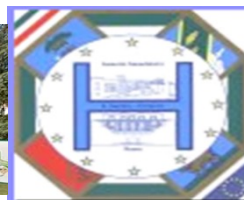


# «Patients centred medicine» in ILD verso un approccio olistico



**PNEUMOMEDICINA 2022**  
Milano, 26 - 28 maggio 2022 · Centro Congressi Palazzo delle Stelline

Alfredo Sebastiani

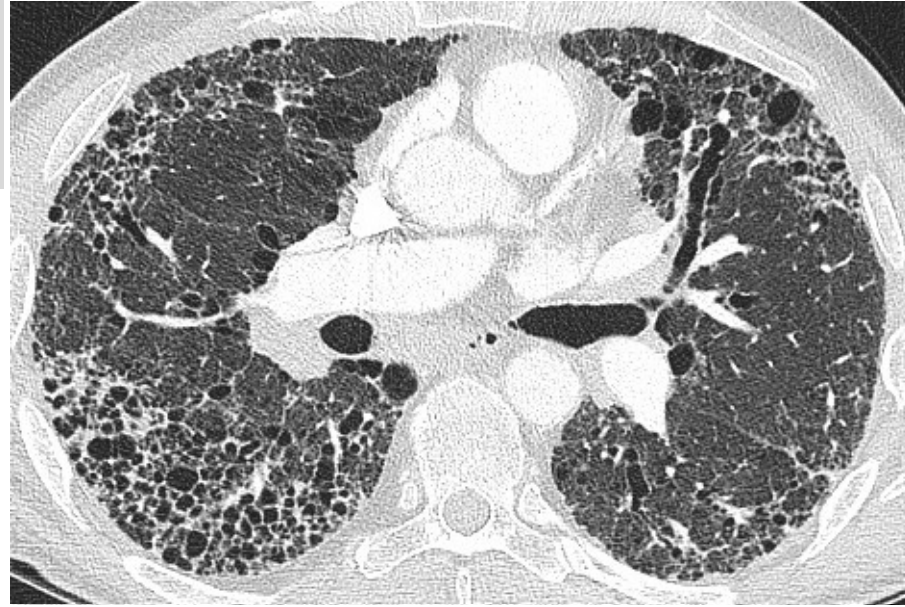


*Direttore UOSD DH Pneumologico e Interstiziopatie Polmonari  
Azienda Ospedaliera S. Camillo-Forlanini, Roma*

# Disclosure

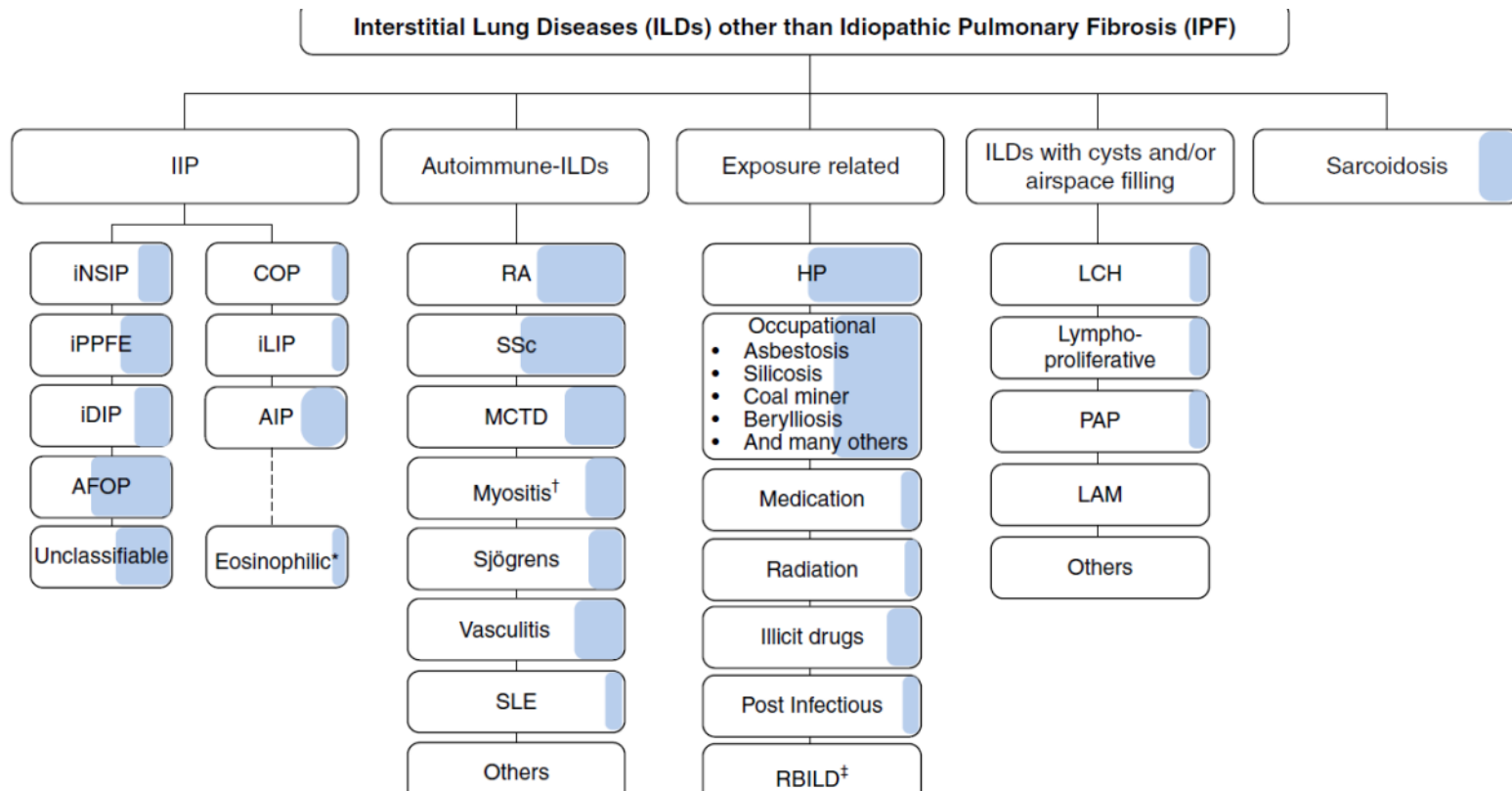
- Dr Alfredo Sebastiani has served as investigator in clinical trials, speaker, or scientific advisory board member for
  - Boehringer Ingelheim
  - Roche
  - Chiesi

# **FIBROSI POLMONARE IDIOPATICA – Una malattia rara e complessa**



# Idiopathic Pulmonary Fibrosis (an Update) and Progressive Pulmonary Fibrosis in Adults

An Official ATS/ERS/JRS/ALAT Clinical Practice Guideline



# Unmet need of IPF/PPF patients and olistic approach of care

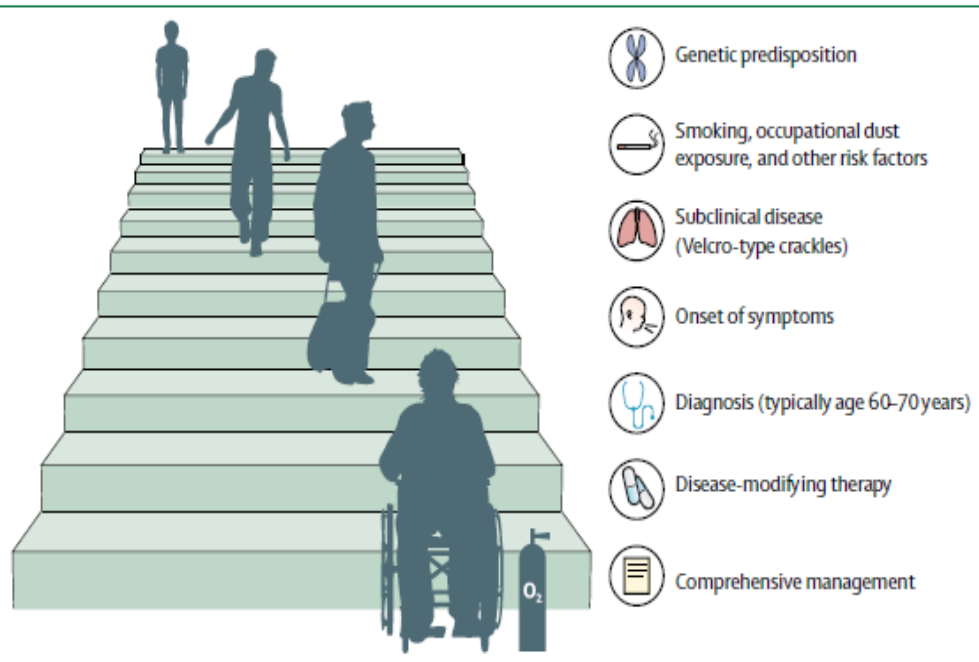
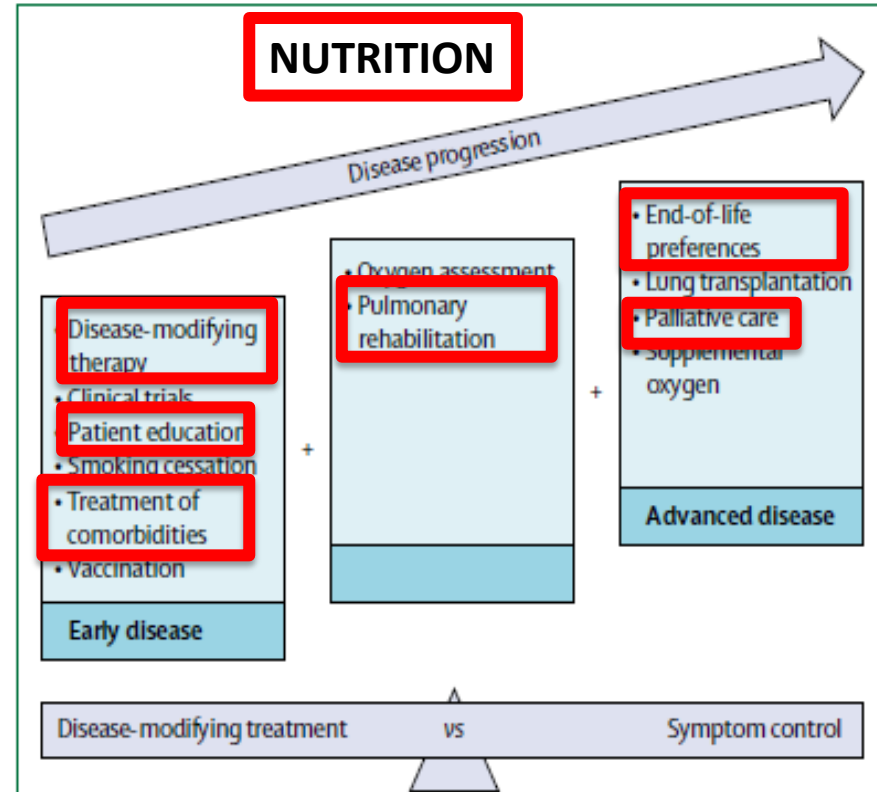


Figure 2: Conceptual model of idiopathic pulmonary fibrosis across an individual's life course



# Prognosis of idiopathic pulmonary fibrosis without anti-fibrotic therapy: a systematic review

*Eur Respir Rev* 2020;

ALL COHORT STUDIES (154) AND PLACEBO ARMS OF RCTs (14) IN IPF  
AND FOLLOW-UP >12MONTHS

THE POOLED PROPORTIONS OF MORTALITY WERE **0,12** AT 1-2 YEARS ,  
**0,38** AT 2-5 YEARS AND **0,69** AT >5 YEARS

The pooled mean overall survival was 4 years for studies with a follow-up duration of 10 years

LOWER POOLED PROPORTIONS OF MORTALITY AT 1 YEAR IN RCTs (0,07)  
vs COHORT STUDIES (0,14)

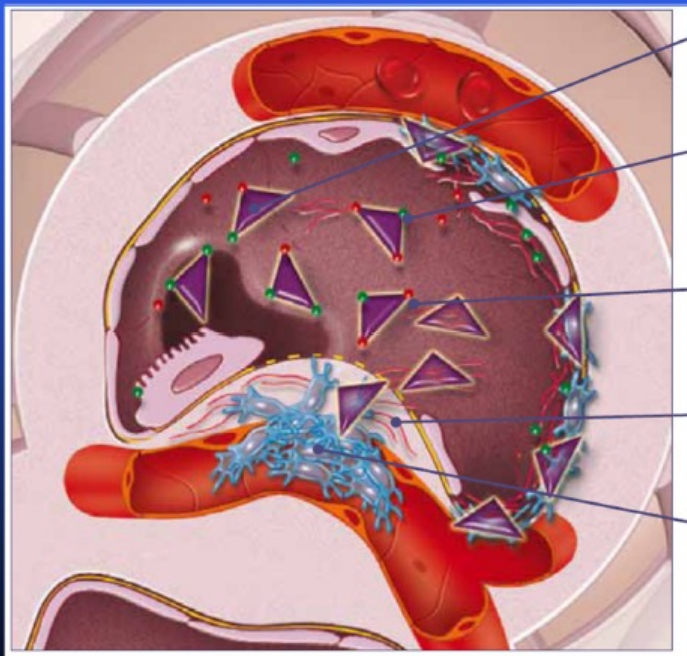
# **IPF: nuovi farmaci antifibrosanti, una evoluzione fondamentale**





# *Pirfenidone anti-fibrotic activity*

- Orally available, synthetic molecule that exhibits anti-fibrotic properties in a variety of in vitro studies and in vivo models



## Pirfenidone

Pirfenidone inhibits TGF- $\beta$ , a potent mediator of lung fibrosis

Pirfenidone inhibits TNF- $\alpha$  synthesis, another fibrotic mediator and inflammatory cytokine

