



The Use of Lymph Node Surgery for Women with Invasive  
Breast Cancer in Canada

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# Acknowledgements

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# Outline

Background

Methods

Results

Conclusion

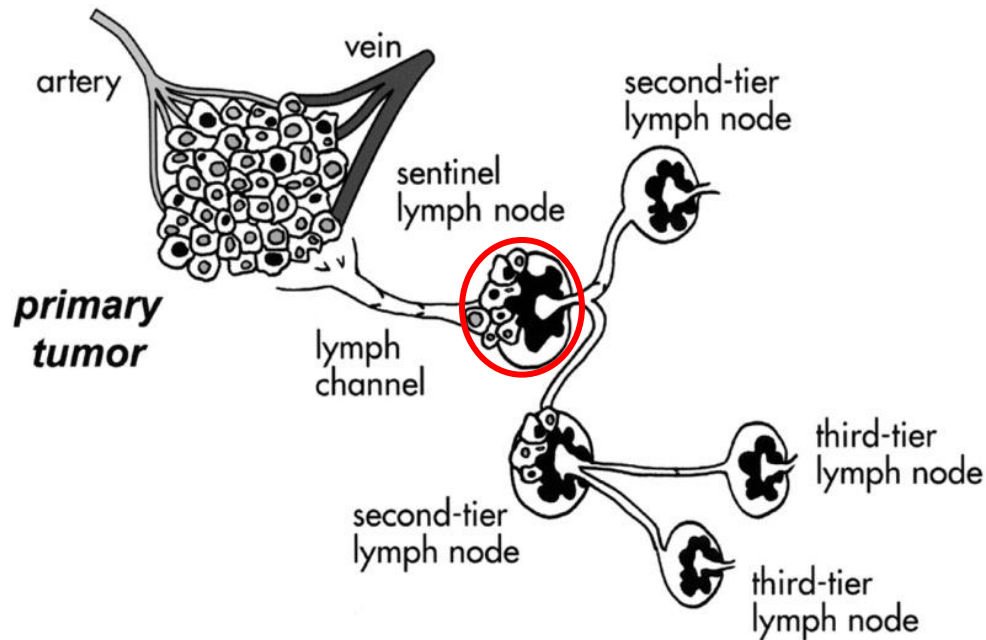
# Background

- Follow up analysis from CIHI-CPAC breast cancer study
- Purpose of analysis is to look at variation in the use of lymph node surgery

