Know Your Nodes: Suspicion and Diagnosis of Lymphoma

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Presenter Disclosure

- **Faculty: PS**
- **Relationships with commercial interests:**
  - **Grants/Research Support: None**
  - **Speakers Bureau/Honoraria: None**
  - **Consulting Fees: Celgene, Roche, Lundbeck, Seattle Genetics, Gilead**
  - **Other: None**

Mitigating Potential Bias

- Not Applicable to this talk

Objectives

At the end of this session participants will:

1. Have familiarity with the In Sixty Lymphoma Pathway
2. Be able to list risk factors for lymphoma and describe common clinical presentations
3. Understand the role of different imaging modalities, diagnostic procedures and blood work in the diagnosis of lymphoma

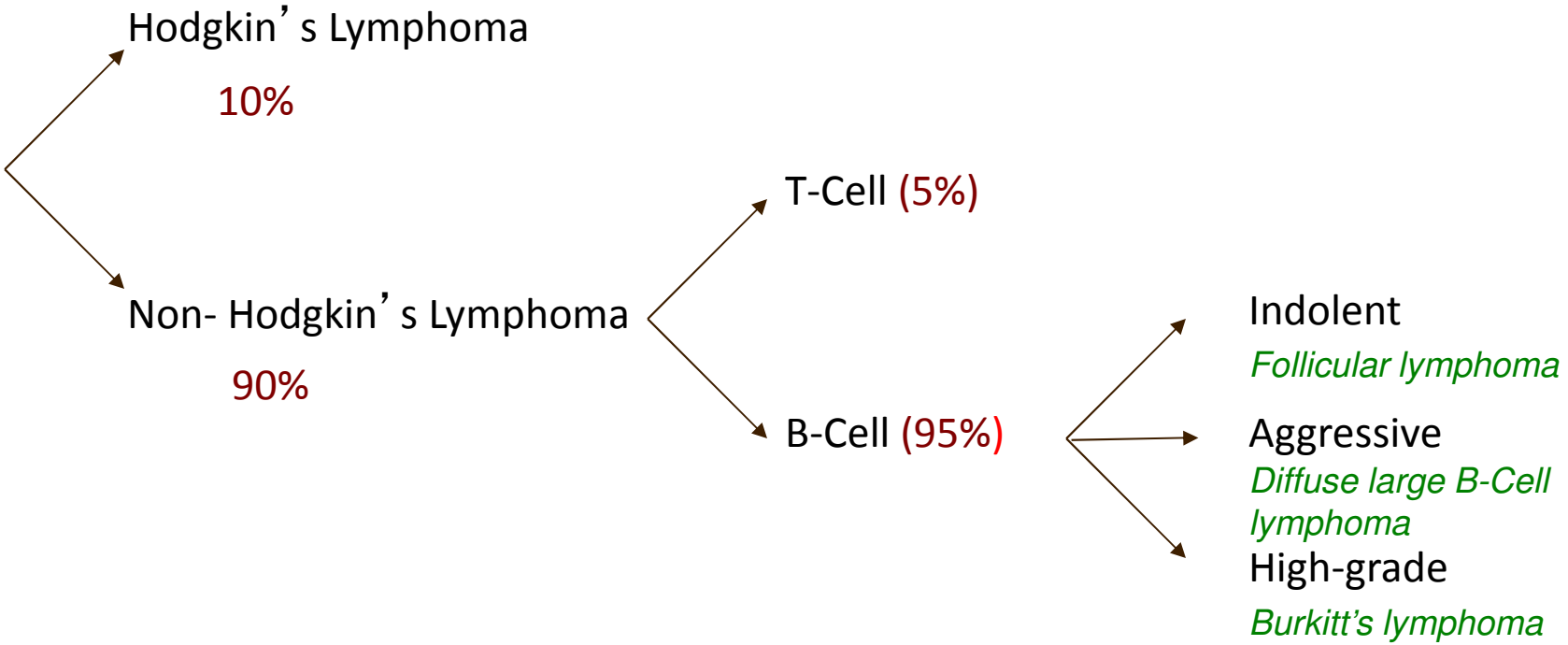
Introduction

- Lymphoma is the 5th most common cancer
  - ~ 300 Manitobans diagnosed each year
- Time to diagnosis longer than other cancers

