

INTRODUCTION

- The term ILD encompasses >200 pulmonary parenchymal disorders that involve fibrosis of the lungs and other overlapping radiologic and pathologic characteristics^{1,2}
- Early diagnosis may facilitate early treatment that could slow ILD progression^{1,2}

AIMS

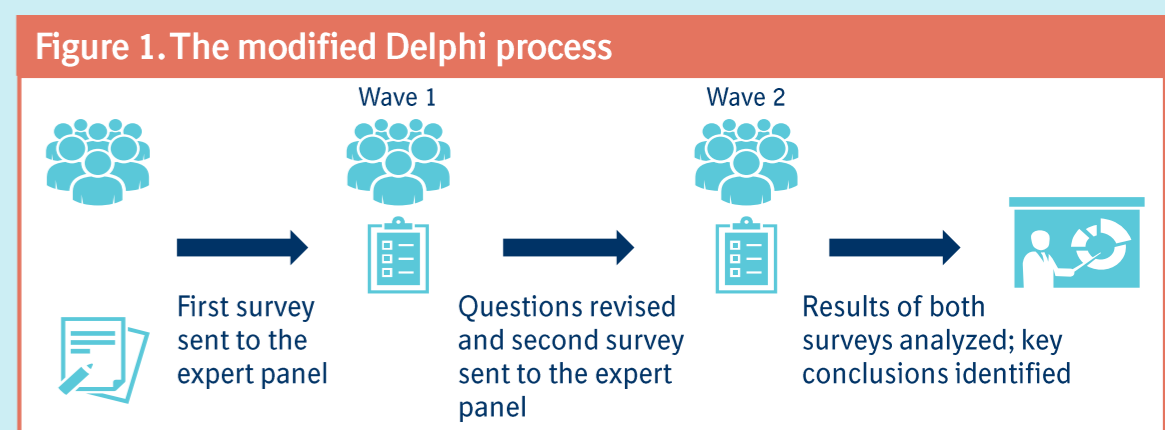
- To identify areas of consensus or disparate opinion on
 - Screening for ILD;
 - Reporting of ILA; and
 - Processes and criteria for referral and follow-up in patients with ILA

METHODS

- A modified Delphi process (Figure 1) was devised by a steering committee that comprised nine specialist pulmonologists and thoracic radiologists
- An expert panel of 44 practicing pulmonologists and thoracic radiologists was selected by the steering committee to take part in the modified Delphi process
- Expert panel members were required to have
 - >5 years' experience in diagnosing, treating or imaging lung disease; and
 - >3 years' experience in diagnosing and treating ILD

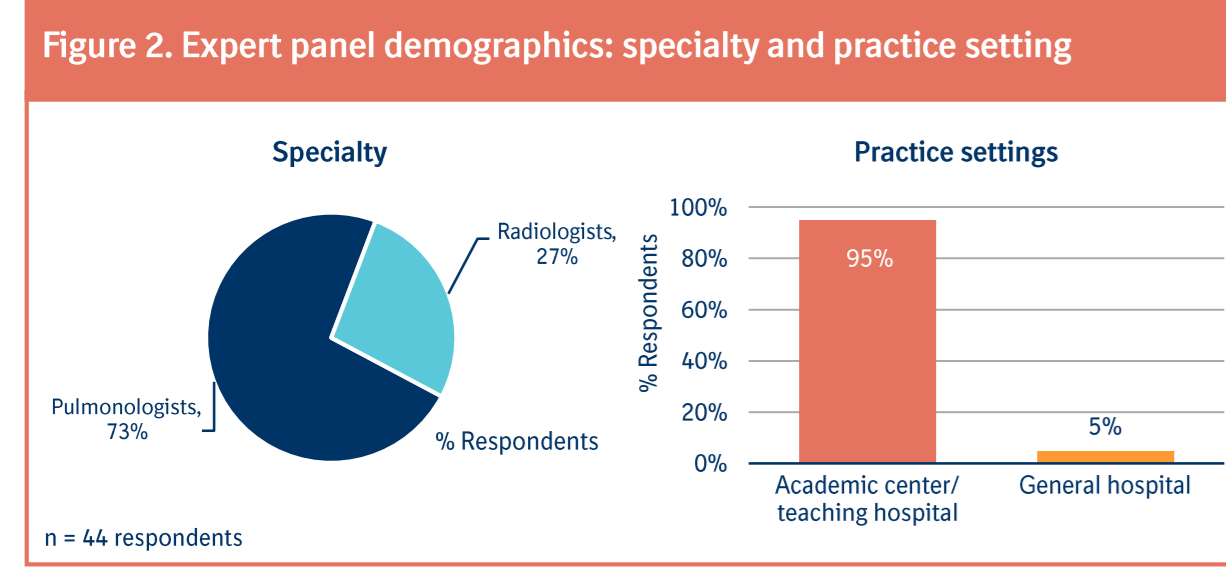
- Two online questionnaires were developed by the steering committee and used to survey the opinions of the expert panel members to identify areas of consensus and differences of opinion regarding
 - Perceptions of ILD;
 - Diagnosis and reporting of incidentally detected ILA;
 - Testing of asymptomatic patients with incidentally detected ILA; and
 - Screening for early ILD

