Incidence of idiopathic pulmonary fibrosis in Italy. Analysis of hospital admission and mortality databases of a large Italian region

Dr. Maria Assunta 32749 Porretta assunta.porretta@gmail.com MD 1, Dr. Lisa 32750 Baule l.bauleo@deplazio.it 2, Dr. Angelo 32751 Coppola coppolangelo@gmail.com MD 1, Dr. Gianluigi 32752 Sergiacomi sergiacomi@med.uniroma2.it MD 3, Dr. Maria Cristina 32753 Zappa mariozippa@aslromab.it MD 4, Prof. Stefano 32765 Carbone scarlone@hsangiovanni.roma.it MD 5, Prof. Salvatore 32768 Mariotia salvatore.mariotia@uniroma1.it MD 6, Prof. Paolo 32776 Palange paolo.palange@uniroma1.it MD 7, Prof. Salvatore 32784 Valente svalente@rm.unicatt.it MD 8, Dr. Gabriella 32790 Pezzuto g_pezzuto@yahoo.it MD 1, Dr. Nera 32792 Agabiti n.agabiti@deplazio.it 2, Mr. Marco 32797 Pallante pallante@med.uniroma2.it 9, Dr. Ermanno 32800 Puxeddu ermannopux@libero.it MD 9 and Prof. Cesare 32808 Saltini cesarealtini@icloud.com MD 1.

UOC Malattie Respiratorie, Policlinico Universitario "Tor Vergata", Roma, Italy, 00133; 2 Dipartimento Di Epidemiologia, Servizio Sanitario Regionale, Lazio, Roma, Italy; 3 Department of Radiology, Policlinico Universitario "Tor Vergata", Roma, Italy; 4 UOC Pneumologia, Ospedale Sandro Pertini, Roma, Italy; 5 UOC Pneumologia, Ospedale San Giovanni Addolorata, Roma, Italy; 6 UOC Pneumologia, Policlinico Universitario Sant'Andrea, Università "La Sapienza", Roma, Italy; 7 UOC Medicina, Policlinico Universitario Umberto I, Università "La Sapienza", Roma, Italy; 8 UOC Pneumologia, Policlinico Universitario Agostino Gemelli, Università Cattolica, Roma, Italy and 9 Department of Biomedicine, University of Roma "Tor Vergata", Rome, Italy.

Background: No population studies on incidence and prevalence of IPF in have been reported in Italy as in southern Europe. Objective: To determine the incidence and prevalence rates of IPF in the Lazio region (population 4.7x106) by interrogating Public Health Service databases and assessing diagnostic and reporting accuracy using the ICD9-CM codes. Methods: Data were collected retrospectively from the regional hospital admission database on all patients (age >18) diagnosed with idiopathic fibrosing alveolitis (ICD9-CM 516.3), in Lazio hospitals (in and outpatients) or hospices from 1/1/2005 to 31/12/2009. Demographic data were obtained using national population statistics and cause of death databases. Diagnostic and reporting accuracy were assessed on a random sample of 400 hospital charts carrying the ICD9-CM 515, 516.3, 516.8 and 516.9, by reviewing radiology and pathology reports. HRCT images were scored according to the ATS/ERS/JRS/ALAT 2011 guidelines as confident /possible/inconsistent. Results: Estimates of IPF annual incidence ranged between 7.5 x10-5 (516.3 code. Broad case, no specific procedures reported) and 4.9 x10-5 (516.3 code. Narrow case, specific procedures reported). Incidence (Broad case) increased from 0.4 x 10-5 (CI 95% 0.3-0.4; 18-34 age group) to 28.1 x 10-5 (CI 95% 27.1-29.2; 75+ age group) and it was higher in males. The data suggest that: (i) IPF incidence may be
similar in North America, northern and southern Europe, (ii) association with aging and gender is a general feature of IPF, (iii) under-reporting is a likely cause inaccurate assessment of disease burden.