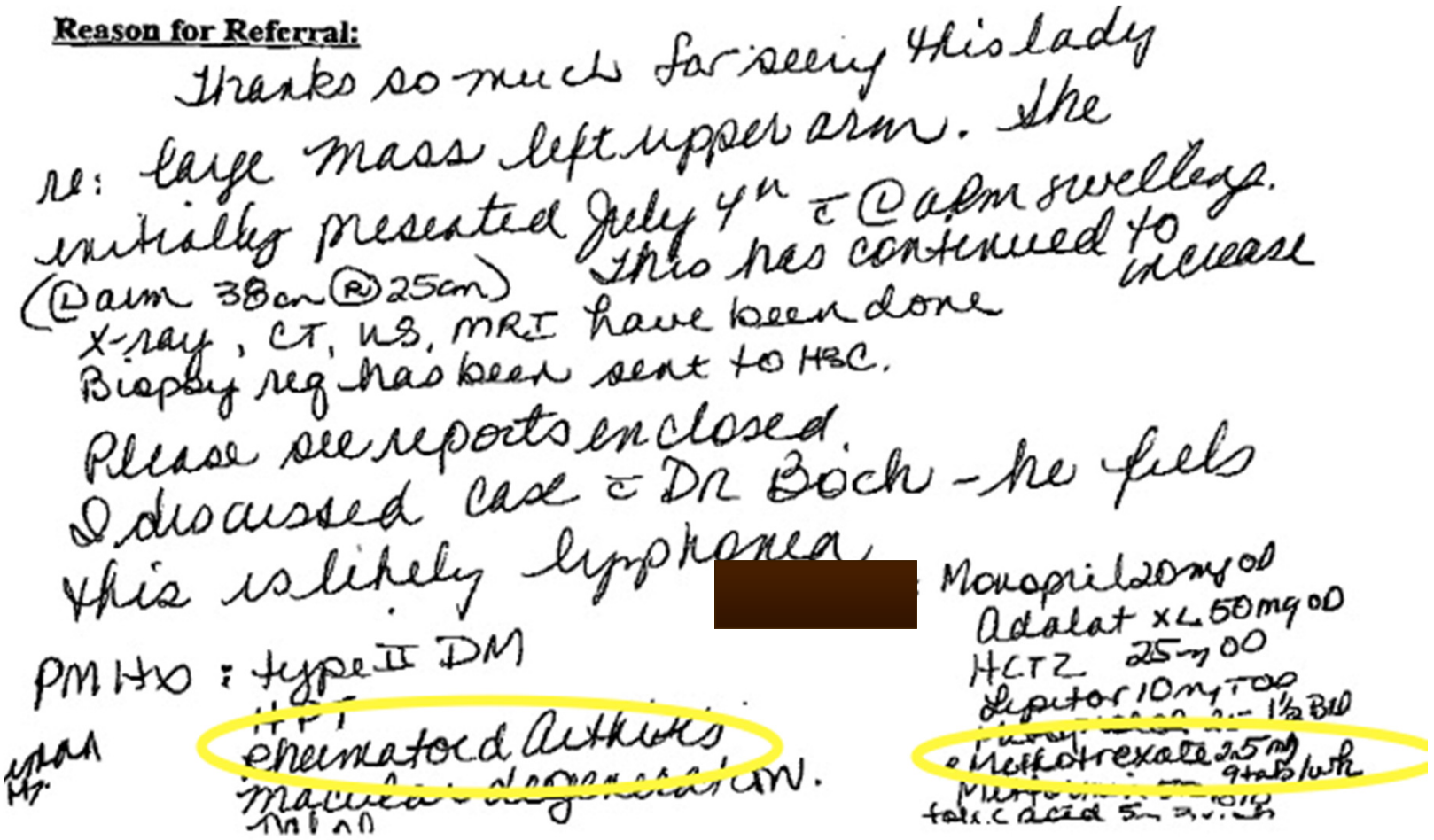
- Primary Care likely to diagnosis one NHL every 2-3 years and one HL in career

1. Cancer, N. C. C. f. (2014). Suspected Cancer: recognition and management of suspected cancer in children, young people and adults National Institute for Health and Care Excellence

Simple Classification



Referral



Reason for Referral:

Thanks so much for seeing this lady re: large mass left upper arm. She initially presented July 4th c @ arm swelling. (L arm 38cm R 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 c Dr Boch - he feels this is likely lymphoma

PMHx: type II DM

rheumatoid Arthritis

Monopril 20mg OD
Adalat XL 50mg OD
HCTZ 25mg OD
Lipitor 10mg TOD
Methotrexate 25mg 9 tabs/wk

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*

Work-Up of Lymphadenopathy Suspicious for LYMPHOMA

Timeline and Legend pg.5

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.

