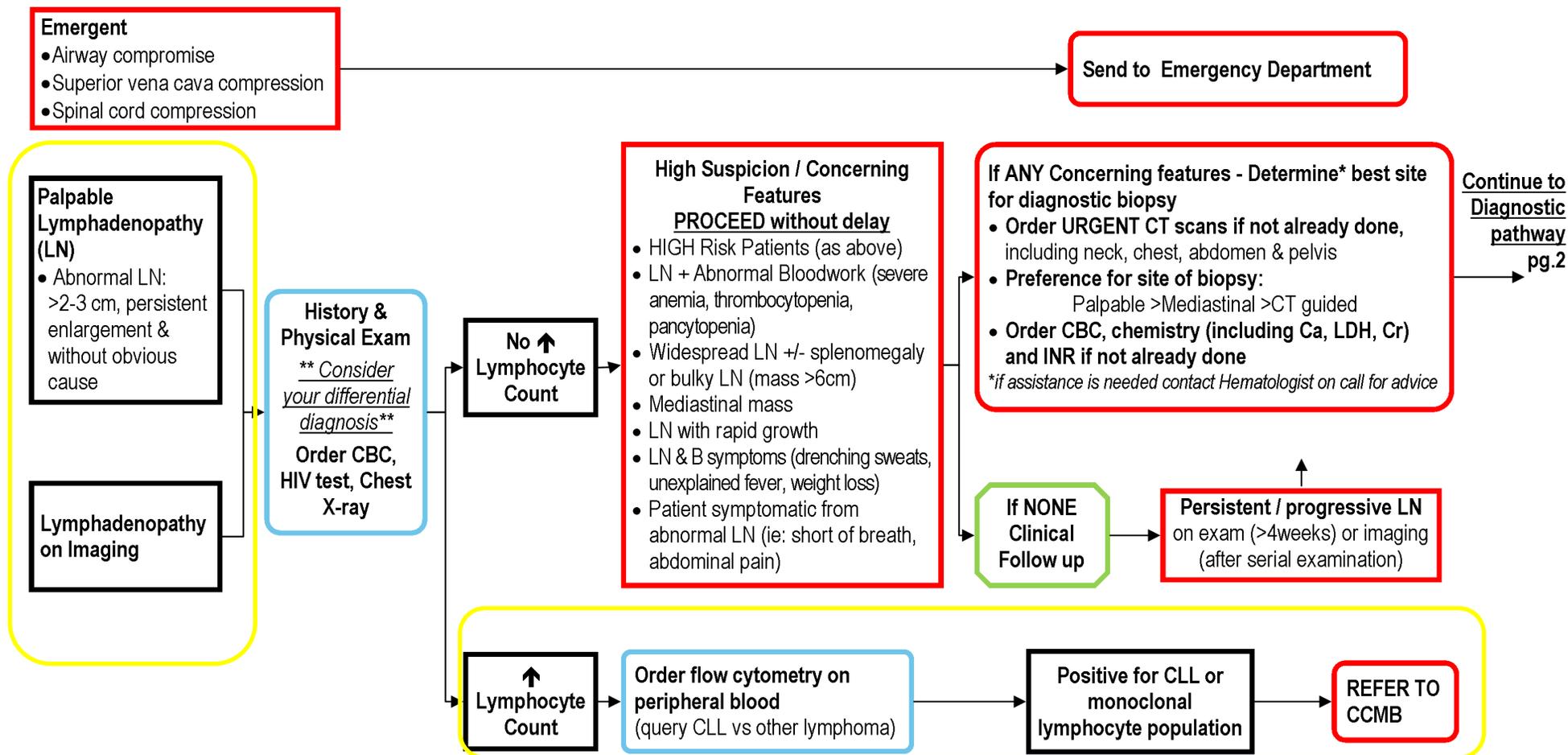
High Suspicion “red flags”

- Lymphadenopathy + HIGH Risk Patient
- LN + Abnormal Blood work (severe anemia, thrombocytopenia, pancytopenia)
- Widespread LN +/- splenomegaly or bulky LN (mass >6cm)
- Mediastinal mass
- LN with rapid growth
- LN & B symptoms (drenching sweats, unexplained fever, weight loss)
- Patient symptomatic from abnormal LN (ie: short of breath, abdominal pain)

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Referral

Thank you for seeing [REDACTED], a 63 year old male who has history of acoustic neuroma treated surgically in 1997. He recently presented with a swelling on the right side of the neck for the last 3 months. On exam, it was palpable on the right submandibular area and extending to the right posterior auricular area.

