Conclusion: The period prevalence of AEs recorded during MMF treatment appeared as high as 71.7% in our real life setting. Even though we did not record any serious AE, our analysis suggests a close monitoring of this therapy in SSC.

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OP0064

EVIDENCE-BASED CONSENSUS RECOMMENDATIONS FOR THE IDENTIFICATION AND MANAGEMENT OF INTERSTITIAL LUNG DISEASE IN SYSTEMIC SCLEROSIS

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Background: Interstitial lung disease in systemic sclerosis (SSc-ILD) occurs frequently and carries a high burden of morbidity and mortality. To date, there are no existing guidelines for screening, diagnosis and management of SSc-ILD that would aid early recognition and treatment and improve the care of these patients.

Objectives: To develop expert consensus recommendations for the identification and management of SSc-ILD.

Methods: Based on the results of a comprehensive systematic literature analysis conducted in line with NICE/CRD and IQWiG guidelines and PRISMA methodology, evidence-based statements on SSc-ILD risk, screening, diagnosis, treatment and follow-up were developed. A modified Delphi process was then used to establish consensus statements for the identification and management of SSc-ILD. Briefly, an expert panel of 27 European-based pulmonologists, rheumatologists and internists with experience in treating SSc-ILD was established. Between July and November 2018, the panel took part in 3 rounds of online surveys, a face-to-face discussion and a WebEx meeting to establish consensus-based recommendations for the management of SSc-ILD. Statements were categorised by topic: risk factors (including biomarkers); screening; diagnosis; assessment of severity; treatment initiation; treatment options; disease progression; treatment escalation; other management options. Panelists indicated their level of agreement with proposed statements on a scale of 1 (strong disagreement) to 7 (strong agreement), and consensus was considered achieved when $\geq 80\%$ either disagreed (score of 1–3) or agreed (score of 5–7) with a statement. Based on panel feedback, statements that did not reach consensus were modified and re-voted in later rounds.

Results: At the close of the Delphi process, the panel agreed on the following:

1. Risk factors: The presence of anti-topoisomerase I antibodies, male gender and diffuse cutaneous SSc all increase risk for ILD
2. Screening: All SSc patients should undergo screening for ILD, using HRCT and lung function testing. Frequency of screening using HRCT should be guided by risk of developing ILD, in combination with clinical symptoms and lung function
3. Diagnosis and assessment of severity: Use of HRCT to diagnose SSc-ILD and assess severity, with supporting findings from lung function testing and clinical assessment, is also recommended
4. Treatment initiation and options: All patients with severe or progressive SSc-ILD should be considered for pharmacotherapy, with mycophenolate mofetil and cyclophosphamide recommended as treatments. Patients not receiving treatment should be followed closely for signs of disease progression
5. Disease progression: Indicators of progression include sustained decline in lung function, worsening of clinical symptoms, and change in extent and/or pattern of fibrosis on HRCT
6. Treatment escalation: Patients with inadequate treatment responses should be considered for treatment escalation. Suitability for lung transplant should be evaluated early, especially for patients diagnosed with advanced disease. Autologous haematopoietic stem cell transplant may be considered in carefully selected patients

Conclusion: These evidence-based expert consensus recommendations, developed using a modified Delphi process, provide important guidance for the identification and management of SSc-ILD.

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options or bond holdings in a for-profit corporation in Apellis, Grant/research support from: Received funds from BI advisory board participation and conference travel. Received research funding and/or consulting fees or other remuneration from GSK, UCB, AstraZeneca, Roche, Bayer, Biogen Idec, Cipla, Prometic, and Sanumed, Consultant for: Toby Maher has received consultancy or speakers fees from Apellis, AstraZeneca, Bayer, Biogen Idec, Boehringer Ingelheim, Galapagos, GlaxoSmithKline R&D, Indalo, Pliant, ProMetic, Roche, Samumed, and UCB; and has received consultancy fees from Galeto, Edward E Philpot Employee of: Employee of IQVIA, Ali Ashrafzadeh Employee of: Employee of IQVIA, Oliver Distler Grant/research support from: Prof. Distler received research funding from Actelion, Bayer, Boehringer Ingelheim and Mitsubishi Tanabe to investigate potential treatments of scleroderma and its complications, Consultant for: Prof. Distler has/had consultancy relationship within the last 3 years with Actelion, AnaMar, Bayer, Boehringer Ingelheim, ChemomAb, espeRare foundation, Genentech/Roche, GSK, Inventiva, Italfarmaco, IQVIA, Lilly, medac, MedImmune, Mitsubishi Tanabe Pharma, Pharmacyclics, Novartis, Pfizer, Sanofi, Serodapharm and UCB in the area of potential treatments of scleroderma and its complications. In addition, he had/had consultancy relationship within the last 3 years with A. Menarini, Amgen, Abbvie, GSK, Mepha, MSD, Pfizer and UCB in the field of arthritides and related disorders

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OP0065

THE VERY EARLY DIAGNOSIS OF SYSTEMIC SCLEROSIS (VEDOSS) PROJECT: PREDICTORS TO DEVELOP DEFINITE DISEASE FROM AN INTERNATIONAL MULTICENTRE STUDY

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Background: Early identification of patients is of key importance for the management and treatment of inflammatory rheumatic diseases.