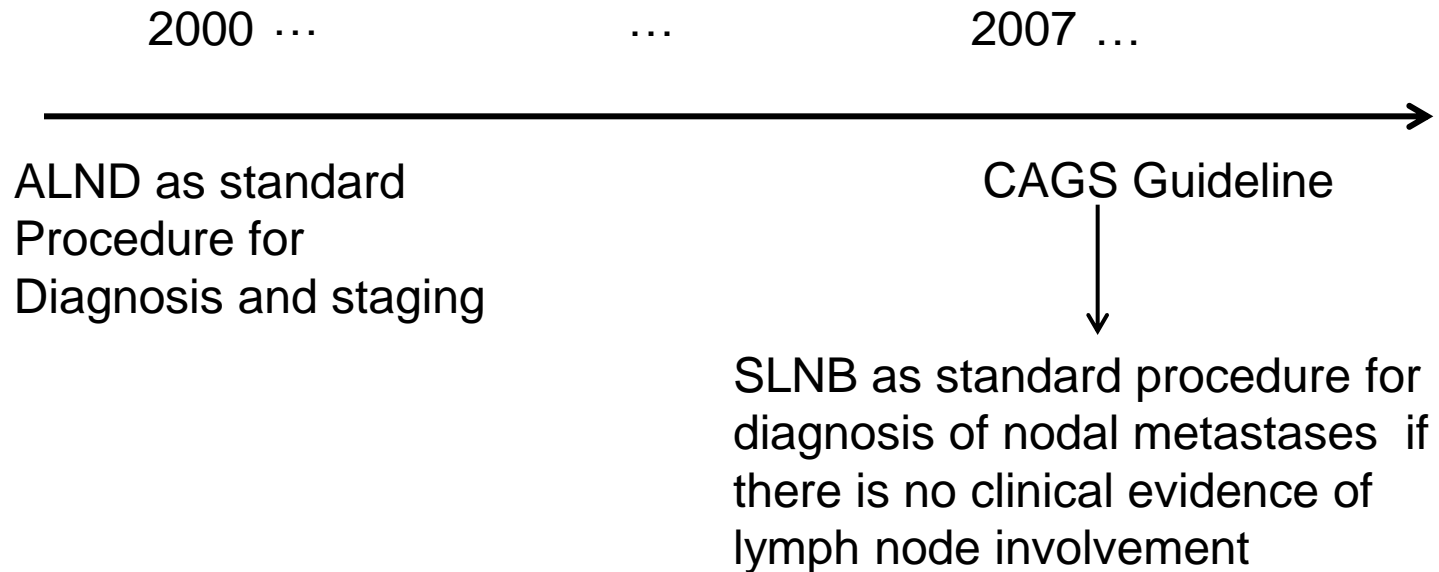


# Background

- Types of commonly used lymph node surgery
  - Sentinel Lymph Node Biopsy (SLNB)
  - Axillary Lymph Node Dissection (ALND)



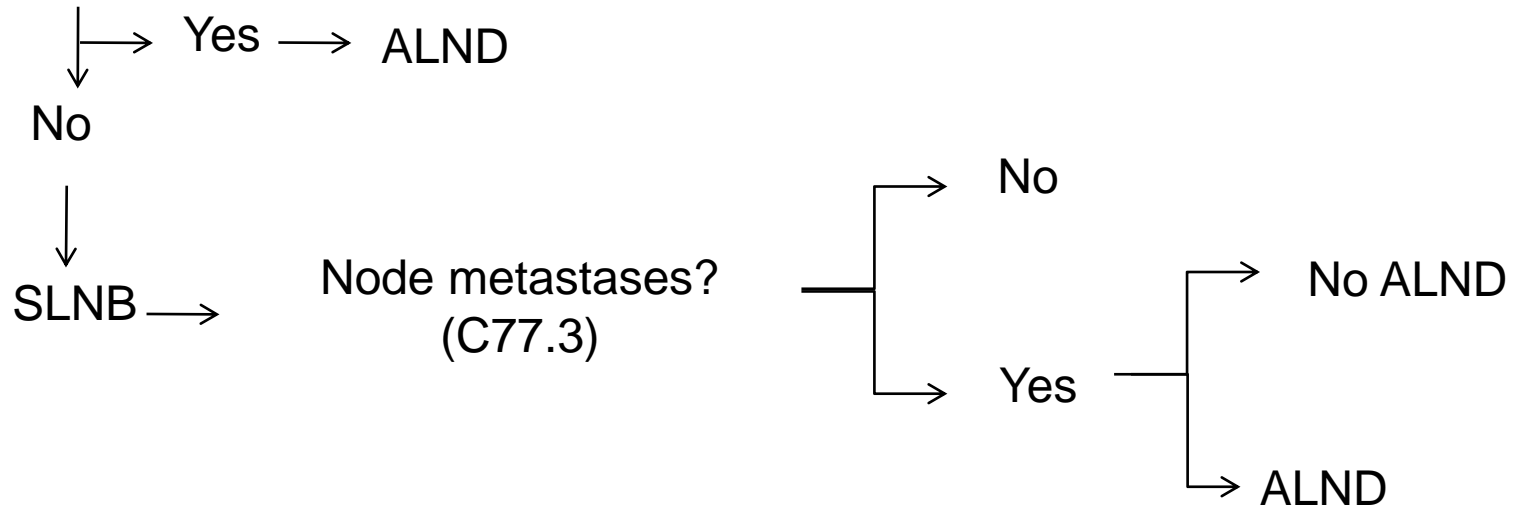
# Evolution of clinical guidelines



# Common Decision Tree for Lymph Node Surgery



Clinical evidence of lymph node involvement?



