

The BELpREG registration system on perinatal medication use and mother-infant outcomes: preliminary insights into the cohort's characteristics

Laure Sillis^{1,2}, Cleo Vandegoor³, Cato Vercaeren³, Karel Allegaert^{1,2,4,5}, Annick Bogaerts^{2,4,6}, Maarten De Vos^{4,7}, Titia Hompes^{8,9}, Anne Smits^{2,4,10}, Kristel Van Calsteren^{4,11}, Jan Y Verbakel^{12,13}, Veerle Foulon^{1,2}, Michael Ceulemans^{1,2}

¹Department of Pharmaceutical and Pharmacological Sciences, KU Leuven, Belgium; ²L-C&Y - KU Leuven Child & Youth Institute; ³Faculty of Pharmaceutical Sciences, KU Leuven, Belgium; ⁴Department of Development and Regeneration, KU Leuven, Belgium; ⁵Department of Clinical Pharmacy, Erasmus MC Sophia's Children Hospital, the Netherlands; ⁶Faculty of Health, University of Plymouth, Devon, UK; ⁷Department of Electrical Engineering (ESAT), KU Leuven, Belgium; ⁸Adult Psychiatry UPC, KU Leuven, Belgium; ⁹Department of Neurosciences, KU Leuven, Belgium; ¹⁰Neonatal Intensive Care Unit, University Hospitals Leuven, Belgium; ¹¹Department of Obstetrics and Gynecology, University Hospitals Leuven, Belgium; ¹²Department of Public Health and Primary Care, KU Leuven, Belgium; ¹³Nuffield Department of Primary Care Health Sciences, University of Oxford, UK

Background and methods

BELpREG is the Belgian registration system collecting real-world data on perinatal medication use and mother-infant outcomes through online questionnaires. The different data registration points in BELpREG are as follows:

Pregnancy Enrolment Questionnaire, including electronic consent



Every 4 weeks during pregnancy: Pregnancy Follow-up Questionnaire



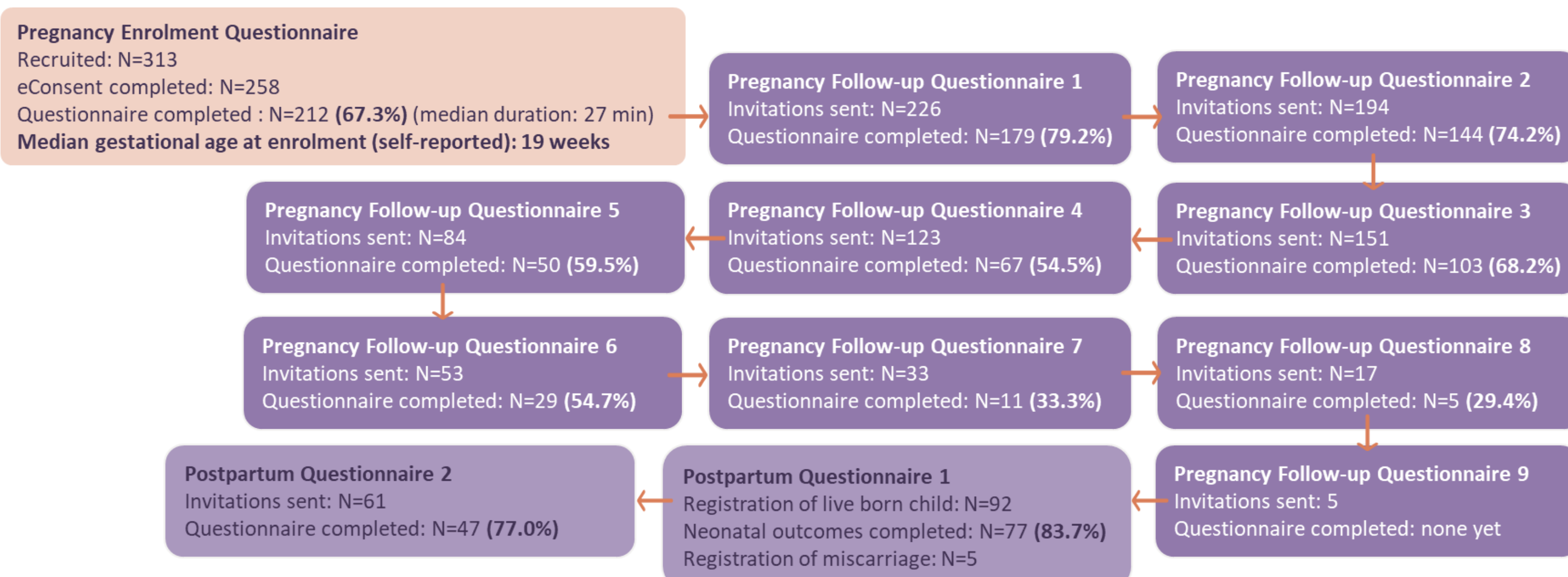
Within the first 8 weeks after birth: 2 Postpartum Questionnaires

