Supplementary Online Content

Anderson KN, Lind JN, Simeone, RM, et al. Maternal use of specific antidepressant medications during early pregnancy and the risk of selected birth defects. *JAMA Psychiatry*. Published online August 5, 2020. doi:10.1001/jamapsychiatry.2020.2453

eFigure 1. Adjusted odds ratios for the association between early pregnancy exposure to sertraline monotherapy and selected birth defects. There are two comparison groups: (1) women unexposed to an antidepressant in the three months before conception and during pregnancy (models adjusted for maternal race/ethnicity [non-Hispanic White, not Non-Hispanic White], pre-pregnancy BMI [≥30.0 kg/m^2; <30.0 kg/m^2], maternal education [>12 years, ≤12 years], early pregnancy smoking [yes, no], and early pregnancy alcohol use [yes, no]); (2) women only exposed to an antidepressant outside of early pregnancy (model adjusted for maternal education [>12 years, ≤12 years]), National Birth Defects Prevention Study, 1997–2011

eFigure 2. Adjusted odds ratios for the association between early pregnancy exposure to fluoxetine monotherapy and selected birth defects. There are two comparison groups: (1) women unexposed to an antidepressant in the three months before conception and during pregnancy (models adjusted for maternal race/ethnicity [non-Hispanic White, not Non-Hispanic White], pre-pregnancy BMI [≥30.0 kg/m^2; <30.0 kg/m^2], maternal education [>12 years, ≤12 years], early pregnancy smoking [yes, no], and early pregnancy alcohol use [yes, no]); (2) women only exposed to an antidepressant outside of early pregnancy (model adjusted for maternal education [>12 years, ≤12 years]), National Birth Defects Prevention Study, 1997–2011

eFigure 3. Adjusted odds ratios for the association between early pregnancy exposure to paroxetine monotherapy and selected birth defects. There are two comparison groups: (1) women unexposed to an antidepressant in the three months before conception and during pregnancy (models adjusted for maternal race/ethnicity [non-Hispanic White, not Non-Hispanic White], pre-pregnancy BMI [≥30.0 kg/m^2; <30.0 kg/m^2], maternal education [>12 years, ≤12 years], early pregnancy smoking [yes, no], and early pregnancy alcohol use [yes, no]); (2) women only exposed to an antidepressant outside of early pregnancy (model adjusted for maternal education [>12 years, ≤12 years]), National Birth Defects Prevention Study, 1997–2011

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eFigure 5. Adjusted odds ratios for the association between early pregnancy exposure to escitalopram monotherapy and selected birth defects. There are two comparison groups: (1) women unexposed to an antidepressant in the three months before conception and during pregnancy (models adjusted for maternal race/ethnicity [non-Hispanic White, not Non-Hispanic White], pre-pregnancy BMI [≥30.0 kg/m^2; <30.0 kg/m^2], maternal education [>12 years, ≤12 years], early pregnancy smoking [yes, no], and early pregnancy alcohol use [yes, no]); (2) women only exposed to an antidepressant outside of early pregnancy (model adjusted for maternal education [>12 years, ≤12 years]), National Birth Defects Prevention Study, 1997–2011

eFigure 6. Adjusted odds ratios for the association between early pregnancy exposure to venlafaxine monotherapy and selected birth defects. There are two comparison groups: (1) women unexposed to an antidepressant in the three months before conception and during pregnancy (models adjusted for maternal race/ethnicity [non-Hispanic White, not Non-Hispanic White], pre-pregnancy BMI [≥30.0 kg/m^2; <30.0 kg/m^2], maternal education [>12 years, ≤12 years], early pregnancy smoking [yes, no], and early pregnancy alcohol use [yes, no]); (2) women only exposed to an antidepressant outside of early pregnancy (model adjusted for maternal education [>12 years, ≤12 years]), National Birth Defects Prevention Study, 1997–2011

eFigure 7. Adjusted odds ratios for the association between early pregnancy exposure to bupropion monotherapy and selected birth defects. There are two comparison groups: (1) women unexposed to an antidepressant in the three months before conception and during pregnancy (models adjusted for maternal race/ethnicity [non-Hispanic White, not Non-Hispanic White], pre-pregnancy BMI [≥30.0 kg/m^2; <30.0 kg/m^2], maternal education [>12 years, ≤12 years], early pregnancy smoking [yes, no], and early pregnancy alcohol use [yes, no]); (2) women only exposed to an antidepressant outside of early pregnancy (model adjusted for maternal education [>12 years, ≤12 years]), National Birth Defects Prevention Study, 1997–2011

