

Supplemental Table 3. Summary of quality assessments of screened guidelines

Title	Year	Overall quality		Recommendation		Final inclusion
		Mean K-AGREEII score	Number of reviewers	Mean K-AGREEII score	Number of reviewers	
<i>1) What are the indications for PTNB for lung lesions?</i>						
Guideline on Management of Solitary Pulmonary Nodule (1)	2014	42	4	29	4	No
BTS guideline on the investigation and management of pulmonary nodules (2)	2015	85	11	96	4	Yes
SEOM clinical guidelines for the treatment of NSCLC (3)	2015	25	4	4	4	No
Evaluation of Individuals With Pulmonary Nodules: When Is It Lung Cancer? Diagnosis and Management of Lung Cancer, 3rd ed: ACCP Evidence-Based Clinical Practice Guidelines (4)	2013	83	8	79	4	Yes
Australian recommendations for EGFR T790M testing in advanced NSCLC (5)	2017	29	8	21	4	No
Guidelines for management of incidental pulmonary nodules detected on CT images From the Fleischner Society 2017 (6)	2017	54	4	79	4	Yes
Establishing the Diagnosis of Lung Cancer, Diagnosis and Management of Lung Cancer, 3rd ed: ACCP Evidence-Based Clinical Practice Guidelines (7)	2013	80	11	79	4	Yes
BTS guidelines for radiologically guided lung biopsy (8)	2003	63	14	79	4	Yes
Special Treatment Issues in Non-small Cell Lung Cancer: Diagnosis and Management of Lung Cancer, 3rd ed: ACCP Evidence-Based Clinical Practice Guidelines (9)	2013	71	4	54	4	Yes
Executive Summary: Diagnosis and Management of Lung Cancer, 3rd ed: ACCP Evidence-Based Clinical Practice Guidelines (10)	2013	52	14	71	4	Yes
Small Cell and Non-Small Cell Lung Cancer: Diagnosis, Treatment and Follow-up (KCE)(11)	2013	47	11	79	4	No
Lung cancer: diagnosis and management, CG121 (NICE)(12)	2011	67	11	79	4	Yes
Management of lung cancer: A national clinical guideline (SIGN)(13)	2014	83	8	79	4	Yes

Guideline Recommendations for EGFR Mutation Testing in Lung Cancer (14)	2013	29	4	29	4	No
Evidence-based best practices for EGFR T790M testing in lung cancer in Canada (15)	2018	29	4	21	4	No
Molecular Testing Guideline for the Selection of Patients With Lung Cancer for Treatment With Targeted Tyrosine Kinase Inhibitors (16)	2018	75	4	46	4	No
Metastatic non-small-cell lung cancer, consensus on pathology and molecular tests, first-line, second-line, and third-line therapy, 1st ESMO Consensus Conference in Lung Cancer (17)	2011	50	4	46	4	No
Small-cell lung cancer (SCLC), ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up (18)	2013	46	4	29	4	No
2nd ESMO Consensus Conference on Lung Cancer, non-small-cell lung cancer first-line, second and further lines of treatment in advanced disease (19)	2014	54	4	46	4	No
2nd ESMO consensus conference on lung cancer, pathology and molecular biomarkers for non-small-cell lung cancer (20)	2014	46	8	46	4	No
2nd ESMO Consensus Guidelines, Early stage non-small cell lung cancer consensus on diagnosis, treatment and follow-up (21)	2014	50	4	42	4	No
Early-Stage and Locally Advanced (non-metastatic) Non-Small-Cell Lung Cancer, ESMO Clinical Practice Guidelines (22)	2017	46	8	54	4	No
Metastatic non-small cell lung cancer: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up (23)	2018	50	8	63	4	Yes
Invasive Staging: the guidelines (24)	2003	58	8	79	4	Yes
ACR Appropriateness Criteria® Radiologic Management of Thoracic Nodules and Masses (25)	2012	45	11	71	4	No
2) What is the appropriate laboratory and imaging evaluation for patients before PTNB?						
Executive Summary: Diagnosis and Management of Lung Cancer, 3rd ed: ACCP Evidence-Based Clinical Practice Guidelines	2013	52	14	0	3	No
Lung cancer: diagnosis and management, CG121 (NICE)(12)	2011	67	11	11	3	No
Small Cell and Non-Small Cell Lung Cancer: Diagnosis, Treatment and Follow-up (KCE)(11)	2013	47	11	0	3	No
BTS guidelines for radiologically guided lung biopsy (8)	2003	63	3	100	3	Yes
3) What are the appropriate techniques for PTNB of lung lesions?						
Diagnosis of Lung Cancer: the guidelines (26)	2003	54	4	42	4	No

