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Multidisciplinary Meetings in Interstitial Lung Disease: Polishing the Gold Standard

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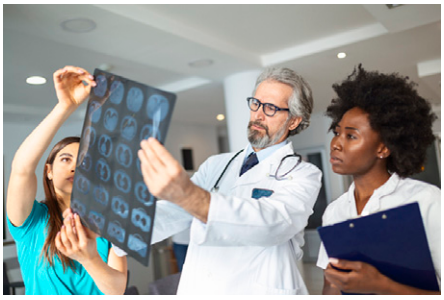
With many available clinical, radiologic, and pathologic patterns and combinations thereof, diagnosis of interstitial lung disease (ILD) subtypes has been colloquially described as an "alphabet soup." Despite this confusion, achieving a correct diagnosis early is critical in patients with ILD because treatments can differ depending on underlying etiology. Immunosuppressive agents targeting underlying autoimmune disease, for instance, have proved to be harmful in patients diagnosed with idiopathic pulmonary fibrosis (IPF) (1). Thus, early and accurate diagnosis can lead to early and accurate treatment, thereby ameliorating the disease progression that is so common in these patients.

The ILD multidisciplinary meeting (MDM) is broadly accepted as the gold standard for ILD diagnosis worldwide. Generally, such meetings involve the clinician caring for the individual patient along with other specialists, including pulmonologists, radiologists, pathologists, and/or rheumatologists, to discuss available clinical data and generate a consensus ILD diagnosis for the patient. The majority of data supporting MDM emphasize its downstream effects on ultimate diagnosis as well as its effect on diagnostic agreement among clinicians. MDM has consistently been shown to change ILD diagnosis in approximately half of patients presented, and these collaborative diagnoses have been found to be more concordant with patient outcomes (2, 3). MDM diagnosis of IPF, considered the ILD subtype with the worst prognosis, is more closely associated with mortality than clinician or radiologist diagnosis of IPF alone (4).

Because of these effects on diagnostic concordance, the international ILD community has embraced MDM as an essential component of ILD care. Indeed, the health systems of some countries, most notably Australia, require MDM diagnosis of IPF before a patient can receive antifibrotic therapy (5). This emphasis on MDM as essential has not, however, resulted in its standardization. The description of these meetings in diagnostic guidelines, whether regarding membership, goals of discussion, or types of cases presented, is variable (Table 1) (6). Accordingly, one survey of expert centers around the world found considerable heterogeneity regarding which experts should participate, what information should be presented, and how a final diagnosis should



be made (7). One area of consensus has been increasingly made clear: standardization of the MDM is needed, including an overall statement of purpose regarding which objectives this meeting must accomplish (8).

In this issue of *AnnalsATS*, Teoh and colleagues (pp. 66–73) begin this important task with a Delphi survey among ILD physicians worldwide regarding essential features of the ILD MDM (9). An initial semistructured interview was conducted with 15 ILD experts, followed by two web-based survey rounds of 102 additional ILD experts. The authors' definition of consensus was a median score on Likert scale of 4 or 5 with an interquartile range (IQR) of 0. Fifty statements were initially proposed, five of which reached the level of consensus in the first round. Three of these statements involved the use of radiology, and two were exploratory statements regarding the necessity of future benchmarking and

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Table 1. Selected diagnostic guidelines/position statements mentioning MDM

Society	Year	ILD Type	Recommendations Regarding Multidisciplinary Diagnosis
Canadian Thoracic Society	2017	Fibrotic ILD	• Respirologists, radiologist, and pathologists present • Iterative process, rereview should occur if new information becomes available • MDM should occur when possible before disease-specific treatment
National Institute for Health and Care Excellence (UK)	2013	IPF	• Differing composition of MDM based on clinical question, but at minimum respiratory physician, radiologist, ILD nurse, team coordinator
Fleischner Society	2018	IPF	• Not required for all patients; focus on disease that is not fully characterized or suspicion of non-IPF etiology • Clinician, radiologist, and pathologist; rheumatologist often helpful • Direct contact or telemedicine • Weekly to monthly frequency, depending on volume • Goals: diagnosis, management, review of disease progression
American Thoracic Society, European Respiratory Society, Japanese Respiratory Society, and Latin American Thoracic Society	2018	IPF	• Pulmonologist, radiologist, and pathologist; rheumatologist on case-by-case basis • Meeting mode deferred to clinicians • Conditional recommendation for MDM for diagnostic decision-making
Thoracic Society of Australia and New Zealand	2020	CTD-ILD	• Face-to-face discussion with respiratory physicians, radiologist, pathologist if relevant; rheumatologists may also play role
American College of Chest Physicians	2021	HP	• MDM defined as pulmonologists, chest radiologists, and pathologists with sometimes rheumatologists, occupational medicine • MDM should be performed in cases in which a high confidence diagnosis cannot be established (weak recommendation, very low-quality evidence) • Cases with biopsy require MDM to confirm diagnosis