Pirfenidone inhibits collagen production

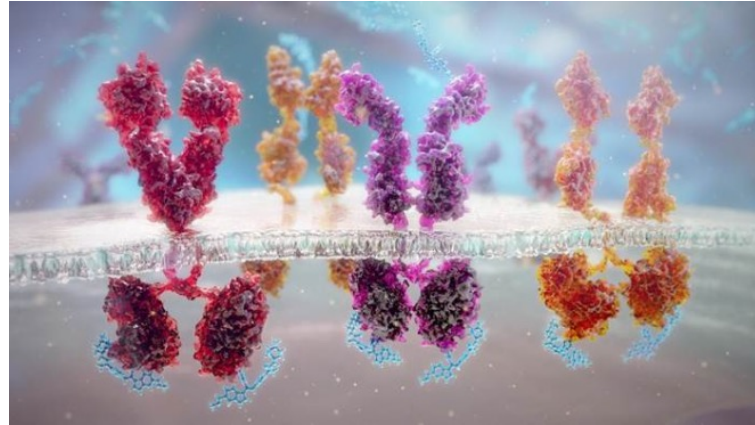
Pirfenidone attenuates fibroblast proliferation



# NINTEDANIB

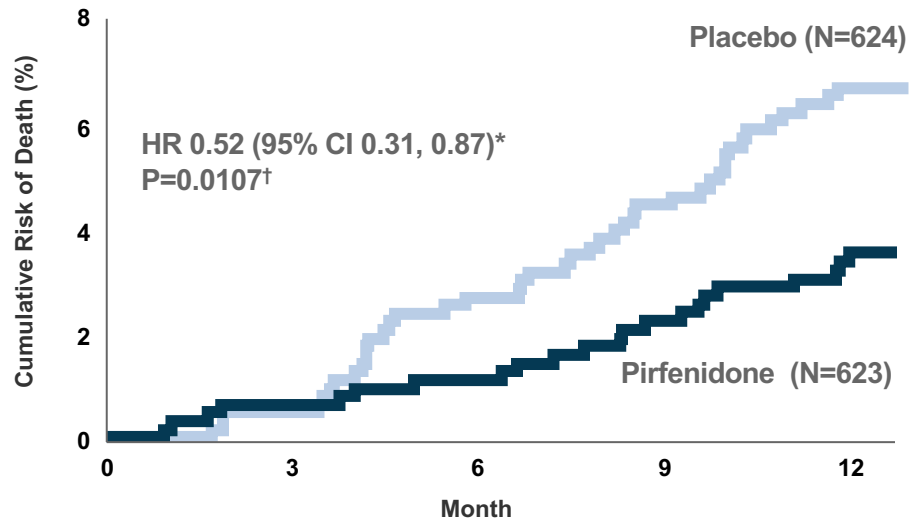
## Nintedanib is a tyrosine kinase inhibitor multitargets

- Nintedanib inhibit the receptor tyrosine - kinase involved in the initiation, maintenance and regulation of fibrosis and angiogenesis (VEGF 1-3, PDGF  $\alpha$ - $\beta$  and FGF 1-3)
- Nintedanib inhibit non-receptor tyrosine kinases (src, lck, Flt3, Lyn).



FGF, fibroblast growth factor; IPF, idiopathic pulmonary fibrosis; PDGF, platelet-derived growth factor; VEGF, vascular endothelial growth factor.

# All-cause Mortality: ASCEND and CAPACITY Pooled (1 Year)



Patients at Risk:

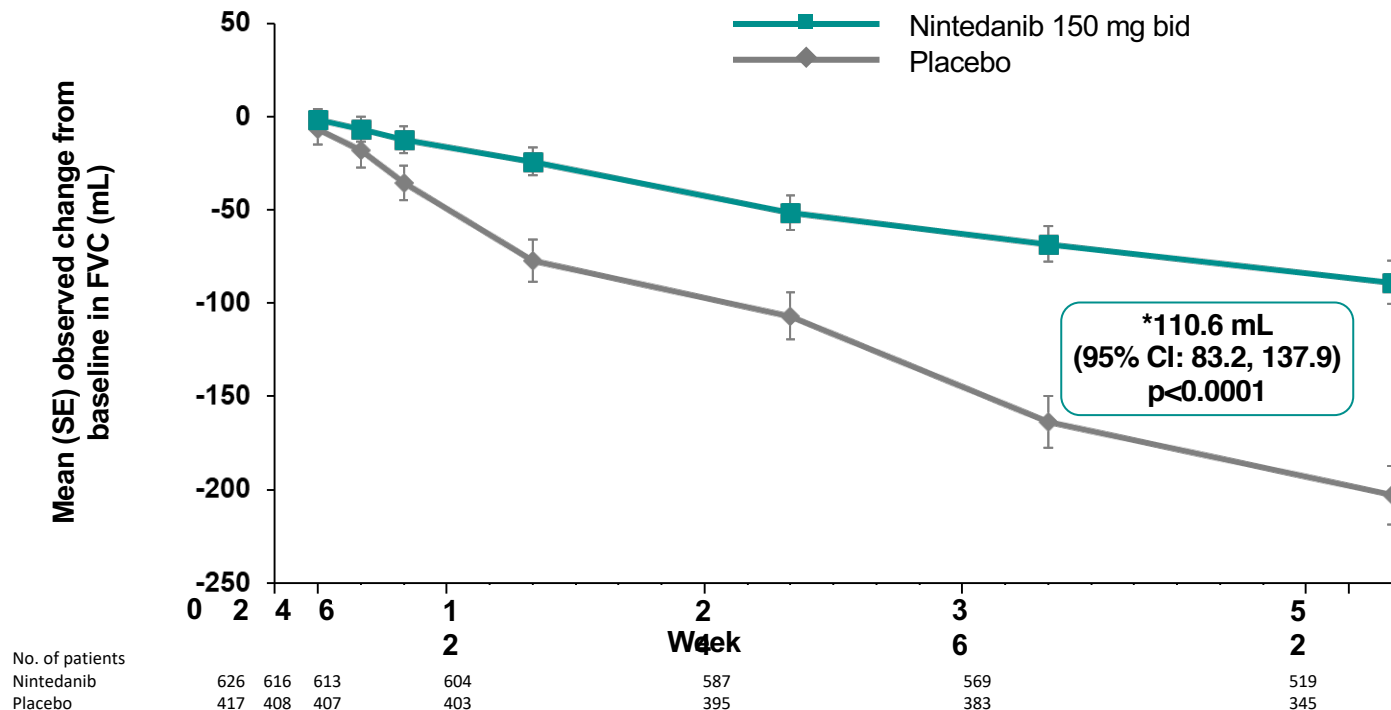
Pirfenidone	623	618	609	596	509
Placebo	624	619	603	586	490

HR = Hazard Ratio; 95% CI=95% confidence interval

\* Cox proportional hazards model

† Log-rank test

# CHANGE FROM BASELINE IN FVC OVER TIME: POOLED DATA



\*Adjusted mean difference versus placebo at Week 52 based on MMRM.  
bid, twice daily; CI, confidence interval; FVC, forced vital capacity.

**Survival and course of lung function in the presence or absence of antifibrotic treatment in patients with idiopathic pulmonary fibrosis: long-term results of the INSIGHTS-IPF registry**

Eur Respir J 2020;

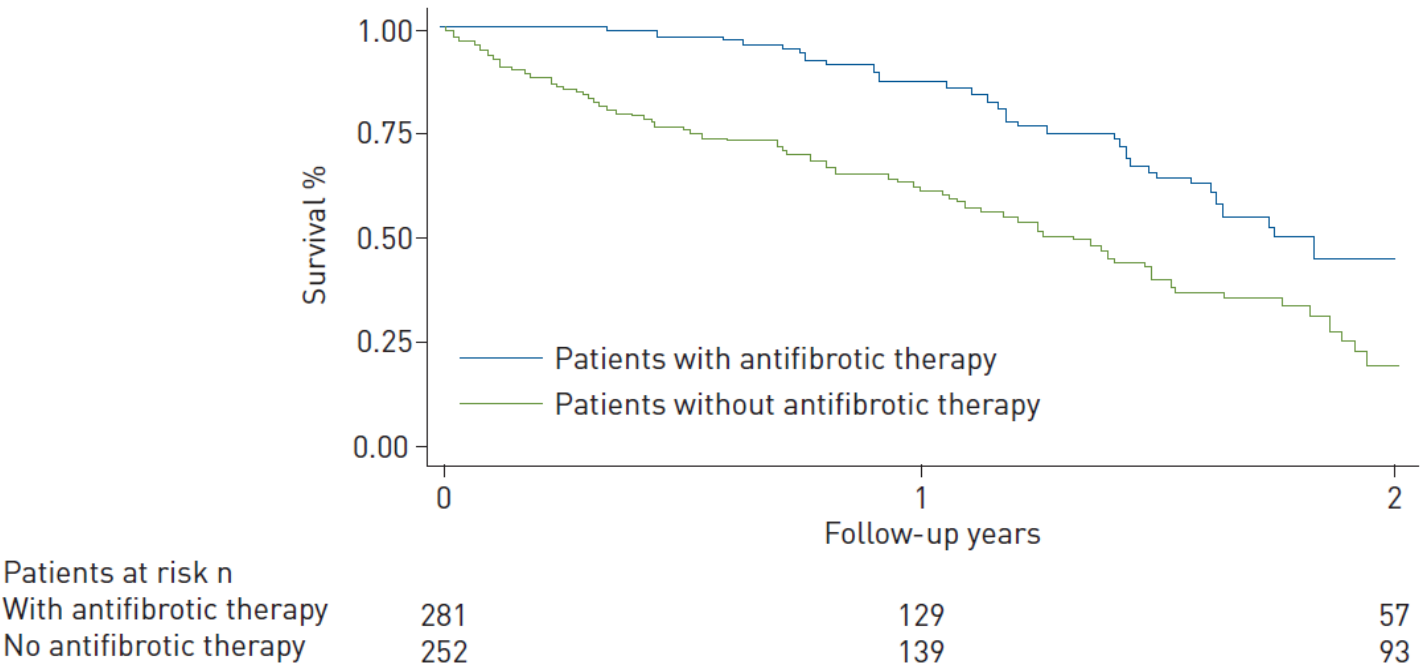
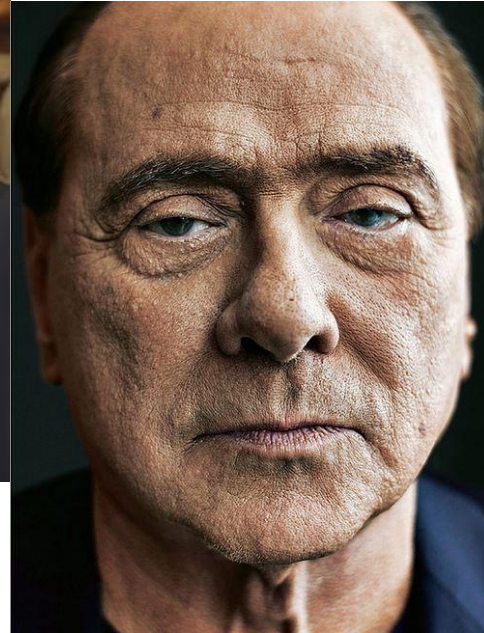
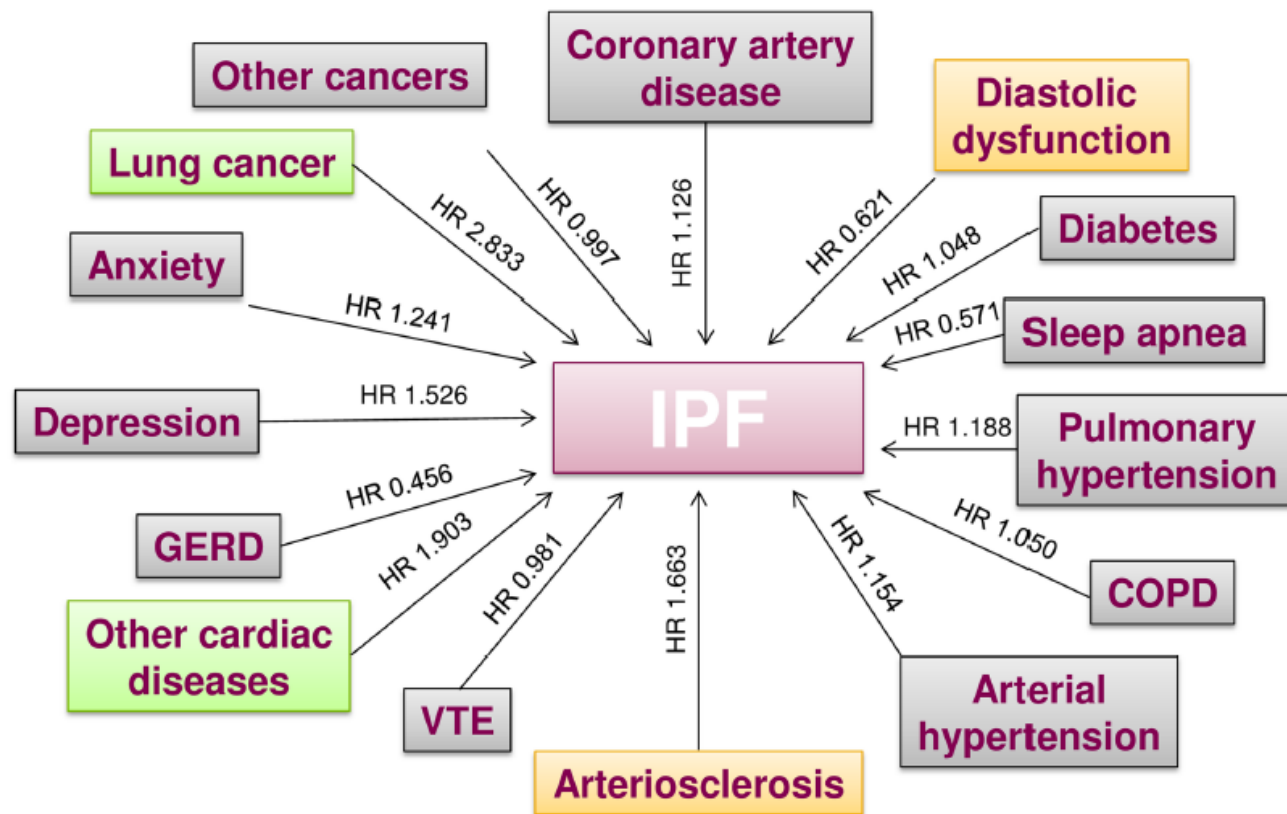


FIGURE 2 Risk of mortality within 2 years by antifibrotic treatment (by propensity score weighted Kaplan–Meier survival curves).

