Introduction/Background Hyperthermic intraperitoneal chemotherapy (HIPEC) is increasingly used for patients with stage III ovarian cancer undergoing interval cytoreductive surgery (CRS). It is uncertain whether routine postoperative admittance to an intensive care setting following CRS-HIPEC for ovarian cancer is necessary. We estimated the incidence of patients requiring critical care support and tried to identify patients in whom admission to an intensive care setting can be safely omitted.

Methodology We analyzed 154 patients with primary ovarian cancer, who underwent CRS-HIPEC between 2007–2021 in two Dutch HIPEC-centers. Patients were routinely transferred to an Intensive Care Unit (ICU) or Post Anesthesia Care Unit (PACU). Patients requiring critical care support were identified by predefined criteria based on respiratory, circulatory, and metabolic parameters. Logistic regression analyses with backward selection were used to predict the need for critical care support in individual patients and the area-under-the-ROC-curve (AUC) of the model was estimated.

Results Median ICU/PACU length of stay was 21 hours (IQR 19–29) and 38% of patients received postoperative critical care support, mainly consisting of hemodynamic interventions (37%). Independent predictors for critical care support are age, blood loss, norepinephrine dose during surgery, and peritoneectomy extent (table 1). AUC of the model is 0.81 (95% CI 0.73–0.88). Using a 20% cut-off to define low-risk of critical care support, 37% of patients would be eligible to forego ICU/PACU admission.

Conclusion Postoperative admission to an intensive care setting is not routinely required for ovarian cancer patients undergoing CRS-HIPEC. Following prospective validation, a decision tool based on pre- and intra-operative parameters can help to identify low-risk patients.
Introduction/Background We recently developed an anatomo-surgical classification for ovarian cancer (OC) metastases in the liver area consisting in 5 different types (Type-1:Glisson’s, Type-2:Ligamentous,Type-3:Gallbladder,Type-4:Hepatic hilum, Type-5:Liver parenchymal). This study aims to evaluate whether this classification is able to identify patients at greater risk of intra and postoperative complications and with increased surgical complexity.

Methodology All epithelial advanced-OC patients who underwent primary or secondary surgery with perihepatic liver involvement were retrospectively retrieved. Patients were classified according to our published anatomo-surgical classification and further clustered into four major Classes: Class-I or ‘Peritoneal’ (including Type 1, 2, 3), Class-II or ‘Hepatocellular lymph nodes’ (Type 4), Class-III or ‘Parenchymal’ (Type-5) and Class IV or Mixed (≥ 2 classes).

Results 615 patients were identified, and Class I resulted as the most commonly represented (337 cases, 54.8%). The distribution of surgical complexity score (SCS) was superimposable among classes (p=0.239) while operative time and estimated blood loss were significantly longer/higher in Class IV (Mixed) (p<0.001). Intraoperative transfusions were more frequent in Class IV (30.4%) and less reported in Class-III (11.9%) (p=0.004); vascular injuries were significantly grouped in Class II (8%) (p=0.009). Class II and IV were more frequently associated to severe postoperative complications (p=0.007). Moreover, specific complications were found in each Class: perihepatic collection and intrahepatic abscess in Class-III (respectively: p=0.003, p>0.001); pleural effusion, sepsis, anemia and ‘other complications’ in Class IV (respectively: p=0.002, p=0.004, p=0.03, p=0.03). At Multivariate analysis SCS 3 and macroscopic residual tumor were identified as risk factors for severe postoperative complications (respectively: OR: 3.922, p=0.003 and OR: 1.748, p=0.048). Conversely, Class-I and III resulted to be at decreased risk for severe postoperative complications compared to Class IV.

Conclusion Our classification represents a useful and reliable tool, able to stratify patients with OC metastases in the liver area in Classes with different surgical outcomes and different postoperative complication profile.