Table S1: Best fit regression model for fall of z-score at 28 days of life in Group 1 and 2. After taking into account clinical and nutritional factors that influence growth (gestational age, need for oxygen during admission, IUGR, fluid intake during the first week, average protein and lipid in PN during the first week), only gestational age, IUGR, intravenous lipid during the 1st week and the Period of study were associated to fall in weight z-score at 28 dol.

| Summary of model coefficients | Adjusted R square | p     | Variables in the equation | Standardized (B) and 95% IC | p     |
|-------------------------------|-------------------|-------|---------------------------|-----------------------------|-------|
| Step 1                        | 0.170             | <0.001| Gestational age (weeks)   | 0.196                       | 0.007 |
|                               |                   |       | IUGR                      | -0.316                      | <0.001|
|                               |                   |       | Average lipid on PN Group | 0.171                       | 0.022 |
|                               |                   |       |                           | 0.219                       | 0.001 |

IUGR: intrauterine growth restriction, PN: parenteral nutrition, dol: days of life

Table S2: Results of the binary logistic regression analysis of the risk of NEC. We performed backwards stepwise selection, with removal based on the maximum partial likelihood estimates and starting with variables that were different between Group 1 and 2 or that were possible confounders.

| Summary of model coefficients | Nagelkerke R square | p (Omnibus test) | Variables in the equation | Exp(B) and 95% IC | p     |
|-------------------------------|---------------------|------------------|---------------------------|-------------------|-------|
| Step 1                        | 0.294               | 0.002            | Gestational age (weeks)   | 0.639 (0.445- 0.916) | 0.015 |
|                               |                     |                  | Group                      | 3.431 (0.823-14.301) | 0.091 |
|                               |                     |                  | SGA                        | 11.516 (2.102-63.103)| 0.005 |
|                               |                     |                  | Days on mechanical ventilation | 0.980 (0.920-1.044) | 0.528 |
|                               |                     |                  | Days on oxygen             | 0.994 (0.967-1.022)  | 0.668 |
|                               |                     |                  | Surgical treatment for PDA | 3.574 (0.621-20.570) | 0.154 |
|                               |                     |                  | Cesarean section           | 1.463 (0.359-5.967)  | 0.595 |
|                               |                     |                  | Full steroid course        | 1.437 (0.367-5.631)  | 0.603 |
|                               |                     |                  | Constant                   | 5460.002            | 0.097 |
| Step 2                        | 0.291               | 0.001            | Gestational age (weeks)   | 0.648 (0.455-0.924)  | 0.016 |
|                               |                     |                  | Group                      | 3.418 (0.824-14.172) | 0.090 |
|                               |                     |                  | SGA                        | 11.427 (2.077-62.854)| 0.005 |
|                               |                     |                  | Days on mechanical ventilation | 0.971 (0.926-1.018) | 0.224 |
|                               |                     |                  | Surgical treatment for PDA | 3.510 (0.617-19.961) | 0.157 |
|                               |                     |                  | Cesarean section           | 1.561 (0.392-6.208)  | 0.528 |
|                               |                     |                  | Full steroid course        | 1.438 (0.368-5.623)  | 0.602 |
| Step  | p-value | Predictors                                      | Coefficients          | Standard Error | z-value | p-value |
|-------|---------|------------------------------------------------|-----------------------|----------------|---------|---------|
| Step 3 | 0.288   | 0.001 Gestational age (weeks) Group SGA Days on mechanical ventilation Surgical treatment for PDA Cesarean section | Constant 0.640 (0.450- 0.911) 3.749 (0.928- 15.148) 11.545 (2.105- 63.321) 0.972 (0.927- 1.019) 3.358 (0.595- 18.944) 1.685 (0.441 - 6.437) | 0.013 | 0.013 | 0.013 | 0.013 | 0.013 | 0.013 | 0.013 |
| Step 4 | 0.282   | <0.001 Gestational age (weeks) Group SGA Days on mechanical ventilation Surgical treatment for PDA Cesarean section | Constant 0.634 (0.444- 0.904) 3.754 (0.947- 14.879) 9.734 (1.941 - 48.814) 0.972 (0.927- 1.019) 3.466 (0.635- 18.905) | 0.013 | 0.013 | 0.013 | 0.013 | 0.013 | 0.013 | 0.013 |
| Step 5 | 0.264   | <0.001 Gestational age (weeks) Group SGA Surgical treatment for PDA | Constant 0.697 (0.509 - 0.954) 3.365 (0.861- 13.148) 7.233 (1.556 - 33.628) 1.952 (0.422 - 9.020) | 0.012 | 0.012 | 0.012 | 0.012 | 0.012 | 0.012 | 0.012 |
| Step 6 | 0.256   | <0.001 Gestational age (weeks) Group SGA | Constant 0.650 (0.496- 0.851) 4.026 (1.091- 14.847) 8.634 (1.986- 37.535) | 0.012 | 0.012 | 0.012 | 0.012 | 0.012 | 0.012 | 0.012 |

SGA: small for gestational age, PDA: patent ductus arteriosus