Establishing the Diagnosis of Lung Cancer, Diagnosis and Management of Lung Cancer, 3rd ed: ACCP Evidence-Based Clinical Practice Guidelines (7)	2013	80	11	75	4	Yes
Invasive Staging: the guidelines (24)	2003	58	8	46	4	No
Lung cancer: diagnosis and management, CG121 (NICE)(12)	2011	67	11	88	4	Yes
Small Cell and Non-Small Cell Lung Cancer: Diagnosis, Treatment and Follow-up (KCE)(11)	2013	47	11	25	4	No
BTS guidelines for radiologically guided lung biopsy (8)	2003	63	14	67	4	Yes
Management of lung cancer: A national clinical guideline (SIGN)(13)	2014	83	8	58	4	Yes
Executive Summary Diagnosis and Management of Lung Cancer, 3rd ed: ACCP Evidence-Based Clinical Practice Guidelines (10)	2013	52	14	63	4	Yes
BTS guidelines for the investigation and management of pulmonary nodules (2)	2015	85	11	79	4	Yes
Early and locally advanced NSCLC: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up (22)	2017	46	8	25	4	No
Metastatic non-small cell lung cancer: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up (23)	2018	50	8	38	4	No
Second ESMO consensus conference on lung cancer: pathology and molecular biomarkers for non-small-cell lung cancer (20)	2014	46	8	29	4	No
Evaluation of Individuals With Pulmonary Nodules: When Is It Lung Cancer? Diagnosis and Management of Lung Cancer, 3rd ed: ACCP Evidence-Based Clinical Practice Guidelines (4)	2013	83	8	75	4	Yes
ACR Appropriateness Criteria® Radiologic Management of Thoracic Nodules and Masses (25)	2012	45	11	58	4	No
Australian recommendations for EGFR T790M testing in advanced NSCLC (5)	2017	29	8	25	4	No
4) What is the appropriate management of acute PTNB-related complications?						
BTS guidelines for radiologically guided lung biopsy (8)	2003	63	14	67	3	Yes
ACR Appropriateness Criteria®Radiologic Management of Thoracic Nodules and Masses (25)	2012	45	11	22	3	No
Executive Summary Diagnosis and Management of Lung Cancer, 3rd ed: ACCP Evidence-Based Clinical Practice Guidelines (10)	2013	52	14	56	3	Yes
Establishing the Diagnosis of Lung Cancer, Diagnosis and Management of Lung Cancer, 3rd ed: ACCP Evidence-Based Clinical Practice Guidelines (7)	2013	80	11	72	3	Yes
BTS guidelines for the investigation and management of pulmonary nodules (2)	2015	85	11	78	3	Yes

Management of Spontaneous Pneumothorax and Postinterventional Pneumothorax German S3-guideline (27)	2018	39	3	61	3	No
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Abbreviation: ACCP=American College of Chest Physicians; ACR=American College of Radiology; BTS=British Thoracic Society; ESMO=European Society for Medical Oncology; KCE= Belgian Health Care Knowledge Centre; NICE=National Institute for Health and Clinical Excellence; NSCLC=Non-small cell lung cancer; SEOM=Sociedad Española de Oncología Médica; SIGN=Scottish Intercollegiate Guidelines Network. The number in the parenthesis indicates the number of reference in this supplemental document.

References

1. Alvarez Martinez CJ, Bastarrika Aleman G, Disdier Vicente C, Fernandez Villar A, Hernandez Hernandez JR, Maldonado Suarez A et al. Guideline on management of solitary pulmonary nodule. Arch Bronconeumol 2014;50:285-293
2. Callister ME, Baldwin DR, Akram AR, Barnard S, Cane P, Draffan J et al. British thoracic society guidelines for the investigation and management of pulmonary nodules. Thorax 2015;70 Suppl 2:ii1-ii54
3. Garcia-Campelo R, Bernabe R, Cobo M, Corral J, Coves J, Domine M et al. Seom clinical guidelines for the treatment of non-small cell lung cancer (nslc) 2015. Clin Transl Oncol 2015;17:1020-1029
4. Gould MK, Donington J, Lynch WR, Mazzone PJ, Midthun DE, Naidich DP et al. Evaluation of individuals with pulmonary nodules: When is it lung cancer? Diagnosis and management of lung cancer, 3rd ed: American college of chest physicians evidence-based clinical practice guidelines. Chest 2013;143:e93S-e120S
5. John T, Bowden JJ, Clarke S, Fox SB, Garrett K, Horwood K et al. Australian recommendations for egfr t790m testing in advanced non-small cell lung cancer. Asia Pac J Clin Oncol 2017;13:296-303
6. MacMahon H, Naidich DP, Goo JM, Lee KS, Leung ANC, Mayo JR et al. Guidelines for management of incidental pulmonary nodules detected on ct images: From the fleischner society 2017. Radiology 2017;284:228-243
7. Rivera MP, Mehta AC, Wahidi MM. Establishing the diagnosis of lung cancer: Diagnosis and management of lung cancer, 3rd ed:

American college of chest physicians evidence-based clinical practice guidelines. Chest 2013;143:e142S-e165S