Objectives: The aim of the VEDOSS project (1) is to determine through an at-risk population the predictive factors for the progression toward a definite systemic sclerosis (SSc).

Methods: VEDOSS investigators prospectively recruited patients with Raynaud phenomenon (RP), with or without anti-nuclear antibodies (ANA) for this longitudinal, observational study. Fulfilling the 2013 classification criteria at baseline was an exclusion criterion. Patients with primary Raynaud syndrome were recruited as controls. Patients had an annual assessment according to EUSTAR standards to determine organ involvement and severity. The endpoint was defined as fulfilment of the 2013 classification criteria. The time to fulfilling 2013 classification criteria was evaluated with Kaplan-Meier analysis, and predictors of evolution were determined by univariate and multivariate Cox regression.

Figure 1. A matrix was built to show the PPV of various variables alone or in combination to predict subsequent progression of VEDOSS patients toward definite SSc after 3 years

	alone	Disease specific atb	scleroderma pattern on NVC	puffy fingers
	PPV%	PPV%	PPV%	PPV%
Disease specific atb	70.2		82.2	94.1
scleroderma pattern on NVC	75.0	82.2		77.8
puffy fingers	78.9	94.1	77.8	

Results: 735 patients with RP were recruited into the study. The sample is distributed as follows: i) 237 patients (143 with follow up) RP/ANA negative (ANA/pRP) as the control group, ii) 498 patients (401 with follow up) RP/ANA positive (ANA+/pRP): 87 had puffy fingers (PF), 199 had anti-centromere antibodies (atb) positive, 45 had anti-topoisomerase I atb positive and 182 had nailfold videocapillaroscopy (NVC) abnormalities at baseline. Out of 401 ANA+/pRP patients, 7.4% within 1 year, 29.3% within 3 and 44.1% within 5 years satisfied the 2013 classification criteria. Out of the 143 ANA/pRP patients, none (0%) within 1 year, 4.6% within 3 years, and 4.6% within 5 years satisfied SSc criteria. After adjustment for age, the following baseline parameters were identified as independent predictors for progression into definite SSc by multivariate analysis: puffy fingers (OR=3.4 [2.0;5.6]), anti-centromere atb (OR=2.6 [1.6;4.1]) and anti-topoisomerase 1 atb (OR=3.1 [1.6;5.8]), and NVC abnormalities (OR=1.9 [1.3;2.9]) The presence of PF had a positive predictive value (PPV) of 79% and combination of PF + specific auto-antibodies showed 94% PPV to satisfy ACR/EULAR 2013 criteria within 5 years (figure 1).

Conclusion: the data show that patients with very early SSc develop definite, classification criteria fulfilling SSc within 5 years of follow up. The VEDOSS study

identified PF and SSc auto-antibodies at first visit as independent parameters predicting the development of definite SSc. These data are of key importance for the risk stratification of patients with very early SSc in clinical practice and clinical studies.

REFERENCE:

[1] Avouac J, et al. Ann Rheum Dis 2011;70:476

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OP0066

EFFECTIVENESS OF SPECIALIZED HAND/FACE PHYSICAL-OCCUPATIONAL THERAPY IN PATIENTS WITH SYSTEMIC SCLEROSIS – PRELIMINARY RESULTS OF A ONE-YEAR CONTROLLED STUDY

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Background: Systemic sclerosis (SSc) is characterized by stiffness and contraction of tissues, which leads to a limitation in the execution of day-to-day activities. The aim of our study was to investigate the impact of specialized physical-occupational therapy (POT) focused on the hands/face and QoL of SSc patients.

Objectives: Fifty five patients fulfilled the EULAR/ACR criteria for SSc and had skin involvement leading to hand/face function impairment. 25 patients were recruited into the intervention group (IG) and 30 patients into the control group (CG). Both groups received an educational material for home exercise, but only the IG underwent a 6-month intervention with a subsequent 6-month follow-up period.