- The results of the first survey were discussed by the steering committee, on the basis of which new or modified questions were developed and included in a second survey
- The second survey was sent to the expert panel
 - The steering committee reviewed the outcomes of both surveys in a second virtual meeting and identified key conclusions
 - The threshold for consensus was defined, *a priori*, as 75% agreement

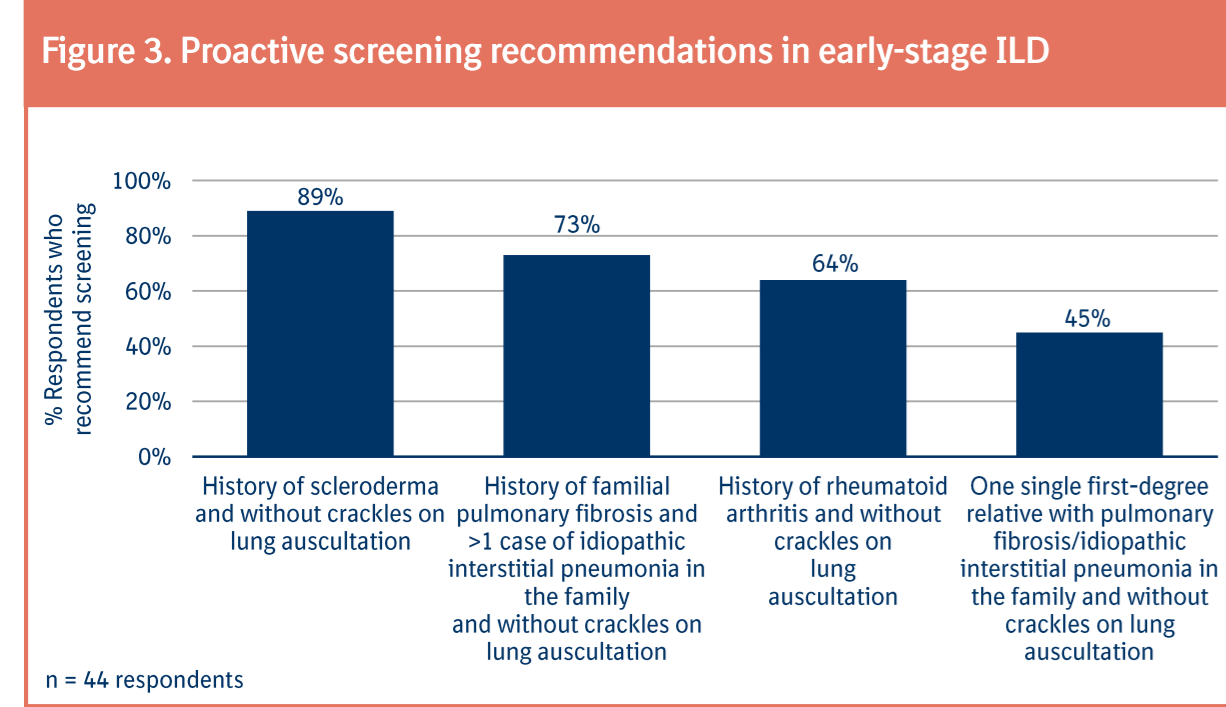


RESULTS

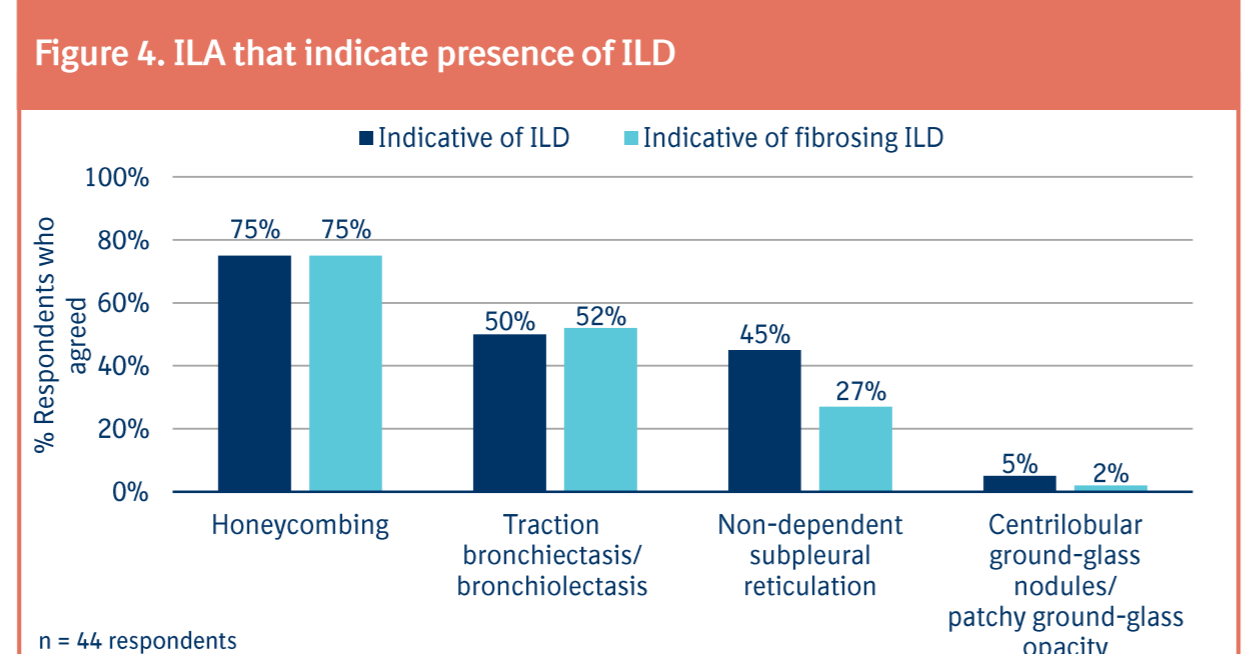
- Results of Wave 1 of the modified Delphi process are presented in this poster
- Pulmonologists and radiologists constituted approximately three-quarters and one-quarter of the expert panel, respectively (Figure 2)
- Most members practiced within academic centers or teaching hospitals (Figure 2)
- Expert panel members (n = 44) were experienced clinicians, 59% of whom had >15 years of experience
- Members had extensive ILD specialization; 52% had treated >200 patients with ILD in the previous year