Emergent
- Airway compromise
- Superior vena cava compression
- Spinal cord compression

→ **Send to Emergency Department**

Palpable Lymphadenopathy (LN)
- Abnormal LN: >2-3 cm, persistent enlargement & without obvious cause

Lymphadenopathy on Imaging

→ **History & Physical Exam**
*** Consider your differential diagnosis****
Order CBC, HIV test, Chest X-ray

→ **No ↑ Lymphocyte Count**

High Suspicion / Concerning Features
PROCEED without delay
- HIGH Risk Patients (as above)
- LN + Abnormal Bloodwork (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)

→ **If ANY Concerning features - Determine* best site for diagnostic biopsy**
- **Order URGENT CT scans if not already done,** including neck, chest, abdomen & pelvis
- **Preference for site of biopsy:** Palpable >Mediastinal >CT guided
- **Order CBC, chemistry (including Ca, LDH, Cr) and INR if not already done**

**if assistance is needed contact Hematologist on call for advice*

→ **Continue to Diagnostic pathway pg.2**

→ **If NONE Clinical Follow up**

→ **Persistent / progressive LN** on exam (>4weeks) or imaging (after serial examination)

↑ Lymphocyte Count

→ **Order flow cytometry on peripheral blood** (query CLL vs other lymphoma)

→ **Positive for CLL or monoclonal lymphocyte population**

→ **REFER TO CCMB**

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

In Sixty → All imaging done within 2 weeks

Suspicion of Lymphoma

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

Suspicion of Lymphoma

- Most cases NHL and HL present with lymphadenopathy (LN)
  - May be found incidentally (~ 30%)
- B symptoms seen in aggressive lymphomas especially with high disease burden
  - In isolation neither PPV or Negative Predictive Value (NPV) that high

Suspicion of Lymphoma

- LN most common presentation NHL and HL
  - Most peripheral LN is benign
  - ….What makes LN “suspicious”
    - Size (> 2 cm),persistence, location, multiplicity
    - Clinical context