The patient denied any trouble swallowing. He said he sometimes has a mild tightness on the right side of the neck. He has no concerns about weight loss, night sweats or fever.

I have ordered a CT head and neck (results attached) that suggested possible biopsy of this mass.

I have attached a copy of the last MRI done on H&N for your review.

Patient has history of HTN and gouty arthritis and both conditions are well controlled with current medical management.

I would appreciate your assessment, advice and recommendations in his case at your earliest convenience.

Lateral Neck Mass

- Most commonly benign- infection/ inflammation from variety of odontogenic, salivary, viral or bacterial etiologies
 - Recent Ear, Nose, Throat symptoms good NPV
- More concerning for malignancy – older patients (>40), persistent, rapidly growing, weight loss, sweats

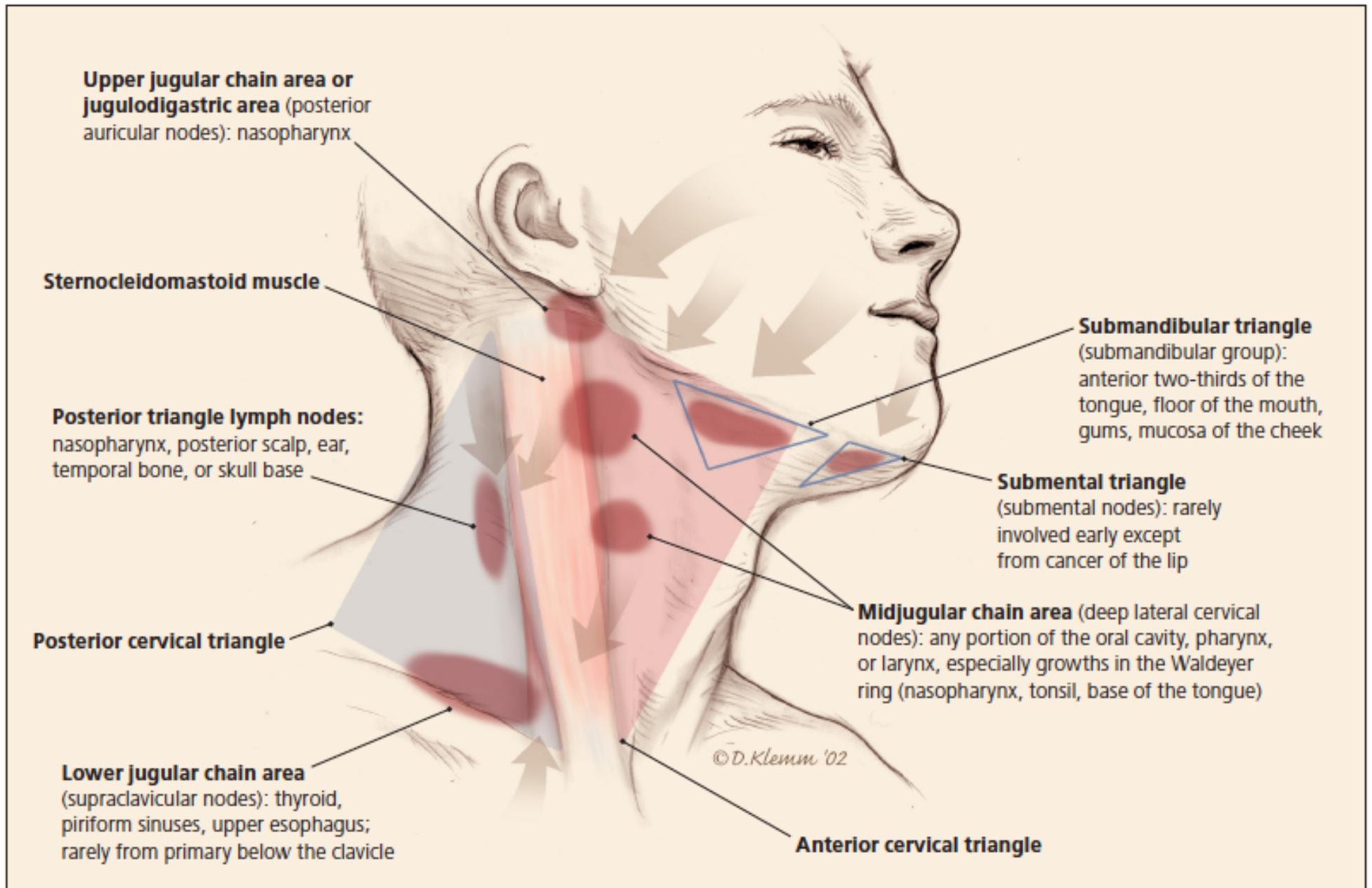


Figure 1. Cervical triangle anatomy with common lymph node locations and drainage areas.