8. Manhire A, Charig M, Clelland C, Gleeson F, Miller R, Moss H et al. Guidelines for radiologically guided lung biopsy. Thorax 2003;58:920-936
9. Kozower BD, Larnar JM, Detterbeck FC, Jones DR. Special treatment issues in non-small cell lung cancer: Diagnosis and management of lung cancer, 3rd ed: American college of chest physicians evidence-based clinical practice guidelines. Chest 2013;143:e369S-e399S
10. Detterbeck FC, Lewis SZ, Diekemper R, Addrizzo-Harris D, Alberts WM. Executive summary: Diagnosis and management of lung cancer, 3rd ed: American college of chest physicians evidence-based clinical practice guidelines. Chest 2013;143:7S-37S
11. Centre BHCK. Small cell and non-small cell lung cancer: Diagnosis, treatment and follow-up (kce). 2013:https://kce.fgov.be/sites/default/files/atoms/files/KCE_206_lung_cancer.pdf
12. Excellence NIfHaC. Lung cancer: Diagnosis and management (nice guideline 121). 2011:<https://www.nice.org.uk/guidance/cg121>
13. Network SIG. Sign 137 management of lung cancer. 2014
14. Shim HS, Chung JH, Kim L, Chang S, Kim WS, Lee GK et al. Guideline recommendations for egfr mutation testing in lung cancer: Proposal of the korean cardiopulmonary pathology study group. Korean J Pathol 2013;47:100-106
15. Stockley T, Souza CA, Cheema PK, Melosky B, Kamel-Reid S, Tsao MS et al. Evidence-based best practices for egfr t790m testing in lung cancer in canada. Curr Oncol 2018;25:163-169

16. Kalemkerian GP, Narula N, Kennedy EB, Biermann WA, Donington J, Leighl NB et al. Molecular testing guideline for the selection of patients with lung cancer for treatment with targeted tyrosine kinase inhibitors: American society of clinical oncology endorsement of the college of american pathologists/international association for the study of lung cancer/association for molecular pathology clinical practice guideline update. *J Clin Oncol* 2018;36:911-919
17. Felip E, Gridelli C, Baas P, Rosell R, Stahel R, Panel M. Metastatic non-small-cell lung cancer: Consensus on pathology and molecular tests, first-line, second-line, and third-line therapy: 1st esmo consensus conference in lung cancer; lugano 2010. *Ann Oncol* 2011;22:1507-1519
18. Fruh M, De Ruyscher D, Popat S, Crino L, Peters S, Felip E et al. Small-cell lung cancer (sclc): Esmo clinical practice guidelines for diagnosis, treatment and follow-up. *Ann Oncol* 2013;24 Suppl 6:vi99-105
19. Besse B, Adjei A, Baas P, Meldgaard P, Nicolson M, Paz-Ares L et al. 2nd esmo consensus conference on lung cancer: Non-small-cell lung cancer first-line/second and further lines of treatment in advanced disease. *Ann Oncol* 2014;25:1475-1484
20. Kerr KM, Bubendorf L, Edelman MJ, Marchetti A, Mok T, Novello S et al. Second esmo consensus conference on lung cancer: Pathology and molecular biomarkers for non-small-cell lung cancer. *Ann Oncol* 2014;25:1681-1690
21. Vansteenkiste J, Crino L, Doooms C, Douillard JY, Faivre-Finn C, Lim E et al. 2nd esmo consensus conference on lung cancer: Early-stage non-small-cell lung cancer consensus on diagnosis, treatment and follow-up. *Ann Oncol* 2014;25:1462-1474
22. Postmus PE, Kerr KM, Oudkerk M, Senan S, Waller DA, Vansteenkiste J et al. Early and locally advanced non-small-cell lung cancer

(nsccl): Esmo clinical practice guidelines for diagnosis, treatment and follow-up. Ann Oncol 2017;28:iv1-iv21

23. Planchard D, Popat S, Kerr K, Novello S, Smit EF, Faivre-Finn C et al. Metastatic non-small cell lung cancer: Esmo clinical practice guidelines for diagnosis, treatment and follow-up. Ann Oncol 2018;29:iv192-iv237

24. Detterbeck FC, DeCamp MM, Jr., Kohman LJ, Silvestri GA, American College of Chest P. Lung cancer. Invasive staging: The guidelines. Chest 2003;123:167S-175S

25. Ray CE, Jr., English B, Funaki BS, Burke CT, Fidelman N, Ginsburg ME et al. Acr appropriateness criteria(r) radiologic management of thoracic nodules and masses. J Am Coll Radiol 2012;9:13-19

26. Rivera MP, Detterbeck F, Mehta AC, American College of Chest P. Diagnosis of lung cancer: The guidelines. Chest 2003;123:129S-136S

27. Schnell J, Beer M, Eggeling S, Gesierich W, Gottlieb J, Herth F et al. Management of spontaneous pneumothorax and postinterventional pneumothorax: German s3-guideline. Zentralbl Chir 2018;143:S12-S43