Appendix 1. Wound Complication Subtypes (Secondary Endpoint)

| Appendix 11 Tround complication subtypes (secondary Emaponity | | | | | |
|---------------------------------------------------------------|-----------------|---------------------------|----------------------|--|--|
| | NPWT (n=254) | Standard Gauze (n=251) | OR (90% CI) | | |
| Wound Infection | 16 (6) | 17 (7) | 1.08 (0.60- 1.96) | | |
| Wound Separation | 30 (12) | 25 (10) | 0.83 (0.51- 1.32) | | |
| Wound Seroma | 11 (4) | 14 (6) | 1.30 (0.66- 2.61) | | |
| Wound Hematoma | 2 (0.8) | 1 (0.4) | 0.50 (0.04- 3.56) | | |

Data are presented as counts n (%)

npwt=negative pressure wound therapy; or = odds ratio (gauze vs npwt [reference]); ci=confidence interval

Appendix 2. Post-hoc Analysis of Association of Clinicopathologic Factors With Wound Complication

| Appendix 2. Post-noc Analysis of Association | or chineopathologi | C Tactors With Would | Complication |
|----------------------------------------------|--------------------|----------------------|--------------|
| | No wound | Wound | Р |
| | complication | complication | |
| | (n=420) | (n=85) | |
| Age, years | 61 (20-87) | 61 (32-85) | 0.87 |
| | 4 | 0 | |
| Missing data (N) | | | |
| BMI, kg/m ² | 26 (17-60) | 32 (17-56) | <0.001 |
| Morbidly obese | | | <0.001 |
| BMI <40 kg/m² | 401 (95) | 72 (85) | |
| BMI ≥40 kg/m² | 19 (5) | 13 (15) | |
| Preoperative hemoglobin, g/dL | 12.0 (7.5-16.4) | 12.3 (7.6-15.6) | 0.51 |
| Missing data (N) | 3 | О | |
| Preoperative serum albumin, g/dL | 4.1 (1.3-5.3) | 4.1 (0.9-4.6) | 0.09 |
| Missing data (N) | 8 | 0 | |
| Hypertension | 134 (32) | 37 (44) | 0.059 |
| ,persension | 5 | 0 | 0.000 |
| Missing data (N) | | | |
| Diabetes mellitus | 41 (10) | 15 (18) | 0.056 |
| Adiasia a data (Al) | 4 | | |
| Missing data (N) | 42 (2) | 0 | 0.000 |
| Vascular disease | 12 (3) | 7 (8) | 0.028 |
| Missing data (N) | 4 | 0 | |
| Pulmonary disease | 35 (8) | 10 (12) | 0.30 |
| - | () | , , | |
| Missing data (N) | 4 | 0 | |
| Smoking history | | | 0.66 |
| Never | 248 (60) | 47 (55) | |
| Current | 18 (4) | 3 (3.5) | |
| Former | 149 (36) | 35 (41) | |
| Missing data (N) | 5 | 0 | |
| Current alcohol use | 202 (49) | 38 (46) | 0.63 |
| | | | |
| Missing data (N) | 8 | 2 | |
| Prior abdominal surgery | | | 0.86 |
| Laparotomy | 205 (77) | 42 (79) | |
| Minimally invasive | 60 (23) | 11 (21) | |
| Missing data (N) | 155 | 32 | |
| Prior radiation therapy use | 9 (2) | 6 (7) | 0.028 |
| Missing data (N) | 5 | 0 | |