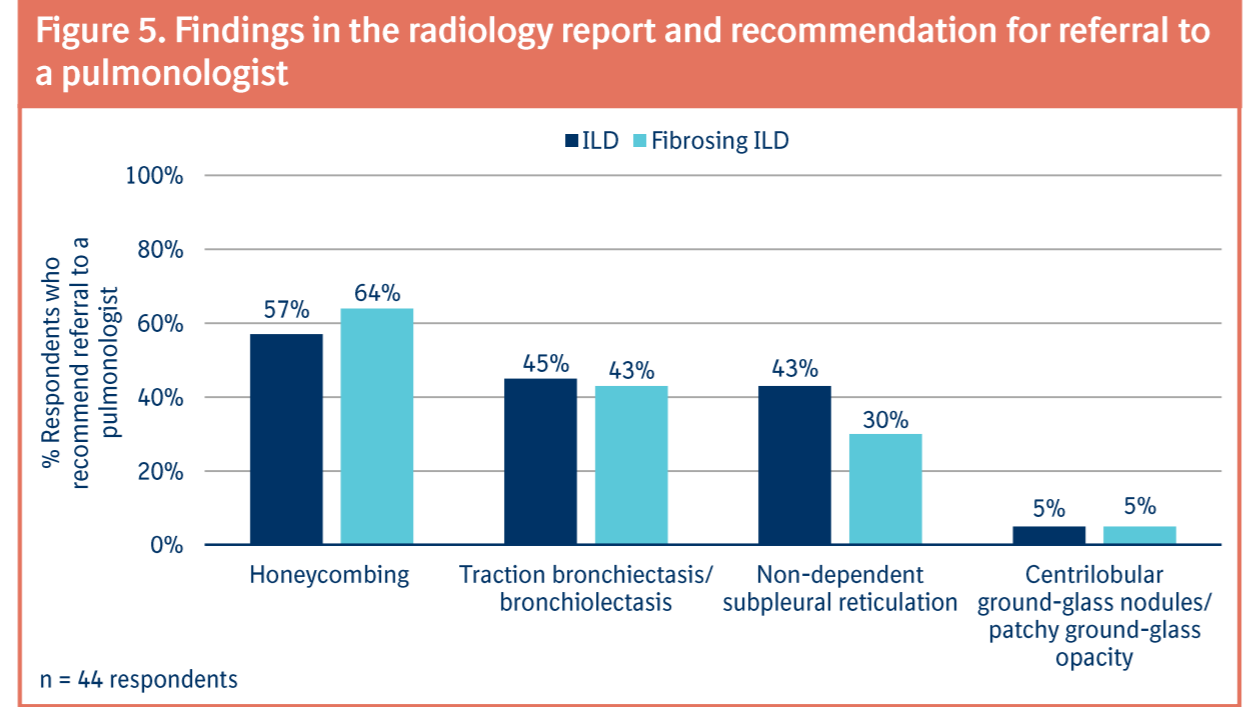
- The expert panel reached consensus that proactive screening for early-stage ILD should be recommended in asymptomatic patients with a history of SSc (Figure 3)
 - Consensus was not achieved regarding the need for proactive screening in patients with RA, familial history of pulmonary fibrosis/IIP, or a first-degree relative with pulmonary fibrosis/IIP



