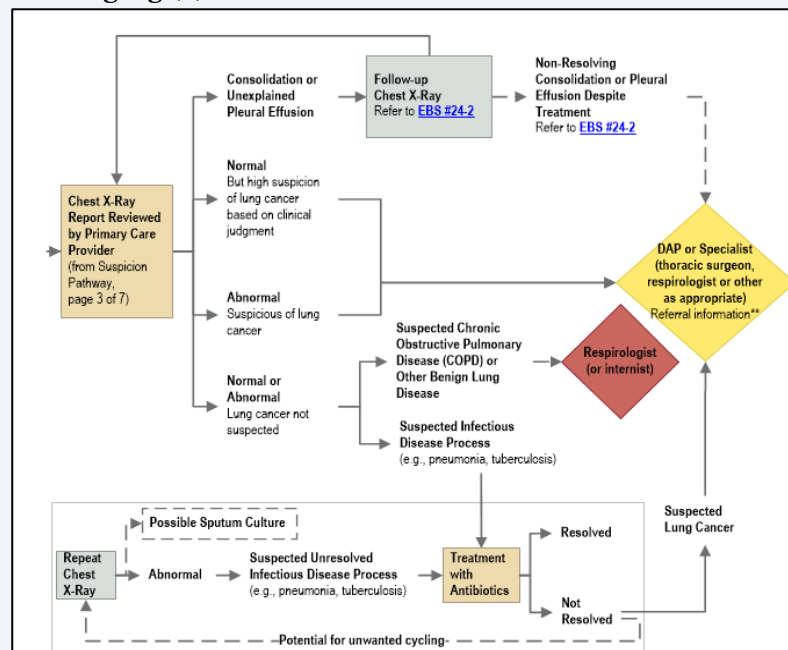


Non-Small Cell Lung Cancer

Intended for use by Clinicians and Health Care Providers involved in the Management or Referral of adult patients with Non-Small Cell Lung Cancer (NSCLC)

Section	Activity	Activity Description	Details	Reference(s)
A	Diagnosis	Presentation and Clinical Work-up	<ul style="list-style-type: none"> As per Cancer Care Ontario (CCO) Lung Cancer Diagnosis Pathway Lung Diagnostic Assessment Program (LDAP) to coordinate care during diagnostic work-up and staging <ul style="list-style-type: none"> LDAP Contact Information: Tel: (613) 549-6666 x7452 Fax: (613) 546-8225 Smoking cessation strongly encouraged for all patients 	CCO Lung Cancer Diagnosis Pathway (1) SERCP Lung DAP Referral Form (2)

Figure 1: Lung Cancer Diagnosis Pathway - Initial Presentation & Imaging (1)



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Section	Activity	Activity Description	Details	Reference(s)
B	Investigations		<ul style="list-style-type: none"> Diagnostic and Staging investigations undertaken as per Cancer Care Ontario (CCO) Lung Cancer Diagnosis Pathway Synoptic pathology reports compliant with CAP guidelines are provided for resected specimens and testing for ALK translocations and EGFR mutations are performed for patients with non-squamous histologies 	CCO Lung Cancer Diagnosis Pathway (1)
		Clinical Stage I	<ul style="list-style-type: none"> Full Pulmonary Function Test (PFT) with DLCO PET scan CT Chest/Abdomen with contrast MRI or CT of Brain 	
		Clinical Stage II-III	<ul style="list-style-type: none"> PET/CT scan CT Chest with contrast MRI or CT of Brain Full Pulmonary Function Test (PFT) with DLCO 	
		Clinical Stage IV or Incurable stage III	<ul style="list-style-type: none"> CT Chest (preferred with contrast when possible) CT Brain (if symptomatic) Bone scan (only for investigation of symptoms) 	
C	Management - Curative		<ul style="list-style-type: none"> Refer to NSCLC Treatment Pathway for additional details Multidisciplinary Cancer Conference (MCC) to be held for all multimodality curative intent patients, and all patients with issues in diagnosis and staging 	CCO NSCLC Treatment Pathway (3)
		Stage I	<ul style="list-style-type: none"> Surgery <ul style="list-style-type: none"> Surgical Resection for all patients who are operable Radiation: 	Cancer Care Ontario Adjuvant/ Curative/

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Section	Activity	Activity Description	Details	Reference(s)
			<ul style="list-style-type: none"> ○ Curative radiation therapy considered for inoperable patients and those declining surgery ● Systemic: <ul style="list-style-type: none"> ○ Adjuvant chemotherapy considered for fit patients with primary tumors greater than 4 cm and/or patients who have undergone potentially curative surgeries ○ Standard adjuvant regimen CisplatinVinorelbine 4 cycles (CISPVINO) 	Neo-Adjuvant Intent Systemic Therapy (4)
		Stage II	<ul style="list-style-type: none"> ● Surgical Resection ● Radiation: <ul style="list-style-type: none"> ○ Curative radiation therapy considered for inoperable patients and those declining surgery ● Systemic: <ul style="list-style-type: none"> ○ Adjuvant chemotherapy considered for fit patients with involvement of regional lymph nodes (hilar, incidentally identified mediastinal involvement) that have undergone potentially curative surgery ○ Standard adjuvant regimen CisplatinVinorelbine 4 cycles (CISPVINO) 	Cancer Care Ontario Adjuvant/ Curative/ Neo-Adjuvant Intent Systemic Therapy (4)
		Stage III A & B	<ul style="list-style-type: none"> ● Systemic & Radiation: <ul style="list-style-type: none"> ○ Concomitant chemotherapy and radiotherapy ○ Standard regimen Cisplatin Vinblastine (CISPVNBL) 	Cancer Care Ontario Adjuvant/ Curative/ Neo-Adjuvant