# IPF – a disease of aging



# Impact of IPF and comorbidities on mortality



$P < 0.05$

$P < 0.01$

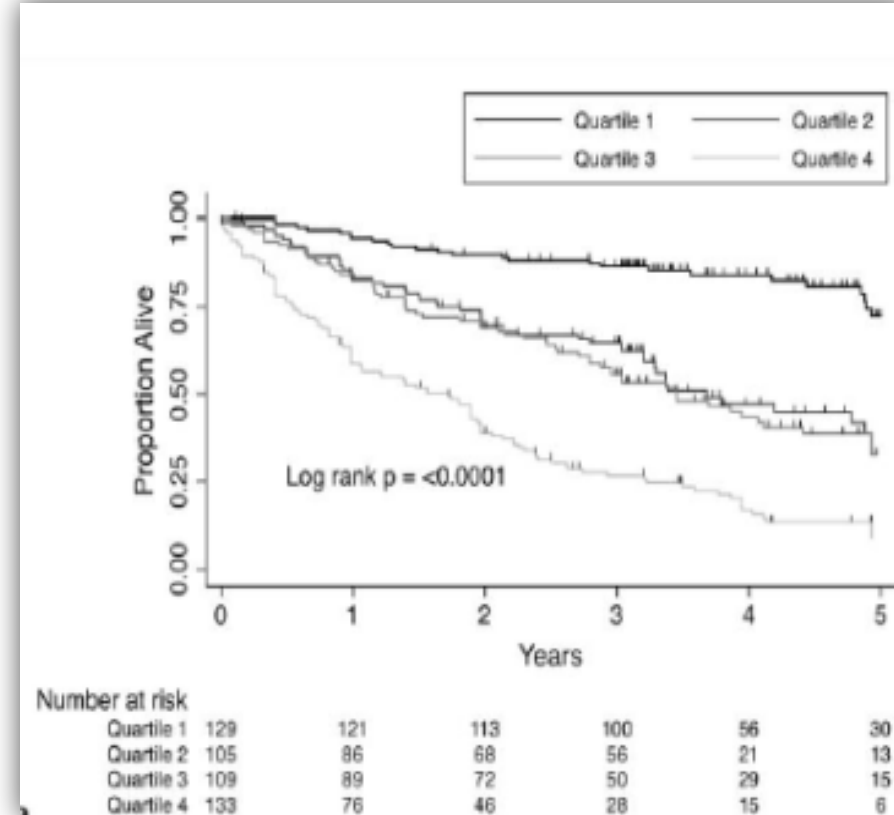
# IPF & comorbidities – staging system

The TORVAN index calculation and staging system

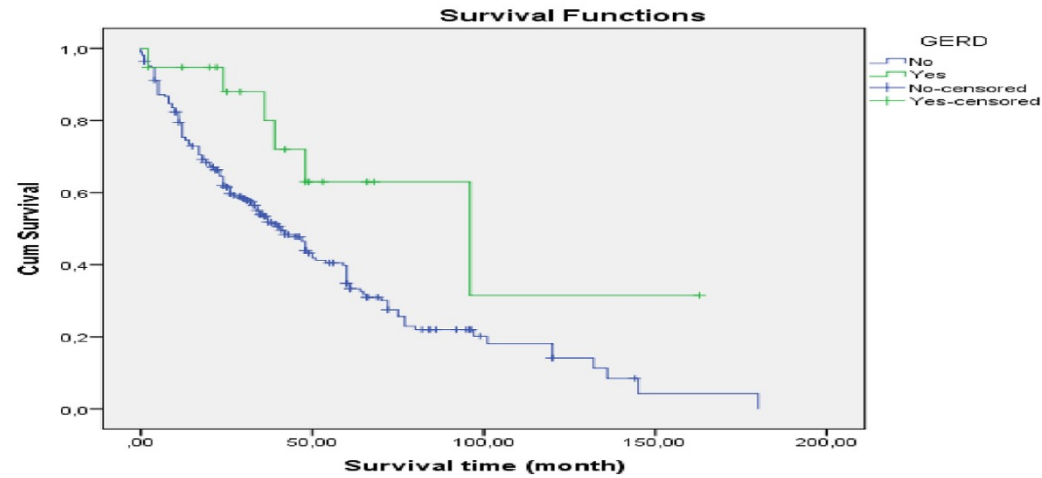
1) Inclusion of comorbidities improves prediction of survival beyond demographic and physiological information (GAP model)

2) Few comorbidities demonstrated significant improvements in survival prediction (short term mortality)

3) Patient sex becomes a less important prognostic indicator when considered in the context of comorbidities

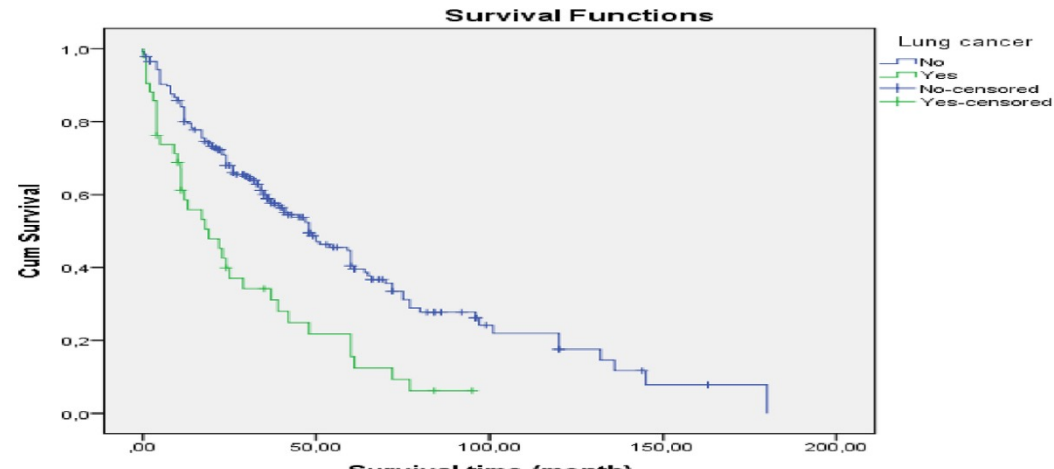






GERD

## B. Lung cancer



LUNG CANCER

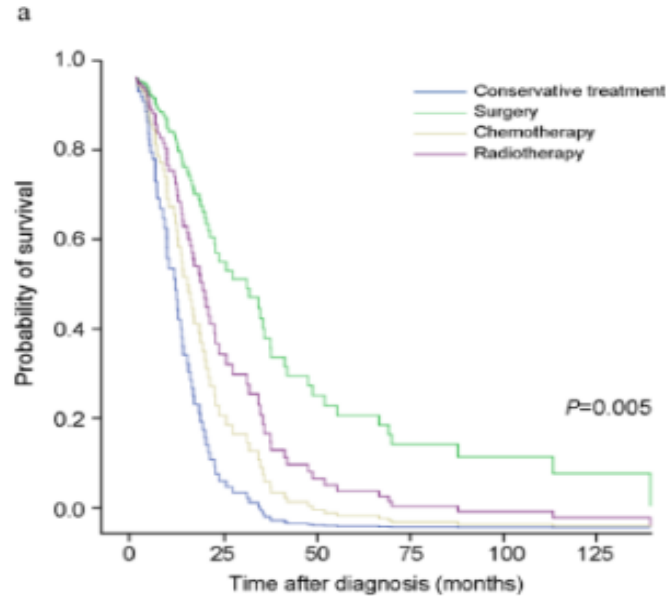
# IPF & lung cancer (LC)

- IPF appear a risk factor for LC independent of shared risk factor (smoke,advanced age).
- The reasons of this increased risk are not clear (aberrant expression of mRNA regulating NSCLC and IPF, role of tyrosine Kinase inhibition against growth factors,delayed apoptosis etc)
- Survival of patients with LC and IPF is worse than patients with IPF alone
- Treatment of LC in pts with IPF is complicated by excess operative mortality and acute exacerbation due to ALI associated to surgery chemotherapy and radiotherapy.

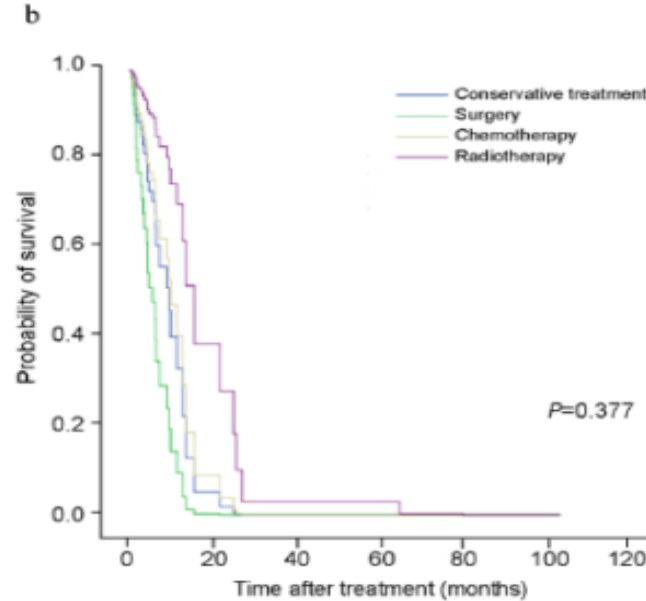
**Antoniou Curr Op Polm Med 2015, Tomassetti Chest 2015, Vancheri ERJ 2010**

## Retrospective South Korean cohort

# IPF & lung cancer



**GAP stage I**



**GAP stage II & III**

NSCLC 160 pts

Active treatment in GAP I

Consider PF e LC stage in GAP II-III

# Managing Lung Cancer with Comorbid Interstitial Pneumonia

**Internal Medicine**

The Japanese Society of Internal Medicine

**Table.** Frequency of AEs or Development of Drug-induced IP.

	Frequency of AEs or drug-induced IP	
	without comorbid IP	with comorbid IP
Cytotoxic chemotherapies	<5%	10-30%
Molecular-targeted therapy (gefitinib)	3.8%	13.8%
Immune checkpoint inhibitors	3-4%	unknown

# IPF - lung cancer (LC)- antifibrotic agents

- Antiproliferative effects and antitumor activity of antifibrotics drugs may have a synergistic effect with chemotherapy (Medavilla-Varela BMC Cancer 2017)
- A retrospective review of 384 patients found a marked reduction in the incidence in those patients given pirfenidone (Miura ERJ 2014, Respir Invest 2018)
- Nintedanib in combination with docetaxel demonstrated significant overall survival benefits in lung adenocarcinoma (Gottfried Target Oncol 2017)
- Nintedanib is approved as second line treatment of NSCLC

# Nintedanib plus chemotherapy for non–small cell lung cancer with IPF: a randomized phase 3 trial

Kohei Otsubo, Junji Kishimoto, Masahiko Ando, Hirotugu Kenmotsu, Yuji Minegishi, Hidehito Horinouchi, Terufumi Kato, Eiki Ichihara, Masashi Kondo, Shinji Atagi, Motohiro Tamiya, Satoshi Ikeda, Toshiyuki Harada, Shinnosuke Takemoto, Hidetoshi Hayashi, Keita Nakatomi, Yuichiro Kimura, Yasuhiro Kondoh, Masahiko Kusumoto, Kazuya Ichikado, Nobuyuki Yamamoto, Kazuhiko Nakagawa, Yoichi Nakanishi, Isamu Okamoto

ed. We performed a randomized phase 3 trial to assess the efficacy and safety of nintedanib plus chemotherapy (experimental arm) compared with chemotherapy alone (standard-of-care arm) for advanced non–small cell lung cancer (NSCLC) with IPF.

**Methods** Chemotherapy-naïve advanced NSCLC patients with IPF were allocated to receive carboplatin (area under the curve of 6 on day 1) plus nab-paclitaxel (100 mg/m<sup>2</sup> on days 1, 8, and 15) every 3 weeks with or without nintedanib (150 mg b.i.d., daily). The primary end point was exacerbation-free survival (EFS).

EUROPEAN RESPIRATORY *journal* in press

# Nintedanib plus chemotherapy for non-small cell lung cancer with IPF: a randomized phase 3 trial

243 patients

Median EFS 14,6 MONTHS VS 11,8 FAVOUR NINTEDANIB PLUS CHEMOTHERAPY VS CHEMOTHERAPY ALONE

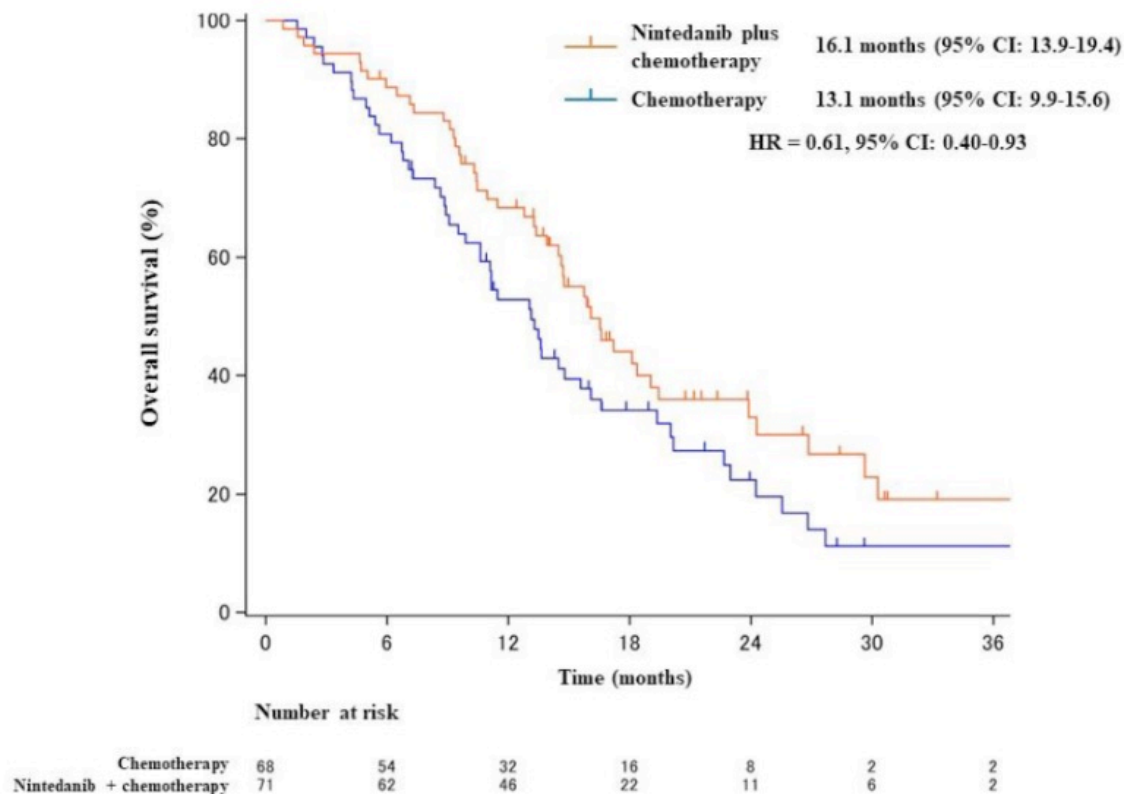
Median PFS was 6,2 vs 5,5

*Conclusions* The primary end point of the study was not met. However, carboplatin plus nab-paclitaxel was found to be effective and tolerable in advanced NSCLC patients with IPF. Moreover, nintedanib in combination with such chemotherapy improved overall survival in patients with nonsquamous histology.