Malignant Lateral Neck Mass

- **Squamous cell carcinoma of upper aerodigestive tract with metastasis to cervical LN**
- **Lymphoma up to 50% malignant lateral neck mass ¹**
 - In 20 – 40 y.o. most common cause persistent lateral neck mass ²
 - HL most commonly presents as painless cervical mass

1. Yeo J, et al. Clinical otolaryngology, 2013.

2. Herd MK, et al. Br J Oral Maxillofac surgery 2012;50:309-13.

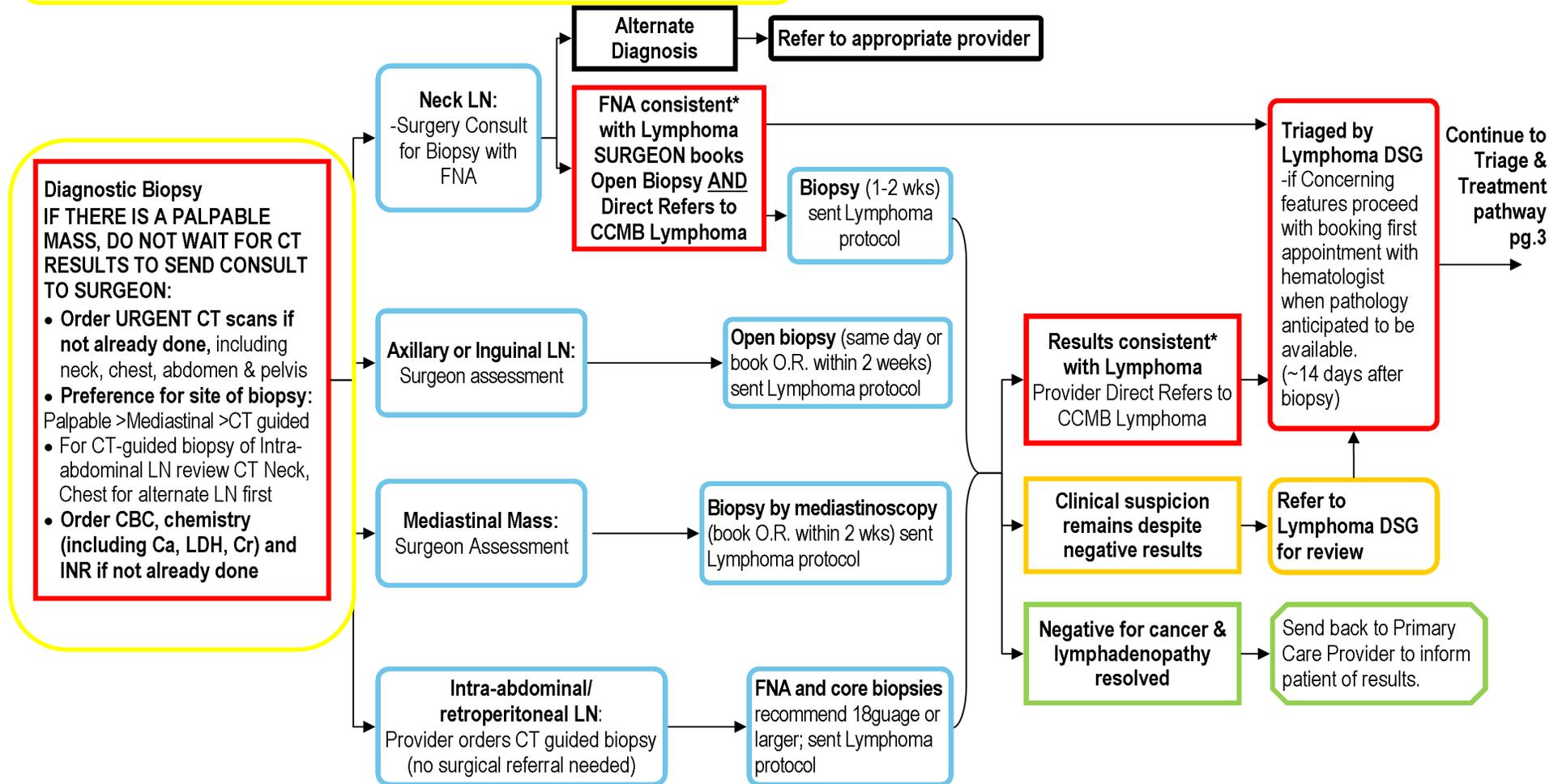
Diagnosis of Lymphoma

- FNA – exclusion metastatic carcinoma, cannot be used for definitive diagnosis
- Open (preferred) or core biopsy required for lymphoma
 - **BIOPSY SHOULD BE SENT “LYMPHOMA PROTOCOL”** if lymphoma in differential diagnosis

PRACTICE POINTS: Consultation with the Lymphoma Disease Site Group can happen earlier in the pathway if clinicians need additional support or guidance.

***Results Consistent with Lymphoma: If flow cytometry from biopsy or FNA is consistent with lymphoma, consult should be sent to CCMB Central Referral for triage by Lymphoma DSG even if final pathology report is not yet complete.**

PRACTICE POINTS: Ensure patient is well informed and receives appointment information. Offer patients connections with psychosocial clinicians and cancer navigation services (see **Supporting Information for Clinicians**, pg 5). Ensure the referring primary care provider is informed of results, direct referrals, and result discussions with patients.



In Sixty → FNA results reported within 2 days (immediate direct referral to CCMB if suspicious of lymphoma)

In Sixty → Biopsy with 2 weeks of surgery consult/assessment/FNA

In Sixty → Biopsy results reported within 14 days. Immediate direct referral to CCMB if suspicious of lymphoma)

Referral

Thank you for seeing this 58 year old female patient. She has been diagnosed with possible lymphoma on CT scan done for abdominal mass.
thank you for arranging lymphoma protocol biopsy

CT ABDOMEN AND PELVIS INFUSED

CLINICAL HISTORY: Progressive abdominal pain. Distension. Fullness centrally on palpation. Query mass.