Non-Small Cell Lung Cancer

Section	Activity	Activity Description	Details	Reference(s)
		Stage IV	<ul style="list-style-type: none"> • Curative therapy considered only in exceptional circumstances individualized by patient 	Intent Systemic Therapy (4)
	Management - Palliative	Stage IV	<ul style="list-style-type: none"> • Includes recurrent stage I, II, III patients and early stage patients who cannot undergo curative therapy • Treatment should be directed toward goals of care: <ul style="list-style-type: none"> ○ Increased survival ○ Relief of cancer-related symptoms ○ Improved quality of life • Palliative Care: <ul style="list-style-type: none"> ○ Early involvement and active participation of the symptom control team recommended and encouraged • Radiation: <ul style="list-style-type: none"> ○ As required for symptom control • Surgery: 	Cancer Care Ontario Palliative Intent Systemic Therapy (5)

Section	Activity	Activity Description	Details	Reference(s)
			<ul style="list-style-type: none"> ○ Occasionally required to assist in the control of intracranial disease, airway and vascular obstruction ● Systemic: <ul style="list-style-type: none"> ○ First Line palliative systemic therapy (for good performance status patients (ECOG \leq 2) without major organ dysfunction) is tailored by histology and molecular features. <ul style="list-style-type: none"> ▪ Non-Squamous: Platinum doublet (CISPPEME, or CISPGEM) ▪ Squamous: Platinum doublet (CISPGEM, or CRBPGEM) ▪ EGFR mutation: Single agent Gefitinib (GEFI) ▪ ALK translocation: Single agent Crizotinib (CRIZ) ○ Second line and further lines of therapy guided by histology, molecular findings, and previous treatment. Options include: <ul style="list-style-type: none"> ▪ Non-Squamous: Pemetrexed (PEME) ▪ Squamous: Docetaxel (DOCE) ▪ Erlotinib PO (ERLO) 	
D	Follow-up with no Evidence of Disease		<ul style="list-style-type: none"> ● There is no standardized evidence supported follow-up protocol for patients treated with curative or palliative intent ● The following is usual practice for most patients treated with curative intent: <ul style="list-style-type: none"> ○ Year 1 and 2 clinic assessment every 3-4 months 	

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Section	Activity	Activity Description	Details	Reference(s)
			<p>(symptom screening and chest x-ray)</p> <ul style="list-style-type: none"> ○ Year 3 and 4 clinic assessment every 6 months (symptom screening and chest x-ray) ○ Year 5 clinical assessment at annual visit and further follow-up by Primary Care Provider <p>Other investigations ordered as clinically indicated</p>	
E	Controversies		<ul style="list-style-type: none"> • Staging: routine mediastinoscopy/ EBUS in patients with PET positive nodal involvement undergoing curative treatment • SABR vs. Surgery in localized Non-Small Cell Lung Cancer • Trimodality therapy for stage 111A disease • Adjuvant chemotherapy after curative radiation therapy for patients with primary tumours > 4cm • Maintenance chemotherapy in palliation of patients with incurable disease • Value of CT chest in routine follow-up 	
F	Clinical Trials		Please refer to the Clinical Trials website for active local studies	Cancer Centre of Southeastern Ontario Clinical Trials (6)

References

1. **Cancer Care Ontario (CCO) Disease Pathway Management.** Lung Cancer Diagnosis Pathway. *Cancer Care Ontario*. [Online] 2012. <https://www.cancercare.on.ca/common/pages/UserFile.aspx?fileId=298429>.
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4. **Cancer Care Ontario (CCO) Systemic Treatment Program.** Adjuvant/ Curative/ Neo-Adjuvant Non-Small Cell Lung Cancer Regimens. *Systemic Treatment Funding Model*. [Online] February 2015. <https://www.cancercare.on.ca/common/pages/UserFile.aspx?fileId=321791>.
5. **Cancer Care Ontario (CCO) Systemic Treatment Program (Palliative).** Palliative Non-Small Cell Lung Cancer Regimens. *Systemic Treatment Funding Model*. [Online] February 2015. <https://www.cancercare.on.ca/common/pages/UserFile.aspx?fileId=300416>.
6. **Cancer Centre of Southeastern Ontario.** Oncology Clinical Trials. *Cancer Centre of Southeastern Ontario at Kingston General Hospital*. [Online] <http://www.kgh.on.ca/en/research/groupsanddepartments/researchgroups/Pages/clinicaltrials.aspx>.

Revisions

- 2014/04/11: Draft created
- 2014/10/31: Revisions by Standard Management Guideline Lead and Disease Site Chair (R. Gregg)
- 2014/11/17: Revisions by Standard Management Guideline Lead and Disease Site Chair (R. Gregg), addition of links
- 2015/01/21: Discussed at Disease Site Chairs Council meeting (2015/01/21)
- 2015/01/30: Revisions based on feedback from Disease Site Chairs Council Meeting
- 2015/03/06: Revisions to pathology components (Section B – Investigations), addition of high resolution figures (Section A – Diagnosis)