

## SUPPLEMENTARY MATERIAL

### RESULTS

Supplementary Table 1: Previous admissions and the effect of the fe-COPD ICM on new hospital admissions and emergency visits among the patients enrolled in the program after a median follow-up of 31 months

Variable	Mean $\pm$ SD	Median (IQR)	Percentage of reduction in relation to all expected
New hospital admissions	$3.93 \pm 4.28$	3 (1 – 6)	38.2%
Admissions avoided	$2.32 \pm 3.00$	1 (0 – 4)	
New emergency visits	$1.46 \pm 2.03$	1 (0 – 2)	69.7%
Emergency visits avoided	$4.78 \pm 5.94$	3 (0 – 6)	

Supplementary Table 2: Multivariate analysis in relation to number of new hospital admission  $\geq 2$  among fe-COPD ICM group

	B	S.E.	df	Sig.	Odd ratio	95% C.I. for odd ratio	
						Lower	Upper
Age	0.395	0.320	1	0.216	1.49	0.79	2.78
Female gender	1.255	0.756	1	0.097	3.51	0.79	15.42
<i>Pseudomonas aeruginosa</i> infection	1.205	0.874	1	0.168	3.34	0.60	18.50
Last follow-up CAT score $> 17$	2.029	0.817	1	0.013*	7.61	1.53	37.72
BODE index	0.001	0.192	1	0.997	1.00	0.69	1.46
Previous admissions 1 year before enrollment in ICM	0.356	0.186	1	0.056	1.43	0.99	2.06
Constant	1.366	1.866	1	0.464	3.921		

OR: odd ratio, CAT: COPD assessment test, GOLD: Global Initiative for Chronic Obstructive

Lung Disease, BODE: “body mass index, airflow obstruction, dyspnoea, exercise capacity”

index, \*significant  $p$  value  $< 0.05$ .

Supplementary Table 3: Univariate analysis in relation to mortality among studied fe-COPD cohort (both control and ICM groups)

	OR	95% CI for OR		Sig. ( <i>p</i> value)
		Lower	Upper	
Age	1.162	0.951	1.421	0.142
Female gender	3.002	1.704	5.312	<0.0001*
mMRC dyspnea scale	1.803	1.302	2.497	<0.0001*
FEV <sub>1</sub> (L)	1.725	1.294	2.300	<0.0001*
FEV <sub>1</sub> (% predicted)- GOLD classification	1.026	0.967	1.089	0.394
FVC (L)	1.219	0.958	1.550	0.107
FVC (% predicted)	1.390	1.086	1.780	0.009*
FEV <sub>1</sub> / FVC	1.235	1.019	1.496	0.032*
Pseudomonas Aeruginosa infection	2.126	1.262	3.581	0.005*
All bacterial infections	1.607	0.989	2.610	0.055
BMI	1.446	1.121	1.865	0.005*
ADO index	1.601	1.294	1.982	<0.0001*
Oxygen therapy	1.749	1.060	2.884	0.029*

