Appendix 1: DHB Respiratory and Sleep Services Questionnaire. (Reproduced as supplementary material to this publication.)

Part 1. General information

1. Which district health board do you work in?
2. Who is the clinical lead responsible for adult respiratory and adult sleep services in the DHB you work with?
   Please provide name, role and speciality below.
3. Are there any respiratory disorders included in your DHB list of health priorities?
   • Yes
   • No
4. Does your DHB provide adult respiratory services from more than one hospital site?
   • Yes
   • No
   • If Yes, please list hospital sites here:
5. Please provide details of the number of FTEs in your DHB dedicated to audit respiratory services for the following personnel.
   Please enter your answer in tenths as a whole number i.e., 0.8FTE would be 8 tenths = enter 8.
   • Respiratory Physician
   • Sleep Physician
   • Respiratory Nurse Practitioner
   • Respiratory Nurse Specialist
   • Respiratory Nurse
   • Physiotherapist
   • Occupational Therapist
   • Smoking Cessation Practitioners
   • Respiratory Physiologist
   • Community Health Worker
   • Social Worker
   • Sleep Physiologist/Dedicated Sleep Nurse
   • Health Psychologist
   • Thoracic Surgeon
   • Radiologist respiratory imaging
   • Registrars
   • Advanced Trainees
   • Other
6. Does your DHB have a dedicated adult respiratory specialist service?
   • Yes
   • No
7. Does your DHB have a dedicated paediatric respiratory specialist service?
   • Yes
   • No
8. Does your DHB have a dedicated adult acute respiratory specialist service?
   • Yes
   • No
9. Does the general medical service also provide inpatient care for patients with acute respiratory illness?
   • Yes
   • No
10. Does the general medicine service provide acute cover for adult respiratory admissions out of hours?
    • Yes
    • No
11. What is the number of acute respiratory admissions under general medicine per year?
12. Does your DHB provide elective respiratory outpatient clinics?
    • Yes
    • No
13. What is the number of respiratory First Specialist Assessments (FSA) delivered per year?
14. What is the number of respiratory Follow Ups (FU) delivered per year?
15. Does your service use Respiratory Nurse Practitioner (NP) or Clinical Nurse Specialist (CNS) to deliver FSAs?
    • Yes
    • No

Appendix 1: DHB Respiratory and Sleep Services Questionnaire. (Reproduced as supplementary material to this publication.)
16. Does your DHB provide respiratory outpatient clinics on more than one site?

• Yes
• No
• If Yes, please list sites

17. Does your DHB provide any respiratory nurse led services?

• Yes
• No

18. Does your nurse led service provide any of the following services?

• OPD
• Asthma
• Bronchiectasis
• Interstitial Lung Disease
• Cystic Fibrosis
• Other (please specify)

19. Who within your DHB provides community based respiratory clinics?

• Physician
• Respiratory NP
• Respiratory CNS
• Specialty RN
• Other (please specify)

Part 2. Diagnostic procedures

20. Please indicate which of the following diagnostic tests are available within your DHB:

• CTPA/HRCT
• Isotope Nuclear Medicine Scan
• PET Scan
• CT Guided Lung Biopsy
• CT or US pleural Biopsy
• Bronchial Artery Embolisation
• Bronchoscopy
• Bronchoscopic blind TBNA
• EBUS
• Bronchoscopic Transbronchial Lung Biopsy TBB
• Cryo Biopsy
• BAL for ILD
• Laser
• Large Airway Stenting
• Bronchial Valve Insertion for management of bronchopleural fistula
• Bronchial Valve Insertion for bronchoscopic lung volume reduction
• Medical Thoracoscopy
• Surgical Thoracoscopy
• Bedside Ultrasound for Pleural Procedures
• Cardiopulmonary Exercise testing
• Right Heart Catheterisation
• Lung Fuction Testing Including Lung Volume/DLCO
• Respiratory provocation testing
• Forced oscillation technique or other advanced lung fuction testing
• Exhaled Nitric Oxide
• Simulated altitude testing
• Induced Sputum for Tuberculosis
• Induced Sputum for Asthma

21. If your service does not provide EBUS, which district health board do you refer patients to?

22. Please indicate which of the following services are available within your DHB:

• Radiation Oncology
• Medical Oncology
• Thoracic Oncology
• Cadiology
• Allergologist/Immunologist
• Rheumatologist

23. Does your DHB provide training and credentialising in pleural ultrasound?

• Yes
• No

24. How many doctors have undergone TSANZ certification for pleural ultrasound? Provide your answer as a number e.g., 8.

25. Does your service triage bronchoscopy referrals?

• Yes
• No
• If Yes, do you have wait time targets and do you meet those targets? Please comment

26. Does your DHB have any specific respiratory partnership services between primary and secondary providers? e.g., funded spirometry and sleep testing in the community.
• Yes
• No
• If Yes, please list these services here:

27. Please indicate if your DHB provides any of the following dedicated respiratory services for Māori patients:
• Smoking cessation
• Asthma
• COPD
• Bronchiectasis
• Sleep apnoea

28. Please indicate if your DHB provides any of the following dedicated respiratory services for Pacific patients:
• Smoking cessation
• Asthma
• COPD
• Bronchiectasis
• Sleep apnoea

Part 3. Pulmonary rehabilitation

29. Does your DHB provide Pulmonary Rehabilitation?
• Yes
• No

30. Which type of programme does your DHB provide?
• Hospital Based Programme
• Community Based Programme
• Maintenance Based Programme
• Don’t have any

31. If your DHB does provide a community based programme, how many community sites are there?
Please answer with a number e.g., 2.