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eTable 2. Risk for specific selected birth defects after early pregnancy exposure to common antidepressant medications compared to women who were unexposed to antidepressant medications in the three months before conception and during pregnancy, National Birth Defects Prevention Study, 1997–2011

eTable 3. Risk for specific selected birth defects after early pregnancy exposure to any antidepressant and common antidepressant classes[a] compared to women who were unexposed to antidepressants in the three months before conception and during pregnancy,[b] National Birth Defects Prevention Study, 1997–2011

eTable 4. Risk for specific selected birth defects after early pregnancy exposure to common antidepressant medications compared to women who were only exposed to an antidepressant outside of early pregnancy, which at least partially accounts for confounding by the underlying condition, National Birth Defects Prevention Study, 1997–2011

eTable 5. Risk for specific selected birth defects after early pregnancy exposure to any antidepressant and to common antidepressant medication classes[a] compared to women who were only exposed to an antidepressant only outside of early pregnancy, which at least partially accounts for confounding by underlying condition,[b] National Birth Defects Prevention Study, 1997–2011

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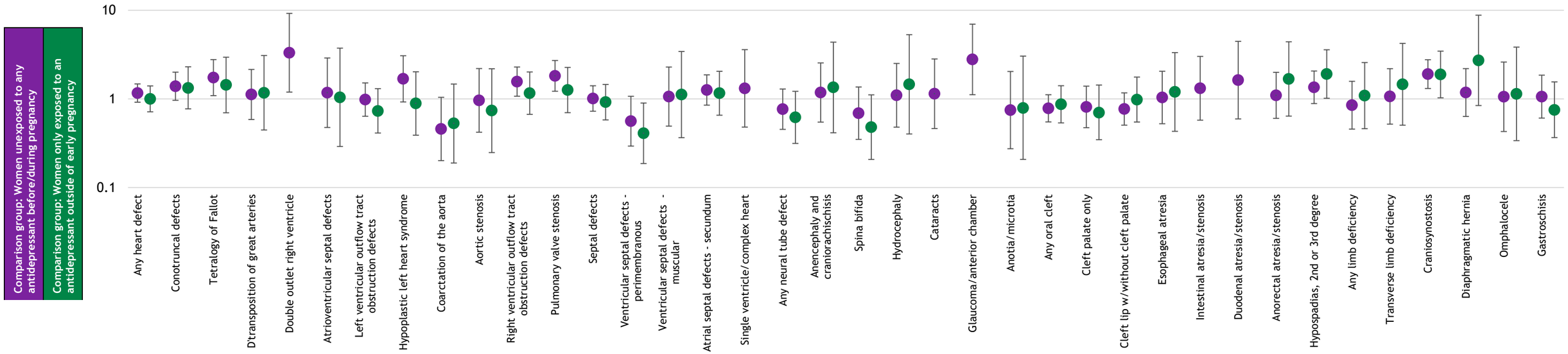
This supplementary material has been provided by the authors to give readers additional information about their work.



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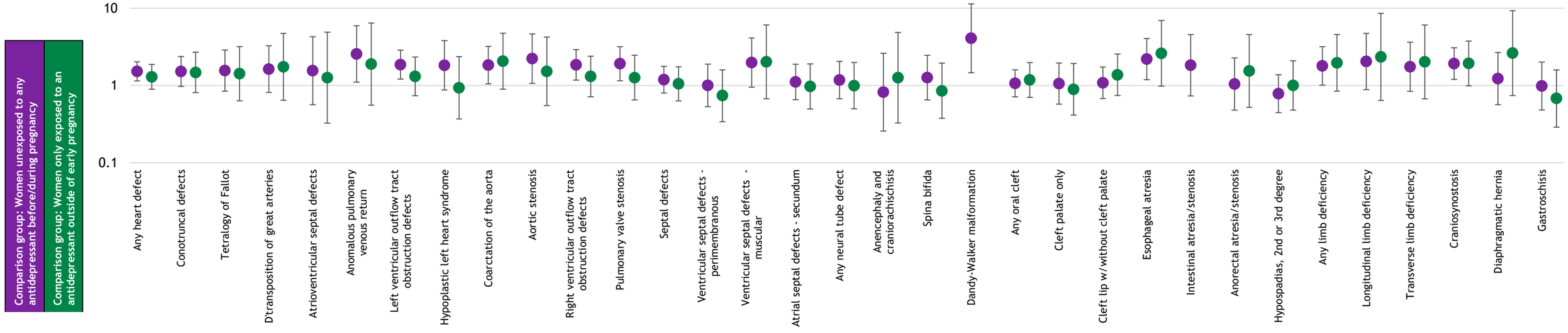