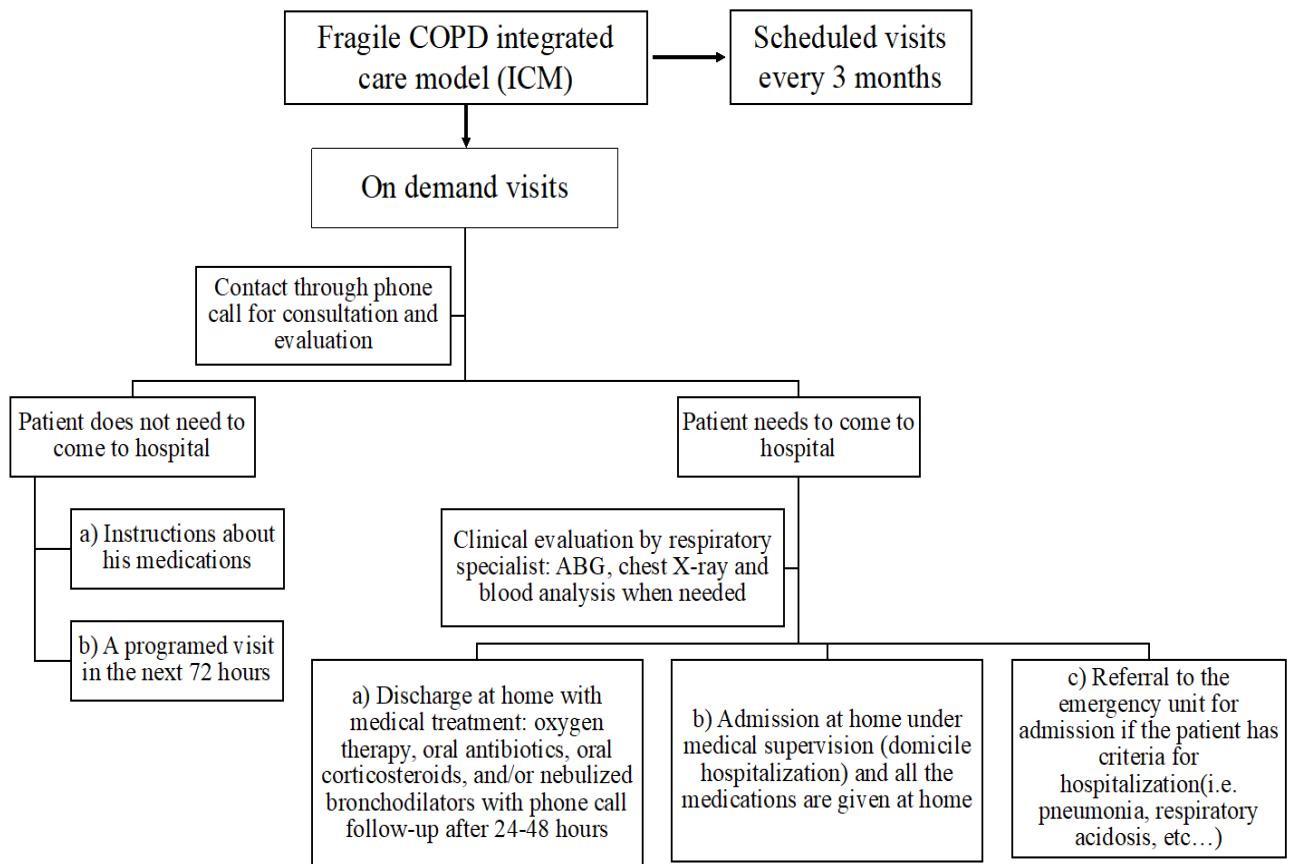
OR: odd ratio, mMRC: modified medical research council, FEV<sub>1</sub>: forced expiratory volume in 1 second, FVC: forced vital capacity, L: liter, GOLD: Global Initiative for Chronic Obstructive Lung Disease, \*significant *p* value < 0.05.

Supplementary Table 4: Univariate analysis in relation to mortality among fe-COPD included in ICM program

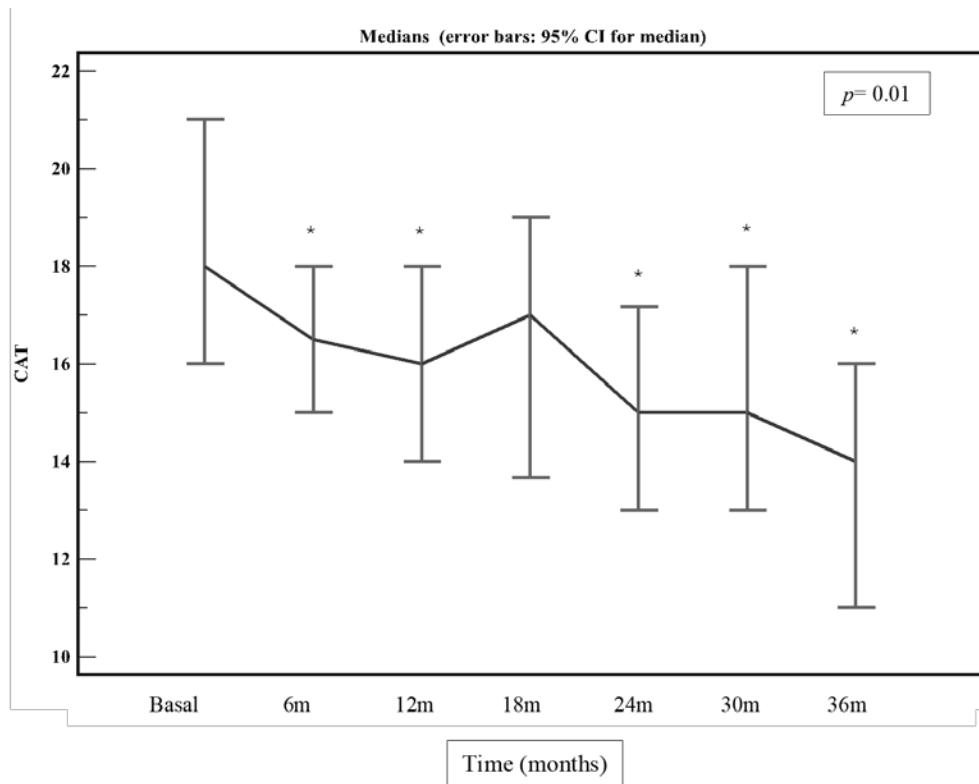
	OR	95% CI for OR		Sig. ( <i>p</i> value)
		Lower	Upper	
Age	1.090	0.802	1.482	0.581
Female gender	2.691	1.246	5.809	0.012*
FEV <sub>1</sub> (L)	2.007	1.321	3.048	<0.0001*
FEV <sub>1</sub> (% predicted)- GOLD classification	1.017	0.932	1.111	0.701
FVC (L)	1.232	0.900	1.685	0.192
FVC (% predicted)	1.573	1.086	2.279	0.017*
FEV <sub>1</sub> / FVC	1.438	1.050	1.969	0.024*
Pseudomonas Aeruginosa infection	2.053	1.012	4.163	0.046*
All bacterial infections	1.421	0.710	2.843	0.321
Basal mMRC dyspnea scale	2.008	1.244	3.241	0.004*
Basal CAT score	1.219	0.956	1.555	0.110
CAT score (after 1 year)	1.405	1.050	1.880	0.022*
BODE index	1.808	1.250	2.616	0.002*
Last follow-up CAT score	1.841	1.326	2.554	<0.0001*
Last follow-up CAT score > 17	4.138	1.973	8.679	<0.0001*

