Introduction:
Data on long-term (LT) quality of life (QOL) in ICU survivors are limited, especially after a prolonged ICU length of stay (LOS). We assessed QOL longitudinally for up to 7 years in patients with a prolonged ICU-LOS.

Methods:
A 1-year prospective observational cohort analysis was performed. All patients consecutively admitted to the medical or surgical ICU or burn unit of a university hospital with an ICU-LOS of ≥8 days were included. QOL was assessed at baseline (BL) and at 3 months (m), 1 year (y) and LT (median 7.2 years (IQR 6.8-8.3)) after ICU discharge with EQ-5D and SF-36 surveys. At LT, questions about daily life were added. In subanalysis, we compared 2 groups (G1 and G2) based on median ICU-LOS.

Results:
374 patients (66% men) with a median age of 59, an APACHE II score of 22 and a SOFA score of 7 at ICU admission were included. 5 patients (1.3%) were lost to follow-up. Median ICU-LOS in the cohort, G1 and G2 was 16 (IQR 10-26), 10 (IQR 9-12) and 26 days (IQR 20-37) respectively. During ICU stay, G2 had significantly more and longer need for any type of organ supportive therapy (p<0.001) and had higher maximum SOFA scores (p<0.001). ICU, hospital, 3m, 1y and LT-mortality rates in the cohort were 16, 26, 29, 39 and 62% respectively. These rates were similar in G1 and G2. In the cohort, QOL decreased at 3m (p<0.001), improved at 1y (p<0.001) and stabilized at LT (p=0.297) but remained under BL (p=0.003), except for the mental scores (p=0.158). G1 and G2 showed the same evolution in QOL at 3m and 1y, but the drop in QOL at 3m was greater in G2 vs G1 (p=0.044). At LT, G1 improved to a better QOL than BL (p=0.035), while G2 remained under BL (p=0.041). Also at LT, G2 vs G1 experienced more sexual dysfunction (48% vs 33%), sleep disorders (42% vs 37%) and financial problems (20% vs 12%) (all p>0.05).

Conclusion:
At LT, QOL was decreased in ICU survivors with a prolonged ICU-LOS. This was driven by the subgroup that had a LOS ≥16 d. These patients may benefit from a better post-ICU follow-up.