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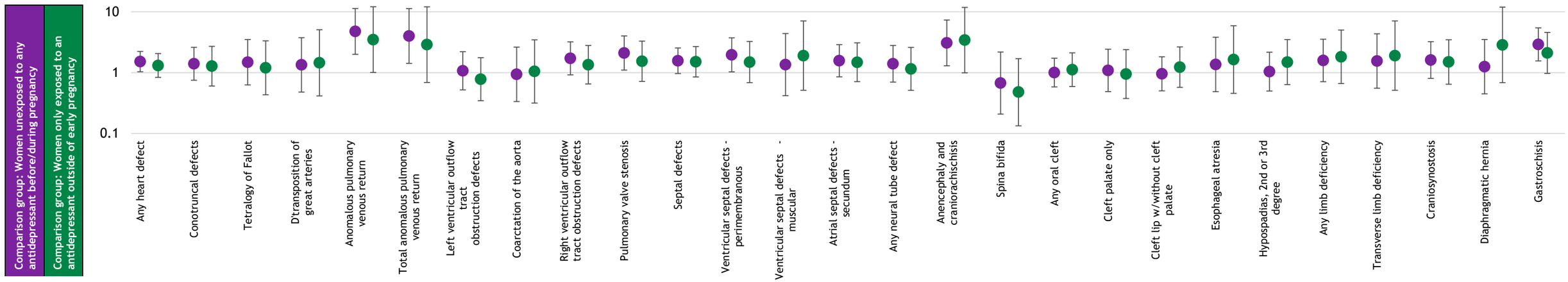

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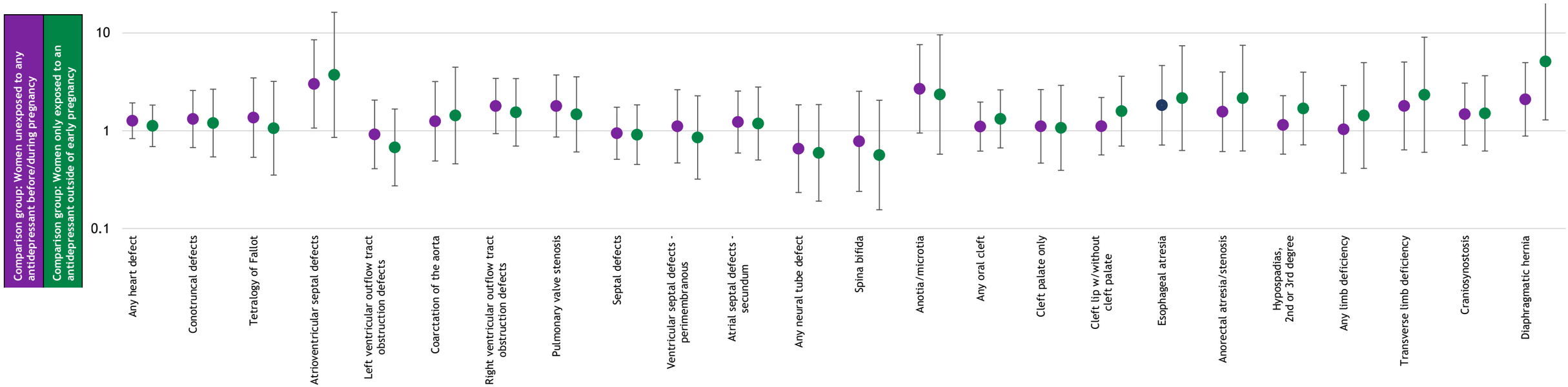