OR: odd ratio, mMRC: modified medical research council, FEV<sub>1</sub>: forced expiratory volume in 1 second, FVC: forced vital capacity, L: liter, CAT: COPD assessment test, GOLD: Global

Initiative for Chronic Obstructive Lung Disease, BODE: “body mass index, airflow obstruction, dyspnoea, exercise capacity” index, \*significant  $p$  value  $< 0.05$ .

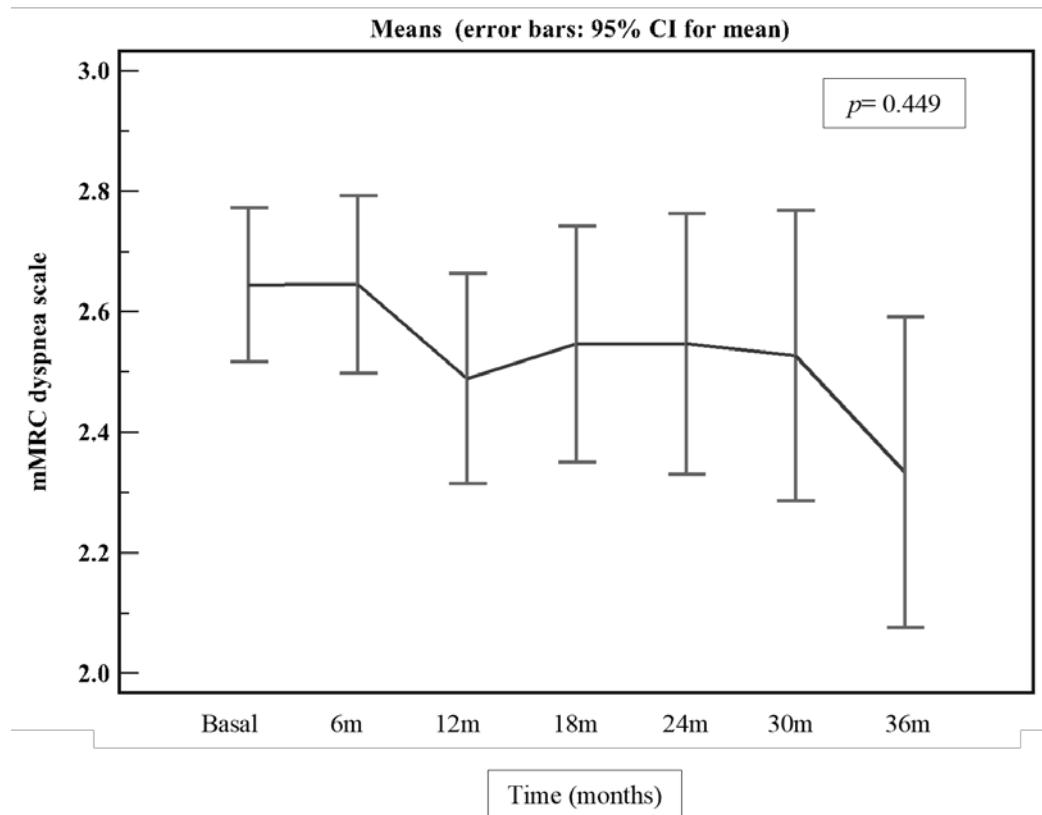


Supplementary Figure 1: The outline of the fe-COPD program

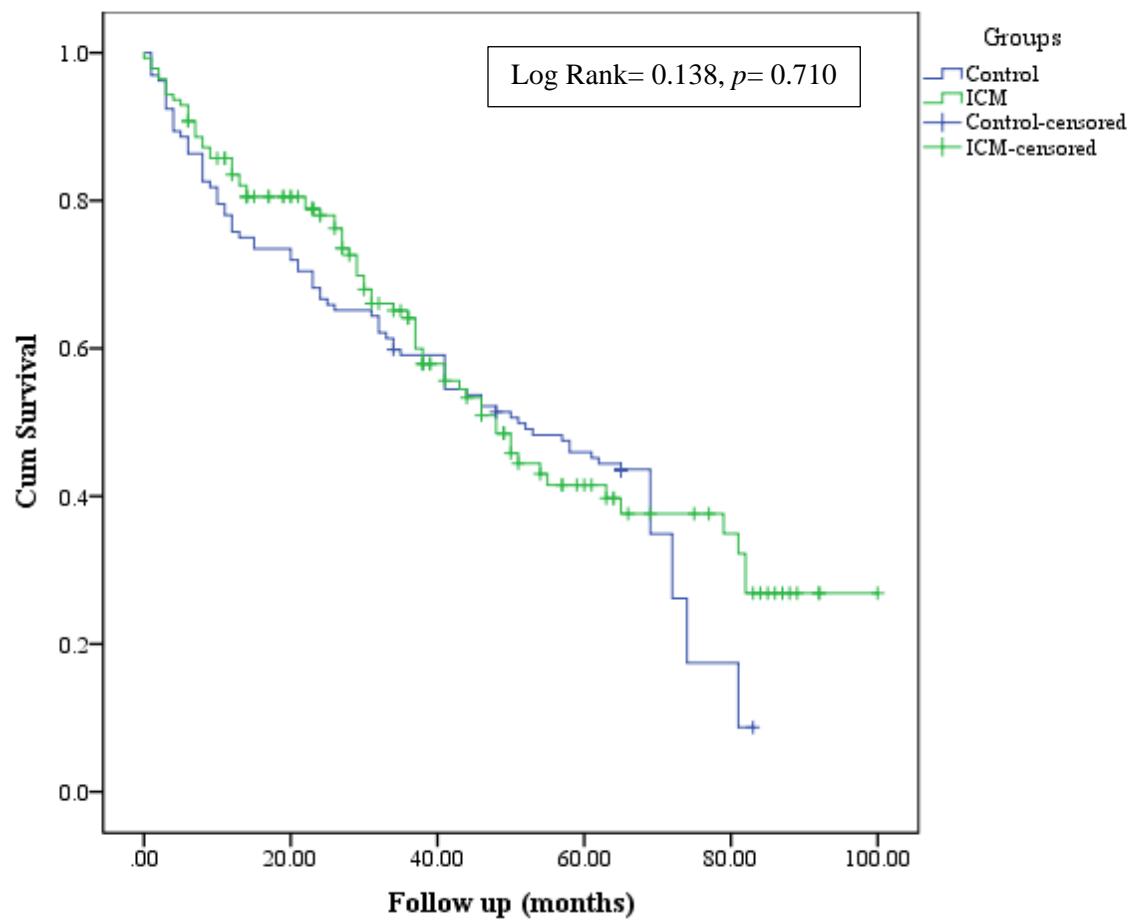


Supplementary Figure 2: Changes of CAT score over follow-up period of 36 months (m: month,

\* significant  $p$  value  $< 0.05$  compared to basal CAT score value)



Supplementary Figure 3: Changes of mMRC dyspnea scale over follow-up period of 36 months.  
(m: month)



Supplementary Figure 4: Kaplan-Meier survival analysis of entire studied population in relation to mortality.