EUROPEAN RESPIRATORY *journal* in press



# Nintedanib plus chemotherapy for non-small cell lung cancer







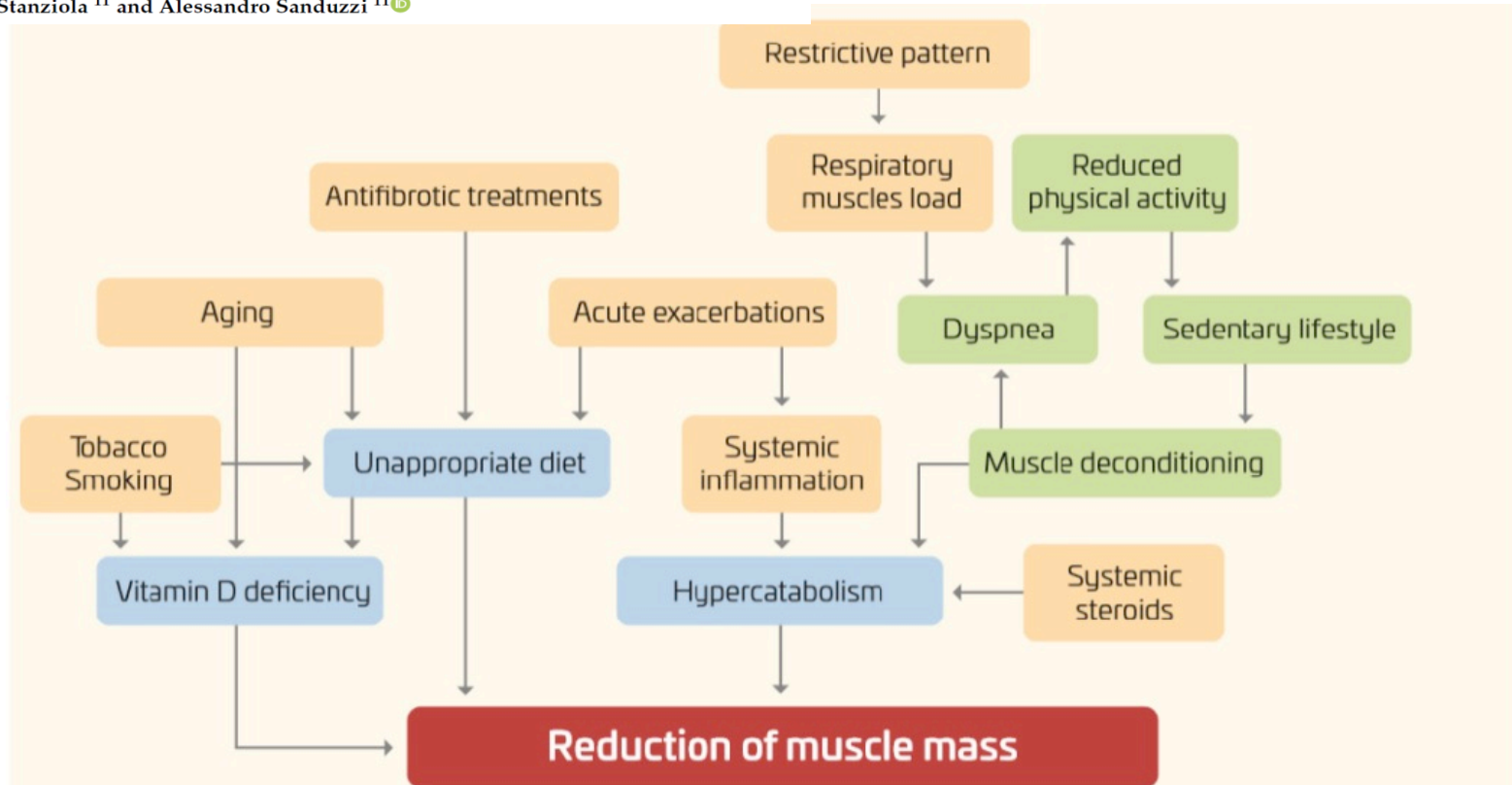
EUROPEAN RESPIRATORY *journal* in press

# **NUTRIZIONE E IPF**

# Nutrition in Patients with Idiopathic Pulmonary Fibrosis: Critical Issues Analysis and Future Research Directions





*Nutrients* **2020**, *12*, 1131; doi:10.3390/nu12041131

Paola Faverio <sup>1,2</sup>, Marialuisa Bocchino <sup>3</sup>, Antonella Caminati <sup>4</sup> , Alessia Fumagalli <sup>5</sup> ,  
Monica Gasbarra <sup>6</sup>, Paola Iovino <sup>7</sup> , Alessandra Petruzzi <sup>8,\*</sup>, Luca Scalfi <sup>9</sup>, Alfredo Sebastiani <sup>10</sup>,  
Anna Agnese Stanziola <sup>11</sup> and Alessandro Sanduzzi <sup>11</sup> 



# Nutrition in Patients with Idiopathic Pulmonary Fibrosis: Critical Issues Analysis and Future Research Directions

*Nutrients* 2020, 12, 1131; doi:10.3390/nu12041131

Paola Faverio <sup>1,2</sup>, Marialuisa Bocchino <sup>3</sup>, Antonella Caminati <sup>4</sup> , Alessia Fumagalli <sup>5</sup> ,  
Monica Gasbarra <sup>6</sup>, Paola Iovino <sup>7</sup> , Alessandra Petruzzi <sup>8,\*</sup>, Luca Scalfi <sup>9</sup>, Alfredo Sebastiani <sup>10</sup>,  
Anna Agnese Stanziola <sup>11</sup> and Alessandro Sanduzzi <sup>11</sup> 

As far as IPF is concerned, different studies [10–12,98] have found that nutritional abnormalities, such as lower BMI, body weight loss, and vitamin D deficiency, seem to have a negative prognostic significance. Despite this evidence, such topics have not been examined extensively.

In light of the above, it seems therefore quite clear that a multidisciplinary approach is needed not only in the diagnostic process, but also in follow-up and advanced phases of the disease—so that various specialists should be involved in multidisciplinary care of IPF, including nutritionists (physicians and dietitians) and rehabilitation specialists in addition to pulmonologists, nurses, and psychologists.

However, epidemiological studies performing a complete nutritional evaluation (NUTRIPF study, [ClinicalTrials.gov](https://clinicaltrials.gov/ct2/show/study/NCT03770845) Identifier: NCT03770845) and nutritional intervention (MADIET study, [ClinicalTrials.gov](https://clinicaltrials.gov/ct2/show/study/NCT03539289) Identifier: NCT03539289) in IPF patients are ongoing, and their results are expected in the near future.

# Nutritional assessment in idiopathic pulmonary fibrosis: a prospective multicentre study

Paola Faverio, Alessia Fumagalli, Sara Conti, Fabiana Madotto, Francesco Bini, Sergio Harari, Michele Mondoni, Tiberio Oggionni, Emanuela Barisione, Paolo Ceruti, Maria Chiara Papetti, Bruno Dino Bodini, Antonella Caminati, Angela Valentino, Stefano Centanni, Donatella Noè, Matteo Della Zoppa, Silvia Crotti, Marco Grosso, Samir Giuseppe Sukkar, Denise Modina, Marco Andreoli, Roberta Nicali, Giulia Suigo, Federica De Giacomi, Sara Busnelli, Elena Cattaneo, Lorenzo Giovanni Mantovani, Giancarlo Cesana, Alberto Pesci, Fabrizio Luppi

**Prospective , multicentred , observational , pilot study, in consecutive IPF patients at the time of diagnosis over a 2-year period /December 2018 . November 2020) from outpatients specialist clinic of 9 hospitals of Northern Italy**

**Methods** Patients underwent a thorough pulmonary and nutritional evaluation including questionnaires on NS and physical activity, anthropometry, body impedance, dynamometry, 4-meter gait speed and blood tests.

# Nutritional assessment in idiopathic pulmonary fibrosis: a prospective multicentre study

**Results** **90 IPF patients** (78.9% males, mean age 72.7 years) were enrolled. The majority of patients were classified as Gender-Age-Physiology Index stage 2 (47, 52.2%) with an inactive lifestyle according to International Physical Activity Questionnaire score (39, 43.3%) and had mean forced vital capacity and diffusing capacity for carbon monoxide 86.5% and 54.2%, respectively. In regards to nutritional phenotypes, the majority of patients were normally nourished (67.8%, 95% Confidence Interval (CI):58.6–77.7), followed by non-sarcopenic obese (25.3%, 95%CI:16.1–35.2), sarcopenic (4.6%, 95%CI:0.0–14.5) and sarcopenic obese (2.3%, 95%CI:0.0–12.2). **Among normally nourished, 49.2% showed early signs of nutritional and physical performance alterations,** including body mass index  $\geq 30$  in 4.3%, history of weight loss  $\geq 5\%$  in 11.9%, reduction of gait speed and hand grip strength in 11.9% and 35.6%, respectively. Low vitamin D values were observed in 56.3% of cases.

**Conclusions** IPF patients at diagnosis are mainly normally nourished and obese, but early signs of nutritional and physical performance impairment can already be identified at this stage.

. CLIN NUTR 2022 May 6;41(6):1335-1342.

## **Malnutrition and decreased food intake at diagnosis are associated with hospitalization and mortality of idiopathic pulmonary fibrosis patients**

[Stéphane Jouneau<sup>1</sup>](#), [Chloé Rousseau<sup>2</sup>](#), [Mathieu Lederlin<sup>3</sup>](#), [Alain Lescoat<sup>4</sup>](#), [Mallorie Kerjouan<sup>5</sup>](#), [Pierre Chauvin<sup>5</sup>](#), [David Luque-Paz<sup>5</sup>](#), [Stéphanie Guillot<sup>6</sup>](#), [Emmanuel Oger<sup>7</sup>](#), [Laurent Vernhet<sup>8</sup>](#), [Ronan Thibault<sup>9</sup>](#)

**Conclusions:** Malnutrition and decreased food intake at IPF diagnosis are associated with all-cause hospitalization and mortality. Future studies will determine whether dedicated interventions to improve food intake and nutritional status could improve outcomes for IPF patients.



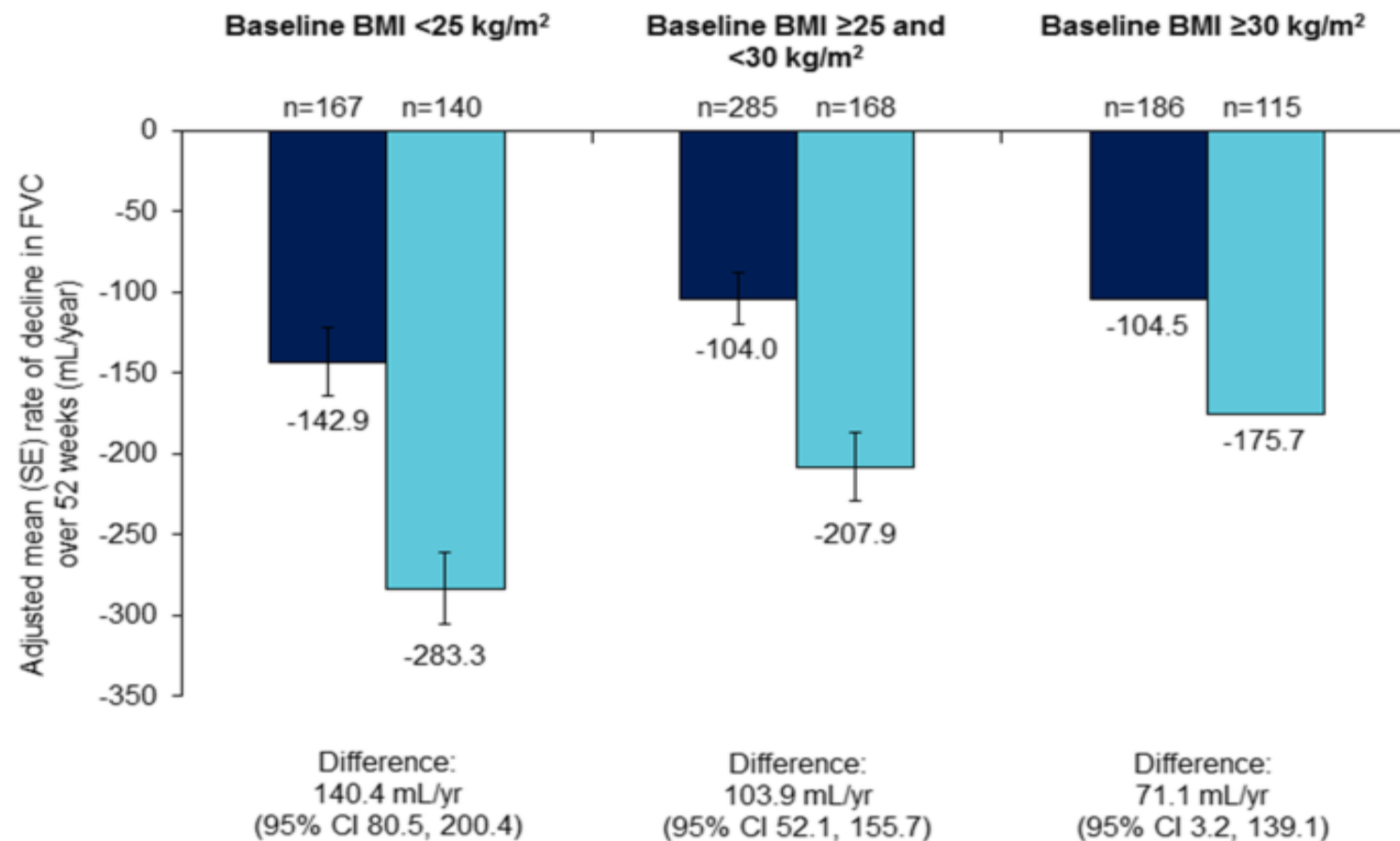
# Analysis of body mass index, weight loss and progression of idiopathic pulmonary fibrosis

Jouneau Respir Res 2020

**Background:** Nintedanib is an approved therapy for IPF. Some patients treated with nintedanib experience weight loss. Exploratory data suggest that low body mass index or weight loss are associated with worse outcomes in patients with IPF. We investigated whether BMI at baseline or weight loss over 52 weeks was associated with FVC decline, or influenced the effect of nintedanib, in patients with IPF.