Data collection started in November 2022. All Dutch-speaking pregnant women, ≥18 years, can enroll. On August 16th, 2023, the preliminary data were extracted and descriptively analyzed in terms of the total number (1) and characteristics of participants and were compared with population statistics (2). The prevalence and type of medicines registered in the Pregnancy Enrolment Questionnaire were also explored (3).

Preliminary insights

(1) Recruitment and follow-up in BELpREG

→ Participants are recruited via caregivers (35.9%) or via social media (26.9%)
The following scheme depicts the number of inclusion for each questionnaire:



(3) Prevalence and type of medication use

→ 86.8% reported the use of at least one registered medicine since conception
→ 58.7% reported the use of at least two registered medicines since conception
→ Analgesics (46.0%), systemic antihistamines (35.7%) and drugs for acid-related disorders (13.2%) were mostly reported (ATC level 2 categories)

Top 10 of the most commonly reported medicines (ATC level 5, total count: N=235)	N	%
Paracetamol	106	45.1
Doxylamine, combinations (= doxylamine succinaat 10 mg + pyridoxine hydrochloride 10 mg)	58	24.7
Levothyroxine sodium	19	8.1
Influenza vaccines (inactivated, split virus or surface antigen)	19	8.1
Progesterone	16	6.8
Metoclopramide	14	6.0
Pertussis vaccines (purified antigen, combinations with toxoids)	14	6.0
Cetirizine	14	6.0
Acetylsalicylic acid (low-dose)	13	5.5
Ferrous sulfate	12	5.1

All health products that are officially registered as a medicine in Belgium were considered for the analysis.

(2) Characteristics of women enrolled in BELpREG

	BELpREG cohort		Population statistics
	N	%	%
Age			
18-24	8	3.3	9.0 ^a
25-29	91	37.1	32.0 ^a
30-34	115	46.9	40.1 ^a
35-39	25	10.2	15.4 ^a
40 or older	2	0.8	3.5 ^a
Missing	4	1.6	
Nationality mother			
Belgian nationality	235	95.9	68.2 ^b
Non-Belgian nationality	10	4.1	31.8 ^b
Level of education			
High	219	89.4	52.0 ^c
Middel	20	8.2	36.8 ^c
Low	6	2.4	10.9 ^c
Education in healthcare			
Yes	116	47.3	Unknown
No	129	52.7	
Occupation (in the past year)			
Professionally active	235	95.9	82.2 ^d
Not professionally active	10	4.1	17.8 ^d
Pregnancy onset			
Spontaneously	200	81.6	91.8 ^a
After fertility treatment	41	16.7	8.2 ^a
Missing	4	1.6	
BMI before start pregnancy			
<18.5 kg/m ² (underweight)	14	5.7	3.9 ^a
18.5-24.9 kg/m ² (normal)	152	62.0	55.6 ^a
25-29.9 kg/m ² (overweight)	44	18.0	25.8 ^a
> 30 kg/m ² (obesity)	30	12.2	14.7 ^a
Missing	5	2.0	

^aStudy Center for Perinatal Epidemiology (SPE), 2021 (women who gave birth in Flanders), ^bOpgroei, Child and youth government agency, 2022 (mothers of children born in Flanders), ^cStatistics Flanders, 2022 (Flemish women between the age of 25-44), ^dStatBel, 2023 (Employment rate Flemish women between the age of 20-54)

Further, 37.5% indicated in the enrolment questionnaire that they have a chronic condition. Allergy (9.2%), asthma (4.2%), hypothyroidism (3.3%) and migraine (3.3%) were most frequently reported.

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Contact Information

Laure Sillis, PharmD | Campus Gasthuisberg, O&N2
Herestraat 49 box 521, 3000 Leuven
laure.sillis@kuleuven.be | +32 16 37 27 45

More info? www.belpreg.be

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