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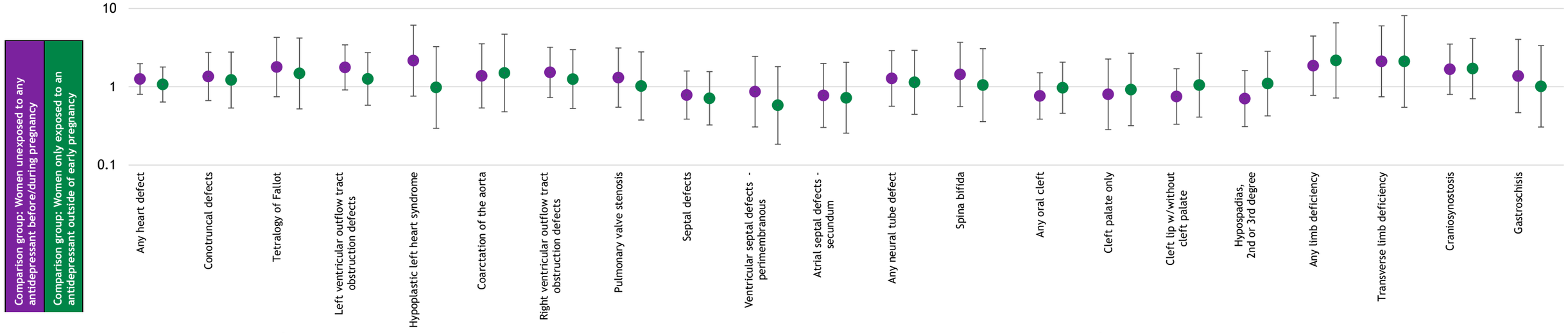

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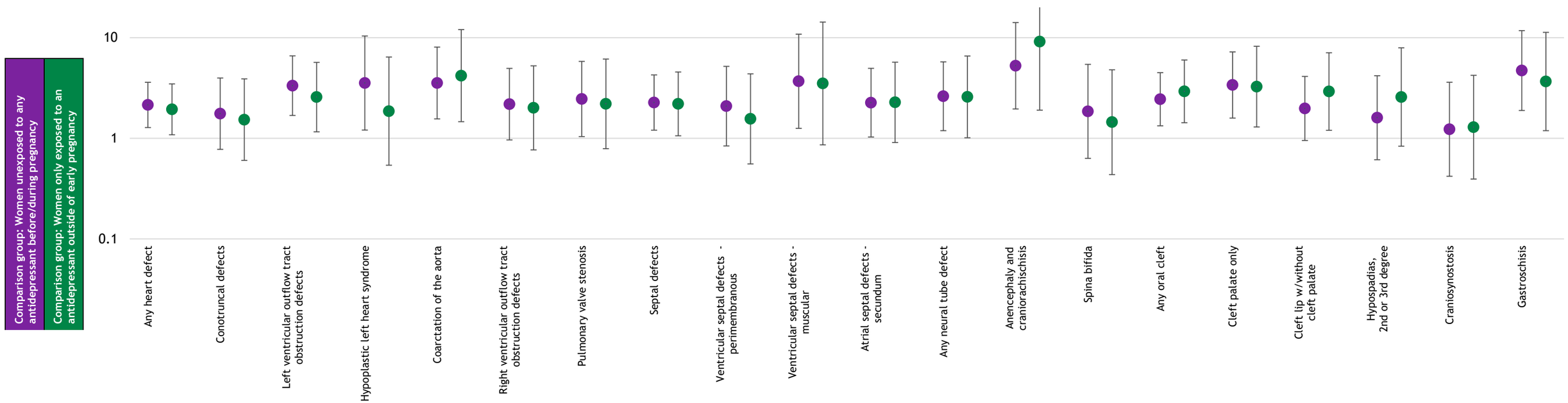

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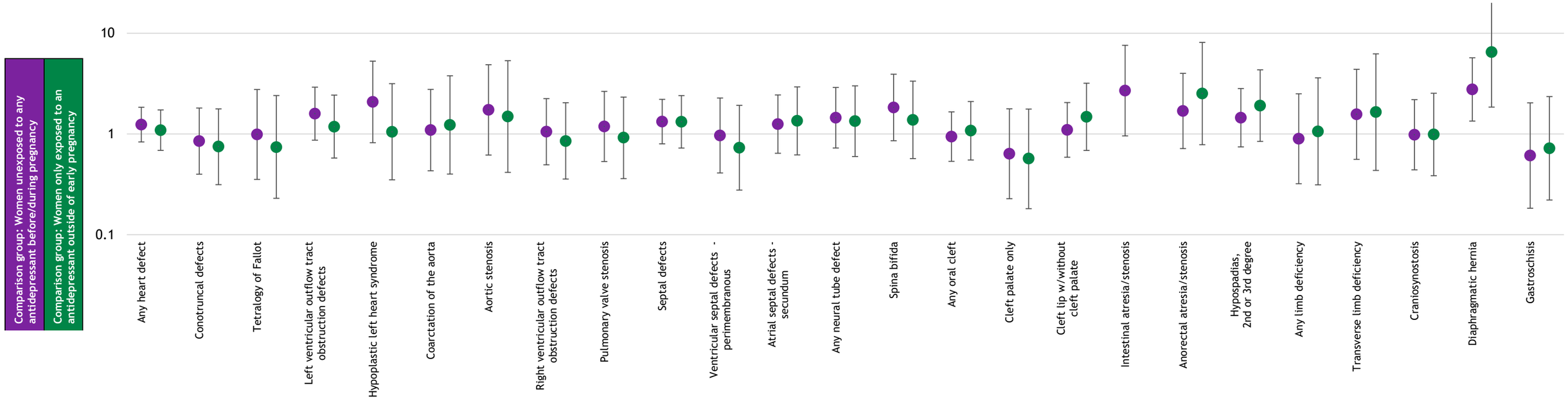