Suspicion of Lymphoma

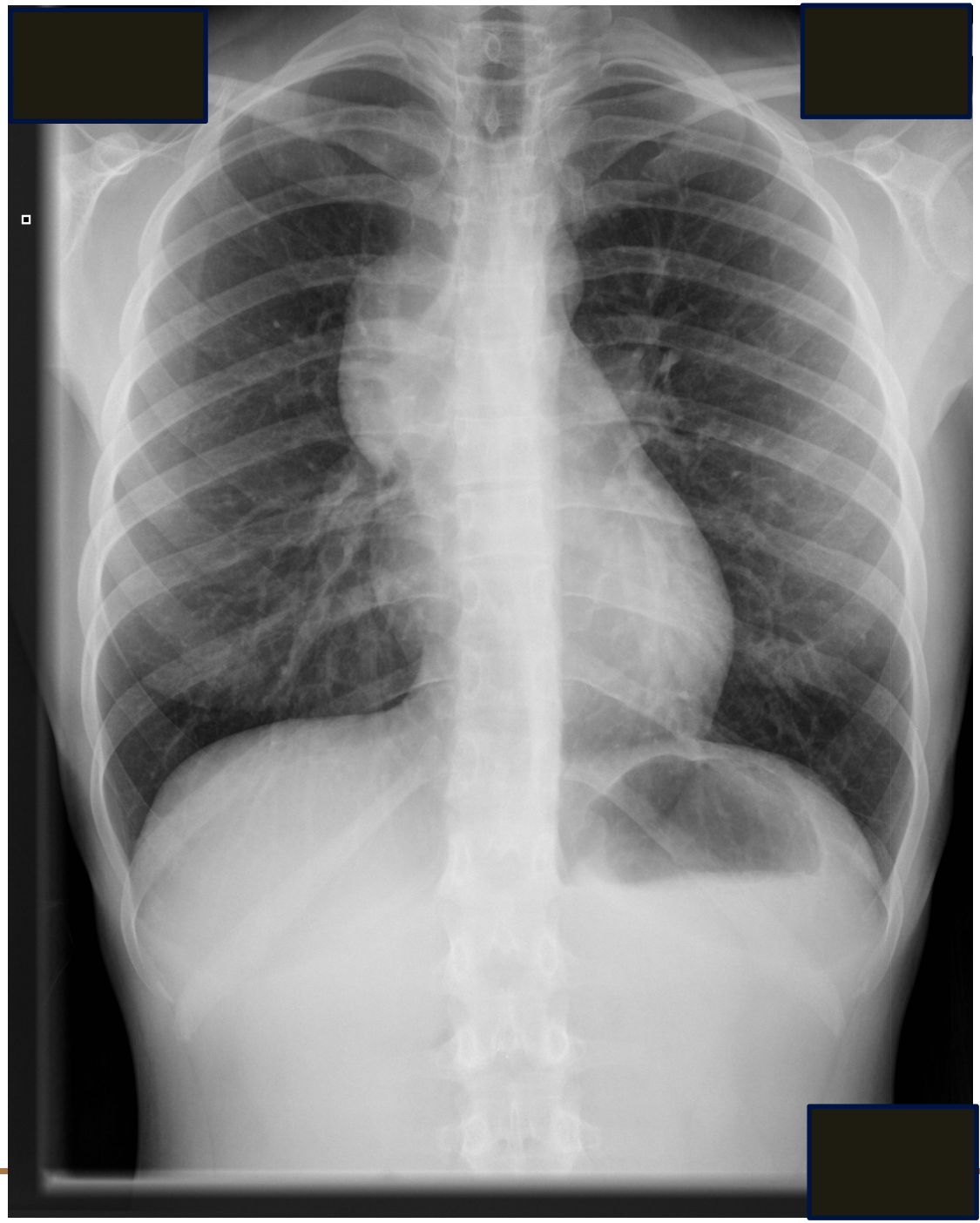
- Aside from LN most clinical symptoms or signs as single features of low predictive value
- Further ⇧ PPV of LN when combined with
  - Weight loss, abdominal complaints, dyspnea
  - Leucocytosis, cytopenias, increased liver enzymes, increased inflammatory markers

Approach to Lymphadenopathy

- History, Examine all LN group
  - Size, consistency, fixation, rapidity of growth
  - Local cause
  - oropharynx, liver, spleen
- **CBC, Chest X-ray, HIV test**
- **Suspicion of malignancy – order CT scan (imaging test of choice in adults)**

Case

- 19 year old female previously well with right neck lymph node (2 x 3 cm)
- Exam otherwise normal
- No symptoms



High Suspicion “red flags”

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IN SIXTY CANCER ACTION

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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