32. Does the Pulmonary Rehabilitation service accept direct referrals from general practitioners?
• Yes
• No
• Not applicable as no service
• Other comments

33. Does the Pulmonary Rehabilitation service accept direct referrals from nurse practitioners and/or physiotherapists?
• Yes
• No
• Not applicable as no service
• Other comments

34. How many referrals in total does the Pulmonary Rehabilitation programme receive per year? (If more than one programme type, please combine total)

35. How many patients complete the Pulmonary Rehabilitation programme per year? Complete is defined as equal or greater than 75% attendance.

Part 4. Domiciliary oxygen

36. In your DHB, how many adult patients are receiving community oxygen services?

37. In your DHB, how many adult patients are receiving long-term oxygen therapy (LTOT)?

38. How many adult patients are using portable oxygen?

39. Are the TSANZ guidelines and Ministry of Health specifications applied when oxygen is prescribed?
• Yes
• No
• Not sure

40. Is there a dedicated adult oxygen service physician?
• Yes
• No

41. Who can prescribe or approve Domiciliary Oxygen?
• Respiratory SMO only
• Respiratory and General Medicine SMOs
• Palliative Care Specialist
• General Practitioner
• Respiratory Nurse Practitioner or Nurse Prescriber
42. Do adult oxygen patients have a specialist review annually?
  - Yes
  - No

43. If adult patients do have a specialist review annually, who provides this review?
  - Physician
  - Respiratory NP/CNS
  - Respiratory RN

44. If adult patients do not have a specialist review annually, who assesses the patient?
  - District Nurse
  - General Practitioner
  - Other comment (e.g., don’t know)

Part 5. Sleep related breathing disorders

45. Does your DHB have a sleep laboratory?
  - Yes
  - No

46. If there is no sleep laboratory where do you refer patients to?
  - The DHB contracts with private provider
  - The DHB refers to another DHB
  - No service at all

47. Does your sleep laboratory also undertake Paediatric sleep studies?
  - Yes
  - No
  - Not sure

48. Please provide the number of tests for adult patients per category per year:
  - PSG/MSLT
  - Level 3
  - Level 4 e.g., Oximetry Only
  - tCO2 monitoring

49. Please provide the number of adult patients treated for the following categories:
  - CPAP New Patient (per year)
  - CPAP Long-Term follow-up

50. Please provide the number of paediatric patients on a NIV/PAP machine

51. Does your DHB provide new CPAP patients with a CPAP machine?
  - Yes
  - No
  - Comment:

52. Do CPAP patients have a scheduled hospital based annual review?
  - Yes
  - No

53. Does your DHB gift the CPAP machine to the patient?
  - Yes
  - No

54. Does your DHB provide replacement parts (mask, tubing etc.) for the patient’s CPAP machine?
  - Yes
  - No
  - Not sure

55. Does your DHB provide replacement parts (mask, tubing etc.) for the patients with BiPAP/VPAP/ASV machines?
  - Yes
  - No
  - Not sure

56. Does your DHB fund sleep studies provided in the community, either in general practice or at another community base?
  - Yes
  - No
  - If Yes, how many per year?
### Part 6. Non-invasive ventilation

57. Does your DHB provide non-invasive ventilation (NIV) treatment for patients with neuromuscular disorders, congenital conditions such as Duchenne myopathy or conditions such as motor neuron disease?

- Yes
- No

58. Does your DHB provide non-invasive ventilation (NIV) for patients with chronic hypercapnic respiratory failure?

- Yes
- No

59. Does your DHB provide inpatient NIV for patients with acute respiratory failure?

- Yes
- No

60. Who provides this service?

- Emergency Department
- General Medicine
- Respiratory Medicine
- Intensive Care
- High Dependency Unit

61. Is there a lead respiratory physician for the acute NIV service?

- Yes
- No
- Not sure

62. Is this service audited?

- Yes
- No
- Not sure

63. When acute NIV is initiated in a general ward, what is the usual nurse to patient ratio?

- 1:1
- 1:2
- 1:4
- Not sure
- No policy

### Part 7. Adult respiratory outpatient services

64. Does your DHB count general respiratory and sleep related referrals separately?

- Yes
- No

65. Please provide annual volumes for adult general respiratory outpatient services for the following:

- First Specialist Assessment (FSA)
- Follow-Up Appointments (FU)
- Non Face-to-Face FSA

66. Please provide annual volumes for adult sleep outpatient services, for the following:

- First Specialist Assessment (FSA)
- Follow-Up Appointments (FU)
- Non Face-to-Face FSA

67. Does your DHB use formalised triage prioritisation criteria for general respiratory referrals to the outpatient service?