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eTable 1. Antidepressant medications included in search criteria, by class and specific medication, with counts for any exposure, antidepressant monotherapy exposure, or antidepressant polytherapy exposure across three time windows before or during pregnancy, National Birth Defects Prevention Study, 1997–2011

	Exposure Three Months before Conception or During Pregnancy (*n*)[a]			Exposure in Early Pregnancy (B1 – P3) (*n*)[b]			Exposure Only Outside of Early Pregnancy B3–B2 and/or P4–P9 (*n*)[c]		
	Any	Monotherapy	Polytherapy	Any	Monotherapy	Polytherapy	Any	Monotherapy	Polytherapy
Selective serotonin reuptake inhibitors (SSRIs)	1,972	1,795	177	1,570	1,449	121	402	385	17
Sertraline	806	675	131	596	519	77	210	195	15
Fluoxetine	532	433	99	421	356	65	111	104	7
Paroxetine	317	240	77	258	209	49	59	51	8
Citalopram	240	188	52	202	165	37	38	34	4
Escitalopram	192	159	33	157	137	20	35	32	3
Fluvoxamine	4	3	1	3	3	0	1	0	1
We also examined indalpine and zimelidine, which had no exposures in the three months before conception or during pregnancy.									
Serotonin-norepinephrine reuptake inhibitors (SNRIs)	237	178	59	208	165	43	29	24	5
Venlafaxine	186	144	42	162	133	29	24	21	3
Duloxetine	44	28	16	39	26	13	5	3	2
Desvenlafaxine	7	6	1	7	6	1	0	0	0
We also examined levominacipran and milnacipran, which had no exposures in the three months before conception or during pregnancy.									
Tricyclic and other norepinephrine reuptake inhibitors (TCA-NEs)	67	50	17	57	44	13	10	9	1
Amitriptyline	37	27	10	32	24	8	5	5	0
Nortriptyline	15	12	3	13	11	2	2	2	0
Doxepin	5	4	1	4	3	1	1	1	0
Imipramine	5	5	0	4	4	0	1	1	0
Desipramine	4	1	3	3	1	2	1	0	1
Clomipramine	1	1	0	1	1	0	0	0	0
We also examined amineptine, amitriptylinoxide, amoxapine, butriptyline, dibenzepin, dothiepin, lofepramine, maprotiline, melitracen, opipramol, protriptyline, quinupramine, and trimipramine, which had no exposures in the three months before conception or during pregnancy.									
Monoamine oxidase inhibitors (MAOIs)	0	0	0	0	0	0	0	0	0
We examined iproniazid, isocarboxazid, moclobemide, nialamide, phenelzine, phenoxypropazine, selegiline, toloxatone, and tranylcypromine, which had no exposures in the three months before conception or during pregnancy.									
Other antidepressants (including serotonin modulators)	436	281	155	341	229	113	94	78	16
Bupropion	364	245	119	277	194	83	87	71	16
Trazodone	58	51	7	53	20	33	5	2	3
Mirtazapine	14	13	1	13	6	7	1	0	1
Nefazodone	10	10	0	7	6	1	3	3	0
Pyrisuccideanol	1	1	0	1	1	0	0	0	0

We also examined cylindole, hematoporphyrin, mianserin, nomifensine, pipofezine, succinonitrile, vilazodone, viloxazine, and vortioxetine, which had no exposures in the three months before conception or during pregnancy.

