INTRODUCTION
Aging with HIV increases the risk of HIV-associated non-AIDS-defining conditions [1]. Studies have demonstrated HIV patients have a heightened burden of frailty [2, 3], a clinical condition characterized by functional decline and reduced capacity for daily activities[4]. This study aimed to evaluate the prevalence of frailty and pre-frailty in a cohort of people living with HIV in Lisbon.

METHODS
We performed a transversal observational multicentric study including randomly selected People Living With HIV (PLWH), older than 40 years, evaluated at 3 clinics in Lisbon, from October 2018 to December 2019, with a follow-up longer than 6 months and who provided informed consent. Frailty was accessed using Fried Frailty Phenotype (FFP) scale and Short Physical Performance Battery functional evaluation. The primary outcome (frailty and pre-frailty’s prevalence) was expressed by frequencies of frailty with a 95% confidence interval. For the comparisons on the secondary outcomes (association of patients’ characteristics and frailty) all statistical analyses were done for a significance level of 0.05.

RESULTS
In the analysis were included 200 patients. The main demographic and social characteristics are described in table 1. The prevalence of Frailty was 15% (n=30) [10.4%-20.7%] and Pre-Frailty 57% (n=114) [50%-64%].

Regarding the Fried Frailty Phenotype (FFP) scale the most affected domains are described on table 2. On those individuals with pre-frailty, low physical activity and weakness had the most contribute, with statistical significance.

<table>
<thead>
<tr>
<th>N patients (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male sex</td>
</tr>
<tr>
<td>Age years (range)</td>
</tr>
</tbody>
</table>
| Country of origin | Portugal 120 (60%)
Guinea-Bissau 21 (11%)
Angola 20 (10%)
Cape Verde 17 (9%)
Brazil 10 (5%)
Mozambique 5 (3%)
S. Tome e Príncipe 6 (3%) |
| Marital status | Single 76 (38%)
Married 76 (38%)
Divorced 42 (21%)
Widower 19 (10%) |
| Social support | None 29 (15%)
Familiar support 159 (80%)
Social support 10 (5%) |
| Education level | Institutionaled 1 (1%)
Prisoners 1 (1%)
1st stage Basic school 50 (25%)
2nd stage Basic school 63 (32%)
Secondary school 41 (22%)
Superior course 37 (19%)
Analphabet 5 (3%) |
| Medical conditions | Hypertension 68 (34%)
Smoking 44 (22%)
Diabetes mellitus 20 (10%)
Metabolic syndrome 14 (7%)
Stroke 9 (5%)
Myocardial infarction 5 (3%)
Depression 26 (13%)
Previous oncologic disease 8 (4%)
Falls 10 (5%)
Previous fractures 8 (4%)
Polypotamia 5 (3%) |
| Blood tests | Total cholesterol 187 (96-343)
LDL 110 (28-279)
HDL 53 (25-145)
Triglycerides 103 (38-78)
25 (OH) Vitamin D 21 (5-67)
ESR 21 (1-120) |
| HIV infection | HIV-1 182 (92%)
HIV-2 14 (7%)
HIV-1+2 3 (2%) |
| Year of diagnosis median (range) | 2010 (–1966-2019) |
| CDC HIV Stage | A1 25 (13%)
A2 25 (13%)
A3 27 (14%)
A4 2 (1%)
B1 4 (2%)
B2 3 (7%)
B3 28 (14%)
C1 2 (2%)
C2 1 (2%)
C3 41 (21%) |
| Current HIV therapy | Dual therapy 27 (14%)
Triple therapy 33 (16%)
Quadruple therapy 8 (4%)
NNRTI 60 (30%)
Retroviral 21 (11%) |
| FFP | Frailty (n=30) | p value* | Pre-Frailty (n=114) | p value* |
| Weight loss | 8 (27%) | p<0.01 | 6 (5%) | p=0.268 |
| Low resistance/ exhaustion | 27 (90%) | p<0.01 | 39 (34%) | p=0.675 |
| Low physical activity | 25 (83%) | p<0.01 | 59 (52%) | p=0.001 |
| Weakness (hand grip) | 27 (90%) | p<0.01 | 52 (46%) | P=0.042 |
| Slowness | 10 (33%) | p<0.01 | 7 (39%) | p=0.168 |
| SPPB | Frailty (n=30) | p value* | Pre-Frailty (n=114) | p value* |
| Balance | 2 (7%) | p=0.022* | 0 (-) | p=0.184* |
| Slowness | 7 (23%) | p<0.01* | 4 (4%) | p=0.212* |
| Repetitive movements (chair) | 8 (27%) | p=0.030* | 14 (12%) | p=0.012 |

* Fisher Exact Test
Fragility presented a direct significant relation with gender (p=0.015), age (p=0.045), marital status (p=0.036), stroke (p=0.011), hypertension (p=0.045), diabetes (p=0.001), metabolic syndrome (0.024), falls (p=0.024) and HIV type (p=0.030).

Pre-frailty had a significant association with migrant status (p=0.040), obesity (p=0.013), smoking (p=0.041) and HBV coinfection (p=0.043).

CONCLUSION
- Frailty and pre-frailty were prevalent in our population, the latter to a greater extent, presenting significant association with several patients characteristics.
- Lack of physical activity was identified as one of the most relevant domains for both conditions.
- Identifying these modifiable factors may provide targets for medical interventions aimed at tackling frailty and pre-frailty in PLWH.

REFERENCES