COMPARISON:None

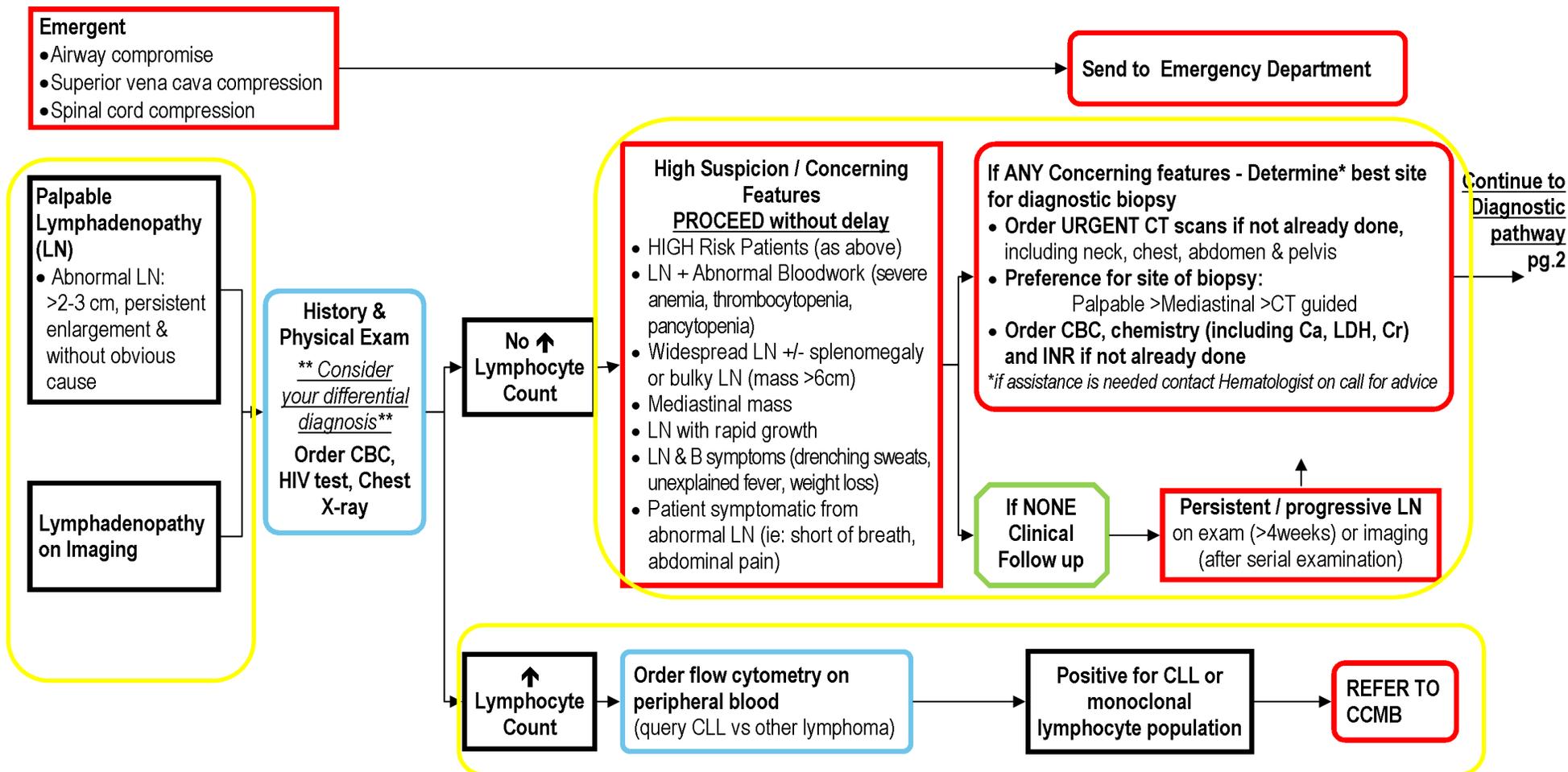
FINDINGS:The visualized lung bases are unremarkable. The liver is normal in appearance. The spleen is not enlarged. The gallbladder and adrenal glands are normal in appearance. Enlarged retrocrural lymph nodes are seen measuring up to 2.5 cm. There is a large conglomerate nodal mass involving the periceliac, periaortic, retroperitoneal and mesenteric lymph nodes which encases the vessels. The duodenum is encased by nodal tissue and difficult to separate but appears patent. This is difficult to measure but at the L2 level this measures approximately 10.3 cm transverse by 4.5 cm AP. Adenopathy extends throughout the retroperitoneum to involve the common iliac and external iliac chains. There is a small amount of free fluid within the pelvis. No gross bowel abnormality is observed. No free air is seen. No aggressive osseous lesions are demonstrated.

IMPRESSION:Extensive adenopathy with a large conglomerate nodal mass in the mid abdomen. The appearance is most compatible with lymphoma. These findings were discussed with [REDACTED] in the emergency department following the examination.