[a]Includes any exposure to the index antidepressant in the three months before conception or during pregnancy. Monotherapy antidepressant exposure indicates monotherapy exposure within the class, or to the specific antidepressant, in the three months before conception or during pregnancy (i.e., one medication used during this period). Polytherapy exposure indicates polytherapy exposure within the class, or to this specific antidepressant as well as any other antidepressant, in this time period; of note, this could include both medication switching as well as concomitant use of two medications; [b]Includes any exposure to the index antidepressant in the month before conception through the third month of pregnancy (B1–P3). Monotherapy antidepressant exposure indicates monotherapy exposure within the class, or to the specific antidepressant, during early pregnancy; polytherapy exposure indicates polytherapy exposure within the class, or to this specific antidepressant as well as any other antidepressant, during early pregnancy; [c]Includes women who were only exposed to an antidepressant in the two to three months before conception or the 2nd or 3rd pregnancy trimesters. Monotherapy antidepressant exposure indicates monotherapy exposure within the class, or to the specific antidepressant, during this time period. Polytherapy antidepressant exposure indicates polytherapy exposure within the class, or to this specific antidepressant as well as any other antidepressant, only in the period two to three months before conception or in the 2nd or 3rd pregnancy trimesters.

eTable 2. **Risk for specific selected birth defects after early pregnancy exposure to common antidepressant medications[a] compared to women who were unexposed to antidepressant medications in the three months before conception and during pregnancy,[b] National Birth Defects Prevention Study, 1997–2011**