**Methods:** Using pooled data from the two INPULSIS trials, we analysed the rate of decline in FVC (mL/yr) over 52 weeks in patients treated with nintedanib and placebo in subgroups by baseline BMI (< 25; ≥25 to < 30; ≥30 kg/m<sup>2</sup>) and by weight loss over 52 weeks (≤5; > 5%) using random coefficient regression.

■ Nintedanib    ■ Placebo



P-value for treatment-by-time-by-subgroup interaction = 0.3135

# Analysis of body mass index, weight loss and progression of idiopathic pulmonary fibrosis

Jouneau Respir Res 2020

**Results:** In the placebo group, the mean rate of FVC decline over 52 weeks was numerically greater in patients with lower baseline BMI (- 283.3 [SE 22.4], - 207.9 [20.9] and - 104.5 [21.4] in patients with BMI < 25 kg/m<sup>2</sup>, ≥25 to < 30 kg/m<sup>2</sup> and ≥ 30 kg/m<sup>2</sup>, respectively). Nintedanib reduced the rate of FVC decline versus placebo in all subgroups by BMI, with a consistent treatment effect across subgroups (interaction p = 0.31). In the placebo group, the mean rate of FVC decline was numerically greater in patients with > 5% than ≤5% weight loss over 52 weeks (- 312.7 [SE 32.2] versus - 199.5 [SE 14.4] mL/year). Nintedanib reduced the rate of FVC decline versus placebo in both subgroups by weight loss, with a greater treatment effect in patients with > 5% weight loss (interaction p = 0.0008). The adverse event profile of nintedanib was similar across subgroups.

**Conclusions:** In patients with IPF, lower BMI and weight loss may be associated with faster decline in FVC. Nintedanib reduces the rate of FVC decline both in patients who lose weight on treatment and those who do not.

# FRAILITY AND CHRONIC RESPIRATORY DISEASE: THE NEED FOR A MULTI-DISCIPLINARY CARE MODEL

*Emmanouil K. Symvoulakis<sup>1</sup>, Apostolos Kamekis<sup>2</sup>, Elena Drakonaki<sup>3</sup>, Semeli Mastrodemou<sup>4</sup>, Christopher J. Ryerson<sup>5</sup>, Katerina Antoniou<sup>6</sup>*

**FRAILITY IS A SYNDROME WHICH LEADS TO DECREASED STRENGTH. ENDURANCE AND PHYSIOLOGICAL FUNCTION RESULTING TO INCREASED VULNERABILITY AND/OR RISK OF DYING.**

**FRAIL PATIENTS ARE PREDISPOSED TO FALLS, HOSPITALIZATIONS AND INSTITUTIONALIZATIONS.**

**AGING AND CHRONIC DISEASES INCREASE THE RISK FOR AND SEVERITY OF FRAILITY**

**FRAILITY IN PATIENTS WITH RESPIRATORY DYSFUNCTION IS EXPRESSED AS DYSPNEA WORSENING**

# FRAILITY AND IPF

Frailty is common in elderly patients with IPF, strongly associated with dyspnea and linked to reduced pectoralis muscle mass.

This combination impact on patients' quality of life and survival.

More attention should be devoted to imbalanced nutrition as well to early occurrence of low muscle strength (dynapenia) and low physical performance

# Frailty is common and strongly associated with dyspnoea severity in fibrotic interstitial lung disease

Milne Respiriology 2017

**Methods:** Fibrotic ILD patients were recruited from a specialized clinic. Patients with ILD secondary to a systemic disease were excluded. Frailty was determined using the Frailty Index based on the presence or absence of multiple deficits, including co-morbidities, symptoms and functional limitations.

**Results:** The definition of frailty was met in 50% of the 129 patients. Cronbach's alpha for the Frailty Index was 0.87. The Frailty Index was associated with forced vital capacity (FVC), forced expiratory volume in 1 s ( $FEV_1$ ), diffusion capacity of the lung for carbon monoxide ( $DL_{CO}$ ), ILD-gender, age and physiology (GAP) index, composite physiologic index and dyspnoea score. Dyspnoea severity was the strongest unadjusted predictor ( $r = 0.65$ ,  $P < 0.001$ ) and only independent predictor of the Frailty Index (0.034 increase in Frailty Index per 10-point increase in dyspnoea score;  $R^2 = 0.37$ ;  $P < 0.001$ ).

**Conclusion:** Frailty is highly prevalent and is strongly and independently associated with dyspnoea severity, demonstrating that dyspnoea is a more important determinant of frailty than pulmonary function.

# Functional ageing in fibrotic interstitial lung disease: the impact of frailty on adverse health outcomes

Guler ERJ 2020

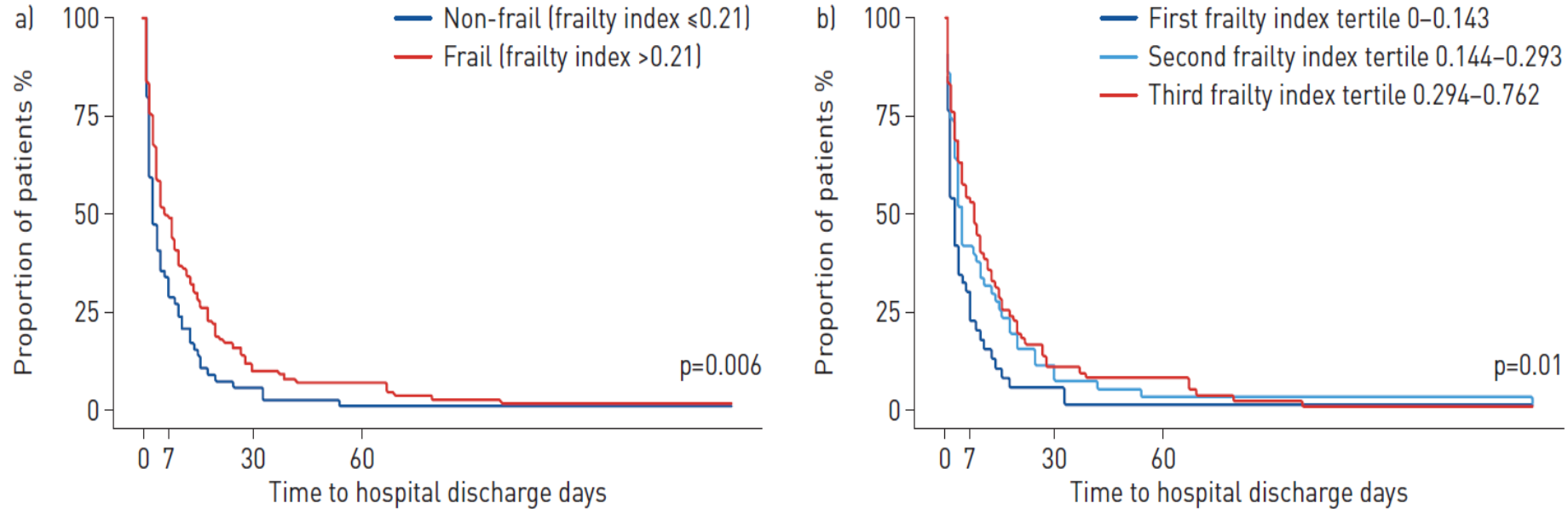


FIGURE 1 Time to hospital discharge a) in non-frail and frail patients and b) by tertiles of the frailty index. Survival curves from Cox proportional hazard models adjusting for age and sex.



# Functional ageing in fibrotic interstitial lung disease: the impact of frailty on adverse health outcomes

Guler ERJ 2020

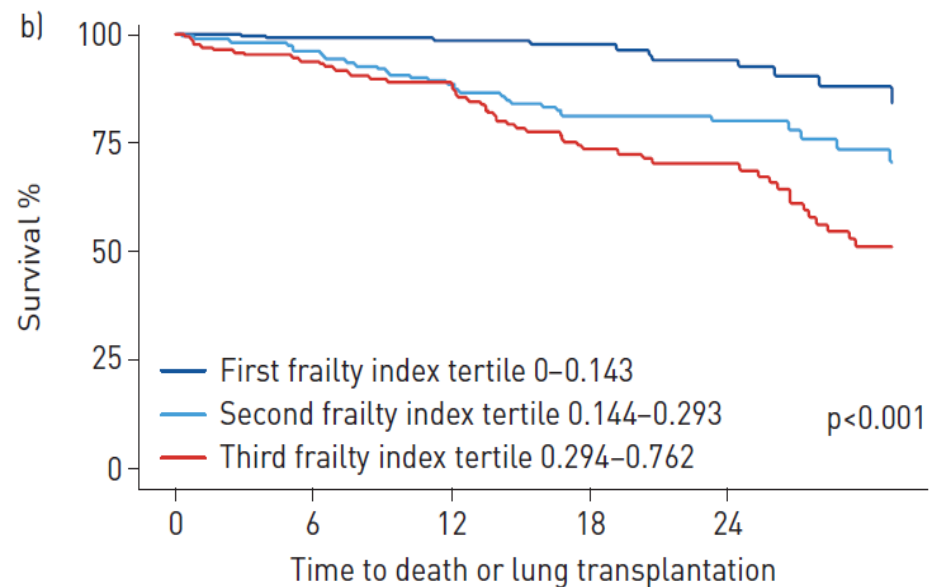
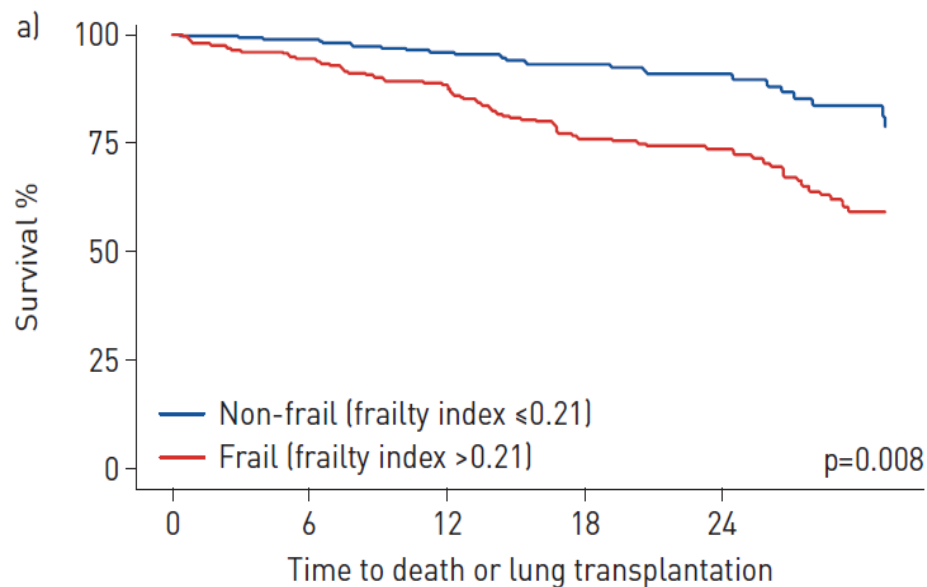


FIGURE 2 Survival a) in non-frail and frail patients and b) by tertiles of the frailty index. Survival curves from Cox proportional hazard models adjusting for age and sex.

# PHYSICAL REHABILITATION IN IPF

- It's the safest and most effective treatment of dyspnea and is widely recommended for all patients with IPF.