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| Prior chemotherapy use | 139 (34) | 25 (29) | 0.53 |
|---------------------------|--------------|---------------|--------|
| Missing data (N) | 6 | 0 | |
| Cancer diagnosis* | | | <0.001 |
| Ovarian cancer | 355 (86) | 55 (68) | |
| Non-ovarian cancer | 59 (14) | 26 (32) | |
| Adiania a data (AL) | 6 | 4 | |
| Missing data (N) | | 4 | |
| Presence of ascites | 71 (17) | 18 (21) | 0.35 |
| Missing data (N) | 4 | 0 | |
| Bowel resection performed | 148 (35) | 36 (42) | 0.27 |
| Adiation data (All | 2 | | |
| Missing data (N) | 3 | 0 | |
| Operative time, min | 269 (56-786) | 272 (76-701) | 0.71 |
| Missing data (N) | 4 | 0 | |
| EBL, mL | 300 (5-3300) | 400 (25-3200) | 0.46 |
| | 4 | 0 | |
| Missing data (N) | | | |
| Transfusion given | 60 (14) | 17 (20) | 0.19 |
| Missing data (N) | 5 | 0 | |
| Wound classification | | | 0.86 |
| Clean | 23 (5.5) | 4 (5) | |
| Clean-contaminated | 386 (93) | 79 (93) | |
| Contaminated/Dirty | 7 (2) | 2 (2) | |
| | 4 | 0 | |
| Missing data (N) | | | |

Hypothesis-generating analyses without correction for repeated testing.

Data represented as median (range) or n (% of the column total)

Only the "yes" counts shown for variables with "yes/no" counts

BMI=body mass index; EBL=estimated blood loss

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^{*}Benign cases not included due to small number (n=10)

Appendix 3. Post-hoc Logistic Regression Analysis to Predict Primary Objective of Wound Complication

| Appendix 3. Post-noc Logistic Regression Analy | Univariate | Multivariate |
|------------------------------------------------|------------------|------------------|
| | OR (95% CI) | OR (95% CI) |
| | OK (33% CI) | OR (55% CI) |
| Age, years* | 1.0 (0.98-1.02) | |
| BMI, kg/m ² * | 1.11 (1.07-1.14) | 1.10 (1.06-1.14) |
| Morbidly obese | | |
| BMI <40 kg/m² | referent | |
| BMI ≥40 kg/m² | 3.81 (1.77-8.00) | |
| Preoperative hemoglobin, g/dL* | 1.03 (0.91-1.18) | |
| Preoperative serum albumin, g/dL* | 0.64 (0.40-1.05) | |
| Hypertension (yes vs. no) | 1.62(1.00-2.60) | 0.99 (0.57-1.69) |
| Diabetes mellitus (yes vs. no) | 1.96 (1.00-3.67) | 1.34 (0.63-2.76) |
| Vascular disease (yes vs. no) | 3.02 (1.09-7.76) | 1.72 (0.54-4.96) |
| Pulmonary disease | 1.45 (0.66-2.96) | |
| Smoking history | | |
| Never | referent | |
| Current | 0.88 (0.20-2.73) | |
| Former | 1.24 (0.76-2.00) | |
| Current alcohol use (yes vs. no) | 0.88 (0.55-1.41) | |
| Prior abdominal surgery | | |
| Laparotomy | referent | |
| Minimally invasive | 0.89 (0.42-1.79) | |
| Prior radiation therapy use (yes vs. no) | 3.43 (1.12-9.77) | 2.27 (0.64-7.48) |
| Prior chemotherapy use (yes vs. no) | 0.82 (0.49-1.36) | |
| Cancer diagnosis | | |
| Ovarian cancer | referent | referent |
| Non-ovarian cancer | 2.84 (1.64-4.86) | 1.77 (0.94-3.24) |
| Presence of ascites (yes vs. no) | 1.31 (0.71-2.29) | |
| Bowel resection performed (yes vs. no) | 1.34 (0.83-2.14) | |
| Operative time (10 min increase) | 1.01 (0.99-1.02) | |
| EBL (1000 mL increase) | 1.34 (0.81-2.12) | |
| Transfusion given (yes vs. no) | 1.48 (0.79-2.64) | |
| Wound classification | | |
| Clean | referent | |
| Clean-contaminated | 1.18 (0.44-4.10) | |
| Contaminated/Dirty | 1.64 (0.20-10.5) | |

Continuous BMI (1 unit increase) used in multivariate model as more informative

Multivariate model N=489

BMI=body mass index

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^{*}based on 1 unit increase