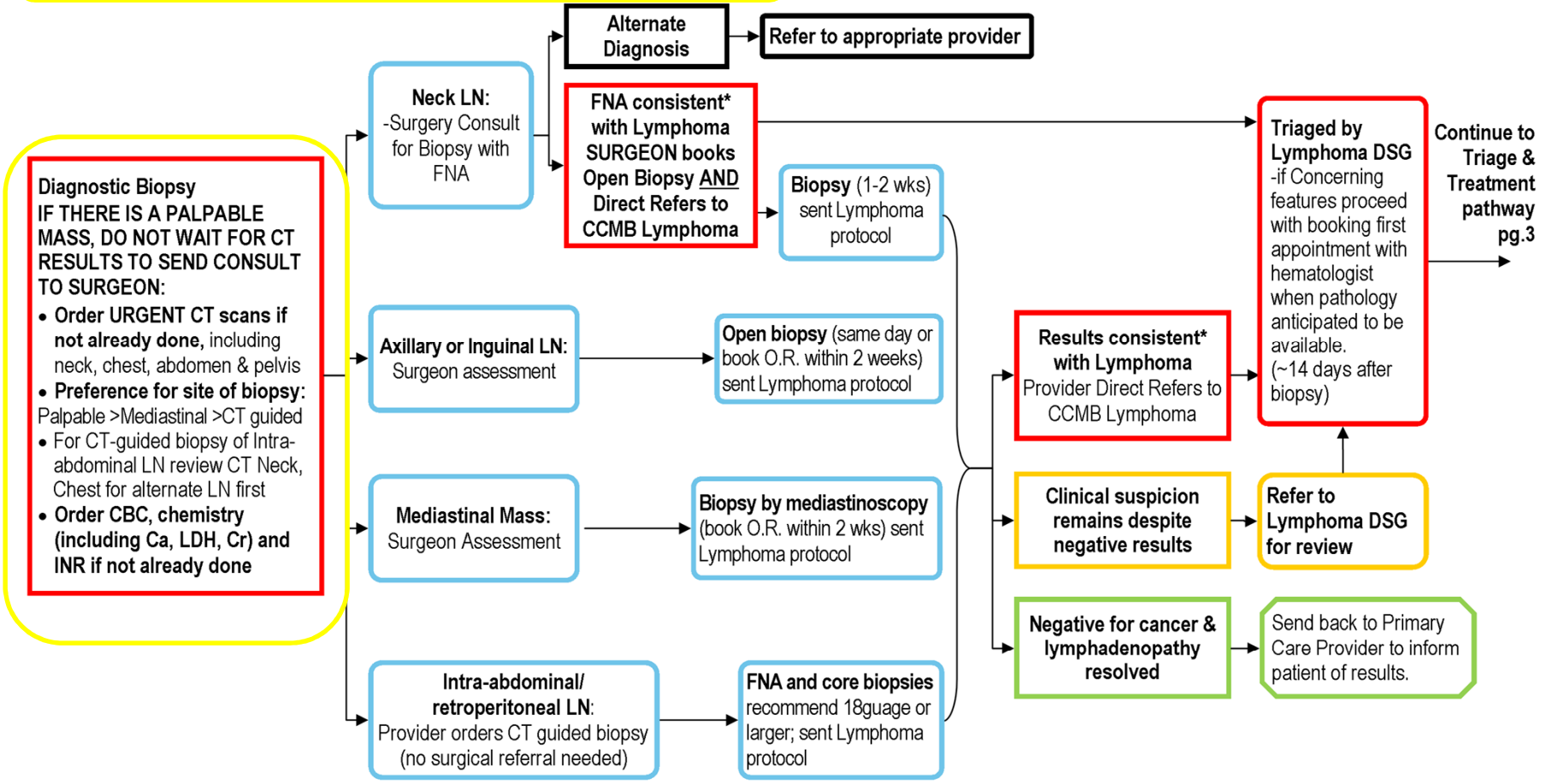
Diagnostic Pathway LYMPHOMA

Timeline and Legend pg.6

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

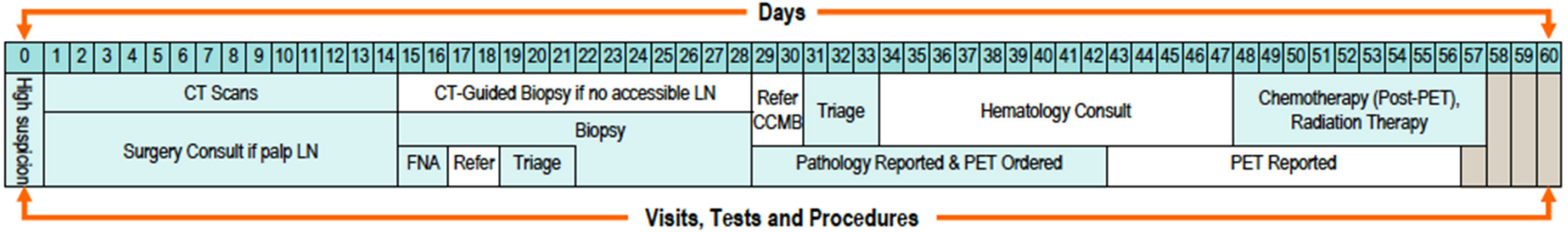
In Sixty — Biopsy results reported within 14 days. Immediate direct referral to CCMB if suspicious of lymphoma)

IN SIXTY
CANCER ACTION

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

Manitoba

*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



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COMMUNITY ONCOLOGY PROGRAM

Take Home Messages

- No one presentation of lymphoma
- Patients with abnormal lymphadenopathy need investigation
  - Consider your differential diagnosis
  - If red flags proceed without delay
  - Please use the clinical pathway developed

Questions?

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