Introduction/Background ERAS protocol is expanding through different specialities and gaining importance in gynecology field. This study evaluates the impact of ERAS implementation on gynecological oncological surgery regarding organizational, clinical and compliance outcomes.

Methodology A retrospective cohort study was conducted at the Centre Hospitalier de l’Université de Montréal (CHUM). All consecutive surgical and hospitalized gynecology oncology patients from 2015 (Pre-ERAS implementation) and 2019 (post-ERAS implementation) were included and compared. Exclusion criteria includes general and obstetrical gynecology, same-day discharge and emergency surgeries. Primary end points were: length of stay (LOS), complication rate, and total compliance. Secondary outcomes include total length of stay (TLOS), intensive care unit (ICU), readmission, serious complications, mortality, and compliance per period (pre, intra and post). Statistical significance was p<0.05.

Results A total of 1211 patients were included, 675 in 2015 and 536 in 2019. A positive impact was present in organizational, clinical and compliance outcomes after ERAS implementation. LOS decreased from 3.9 to 3.1 days (p<0.001), TLOS from 4.4 to 3.4 days (p<0.05), ICU remained stable at 0.7%, readmission went from 5.8% to 4.7%, complications (> G1 Clavien) dropped from 37% to 26.9%, serious complications (> G3 Clavien) from 3.4% to 1.7%(p<0.1) and mortality was stable at 0.4%. Clinical outcomes per diagnosis location are presented in Table 1. Total compliance increased from 56.1% to 64.6% (p<0.01). Compliance changes were greater post-operatively and were the following: pre-op from 81.7% to 88.8%(p<0.01), intra-op from 95.4% to 94.1%(p>0.05), post-op 25.1% to 38.4%(p<0.01).

Conclusion Benefits of ERAS implementation were demonstrated through smaller LOS and lower complications rates. While institutional and clinical impact of ERAS protocol are evident, some disease locations benefit more from ERAS protocol. Implementation challenges remains, mainly through compliance documentation, nevertheless efforts should continue to raise compliance for greater impact on clinical and organizational outcomes.