## American Thoracic Society Documents

### **An Official ATS/ERS/JRS/ALAT Statement: Idiopathic Pulmonary Fibrosis: Evidence-based Guidelines for Diagnosis and Management**

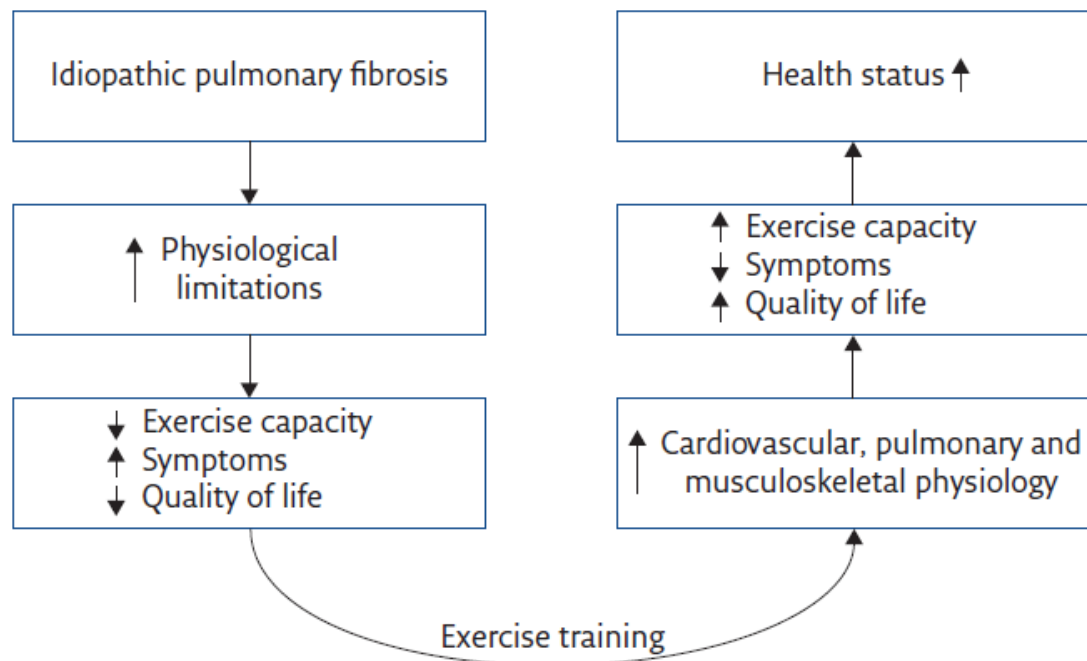
Ganesh Raghu, Harold R. Collard, Jim J. Egan, Fernando J. Martinez, Juergen Behr, Kevin K. Brown, Thomas V. Colby, Jean-François Cordier, Kevin R. Flaherty, Joseph A. Lasky, David A. Lynch, Jay H. Ryu, Jeffrey J. Swigris, Athol U. Wells, Julio Ancochea, Demosthenes Bouros, Carlos Carvalho, Ulrich Costabel, Masahito Ebina, David M. Hansell, Takeshi Johkoh, Dong Soon Kim, Talmadge E. King, Jr., Yasuhiro Kondoh, Jeffrey Myers, Nestor L. Müller, Andrew G. Nicholson, Luca Richeldi, Moisés Selman, Rosalind F. Dudden, Barbara S. Griss, Shandra L. Protzko, and Holger J. Schünemann, on behalf of the ATS/ERS/JRS/ALAT Committee on Idiopathic Pulmonary Fibrosis

THIS OFFICIAL STATEMENT OF THE AMERICAN THORACIC SOCIETY (ATS), THE EUROPEAN RESPIRATORY SOCIETY (ERS), THE JAPANESE RESPIRATORY SOCIETY (JRS), AND THE LATIN AMERICAN THORACIC ASSOCIATION (ALAT) WAS APPROVED BY THE ATS BOARD OF DIRECTORS, NOVEMBER 2010, THE ERS EXECUTIVE COMMITTEE, SEPTEMBER 2010, THE JRS BOARD OF DIRECTORS, DECEMBER 2010, AND THE ALAT EXECUTIVE COMMITTEE, NOVEMBER 2010

THIS STATEMENT HAS BEEN FORMALLY ENDORSED BY THE SOCIETY OF THORACIC RADIOLOGY AND BY THE PULMONARY PATHOLOGY SOCIETY

# Exercise training in idiopathic pulmonary fibrosis: is it of benefit?

Vainshelboim B.  
Exercise training in idiopathic  
pulmonary fibrosis: is it of  
benefit? *Breathe* 2016; 12:  
130–138.



**Figure 1** Possible mechanisms for the beneficial effect of exercise training in IPF patients.

# Aerobic and breathing exercises improve dyspnea, exercise capacity and quality of life in idiopathic pulmonary fibrosis patients: systematic review and meta-analysis

Hanaga Thorac Dis 2020

**Background:** Idiopathic pulmonary fibrosis (IPF) is a progressive disease associated with significant dyspnea and limited exercise capacity. This systematic review aimed to synthesize evidence of exercise interventions during pulmonary rehabilitation that aim to improve exercise capacity, dyspnea, and health-related quality of life (HRQL) in IPF patients

**Results:** 14 articles were included (four randomized controlled trials and 10 prospective pre-post design studies) that examined 362 patients receiving training and 95 control subjects. Exercise capacity was measured with the 6-minute walk distance, peak oxygen consumption, peak work rate, or endurance time for constant work rate cycling, which increased after exercise [aerobic exercise; aerobic and breathing exercises; aerobic and inspiratory muscle training (IMT) exercises] compared to the control groups. Dyspnea scores improved after aerobic and breathing exercises. HRQL also improved after aerobic exercise training alone or combined with breathing exercises. Aerobic training alone or combined with IMT or breathing exercises improved exercise capacity.

# Aerobic and breathing exercises improve dyspnea, exercise capacity and quality of life in idiopathic pulmonary fibrosis patients: systematic review and meta-analysis

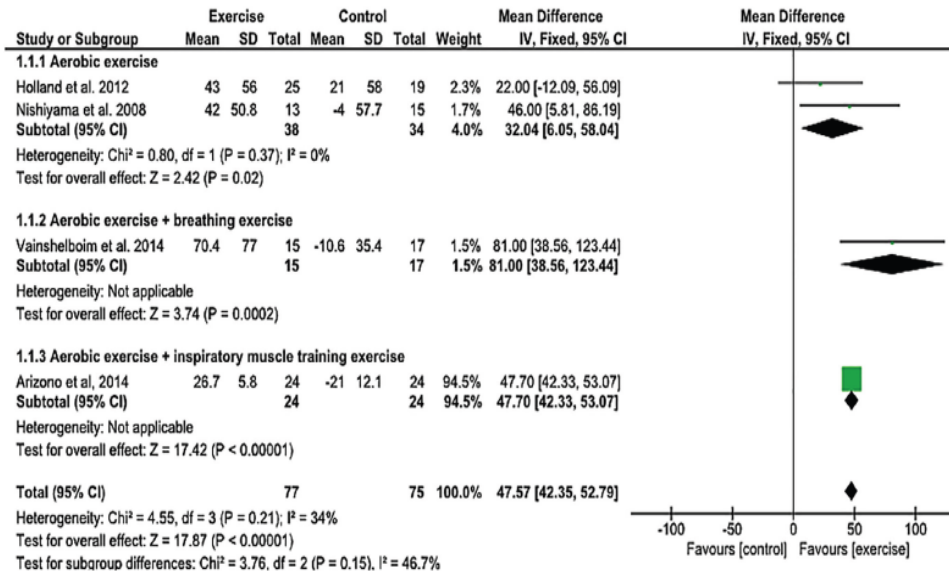
Hanaga Thorac Dis 2020

## 6 minute walking test variation

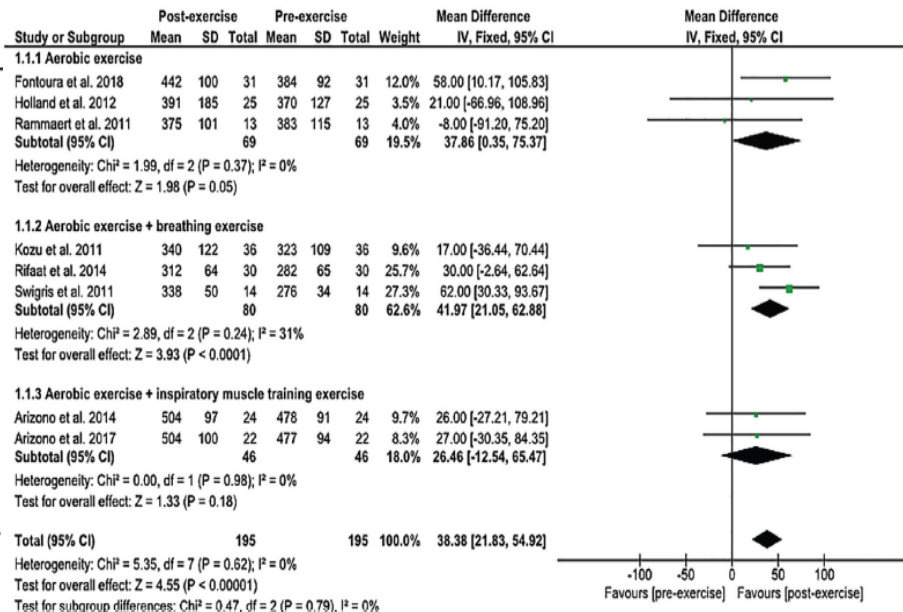
### Exercise vs control

### Pre – post Exercise

#### A Exercise versus Control Group



#### B Pre versus post exercise training



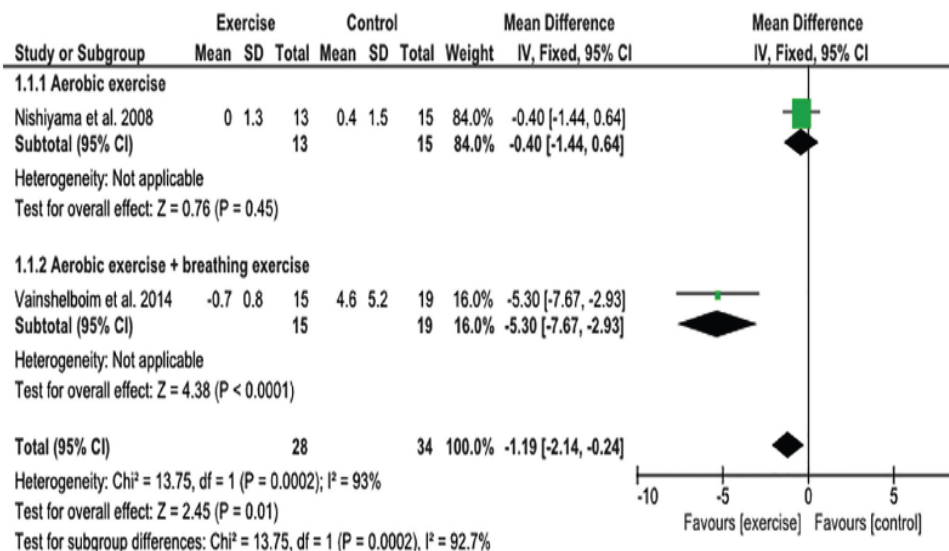
# Aerobic and breathing exercises improve dyspnea, exercise capacity and quality of life in idiopathic pulmonary fibrosis patients: systematic review and meta-analysis

Hanaga Thorac Dis 2020

## Dyspnea score variation

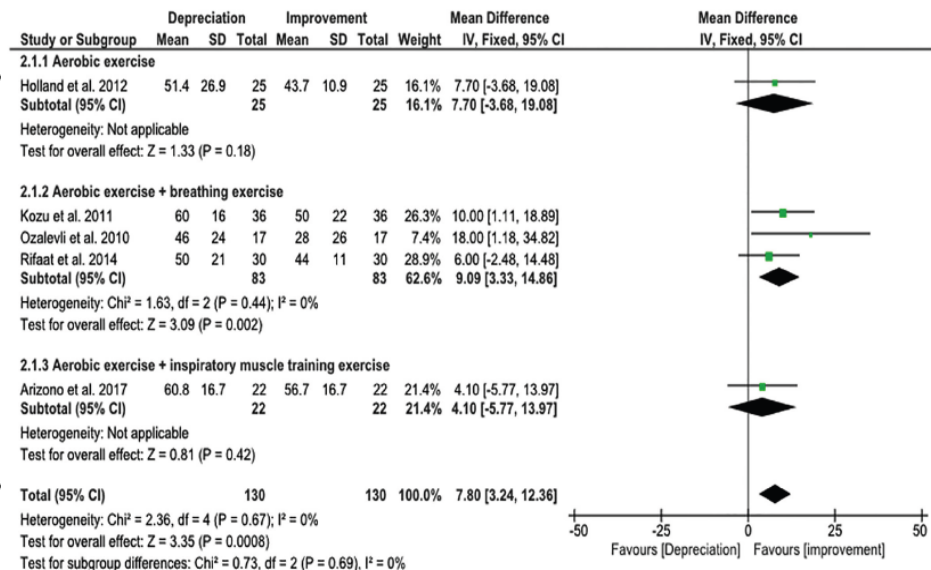
### Exercise vs control

#### A Exercise versus Control Group



### Pre – post Exercise

#### B Pre versus post exercise training - % change

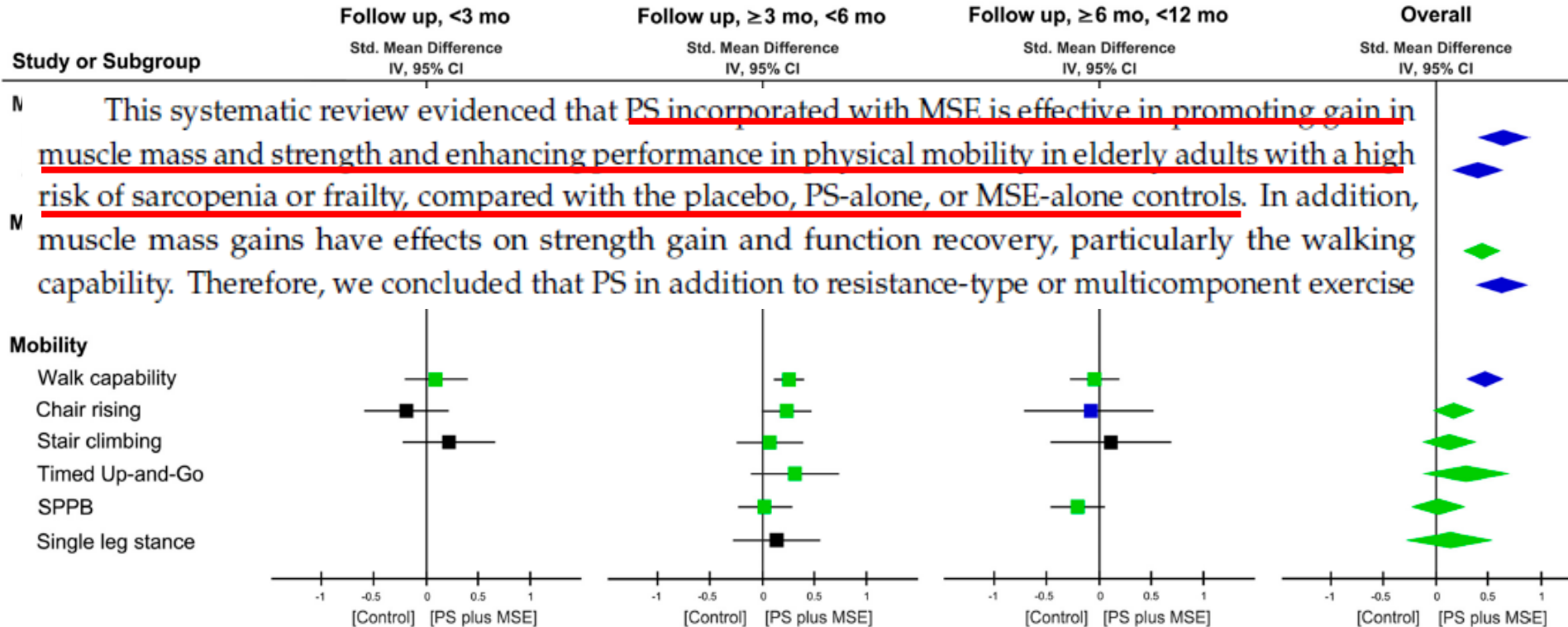


# PHYSICAL REHABILITATION IN IPF

- Physical rehabilitation can improve dyspnoea, exercise tolerance and QoL in patients with ILD. (Dowman 2014)
- Its effect is proven in patients with IPF.
- There are differences in programmes, outcomes and scales used in various studies.  
(Dowman 2017,Ozalevli 2010,Nishiyama 2008)
- **The open questions are: long term effects and how to maximize its effects.**  
(Curtis 2017)