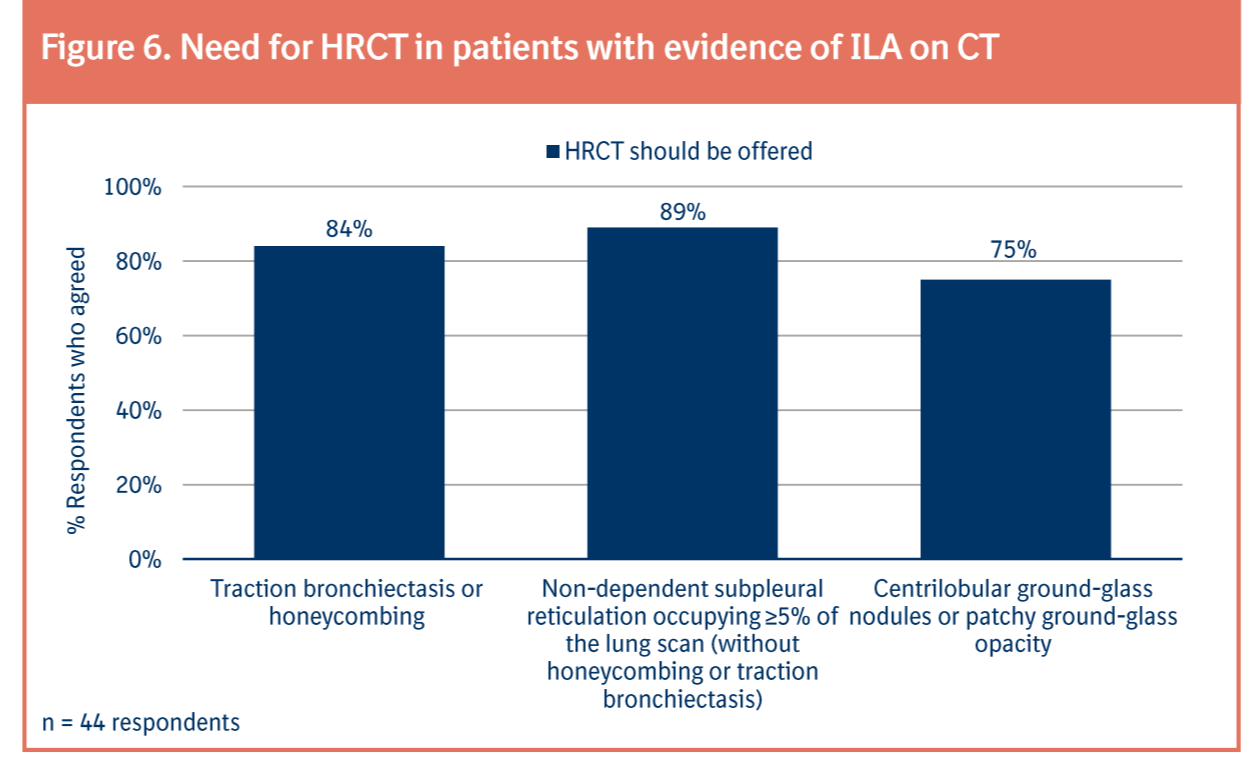
- There was consensus that imaging features of honeycombing indicate the presence of fibrosing ILD (Figure 4)
 - Views were divided as to whether traction bronchiectasis was indicative of fibrosing ILD
 - Less than half of respondents agreed on whether other ILA, including non-dependent subpleural reticulation and centrilobular ground-glass nodules/patch ground glass opacity, were indicative of ILD