- Yes
- No
- Not sure

68. Does your DHB use specific triage prioritisation criteria for sleep related breathing disorder referrals?

- Yes
- No
- Not sure

69. If Yes, please specify:

70. Does the respiratory service meet the Ministry of Health waiting time requirements – i.e., is the respiratory service Elective Services Patient Flow Indicator (ESPI) 2 compliant with no patients waiting longer than four months for a general respiratory FSA?

- Always
- Usually
- Sometimes
- Rarely
71. Does the respiratory service meet the Ministry of Health waiting time requirements – i.e., ESPI 2 compliant with no patients waiting longer than four months for a sleep related disorder FSA?

- Never
- Always
- Usually
- Sometimes
- Rarely
- Never

72. Has your DHB adopted HealthPathways?

- Yes
- No

73. Is HealthPathways used the respiratory service referral and triage process?

- Yes
- No
- Not sure

74. Does the respiratory service reject any general respiratory referrals?

- Yes
- No
- Not sure
- If answered Yes, list some examples of why a referral may be rejected:

75. Does the respiratory service reject any sleep disorder referrals?

- Yes
- No
- Not sure
- If answered Yes, list some examples of why a referral may be rejected:

76. For urgent respiratory FSAs do you see patients within two weeks?

- Always
- Usually
- Sometimes
- Rarely
- Never

77. For semi-urgent respiratory FSAs do you see patients within six weeks?

- Always
- Usually
- Sometimes
- Rarely
- Never

78. For routine respiratory FSAs do you see patients within four months?

- Always
- Usually
- Sometimes
- Rarely
- Never

79. For respiratory follow-up appointments do you see patients within the expected timeframe?

- Always
- Usually
- Sometimes
- Rarely
- Never

80. When booking follow-up appointments, do you use the acuity index?

- Yes
- No
- Not sure

**Part 8. Credentialing and accreditation**

81. Has your adult respiratory service undergone external credentialing?

- Yes
- No
- Not sure
- If Yes, please indicate which year the credentialing took place

82. Has your respiratory laboratory undergone TSANZ accreditation?

- Yes
- No
- Not applicable (don’t have a respiratory laboratory)
- If Yes, please indicate which year the accreditation took place.
83. Has your sleep laboratory undergone Australian Sleep Association (ASA)/Australian National Association of Testing Authorities (NATA) accreditation?
• Yes
• No
• Not applicable (don’t have a respiratory laboratory)
• If Yes, please indicate which year the accreditation took place.

Part 9. Multidisciplinary team meetings
84. Does your DHB conduct multidisciplinary team meetings (MDM) for lung cancer?
• Yes
• No
• If Yes, please state how often these meetings are held e.g., weekly, fortnightly etc.

85. Does your DHB lung cancer MDM discuss patients from other DHBs?
• Yes
• No
• Not applicable (don’t have one)
• If Yes, please specify which DHB’s

86. If your DHB does not have a lung cancer MDM, do you refer your patients for case discussions to a larger centre MDM?
• Always
• Usually
• Sometimes
• Rarely
• Never

87. Does your DHB conduct multidisciplinary team meetings for interstitial lung disease?
• Yes
• No
• If Yes, please state how often these meetings are held e.g., weekly, fortnightly etc.

88. Does your DHB interstitial lung disease MDM discuss patients from other DHBs?
• Yes
• No
• Not applicable (don’t have one)

• If Yes, please specify which DHB’s

89. If your DHB does not have an interstitial lung disease MDM, do you refer your patients for case discussions to a larger centre MDM?
• Always
• Usually
• Sometimes
• Rarely
• Never

Part 10. Subspecialist respiratory services
90. Does your DHB conduct subspecialist clinics for adult cystic fibrosis patients?
• Yes
• No

91. If Yes, do you accept patients from other DHBs?
• Yes
• No

92. If Yes, please list the DHBs.

93. If your DHB does not have a subspecialist service for adult cystic fibrosis patients, do you refer your adult patients for reviews at a larger centre?
• Always
• Usually
• Sometimes
• Rarely
• Never

94. Does your DHB conduct subspecialist clinics for pulmonary artery hypertension patients?
• Yes
• No

95. If your DHB does not have a subspecialist service for pulmonary artery hypertension patients, do you refer your patients for reviews at a larger centre?
• Always
• Usually
• Sometimes
• Rarely
• Never

96. Does your DHB conduct subspecialist clinics for **interstitial lung disease** patients?

• Yes
• No
• If Yes, do you accept patients from other DHBs? Please list the DHBs.

97. If your DHB **does not** have a subspecialist service for **interstitial lung disease** patients, do you refer your patients for reviews at a larger centre?

• Always
• Usually
• Sometimes
• Rarely
• Never