

# Long term evaluation of quantitative cumulative irradiation in patients suffering from ILDs

Julien Berg<sup>1</sup>, Anne-Noelle Frix<sup>1</sup>, Monique Henket<sup>1</sup>, Fanny Gester<sup>1</sup>, Marie Winandy<sup>1</sup>, Perrine Canivet<sup>2</sup>,  
Makon-Sébastien Njock<sup>1</sup>, Marie Thys<sup>2</sup>, Colin Desir<sup>3</sup>, Paul Meunier<sup>3</sup>, Renard Louis<sup>1</sup>, Francoise Malchair<sup>4</sup>,  
Julien Guiot<sup>1\*</sup>

1. Department of Respiratory Medicine, University Hospital of Liège, Liège, Belgium
2. Department of Biostatistics and Medico-Economic Information, University Hospital of Liège,  
Liège, Belgium
3. Department of Radiology, University Hospital of Liège, Liège, Belgium
4. University of Liège, Liège, Belgium

**\*Corresponding authors:**

Dr. Julien GUIOT, MD, Ph.D. J.Guiot@chuliege.be

University Hospital of Liège

Avenue de l'Hôpital, 1 4000 Liège

Belgium

**Table S1.** Comparison between different parameters and the drop of DLCO into 2 populations : drop of 15% and more and drop of <15%.

|                                                                 | <i>Drop of DLCO ≤ 15%</i> | <i>Drop of DLCO ≥ 15%</i> |                 |
|-----------------------------------------------------------------|---------------------------|---------------------------|-----------------|
|                                                                 | <i>median (IQR)</i>       | <i>median (IQR)</i>       | <i>P values</i> |
| <i>Age</i>                                                      | 61 (52-71)                | 66 (53-75)                | 0.127779        |
| <i>Follow up (month)</i>                                        | 44 (22-60)                | 49 (38-71)                | 0.040146        |
| <i>Contrast CT scan</i>                                         | 0 (0-1)                   | 1 (0-2)                   | 0.009261        |
| <i>%justification a priori of emergency CT scan<sup>1</sup></i> | 100 (100-100)             | 100 (100-100)             | 0.704275        |
| <i>%justification a priori of routine CT scan</i>               | 50 (30-71)                | 50 (33-80)                | 0.600688        |
| <i>%justification a posteriori of routine CT scan</i>           | 50 (33-80)                | 50 (33-80)                | 0.978767        |
| <i>irradiation over 1-year CTDI (mGy)</i>                       | 28 (16-40)                | 26 (17-39)                | 0.676711        |
| <i>irradiation over 1-year PDL (mGy*cm)</i>                     | 793 (394-1111)            | 700 (554-1174)            | 0.742729        |
| <i>irradiation over 3 years CTDI (mGy)</i>                      | 42 (27-65)                | 58 (39-75)                | 0.039473        |
| <i>irradiation over 3 years DLP (mGy*cm)</i>                    | 1352 (973-2204)           | 1585 (1254-2466)          | 0.057749        |
| <i>Total irradiation CTDI (mGy)</i>                             | 56 (30-85)                | 78 (47-103)               | 0.004655        |
| <i>Total irradiation DLP (mGy*cm)</i>                           | 1840 (1050-2641)          | 2431 (1613-3266)          | 0.021919        |
| <i>irradiation/year CTDI (mGy/year)</i>                         | 17 (10-29)                | 18 (12-24)                | 0.815285        |
| <i>Irradiation/year (mGy*cm/year)</i>                           | 692 ± 536                 | 831 ± 799                 | 0.787854        |
| <i>% low dose CT scan</i>                                       | 0 (0-14)                  | 0 (0-6.7)                 | 0.236869        |
| <i>% contrast CT Scan</i>                                       | 0 (0-20)                  | 17 (0-33)                 | 0.031569        |
| <i>% emergency CT scan</i>                                      | 0 (0-11)                  | 0 (0-14)                  | 0.360847        |

CTDI: Computed Tomography Dose Index; DLP: Dose Length Product; IQR: interquartile range; Data are analyzed with Mann Whitney test

<sup>1</sup> n=18 for DLCO ≥ 15% , n = 16 for DLCO ≤ 15 %