Definition of abbreviations: CTD-ILD = connective tissue disease–associated interstitial lung disease; HP = hypersensitivity pneumonitis; ILD = interstitial lung disease; IPF = idiopathic pulmonary fibrosis; MDM = multidisciplinary meeting.

validation processes once an international standard has been reached. In the second round, two more statements reached consensus, one emphasizing the importance of a quiet setting in which to hold the meeting and the other regarding use of a standardized template to document the meeting proceedings. Ten other statements were regarded as highly desirable (median score 5, IQR of 1), many regarding membership of the MDM, the data that should be available to present, and the inclusion of management recommendations in the meeting.

The authors should be commended for a well-done Delphi study using multiple rounds and a strict definition of consensus. Each round had a high response rate, and >90% of respondents were actively involved in the MDM at their ILD referral center. This study is the largest to systematically address what ILD experts believe should make up the MDM itself rather than assessing the downstream effects of individual MDMs. Interestingly, only 5 statements and 2 exploratory statements reached the threshold for consensus despite 50 initial statements being considered. This finding reflects the notable center-to-center heterogeneity that exists among MDMs and the considerable work that remains if standardization is to become a priority.

One limitation that the authors acknowledge is that the overwhelming majority of respondents were pulmonologists, which may bias which statements reached consensus. For instance, there were zero pathologists that were recruited as respondents, which may have affected the lack of consensus regarding the necessity of pathology to be present at MDMs. Nevertheless, this may be reflective of the fact that pathology is not always able to be present at MDMs, particularly smaller or newer meetings; one study found that pulmonologists and radiologists are almost always present, but one-third of centers do not have a pathologist attending MDM (6).

This work by Teoh and colleagues represents an important first step toward the standardization of MDMs worldwide. The many statements reaching consensus regarding the presence of chest radiologists and quality of images obtained and projected emphasize the growing primacy of radiology in the diagnosis of ILD. The presence of a chest pathologist is certainly beneficial when biopsy specimens are available, but the ongoing uncertainty regarding the benefits and risks of surgical lung biopsy as well as emergence of new technologies such as cryobiopsy may change the frequency by which biopsy specimens are available for review over time or over centers. Thus, whereas the presence of some specialists, such as pulmonologists and radiologists, is necessary for every patient presented at MDM, the presence of others, such as pathologists and rheumatologists, may be better used on a case-by-case or center-by-center basis.

Although this study did not take place during the time of the coronavirus disease (COVID-19) pandemic, the consensus

statement regarding the necessity for a quiet setting with a visual projection system takes new meaning in the virtual meeting era. Although virtual meetings are not free from distraction, they do allow for easier participation by participants who may not be present every week, such as general pulmonologists or trainees (10). Virtual MDMs could also improve access to specialist diagnosis to patients and hospitals that are far away from major academic centers; this group of patients with ILD is known to have worse outcomes (11).

Multidisciplinary meetings have long been the gold standard for ILD diagnosis, but evaluation and standardization of this diagnostic process is essential to promptly and accurately care for patients. This well-done study is a necessary advancement, but a future statement or guideline is urgently needed to further emphasize which components are necessary and which are conditional. As the authors emphasize, the ILD community has to balance a minimum standard of care while maintaining equity and feasibility across centers; we are up for this gargantuan task. ■

Author disclosures are available with the text of this article at www.atsjournals.org.

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Is Active Mobility the Most Underdelivered Care Component for Patients on Extracorporeal Membrane Oxygenation?

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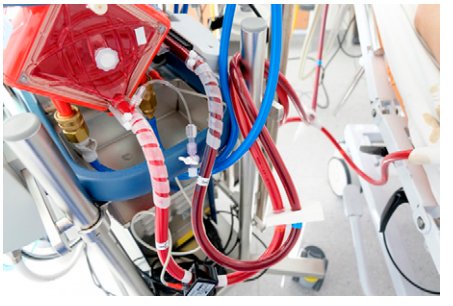
Physical activity is arguably the most underdelivered component of medical care for patients who are on extracorporeal membrane oxygenation (ECMO). Patient mobility and physical therapy have certainly increased in use among critically ill patients over the last 30 years. The value of physical mobility, despite inconsistent trial data (1, 2), is qualitatively appreciated by providers, patients, and family (1, 2), if underdelivered. Mobility feasibility during critical illness is also established; images of patients working with resistance bands and bed biking—even walking—while ventilated are common. Overall, in 2021, physical mobilization is a broadly used



component of multidisciplinary critical care endorsed by societies and intuitively beneficial during injury and illness. Against

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