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**Practice Guideline:**

**Clinical Guide**

**Consensus Recommendations for the Routine Use of  
Positron Emission Tomography (PET) Scan Imaging for  
Lymphoma in Manitoba**

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## Preface

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At CancerCare Manitoba (CCMB) the Clinical Practice Guidelines Initiative (CPGI) seeks to improve patient outcomes in terms of survival and quality of life through the development, dissemination, implementation, and evaluation of guidelines for the management of common clinical scenarios encountered by cancer patients throughout the province.

This clinical guide was approved by the Lymphoproliferative Disorders Disease Site Group (DSG).

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## Purpose

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This document is intended as a guide to facilitate an evidence-informed, shared approach to the appropriate use of PET scan imaging in lymphoma in Manitoba.

For this purpose, it may be used by qualified and licensed healthcare practitioners involved with the care of oncology patients, which may include (but is not limited to): physicians, surgeons, nurses, radiation therapists, and pharmacists at CCMB, CCPN sites, Uniting Primary Care Oncology Network (UPCON) clinics, and WRHA Community Oncology Program sites.

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## Disclaimer

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Use of this clinical guide in any setting should not preclude use of the practitioner's independent clinical judgment; nor should it replace consultation with the appropriate oncology specialty when indicated (example: medical or radiation oncology, pharmacy, nursing, etc.). Clinicians are expected to apply the recommendations within boundaries of professional standards and scope of practice, and according to level of training and experience.

It is the responsibility of the practitioner to develop an individualized disease or symptom management plan for each patient under his/her care, and ideally this should take place within the context of an inter-professional team. The needs and preferences of the patient and the family should always be reflected in the plan of care.

This clinical guide document should be viewed as an evidence-informed practice tool, and as such, it does not represent an exhaustive text on the appropriate use of PET scan imaging in lymphoma in Manitoba. Clinicians are advised to use it in their practice concomitantly with information from other evidence-informed sources.

## 1.0 Background

### Aim and Purpose

Development of this clinical guide was undertaken for the purpose of knowledge translation of the current standards in practice for routine use of PET scan imaging in lymphoma in Manitoba. The overall aim is to improve the standard of care received by this patient population, through application of evidence-informed interventions and promotion of best practices.

### Development Process

A multidisciplinary group of medical professionals agreed by consensus to adapt a report from an international conference and to establish a clinical guide for the use of PET scan imaging for patients with lymphoma in Manitoba.

### Patient Population and Healthcare Setting

The recommendations in this clinical guide are applicable to the care of patients with lymphoma. These recommendations are intended for use in both inpatient and outpatient settings.

### End-Users

This clinical guide is written for use by healthcare professionals providing care for the above mentioned patient population. Intended primarily for use by medical clinicians, the clinical guide may be of interest to trainees, physician extenders, allied healthcare staff, healthcare administrators, policy-makers and possibly members of the general public.

## 2.0 Methodology

### Clinical Research Question Development

Prior to beginning a literature search; the working group developed a clinical research question using the PICOT framework (**P**opulation; **I**ntervention; **C**omparison; **O**utcome; **T**ime Frame). Discussion and consensus narrowed the clinical research question to:

*What is the appropriate use of positron emission tomography (PET) scan imaging for lymphoma in Manitoba?*

A limited literature search was performed by the Disease Site Group (DSG). From this search, one international working group report was identified as applicable to the clinical question above. This report was chosen to be adapted for Manitoba's purposes. The adapted recommendations were presented to Nuclear Medicine Physicians involved with the Health Sciences Centre (HSC) PET/CT program and DSG members. After several revisions, consensus was reached among Nuclear Medicine faculty and DSG members for the final recommendations.

### Maintenance

At CancerCare Manitoba clinical guides are considered 'living' documents which require ongoing evaluation, review and updating. Re-evaluation of this clinical guide is planned for 2018. The working group will revise and update the document as needed, with any critical new evidence brought forward before this scheduled review.

### 3.0 Recommendations

Recommendations for PET scan imaging for lymphoma represent the consensus-based opinion of the members of the Working Group and are adapted from the International Conference on Malignant Lymphomas Imaging Working Group.<sup>1</sup>

#### **Hodgkin Lymphoma (HL), Diffuse Large B-Cell Lymphoma (DLBCL), and Other Aggressive Non-Hodgkin Lymphomas (NHL)**

##### **Applications which warrant PET/CT imaging:**

1. Staging prior to treatment\*
2. Response assessment. PET/CT should be performed at least 4 weeks after the end of chemotherapy, and 3 months after radiation therapy
3. Response assessment in patients with relapsed disease including prior to, or following, bone marrow transplant (BMT)
4. Interim PET is recommended only in limited stage HL at this time
5. In patients without complete remission (CR) with areas of uncertain significance on PET/CT, there may be a role for follow-up PET/CT. If a follow-up PET/CT reveals stability, no further PET/CTs are required.

\*Target 2 weeks from results of diagnostic biopsy – if patients require urgent treatment then therapy should not be delayed for baseline PET/CT.

##### **PET/CT is not indicated:**

1. Once CR has been achieved unless relapse is suspected
2. For surveillance

## Other Lymphomas

1. Small lymphocytic leukemia (SLL)/chronic lymphocytic leukemia (CLL), Waldenstroms, marginal zone lymphoma, cutaneous lymphoma
  - a. Not routinely recommended
2. Follicular lymphoma (FL)
  - a. PET/CT should be considered in apparent limited stage disease prior to radiation therapy
  - b. Response assessment in FL with high tumour burden/bulky disease
  - c. PET/CT is recommended in cases of suspected transformed lymphoma

## References

1. Barrington SF, Mikhaeel NG, Kostakoglu L, et al. Role of imaging in the staging and response assessment of lymphoma: consensus of the International Conference on Malignant Lymphomas Imaging Working Group. *J Clin Oncol* 2014;32(27):3048-58.

## 4.0 Implementation and Dissemination

The value of clinical guides truly lies in their implementation and use. For that purpose, consideration was given to implementation during the drafting of this clinical guide document.

### CancerCare Resources

It was recognized that resources would be needed to distribute these recommendations to the community. For that purpose, the clinical guide will be accessible online through the CancerCare Manitoba website. Online availability will be preceded by an e-blast notification with the website embedded. Announcement of the clinical guide and updates will be through established provincial communication channels via the Community Oncology Program to CCPN rural sites, UPCON clinics and WRHA Community Oncology Program sites. Use of the clinical guide in CCMB clinics will be through the online version.

### Educational Events

Presentation of the clinical guide's recommendations will be made available as appropriate at:

- Lymphoproliferative Disorders DSG rounds
- CCMB Hematology/Oncology Regional Grand rounds
- Allied Health rounds (Patient Services rounds)
- CCPN Community Cancer Care annual educational conference
- UPCON education and training events

## 5.0 Contact Physicians and Contributors

### Contact Physicians

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## Acknowledgements

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