# Coding standards

## Coding procedures

- SLNB alone → SLNB
- ALND alone → ALND
- SLNB + ALND → ALND

## Coding nodal metastases

- SLNB/ALND positive → Nodal metastases (C77.3)



# Estimate the use of ALND as diagnostic procedure



- Limitation on SLNB coding
- Use of ALND in conjunction with nodal metastases code

ALND  C77.3 



# Methods

Data sources

Study cohort

Index surgery

Treatment episode

# Data sources

- Hospital Morbidity Databases (HMDB), CIHI
- National Ambulatory Care Reporting System (NACRS), CIHI
- Alberta Ambulatory Care Reporting System (AACRS), Alberta Health and Wellness

# Study cohort

- Aged 18 and older
- Female
- Unilateral breast cancer patients

# Index surgery

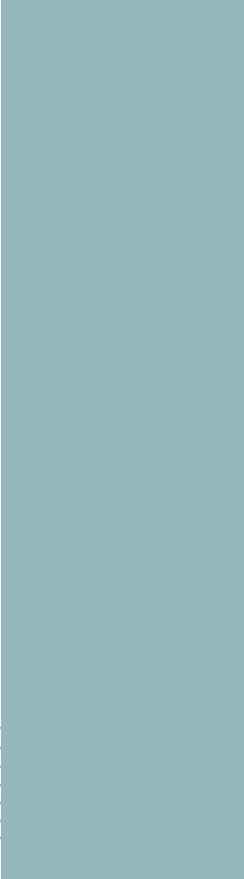
- Patient's first surgical treatment for breast cancer between FY2007 and FY2009

# Treatment episode

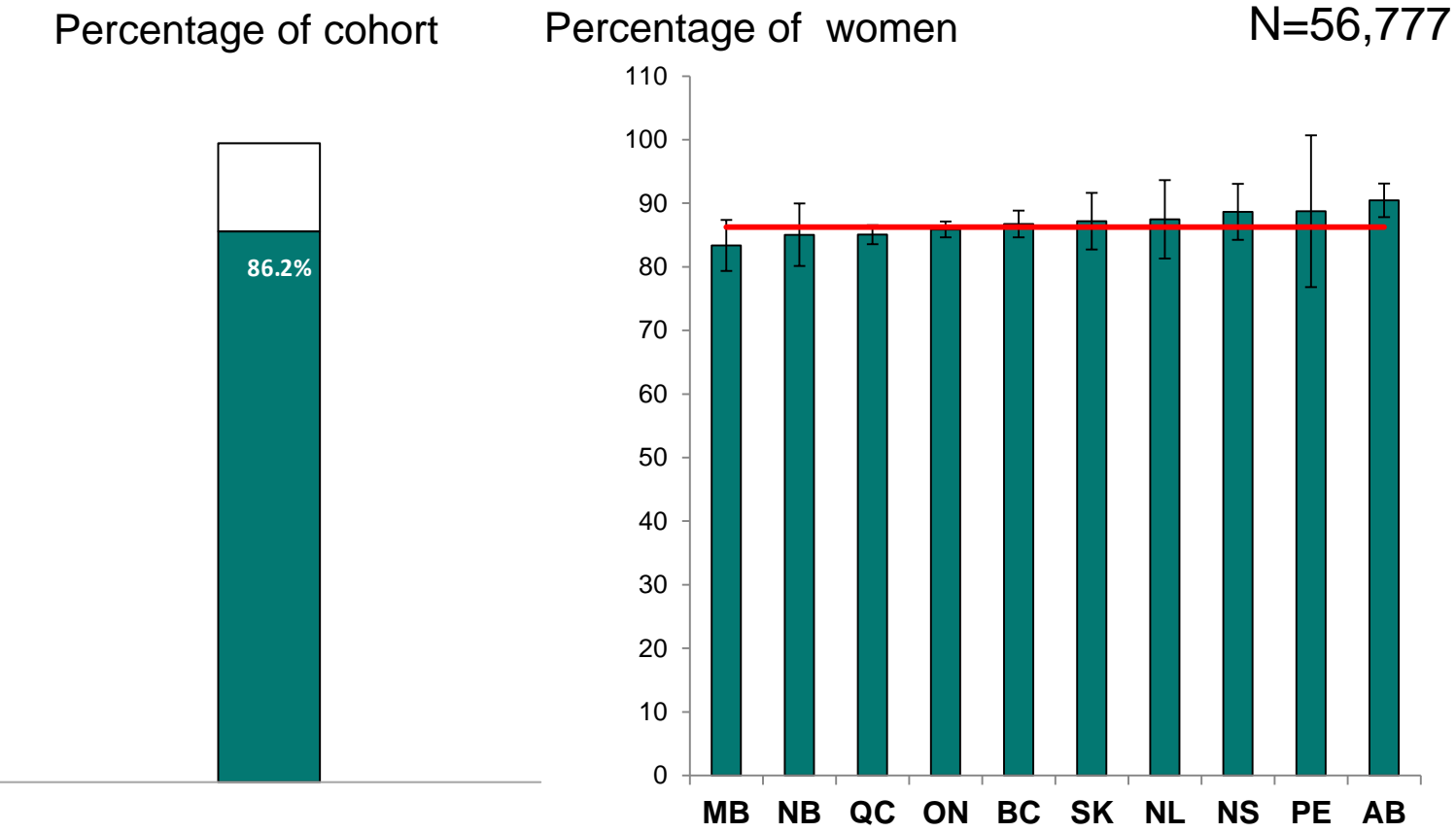
- Women's surgical treatment for breast cancer were followed from her index procedure up to 1 year to build treatment episode
- Lymph node surgery ( ALND, SLNB or Both) were reported based on one-year treatment episode if they co-occurred with breast cancer surgery
  - i.e, lymph node surgery which did not co-occur with the breast cancer surgery was not captured