		Selective Serotonin Reuptake Inhibitors (SSRIs)													
		Sertraline[a]		Fluoxetine[a]		Paroxetine[a]		Citalopram[a]		Escitalopram[a]		Venlafaxine[a]		Bupropion[a]	
Birth Defect[c]	*N.* Unexposed[d]	*N* Exp.	aOR (95% CI)[e]	*N* Exp.	aOR (95% CI)[e]	*N* Exp.	aOR (95% CI)[e]	*N* Exp.	aOR (95% CI)[e]	*N* Exp.	aOR (95% CI)[e]	*N* Exp.	aOR (95% CI)[e]	*N* Exp.	aOR (95% CI)[e]
Controls	10,886	129		81		43		39		35		21		45	
Any heart defect	11,046	156	1.16 (0.92, 1.48)	125	1.52 (1.14, 2.02)	69	1.52 (1.04, 2.23)	50	1.27 (0.83, 1.93)	43	1.26 (0.80, 1.97)	47	**2.15 (1.28, 3.60)**	57	1.24 (0.83, 1.84)
Conotruncal defects	2,339	40	1.39 (0.96, 2.00)	27	1.52 (0.97, 2.37)	13	1.40 (0.75, 2.61)	11	1.32 (0.67, 2.58)	10	1.35 (0.67, 2.74)	8	1.76 (0.78, 3.97)	8	0.85 (0.40, 1.81)
Tetralogy of Fallot	1,081	21	1.74 (1.09, 2.78)	13	1.56 (0.84, 2.87)	6	1.49 (0.63, 3.51)	5	1.36 (0.53, 3.47)	6	1.79 (0.75, 4.27)	–	—	4	0.99 (0.35, 2.76)
DTGA	705	10	1.12 (0.59, 2.15)	9	1.63 (0.81, 3.26)	4	1.34 (0.48, 3.76)	–	—	–	—	–	—	–	—
DORV – other type[f]	110	4	**3.32 (1.19, 9.23)**	–	—	–	—	–	—	–	—	–	—	–	—
AVSD	327	6	1.17 (0.48, 2.90)	4	1.55 (0.56, 4.27)	–	—	4	**3.01 (1.07, 8.52)**	–	—	–	—	–	—
APVR	340	–	—	6	**2.56 (1.10, 5.93)**	6	**4.76 (2.00, 11.32)**	–	—	–	—	–	—	–	—
TAPVR	279	–	—	–	—	4	**4.00 (1.42, 11.30)**	–	—	–	—	–	—	–	—
LVOTO defects	2,002	26	0.98 (0.64, 1.52)	29	1.86 (1.21, 2.86)	9	1.07 (0.52, 2.21)	7	0.92 (0.41, 2.06)	12	1.77 (0.91, 3.43)	15	**3.34 (1.69, 6.60)**	14	1.59 (0.87, 2.91)
HLHS	585	12	1.69 (0.92, 3.07)	8	1.82 (0.87, 3.80)	–	—	–	—	4	2.16 (0.76, 6.12)	5	**3.54 (1.21, 10.40)**	5	**2.08 (0.82, 5.28)**
Coarctation of the aorta	1,060	7	0.46 (0.20, 1.04)	15	1.83 (1.05, 3.20)	4	0.94 (0.34, 2.63)	5	1.25 (0.49, 3.19)	5	1.38 (0.54, 3.54)	8	**3.54 (1.56, 8.06)**	5	1.09 (0.43, 2.77)
Aortic stenosis	453	7	0.96 (0.42, 2.20)	8	**2.23 (1.06, 4.65)**	–	—	–	—	–	—	–	—	4	1.73 (0.62, 4.87)
RVOTO defects	1,885	35	1.57 (1.07, 2.29)	25	1.85 (1.17, 2.91)	14	1.72 (0.92, 3.21)	12	1.79 (0.93, 3.43)	9	1.53 (0.73, 3.19)	8	**2.18 (0.96, 4.95)**	8	1.05 (0.49, 2.24)
Pulmonary valve stenosis	1,381	31	1.82 (1.22, 2.71)	19	1.91 (1.15, 3.18)	13	**2.10 (1.10, 4.02)**	9	1.79 (0.86, 3.72)	6	1.31 (0.55, 3.13)	7	**2.46 (1.04, 5.81)**	7	1.19 (0.53, 2.65)
Septal defects	4,271	50	1.01 (0.73, 1.41)	36	1.19 (0.80, 1.77)	28	1.57 (0.97, 2.55)	14	0.94 (0.51, 1.74)	10	0.78 (0.39, 1.59)	18	**2.27 (1.20, 4.26)**	24	1.33 (0.80, 2.21)
VSD – perimembranous	1,517	10	0.56 (0.29, 1.07)	11	1.00 (0.53, 1.89)	12	1.96 (1.03, 3.74)	6	1.11 (0.47, 2.63)	4	0.87 (0.31, 2.45)	6	**2.09 (0.84, 5.19)**	6	0.97 (0.41, 2.27)
VSD – muscular (not simple)	599	7	1.06 (0.49, 2.29)	8	1.98 (0.95, 4.12)	4	1.36 (0.42, 4.39)	–	—	–	—	4	**3.69 (1.26, 10.83)**	–	—
ASD – secundum	2,189	32	1.26 (0.85, 1.87)	17	1.11 (0.65, 1.88)	14	1.57 (0.85, 2.89)	9	1.23 (0.59, 2.55)	5	0.78 (0.30, 1.99)	9	**2.26 (1.03, 4.96)**	12	1.25 (0.64, 2.44)
Single ventricle/ complex heart	285	4	1.32 (0.48, 3.60)	–	—	–	—	–	—	–	—	–	—	–	—
Any neural tube defect	1,968	16	0.77 (0.45, 1.29)	16	1.17 (0.67, 2.05)	11	1.40 (0.70, 2.80)	5	0.66 (0.23, 1.84)	7	1.28 (0.56, 2.90)	9	**2.62 (1.19, 5.75)**	11	1.45 (0.73, 2.90)
Anencephaly & craniorachischisis	590	7	1.18 (0.55, 2.55)	4	0.82 (0.26, 2.61)	6	**3.08 (1.30, 7.33)**	–	—	–	—	5	**5.26 (1.96, 14.12)**	–	—
Spina bifida	1,167	9	0.69 (0.35, 1.36)	10	1.26 (0.65, 2.45)	4	0.67 (0.21, 2.18)	4	0.78 (0.24, 2.54)	5	1.44 (0.56, 3.70)	4	1.85 (0.63, 5.43)	9	1.83 (0.86, 3.92)
Hydrocephaly	454	6	1.10 (0.48, 2.51)	–	—	–	—	–	—	–	—	–	—	–	—
Dandy-Walker malformation	170	–	—	4	**4.08 (1.46, 11.38)**	–	—	–	—	–	—	–	—	–	—
Cataracts	332	6	1.14 (0.46, 2.83)	–	—	–	—	–	—	–	—	–	—	–	—
Glaucoma/ anterior chamber defects	162	6	**2.79 (1.12, 6.98)**	–	—	–	—	–	—	–	—	–	—	–	—
Anotia/microtia	632	4	0.75 (0.27, 2.04)	–	—	–	—	4	**2.68 (0.95, 7.60)**	–	—	–	—	–	—