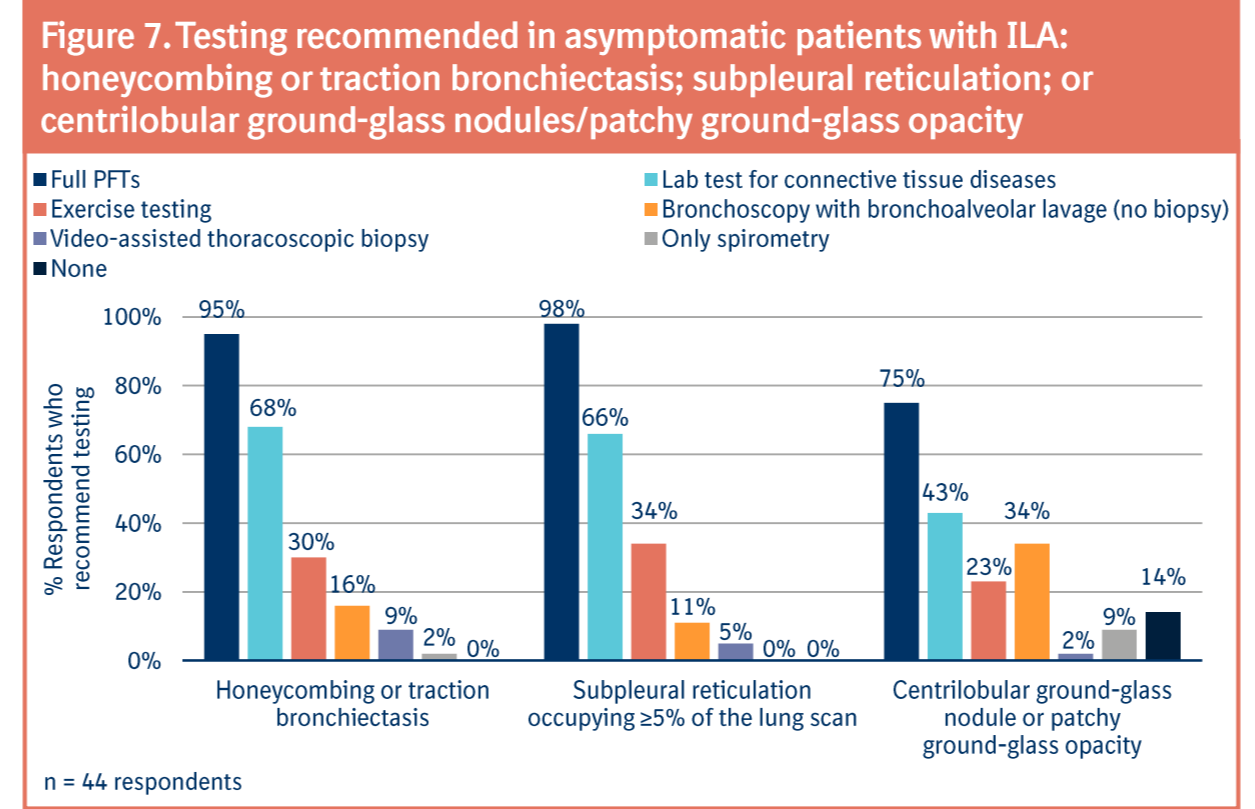
- Although consensus was not reached, most respondents recommended referral to a pulmonologist in patients with honeycombing (Figure 5)
- Under half of respondents recommended referral to a pulmonologist in patients with other listed ILA, including traction bronchiectasis, non-dependent subpleural reticulation or nodules/opacity (Figure 5)