# Results

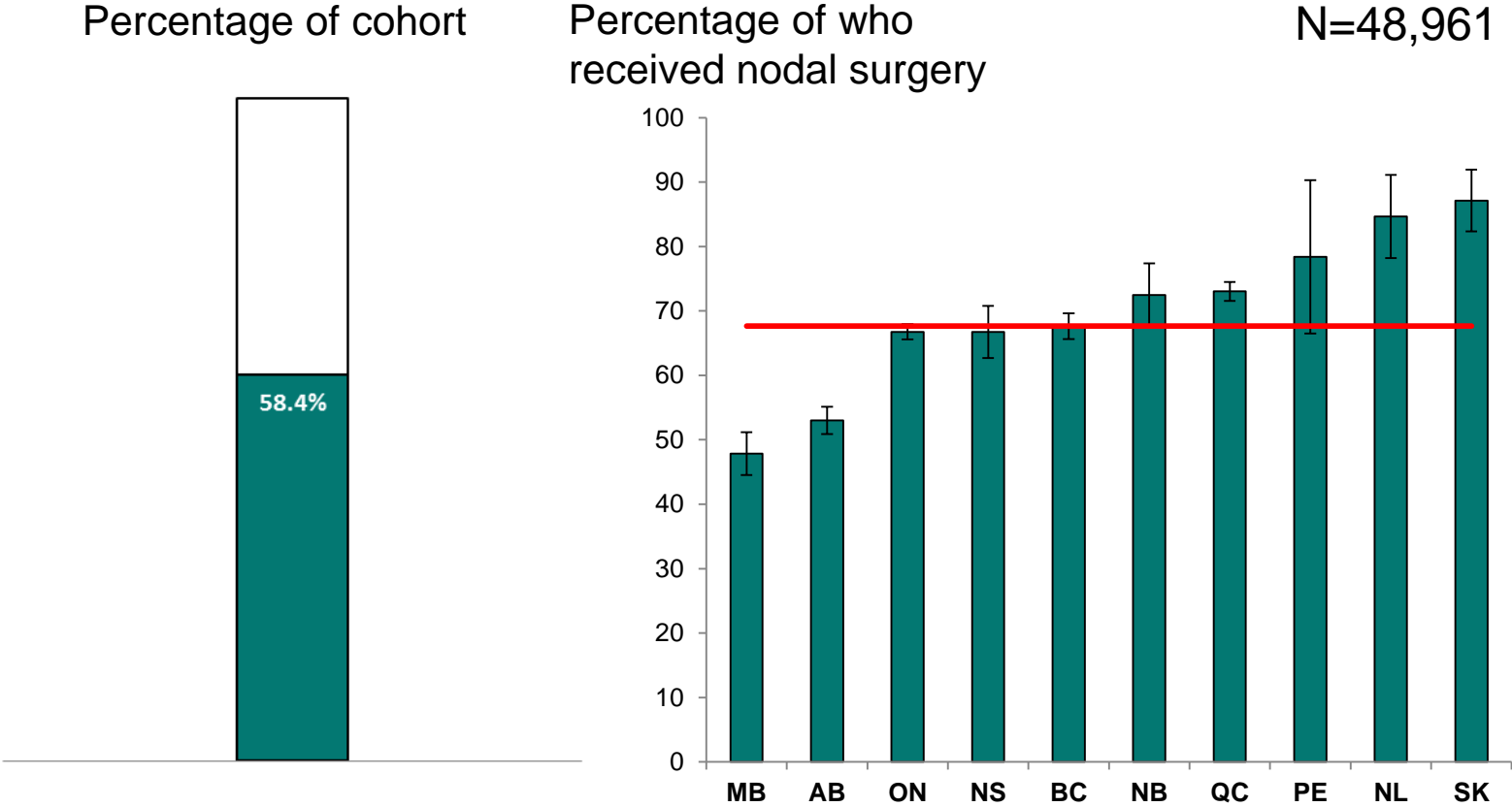


# Use of lymph node surgery among women with unilateral breast cancer (FY2007-2009)





# Use of ALND among women receiving nodal surgery (FY2007-2009)



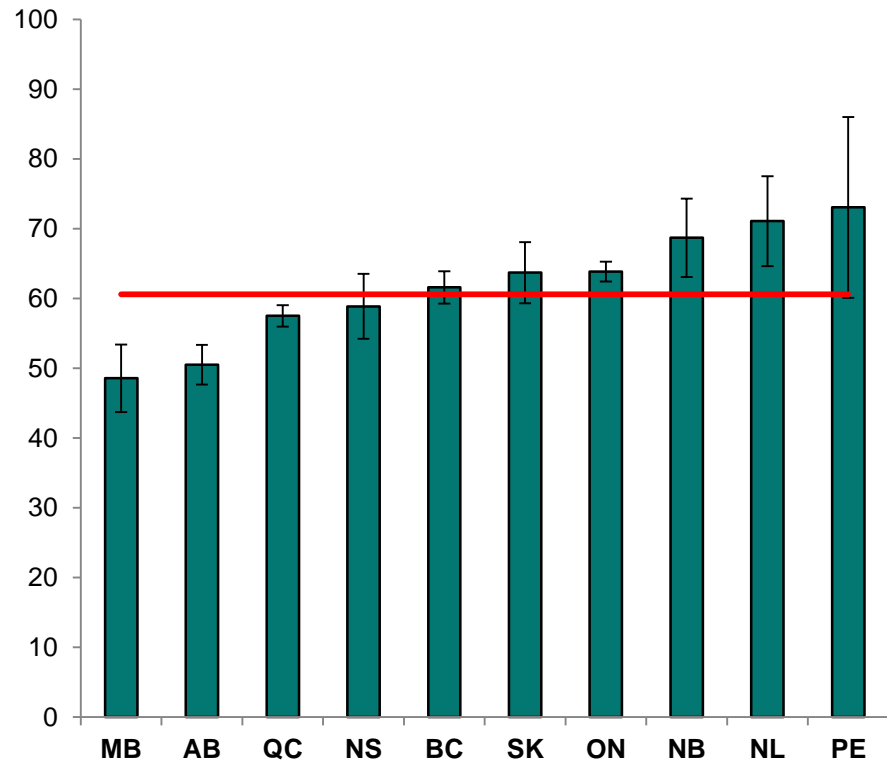
# ALND performed without nodal metastases (FY2007-2009)

Percentage of cohort



Percentage of who  
received ALND

N=33,130



# Considerations in interpreting results

- Clinical considerations
  - Transition to guidelines
  - ALND for the purpose of surgeon training
  - Clinical judgement of lymph node involvement
  - Patient's preference
- Potential data issues



# Conclusion

- A considerable number of women in 2007-2009 underwent an ALND in the absence of nodal metastases (i.e. as a diagnostic procedure) which is not consistent with the current standard of care
- There is a considerable provincial variation in the use of ALND as well as the use of ALND without presence of nodal metastases
- Examining the use of lymph node surgery across Canada presents many challenges

Questions?