Parameter (unit)	Intervention group Mean ± SEM	Control group Mean ± SEM	Intra-group analysis (Friedman+Dunn) Intervention gr. Control group		Inter-group analysis (2WA)
dFTP, dominant hand (cm)	m0: 5.7 ± 0.5 m3: 6.2 ± 0.5 m6: 6.8 ± 0.6 m12: 6.0 ± 0.6	m0: 6.8 ± 0.5 m3: 6.2 ± 0.4 m6: 5.9 ± 0.4 m12: 5.6 ± 0.4	m0-3: p<0.01 m3-6: p<0.05 m0-6: p<0.0001 m6-12: p<0.0001	m0-3: NS m3-6: NS m0-6: p<0.0001 m6-12: NS	p<0.0001
Hand grip strength, dominant hand (kg)	m0: 17.2 ± 1.8 m3: 19.2 ± 1.9 m6: 19.7 ± 1.9 m12: 17.5 ± 2.0	m0: 16.5 ± 1.2 m3: 14.9 ± 1.3 m6: 13.8 ± 1.2 m12: 14.2 ± 1.3	m0-3: p<0.05 m3-6: NS m0-6: p<0.001 m6-12: p<0.05	m0-3: NS m3-6: NS m0-6: p<0.01 m6-12: NS	p<0.0001
HAMIS, dominant hand	m0: 9.8 ± 1.3 m3: 7.1 ± 1.3 m6: 4.1 ± 0.9 m12: 7.2 ± 1.2	m0: 3.9 ± 1.1 m3: 6.3 ± 1.2 m6: 8.9 ± 1.1 m12: 9.8 ± 1.2	m0-3: p<0.01 m3-6: p<0.001 m0-6: p<0.0001 m6-12: p<0.001	m0-3: NS m3-6: p<0.001 m0-6: p<0.0001 m6-12: NS	p<0.0001
Inter-incisor distance (cm)	m0: 2.9 ± 0.2 m3: 3.2 ± 0.2 m6: 3.5 ± 0.2 m12: 3.2 ± 0.2	m0: 3.3 ± 0.1 m3: 3.1 ± 0.1 m6: 3.0 ± 0.1 m12: 3.0 ± 0.1	m0-3: p<0.01 m3-6: NS m0-6: p<0.0001 m6-12: p<0.01	m0-3: p<0.01 m3-6: NS m0-6: p<0.001 m6-12: NS	p<0.0001
SHAQ (mm)	m0: 28.8 ± 3.9 m3: 21.5 ± 3.4 m6: 22.0 ± 3.5 m12: 23.4 ± 3.7	m0: 21.5 ± 2.1 m3: 24.6 ± 2.6 m6: 24.9 ± 2.9 m12: 27.5 ± 3.3	m0-3: NS m3-6: NS m0-6: p<0.05 m6-12: NS	m0-3: NS m3-6: NS m0-6: NS m6-12: NS	p=0.0015

Methods: Patients were assessed by a physician and a physiotherapist blinded to intervention at months 0, 3, 6, and 12. Patients also filled out patient reported outcomes questionnaires and provided blood for routine laboratory analysis and bio-banking. Data analysis was done between groups and within the group.

Results: Compared to the observed statistically significant deterioration in the CG, we found a statistically significant improvement in the IG in objectively assessed function and strength of hand, distance between incisors and functional ability (SHAQ) (Table). Only numerical improvements in the IG during the intervention compared to numerical deterioration in CG that did not reach statistical significance were observed in subjectively assessed hand function and mouth handicap, functional ability (HAQ) and in some domains of QoL (SF-36) and fatigue (FIS – cognitive function). During the follow-up period, there was a significant deterioration or stagnation of the achieved positive results in the IG.

Conclusion: Our program led to a significant improvement in the observed parameters that was clinically significant in a substantial proportion of patients, and prevention of the expected worsening of hand/face handicap and QoL.

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OP0067

UTILITY OF RISK STRATIFICATION IN PREDICTING OUTCOMES OF INITIAL MONOTHERAPY VERSUS COMBINATION THERAPY IN PULMONARY ARTERIAL HYPERTENSION ASSOCIATED WITH CONNECTIVE TISSUE DISEASE: A POST-HOC ANALYSIS OF THE AMBITION STUDY

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Background: The AMBITION study (NCT01178073, sponsored by GSK and Gilead) demonstrated a reduced risk of clinical failure event in patients receiving initial combination therapy of ambrisentan and tadalafil (COMB) compared with initial monotherapy of either agent (MONO) in treatment-naïve patients with pulmonary arterial hypertension (PAH)¹. A similar treatment outcome was observed in connective tissue disease (CTD)-PAH or systemic sclerosis (SSc)-PAH subgroups in both the primary analysis set and modified intention to treat (mITT) population^{2,3}. The 2015 ESC/ERS guidelines⁴ and 2018 WSPH consensus recommended the use of risk assessment (classified as low, intermediate, and high risk) based on the variables to predict prognosis, but the clinical utility of risk stratification in patients with CTD- or SSc-PAH has not been established.