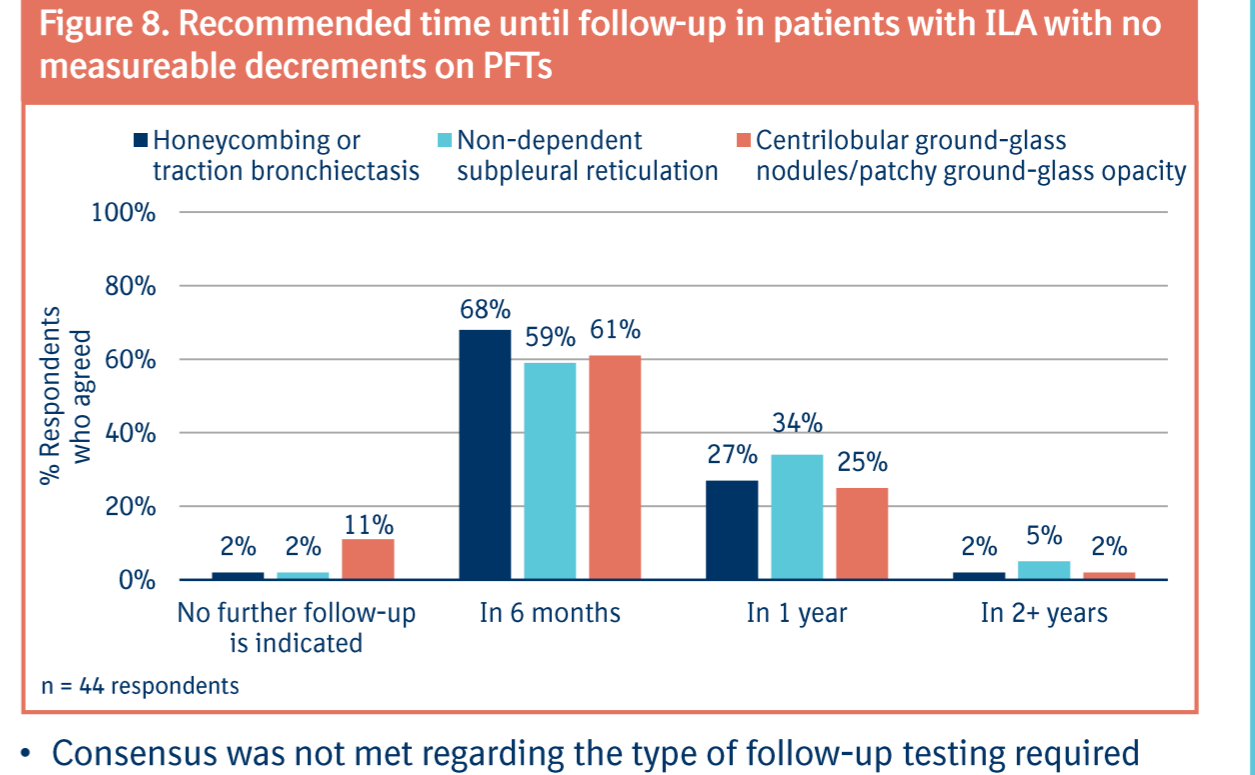
- The expert panel agreed that asymptomatic patients with ILA on CT, including non-dependent subpleural reticulation, honeycombing/traction bronchiectasis or centrilobular ground-glass nodules/patchy ground-glass opacity, should be assessed further with HRCT (Figure 6)