# The Role of Muscle Mass Gain Following Protein Supplementation Plus Exercise Therapy in Older Adults with Sarcopenia and Frailty Risks: A Systematic Review and Meta-Regression Analysis of Randomized Trials

Nutrients2019





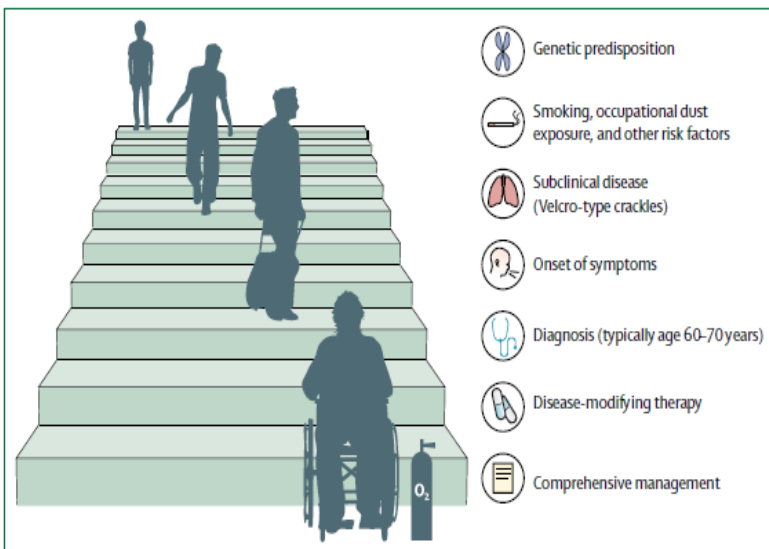


Figure 2: Conceptual model of idiopathic pulmonary fibrosis across an individual's life course

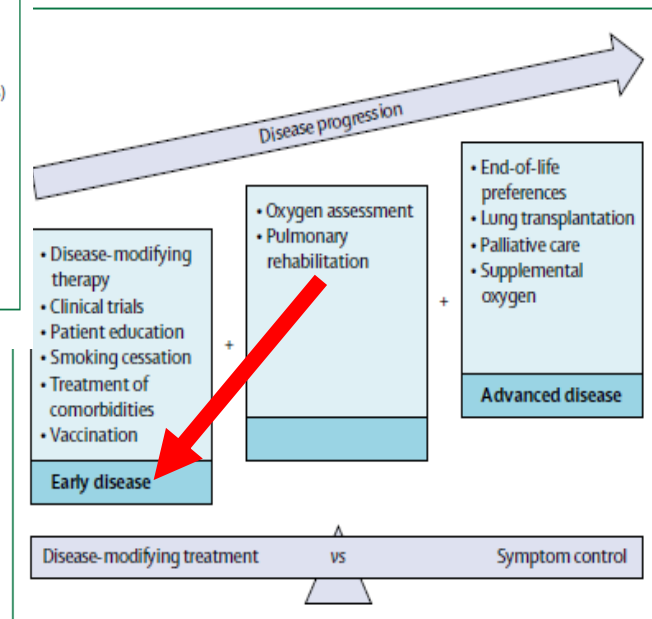


Figure 4: A step-by-step approach to the comprehensive management of patients with idiopathic pulmonary fibrosis

# Palliative care in IPF

- IPF has a prognosis worse than most malignancies but end of life cares is far less developed than in oncology
- Experience in oncology have shown that early palliative care improves QoL and the mood of patients, and resulted in less aggressive care and better survival

# ANTIFIBROTIC AGENTS : EFFECTS ON IPF SYMPTOMS

- DYSPNEA  $\approx$ NN
- FATIGUE  $\uparrow$
- ASTHENIA  $\uparrow$
- COUGH  $\downarrow$
- WEIGHT LOSS  $\uparrow \uparrow$
- ARTRALGIAS  $\uparrow?$
- MIALGIAS  $\uparrow?$



## Effect of pirfenidone on cough in patients with idiopathic pulmonary fibrosis

Effect of 12 weeks of pirfenidone treatment on objective and subjective cough and health status measures, analysed with a linear mixed model

	Baseline	At 12 weeks	Change <sup>#</sup> (95% CI)	p-value <sup>#</sup>
<b>Subjects n</b>	43	31		
<b>24-h cough</b>	520 [91 to 3394]	392 [75 to 1746]	-34% [-48 to -15%]	0.002
<b>Coughs per hour</b>	23 [4 to 141]	17 [3 to 73]	-35% [-49 to -17%]	<0.001
Daytime	28 [5 to 171]	20 [4 to 121]	-33% [-47 to -14%]	0.003
Night-time	7.2 (0.7 to 101)	3.3 (0 to 54)	-34% [-54 to -5%]	0.029
<b>LCQ</b>	12±4	15±4	2.0 (1.0 to 3.0) <sup>††</sup>	<0.001
<b>VAS cough</b>	67±15	47±27	-19 [-28 to -10]	<0.0001
<b>VAS urge-to-cough</b>	68±16	49±25	-18 [-26 to -10]	<0.0001
<b>K-BILD total</b>	50±22	55±23	3.4 [-2.3 to 9.1]	0.245
<b>HADS anxiety</b>	8.5±4	8.5±4	0.7 [-0.6 to 1.9]	0.291
<b>HADS depression</b>	4.7±3	6.0±3	1.6 [0.5 to 2.6]	0.004
<b>GAD-7</b>	5.8±6	5.9±6	0.7 [-0.9 to 2.3]	0.396
<b>FVC % pred</b>	78±15	79±17		
<b>TLC<sub>oc</sub> % pred</b>	51±13	51±16		

**Pirfenidone reduced:**

- *objective 24-h cough counts*
- *subjective cough severity*

**Pirfenidone improved:**

- *cough-related QoL (38/ 46 pts )*

**The magnitude of these changes was clinically meaningful to patients**

- Data: median (range) or mean±se
- Leicester Cough Questionnaire (LCQ) and King's Brief ILD health status questionnaire (K-BILD), higher score = better disease-specific quality of life/cough-related quality of life.
- Other variables, a higher score indicated worse cough frequency/(urge-to-)cough/anxiety/depression.
- VAS: visual analogue scale; HADS: Hospital Anxiety and Depression Scale; GAD-7: Generalised Anxiety Disorderseven-item scale;

# MECHANISM STILL UNKNOWN

# How to treat cough in IPF ?

---



- Exclude and treat comorbidities (GERD, post nasal drip, infection, drugs ...)
- Difficult to treat
  - Codein and other morphinics are beneficial ?
    - Allen, Palliative Care 2005;19:128-130
  - Improved by steroids? Little data to support effects.
    - Hope-Gill, AJRCCM 2003;168:995-1002,
  - Gabapentine
    - Ryan, Lancet 2012
  - Thalidomide ? (severe side effect profile)
    - ∴ Horton Ann Int Med 2012

# End of life care in IPF

- The limited option and the devastating outcomes of hospital admission in the end stage of disease should be discussed with patients and family in an early phase.
- In this way we make enable them to make decisions on limitations of care and allow them to choose the place of dying .
- In particular it's important to discuss a «do not resuscitate» code and a «do not intubate» code



## La Carta Europea ha individuato cinque temi chiave:

- 1) la necessità di una diagnosi più rapida e di un più facile accesso ai centri specialistici di riferimento
- 2) l'urgenza di assicurare a tutti i pazienti un accesso a tutte le terapie farmacologiche innovative ed efficaci ed al trapianto di polmone
- 3) la possibilità per tutti i pazienti di ricevere un approccio globale e integrato alla terapia, comprendente oltre ai farmaci anche la riabilitazione respiratoria, il trattamento delle comorbidità, la disassuefazione dal fumo, l'ottimizzazione dell'ossigenoterapia, l'educazione nutrizionale e il supporto psicologico e sociale.
- 4) l'importanza di ricevere informazioni chiare e dettagliate sulla malattia, la sua evoluzione e tutte le cure disponibili
- 5) la possibilità di ricevere cure palliative, per vivere con dignità le fasi finali della malattia.

## European IPF Patient Charter: unmet needs and a call to action for healthcare policymakers

Francesco Bonella<sup>1</sup>, Marlies Wijsenbeek<sup>2</sup>, Maria Molina-Molina<sup>3</sup>, Annette Duck<sup>4</sup>, Rosalba Mele<sup>5</sup>, Klaus Geissler<sup>6</sup> and Wim Wuyts<sup>7</sup>

Eur Respir J 2016;



**Oltre 300 iscritti in continuo aumento**  
**Supporto immediato ai pazienti sin dalla diagnosi**  
**Eventi periodici di sensibilizzazione**  
**Fornisce uno psicologo e nutrizionista di supporto a**  
**familiari ,care givers e trapiantandi**



OSPEDALE S. CAMILLO - FORLANINI  
 PADIGLIONE MARCHIAFAVA  
 AULA GRANDE piano -1  
 ore 10.00-13.00

**2019 | 28/02**

## GIORNATA DELLE MALATTIE RARE

INCONTRO APERTO RIVOLTO AI PAZIENTI E FAMILIARI  
 PARTECIPERANNO  
 MEDICI, ESPERTI ESTERNI ED INFERMIERI

**SONNO**  
**+**  
**PSICHE**  
**ALIMENTAZIONE**

Coordinamento a cura del :  
 Prof. ALFREDO SEBASTIANI,  
 Responsabile UOSD DH pneumologico e interstiziale polmonari

I Contributi :  
 STAFF MEDICO  
 EQUIPE INFERMIERISTICA  
 ESPERTI ESTERNI

**UN RESPIRO DI SPERANZA**  
 Associazione di Pazienti Onlus - C.I. 0763050080 - F. RAJ 34520141007

organizza  
 Sofia Leggio - Patrizia Chiodi - 0112 Roma  
 Sede Operativa: San Camillo Forlani - Clinica Spasmodica 47° Pal. Marchionni - 01122 Forlani - Tel. 0543/70246  
 Site web: [www.unrespirodisperanza.it](http://www.unrespirodisperanza.it) e-mail: [unrespirodisperanza@forlani.it](mailto:unrespirodisperanza@forlani.it)

LA PRESIDENTE  
 ROSA KOPRA NAPOLI



# Comunicazione nella gestione dei pazienti con IPF

- Che tipo di comunicazione forniamo?
- E' possibile migliorarla?
- Che efficacia ha sul paziente e i care-givers?
- Migliorare la comunicazione può essere integrata in un modello di cura?

## MODELLO DISEASE (DOCTOR)- CENTERED

metodo clinico doctor-centred:

- contenuti della comunicazione: attenzione solo alla dimensione biologica della malattia; poca importanza al punto di vista del paziente
- modalità della comunicazione: alto controllo degli scambi da parte del medico

# **AGENDA DEL PAZIENTE**

## **Medicina Patient-Centered**

- 1. I SENTIMENTI** del paziente ansie e paure generate dalla malattia o dall'evento traumatico
- 2. LE IDEE** e interpretazioni il punto di vista sul disturbo
- 3. LE ASPETTATIVE** e i desideri riguardo la cura
- 4. CONTESTO** interconnessioni tra malattia e ambito familiare lavorativo culturale

**LA IV° DIMENSIONE ABBRACCIA LE ALTRE PERCHE' IL CONTESTO INFLUENZA LE NOSTRE IDEE SULLA MALATTIA**

# ***NECESSITA' DI IMPARARE UNA BUONA COMUNICAZIONE***

FINALIZZATA A **RACCOGLIERE E RESTITUIRE INFORMAZIONI**

**ASCOLTO ATTIVO** (tecniche di continuazione)

**PORRE DOMANDE** (tecnica di eco)

**LINGUAGGIO ADEGUATO** (tecniche della parafrasi, ricapitolazione, riformulazione)

**ESPRESSIONI EMPATICHE** (Mi sembra amareggiato, Tutti sarebbero spaventati come lei, Vorrei essere certo che sappia che può contare su di noi.....)