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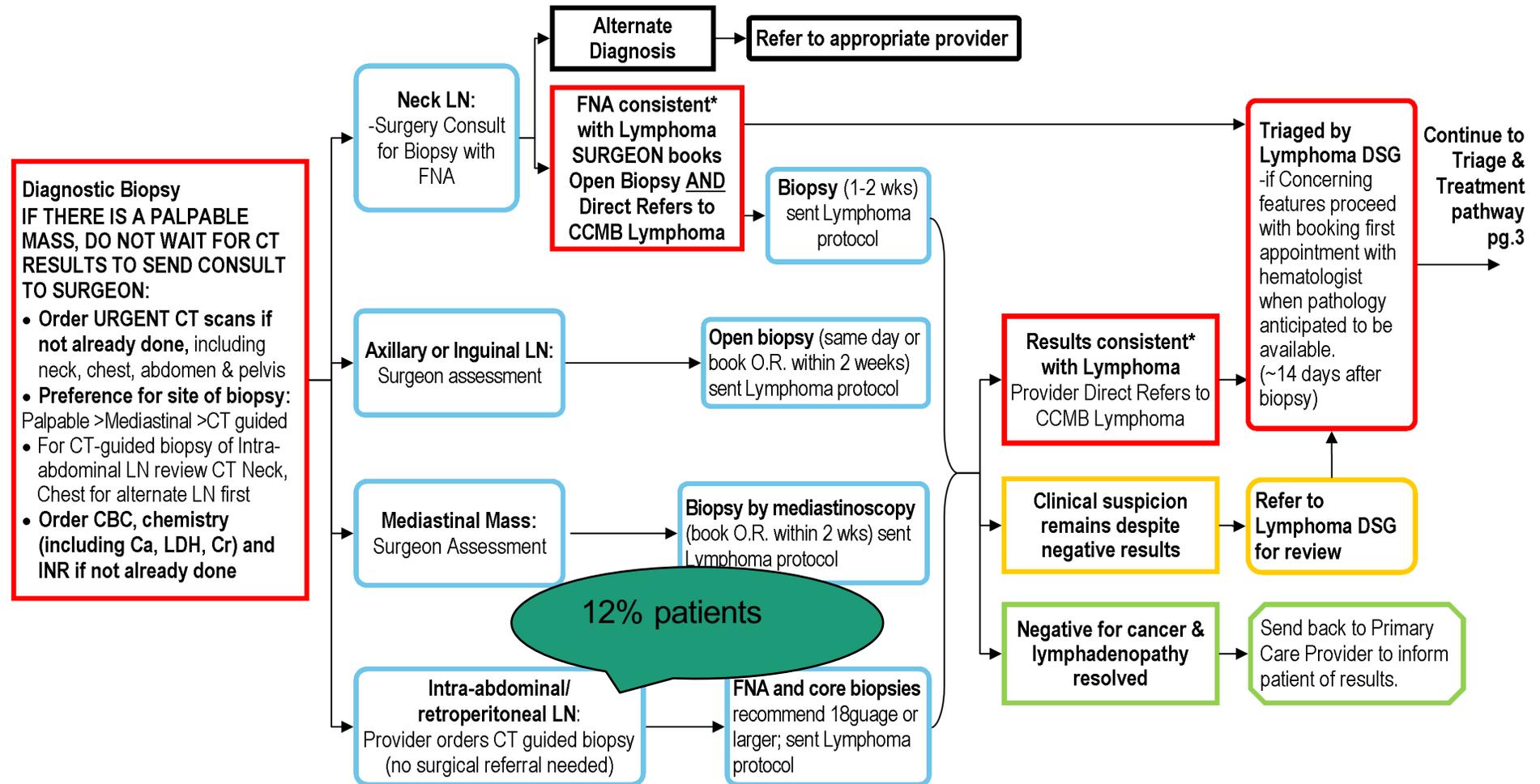
Referral

- Consult was sent to Navigation Services (Winnipeg) & CCMB Surgical Oncology
 - Physical Exam for palpable LN & CT neck/ chest suggested
 - No superficial LN for biopsy – CT guided biopsy ordered
 - Biopsy revealed Diffuse Large B-cell Lymphoma
 - Patient referred to Lymphoma DSG

PRACTICE POINTS: Consultation with the Lymphoma Disease Site Group can happen earlier in the pathway if clinicians need additional support or guidance.

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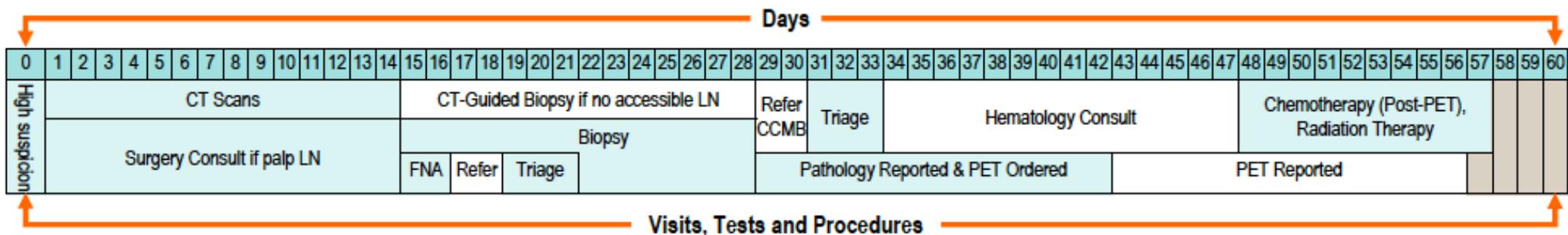
Referral to Lymphoma DSG

- High SUSPICION / Concerning Features
- Refer early
- In Referral Include
 - Physical exam & note regarding symptoms, CBC, lytes, urea/Cr, LDH, Calcium
 - Note about what has been done