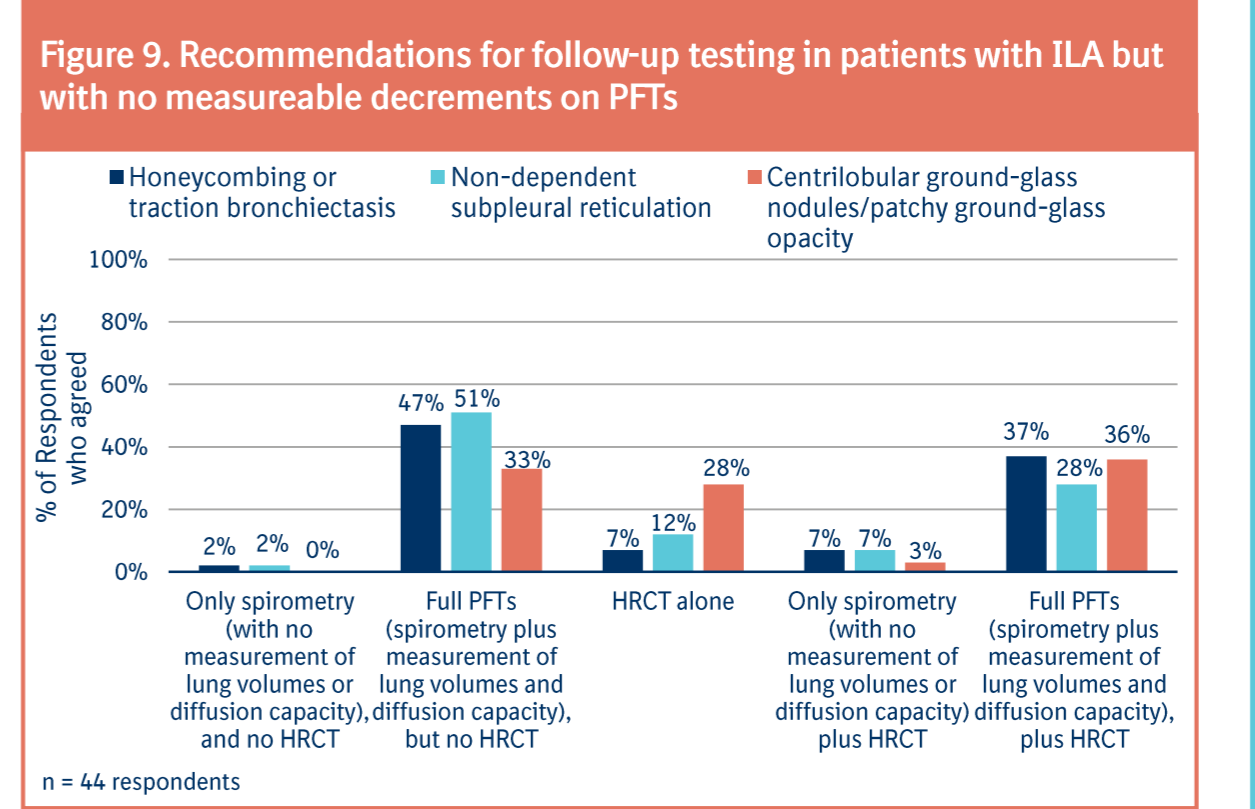
- There was consensus that full PFTs should be ordered when honeycombing/traction bronchiectasis, subpleural reticulation or centrilobular ground-glass nodules/patchy ground-glass opacity are present on HRCT (Figure 7)
 - Other tests were less favored



