**Table S1:** Publications on the use of G-CSF during pregnancy

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| **PMID** | **Authors** | **Type of disease/ condition** | **Year** | **Number of pregnancies** | **G-CSF, Yes/No** | **Outcomes and side effects** |
| 33802196 | Berends C, et al.102 | Chemotherapy-induced neutropenia | 2021 | 42 | Yes | One patient developed pancytopenia following polychemotherapy after which the pregnancy was complicated by chorioamnionitis and intrauterine death. Nineteen singleton livebirths (49%) were born preterm. Sixteen neonates (41%) were admitted to the Neonatal Intensive Care Unit. No neonatal neutropenia occurred. Two neonates had congenital malformations. Out of 21 children in follow-up, there were four children with a motor development delay and two premature infants had a delay in cognitive development. In conclusion, the rate of maternal and neonatal complications are similar to those described in (pregnant) women treated with chemotherapy. Due to small numbers and limited follow-up, rare or delayed effects among offspring exposed to G-CSF in utero cannot be ruled out yet. |
| 27841775 | Dale DC, Bolyard AA.103 | CIN | 2017 | 224 plus 38 | Yes | Transient profound neutropenia in infants born from women with CIN or AIN sometimes with severe infectious complications. Clinically this means that blood counts should be done at least a few times after birth in infants of mothers with CIN or AIN. If the neonate is severely neutropenic and there is concern about the risk of severe infections, G-CSF may be helpful in this specific setting. No differences in outcomes with or without treatment with G-CSF for the mothers or their newborns |
| 27751427 | Wang CY, et al.104 | Ritodrine-induced neutropenia | 2016 | One twin pregnancy | Yes | G-CSF may be a useful treatment for pregnant women with ritodrine-induced neutropenia |
| 25560125 | Boxer LA, et al.105 | Chronic neutropenia | 2015 | 224  (100 with G-CSF / 124 no G-CSF as control) | Yes/No | There were no significant differences in adverse events between the groups considering all pregnancies or individual mothers, e.g., spontaneous terminations (all pregnancies: no G-CSF 27/124, G-CSF 13/100; P=0.11,), preterm labors (all pregnancies, no G-CSF 9/124, G-CSF 2/100, P=0.12). A study with at least 300 per group would be needed to detect a difference in these events with 80% statistical power. Four newborns of mothers with IN or AIN not on G-CSF (4/101) had life-threatening infections, whereas there were no similar events (0/90) in the treated group, but this difference was also not statistically significant. Adverse events in the neonates were similar for the two groups. |
| 24997149 | Zeidler C, et al.106 | SCN (data from the e European Branch of SCNIR) | 2014 | 38 | Yes | 38 pregnancies were reported in 21 women (16 pregnancies in 10 women with CN, 10 pregnancies in 6 women with CyN, 12 pregnancies in 6 women with IN). G-CSF therapy has been shown to be safe for mothers throughout pregnancies and for newborns without any signs of teratogenicity. |
| 23287427 | Pessach I, et al.107 | G-CSF for HSC donation from healthy female donors during pregnancy and lactation. | 2013 | 46 | Yes | G-CSF crosses the placenta, stimulates fetal granulopoiesis, improves neonatal survival mostly for very immature infants, promotes trophoblast growth and placental metabolism and has an anti-abortive role. Administration of G-CSF is safe and healthy pregnant women can serve as donors of either bone marrow or peripheral blood stem cells. |
| 20386986 | Dagli AI, et al.108 | Glycogen storage disease type Ib. | 2010 | 5 | Yes/No | 5 pregnancies in 3 patients discussed. |
| 12555210 | Dale DC, et al.109 | SCN (data from the SCNIR). | 2003 | Not defined | Yes | The outcome of pregnancy appeared to be unaffected by G-CSF treatment |
| 20301705 | Dale DC, Makaryan V.110 | ELANE-related CN | 2002 | 183  (60 G-CSF / 123 no G-CSF control) | Yes/No | Reduced risk of fetal loss in the women treated during pregnancy. Among 55 women (123 pregnancies) not treated with G-CSF during pregnancy: 11 complications (1 premature rupture of membranes, 2 life-threatening infections, 2 minor infections, and 6 premature labors) Among 41 women (60 pregnancies) treated with G-CSF during pregnancy: no life-threatening infections, no premature labors, five minor infections, and one woman who developed severe thrombocytopenia. Pregnancies in women with SCN are at substantial risk for miscarriage; treatment with G-CSF may reduce this risk. |
| 10939543 | Abe T, et al.111 | CyN complicated by severe persistent neutropenia. | 2000 | 1 | Yes | Patient delivered a healthy baby without any complications at 39 weeks of pregnancy |

**Abbreviations:** G-CSF, granulocyte-colony stimulating factor; CIN, chronic idiopathic neutropenia; AIN, autoimmune neutropenia; IN, idiopathic neutropenia SCN, severe chronic neutropenia; SCNIR, severe chronic neutropenia international registry; CN, congenital neutropenia CyN, cyclic neutropenia; HSC, hematopoietic stem cells.