Timeline Model in Manitoba for the Lymphoma* Patient Journey from Suspicion of Cancer to Treatment in Sixty Days

*Lymphoma: Goal of suspicion to treatment in under 60 days for patients presenting with concerning features and/or biopsy with aggressive non-Hodgkin lymphoma such as Diffuse Large B-Cell (DLBCL,) Grade 3B Follicular (FL,) Mantle Cell (MCL) or Hodgkin Lymphoma



Supporting Information for Clinicians

Urgent, Emergent and Afterhours Care for Cancer Patients

All questions of an emergent nature about the care or referral of a cancer patient, page the [Hematologist on call](#). For palliative care or symptom management consultation, page the [WRHA Palliative Care physician on call](#).

Hematologist on call, St. Boniface General Hospital	204-237-2053(p)
Hematologist on call, HSC Winnipeg	204-787-2071(p)
WRHA Palliative Care Physician on call, St.B Hospital	204-237-2053(p)

For emergencies, please direct patients to go direct to their local Emergency Department. Patients must inform Emergency staff of their cancer type, medications, and hematologist/oncologist name.

Cancer Navigation and Patient Support Services

Nurse Navigators

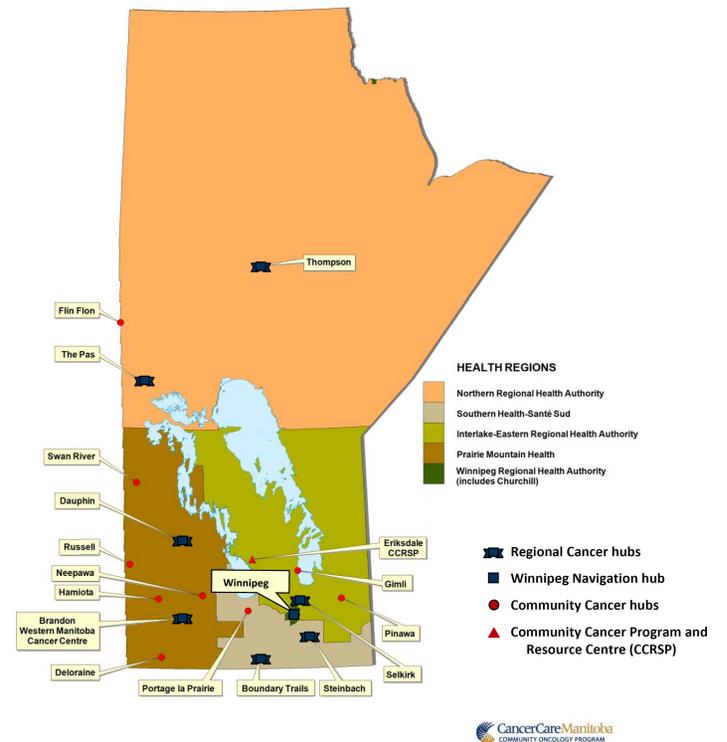
- available to all diagnosed patients, or those who have a clinical suspicion of cancer.
- work with the pt to assess needs, provide supportive care, answer questions, identify and address barriers to quality care, and facilitate access to resources and services.
- Work with PCP, surgeons to assist in the coordination of diagnostic testing and referral to a cancer specialist

Cancer Question Helpline for Primary Care

For help with hematology & oncology-related questions including work-up or diagnosis: Monday to Friday 8:30 a.m.- 4:30 pm

Call or text/sms messaging	204-226-2262
Email	cancer_question@cancercare.mb.ca
Online form:	www.cancercare.mb.ca/cancerquestion

Regional and Community Cancer hubs in Manitoba



Take Home Messages

- Always include physical exam (ie palpable nodes – size/ location) and whether there are concerning symptoms with consult
- In Sixty Clinical Pathway highlights when to proceed without delay & what investigations to be done
- Call for advice if worried about patient or uncertain how to proceed

Questions?

pskrabek@cancercare.mb.ca

10. In which patient are you MOST suspicious of lymphoma?

- A. 60 year old male with 3 cm cervical mass
- B. 24 year old with abdominal pain and IBD with mesenteric lymph nodes measuring up to 1.8 cm
- C. 40 year old female with 6 cm inguinal LN, 20 lb weight loss, Hgb 100 g/L (they all could have lymphoma)
- D. 52 year old with cough, CT with bilateral hilar & subcarinal LN enlarged

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