- For all three ILA, >85% of expert panel members recommended that patients should be followed-up within 6–12 months (Figure 8)
 - Consensus was not achieved as to the optimal timing of follow-up evaluation within this range



- Consensus was not met regarding the type of follow-up testing required (Figure 9)
 - For all three ILA, most expert panel members recommended that patients should undergo full PFTs, but opinions were divided on whether these should be accompanied by HRCT



CONCLUSIONS

- Consensus was reached on the following:
 - Patients with a history of SSc should be screened for presence of early-stage ILD
 - Honeycombing is indicative of the presence of ILD
 - Patients with ILA (honeycombing/traction bronchiectasis, subpleural reticulation, or centrilobular ground-glass nodules/patchy ground-glass opacity) should be followed up within 6–12 months
- Although consensus was not reached, most experts recommended that patients with honeycombing should be referred for pulmonologist follow-up
- These results lay the foundation for the development of practical guidance on early diagnosis of ILD, and may inform clinical recommendations



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Specialist pulmonologists and radiologists comprising the expert panel

Fereidoun Abtin, USA; Katerina Antoniou, Greece; Timothy Blackwell, USA; Kevin Brown, USA; Jonathan Chung, USA; Tamera Corte, Australia; Bruno Crestani, France; Peter Crossno, USA; Daniel Culver, USA; Joao de Andrade, USA; Anand Deveraj, United Kingdom; Kevin Flaherty, USA; Gunnar Gudmundsson, Iceland; Hiroto Hatabu, USA; Joe Jacob, United Kingdom; Kerri Johansson, Canada; Jeff Kanne, USA; Ella Kazerooni, USA; Martin Kolb, Canada; David Lynch, USA; Toby Maher, United Kingdom; Fernando Martinez, USA; Antonio Morais, Portugal; Steven D Nathan, USA; Imre Noth, USA; Justin Oldham, USA; Anna Podolanczuk, USA; Venerino Poletti, Denmark; Claudia Ravaglia, Italy; Elizabetha Renzoni, United Kingdom; Luca Richeldi, Italy; Geoffrey Rubin, USA; Chris Ryerson, Canada; Debasis Sahoo, USA; Sara Tomassetti, Italy; Paulo Spagnolo, Italy; Mary Strek, USA; Rob Suh, USA; Nicola Svertzelati, Italy; Dominique Valeyre, France; Simon Walsh, United Kingdom; George Washko, USA; Eric White, USA.

Abbreviations

CT, computed tomography; HRCT, high-resolution computed tomography; IIP, idiopathic interstitial pneumonia; ILA, interstitial lung abnormalities; ILD, interstitial lung disease; PFT, pulmonary function test; RA, rheumatoid arthritis; SSc, systemic sclerosis.

References

- Cottin V, et al. Eur Respir Rev 2018;27:180076
- Richeldi L, et al. Eur Respir Rev 2018;27:180074

Disclosures

GH reports receipt of honoraria from Genentech, Mitsubishi Chemical, Gerson Lehrman Group, Boehringer Ingelheim and Medna-LLC. JG reports no conflicts of interest. HL reports being an employee of Boehringer Ingelheim at the time of study; he is currently employed by Altavant Sciences. JK reports receipt of grants from the National Institute of Health, Doris Duke foundation and the Department of Defense; he also reports receipt of grants and personal fees from Boehringer Ingelheim, and non-financial support from Genentech. SP reports receiving personal fees as an expert advisor from Boehringer Ingelheim during and outside of the conduct of the study. IR did not report any conflicts of interest. YR reports receipt of personal fees from Boehringer Ingelheim, Genentech and Bioclinica. AW reports receipt of consultant fees from F. Hoffmann-La Roche Ltd and Boehringer Ingelheim.