**FASE FINALE** Tecniche di focusing

Per attirare l'attenzione : mi ascolti

Per introdurre ciò di cui si parlerà : adesso parliamo della terapia

Sintesi : allora abbiamo detto

# Raising awareness on physician-patient communication in IPF: an Italian multicenter study exploring the pulmonologist's perspective

*Sara Tomassetti<sup>1,2</sup>, Alfredo Sebastiani<sup>3</sup>, Antonella Caminati<sup>4</sup>, Tiberio Oggionni<sup>5</sup>, Michele Davi<sup>6</sup>,  
Alessandra Ghirardini<sup>6</sup>, Monica M. Martinoli<sup>7</sup>*

**Methods:** A faculty of psychologists and pulmonologists organized a training course consisting of two workshops 12 months apart. Self-assessment questionnaires (pre- and post-course), role play (RP) simulations (during both workshops) and clinical consultation observations followed by semi-structured interviews (during the 12 months) were employed to evaluate the pulmonologists' knowledge of patient-centered medicine and communication/relational skills (questionnaires), their communication style (RP) and possible communication/relational difficulties (semi-structured interviews). **Results:** 23 pulmonologists attended the first workshop and 14 the second one; 10 attended both. The questionnaires revealed the interest in patient-centered medicine and communication but also the need for deeper knowledge and improved skills. From the RP sessions performed during the first workshop, a disease-oriented approach emerged; notably, after the training, some improvements suggested a more patient-centered approach, e.g., a more frequent exploration of the patient agenda. Finally, the semi-structured interviews allowed to identify the low patients' cultural level and the poor general knowledge of IPF among the barriers hampering an effective communication.

# Raising awareness on physician-patient communication in IPF: an Italian multicenter study exploring the pulmonologist's perspective

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Alessandra Ghirardini<sup>6</sup>, Monica M. Martinoli<sup>7</sup>

SARCOIDOSIS, VASCULITIS AND DIFFUSE LUNG DISEASES 2021;

Questions	Themes and subthemes
Q1. What are the main communicative-relational difficulties encountered when dealing with patients affected by IPF?	<ul style="list-style-type: none"><li>• Breaking bad news and emotional burden (<i>not for all specialists</i>)</li><li>• Ensuring deep understanding of disease severity and treatment features by patients, and of their impact on the subject's lifestyle<ul style="list-style-type: none"><li>- Patients' cultural level (frequently low)</li><li>- Poor (general) knowledge of the disease when the patient finds out that IPF is not a cancer, he/she is relieved</li></ul></li><li>• Communicating the lack of an effective therapy to cure IPF, which, conversely, is important to prevent or delay progression<ul style="list-style-type: none"><li>- Lifelong</li><li>- Adverse events may impair QoL and limit daily activities</li></ul></li><li>• The presence of caregivers<ul style="list-style-type: none"><li>- Their presence may hamper communication during the consultation; conversely, engaging caregivers may facilitate patient commitment and adherence</li></ul></li></ul>

# Raising awareness on physician-patient communication in IPF: an Italian multicenter study exploring the pulmonologist's perspective

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Alessandra Ghirardini<sup>6</sup>, Monica M. Martinoli<sup>7</sup>*

**Conclusions:** Despite the overall disease-prone approach to IPF patients, there was room for improvement through adequate training, which, in practice, may ameliorate communication and drive towards patient-centeredness. Exploring the pulmonologists' needs may help tailoring training interventions. Raising awareness on these topics is crucial to ensure IPF patients optimal care.

# 6<sup>TH</sup>

INTERNATIONAL  
MEETING ON  
**PULMONARY**  
RARE DISEASES  
AND ORPHAN  
**DRUGS**

PRESIDENT  
**SERGIO HARARI**

MILANO - ITALY  
CONGRESS CENTER  
PALAZZO DELLE STELLINE  
**FEBRUARY**  
**27-28, 2015**

ENDORSED BY

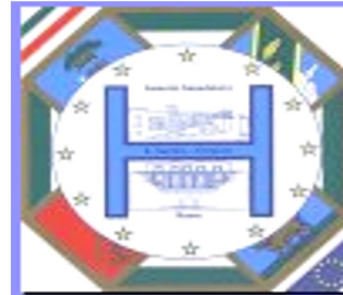


PROGRAM



## UN ESPERIENZA ITALIANA DI COUNSELING NEI PAZIENTI CON IPF

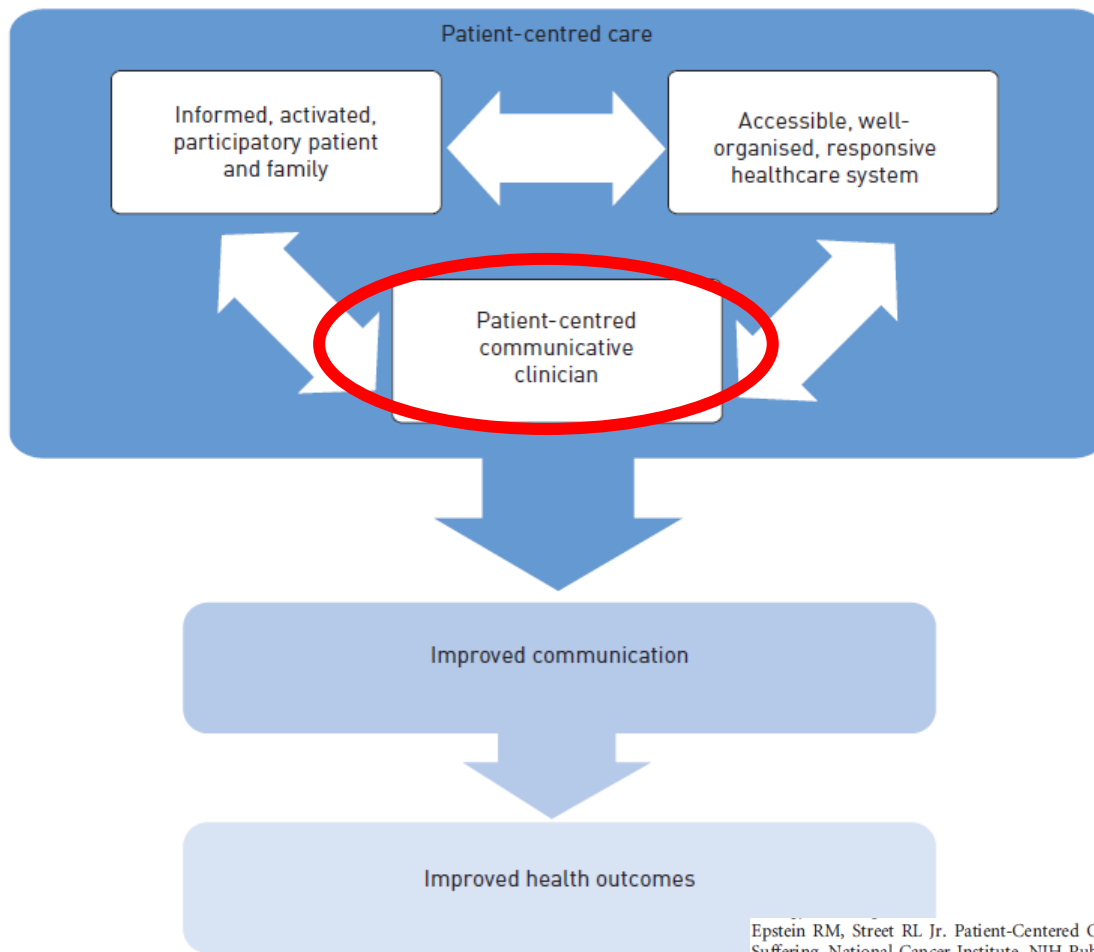
**Dott. Alfredo Sebastiani**  
**Dipartimento Malattie Polmonari**  
**UOSD Interstiziopatie Polmonari**



**AO**  
**San Camillo-Forlanini**  
**ROMA**



# Modello assistenziale centrato sul paziente



# COUNSELING

- Il termine counseling indica un'attività professionale che tende ad orientare, sostenere e sviluppare le potenzialità del cliente (paziente), promuovendone atteggiamenti attivi, propositivi e stimolando le capacità di scelta. Si occupa di problemi non specifici (prendere decisioni, miglioramento delle relazioni interpersonali) e contestualmente circoscritti.

# Obiettivi

- Informare il paziente e i suoi familiari sulla malattia
- Garantire aderenza alla terapia
- Gestire gli effetti collaterali
- Migliorare la gestione complessiva della malattia
- Organizzare un corretto follow up

# Esperienza di counseling nei pazienti con fibrosi polmonare idiopatica (2014-2021)

## **STRUMENTI:**

**Presenza del «counselor»**

FORNIRE MEZZI DI COMUNICAZIONE (tel,fax,mail)

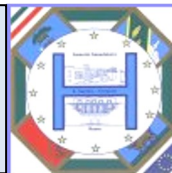
MATERIALE SCRITTO

APPUNTAMENTI PROGRAMMATI E FLESSIBILITA'

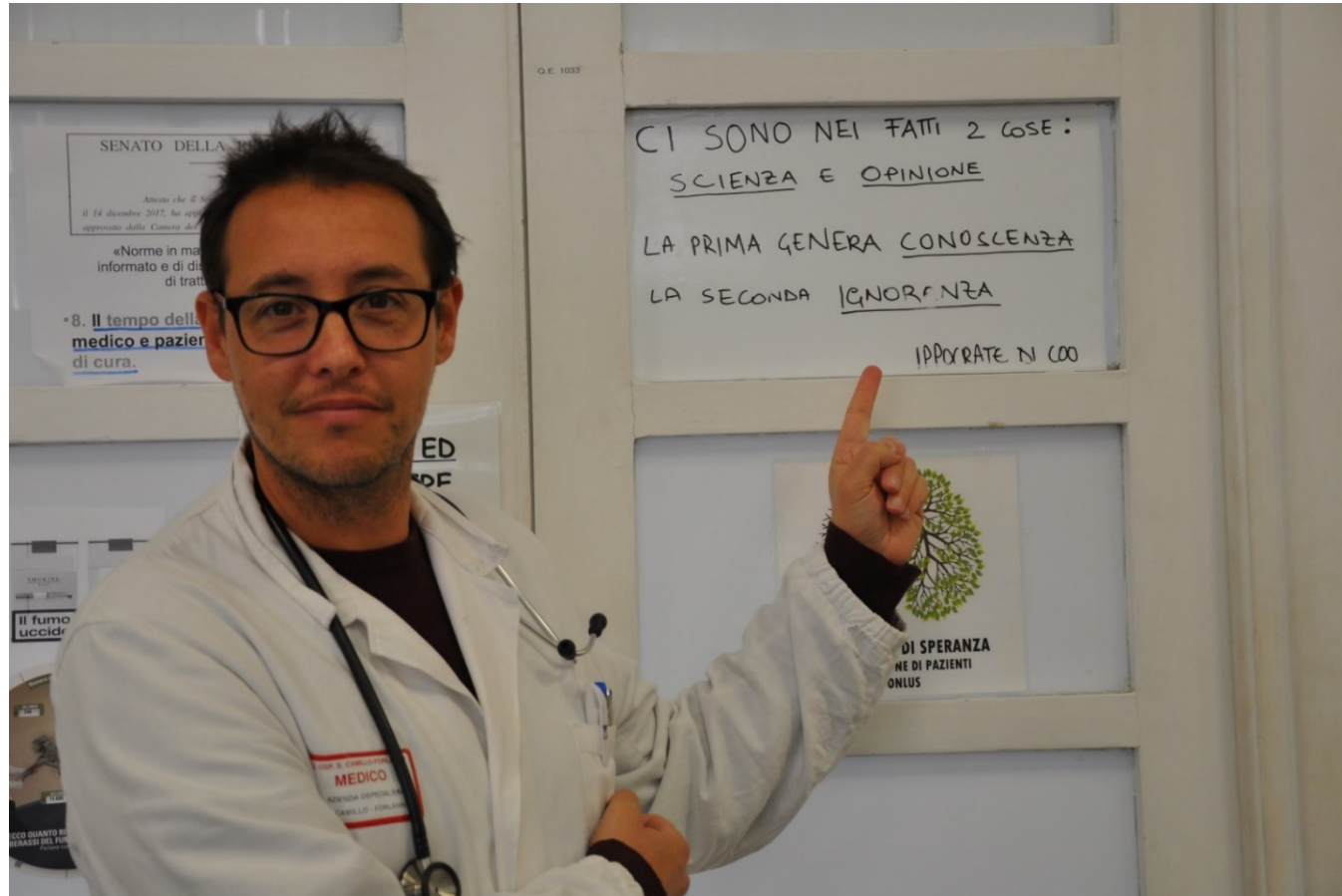
SUPPORTO PSICOLOGICO E NUTRIZIONALE AI PAZIENTI E CARE-GIVERS

SINERGIA COLLA ASSOCIAZIONE DEI PAZIENTI

**Dipartimento Medicine Specialistiche**  
**. UOSD DH e Interstiziopatie polmonari**  
**Az. Osp. S.Camillo – Forlanini Roma**



# 'IL COUNSELOR'



**ANTI FIBROTIC DRUGS::ADVERSE EFFECTS  
LEADING TO PERMANENT DISCONTINUATION  
OF TREATMENT OR SWITCH**

(JAN 2012-SEPTEMBER 2019)

478 PATIENTS follow-up range 5-91 months

ILD UNIT , Osp.S.Camillo,Roma) (UNPUBLISHED DATA)



<b>DIARRHEA</b>	<b>9/478 ( 1,9%)</b>
<b>LIVER TOXICITY</b>	<b>2/478 (0,4%)</b>
<b>RASH</b>	<b>3/478 (0,6%)</b>
<b>WEIGHT LOSS/CACHEXIA</b>	<b>7/478 (1,5%)</b>
<b>NAUSEA/ANOREXIA</b>	<b>8/478 (1,7%)</b>
<b>PIASTRINOPENIA</b>	<b>1/478 (0,2%)</b>
<b>PHOTOSENSIVITY REACTIONS</b>	<b>12 /478 (2,5%)</b>
<b><u>TOTAL AE</u></b>	<b><u>42/478 (8,78%)</u></b>

# CONCLUSIONS

- The concept of personalised medicine in ILD patients includes their comprehensive evaluation and treatment.
- There is increasing evidence on the impact of comorbidities and accelerated biological aging on survival of patients with IPF and other ILDs
- Managing patients with IPF and PPF requires a patient-centered approach that specialists may learn through adequate training.
- Multidisciplinary approach is needed not only in the diagnostic process, but also in follow-up and advanced phases of ILDs.

# Grazie!



**UOSD DAY HOSPITAL E INTERSTIZIOPATIE POLMONARI**  
**Az. Osp. San Camillo-Forlanini Roma**