Any oral cleft	4,323	45	0.78 (0.55, 1.11)	36	1.07 (0.71, 1.59)	20	1.00 (0.58, 1.73)	17	1.10 (0.62, 1.97)	12	0.76 (0.39, 1.51)	22	**2.44 (1.33, 4.49)**	17	0.94 (0.53, 1.66)
Cleft palate only	1,443	16	0.81 (0.47, 1.39)	12	1.06 (0.57, 1.95)	8	1.09 (0.49, 2.43)	6	1.11 (0.47, 2.64)	5	0.80 (0.28, 2.26)	11	**3.39 (1.59, 7.22)**	4	0.64 (0.23, 1.78)
Cleft lip with or without cleft palate	2,880	29	0.77 (0.51, 1.17)	24	1.08 (0.68, 1.73)	12	0.96 (0.50, 1.82)	11	1.11 (0.57, 2.19)	7	0.75 (0.33, 1.70)	11	1.98 (0.95, 4.12)	13	1.10 (0.59, 2.05)
Esophageal atresia	683	9	1.04 (0.52, 2.05)	12	**2.19 (1.19, 4.05)**	4	1.36 (0.49, 3.82)	5	1.82 (0.71, 4.65)	–	—	–	—	–	—
Intestinal atresia/stenosis	444	7	1.32 (0.58, 3.02)	5	1.83 (0.73, 4.56)	–	—	–	—	–	—	–	—	4	**2.69 (0.96, 7.59)**
Duodenal atresia/stenosis	224	4	1.63 (0.59, 4.46)	–	—	–	—	–	—	–	—	–	—	–	—
Anorectal atresia/stenosis	985	12	1.10 (0.60, 2.00)	7	1.04 (0.48, 2.27)	–	—	5	1.56 (0.61, 3.99)	–	—	–	—	6	1.69 (0.72, 3.99)
Hypospadias, 2nd or 3rd degree	2,346	39	1.35 (0.89, 2.06)	17	0.78 (0.44, 1.38)	12	1.04 (0.50, 2.17)	13	1.15 (0.58, 2.28)	9	0.71 (0.31, 1.61)	8	1.60 (0.61, 4.18)	15	1.45 (0.74, 2.83)
Any limb deficiency	1,137	12	0.85 (0.46, 1.58)	14	1.79 (1.01, 3.18)	7	1.59 (0.71, 3.54)	4	1.03 (0.37, 2.91)	6	1.86 (0.78, 4.45)	–	—	4	0.90 (0.32, 2.50)
Longitudinal limb deficiency	430	–	—	6	**2.04 (0.88, 4.73)**	–	—	–	—	–	—	–	—	–	—
Transverse limb deficiency	664	9	1.07 (0.52, 2.20)	8	1.75 (0.84, 3.64)	4	1.56 (0.56, 4.36)	4	1.79 (0.64, 5.05)	4	2.11 (0.75, 6.00)	–	—	4	1.57 (0.56, 4.39)
Craniosynostosis	1,441	37	1.91 (1.31, 2.77)	24	1.92 (1.20, 3.07)	10	1.61 (0.80, 3.23)	9	1.48 (0.71, 3.07)	9	1.67 (0.80, 3.51)	4	1.23 (0.42, 3.61)	7	0.98 (0.44, 2.19)
Diaphragmatic hernia	802	11	1.18 (0.63, 2.20)	7	1.23 (0.56, 2.67)	4	1.25 (0.45, 3.51)	7	**2.09 (0.88, 4.97)**	–	—	–	—	9	**2.77 (1.34, 5.71)**
Omphalocele	401	6	1.06 (0.43, 2.61)	–	—	–	—	–	—	–	—	–	—	–	—
Gastroschisis	1,309	17	1.06 (0.61, 1.85)	9	0.98 (0.48, 2.01)	15	**2.91 (1.56, 5.44)**	–	—	4	1.37 (0.47, 4.03)	7	**4.71 (1.89, 11.76)**	4	0.61 (0.18, 2.04)

Bolded text delineates a meaningfully elevated association per criteria outlined in Methods (aOR ≥2.0 with lower confidence interval bound ≥0.8); Exp, exposed; DTGA, d'Transposition of the great arteries; DORV-other, double outlet right ventricle, other type; AVSD, atrioventricular septal defects; APVR, anomalous pulmonary venous return; TAPVR, total anomalous pulmonary venous return; LVOTO, left ventricular outflow tract obstruction; HLHS, hypoplastic left heart syndrome; RVOTO, right ventricular outflow tract obstruction; VSD, ventricular septal defect; ASD, atrial septal defect. [a]*Monotherapy* antidepressant exposure to this specific medication component during early pregnancy (defined as one month prior to conception through the third pregnancy month); [b]Unexposed to any antidepressant in the three months before conception through the end of pregnancy; [c]Birth defects included in the NDBPS for which there were ≥4 exposed cases for each medication were included in this analysis. Dashed-lines represent defects for which the number of exposed cases for that medication did not meet the required threshold. [d]Number of cases with mothers who were unexposed to any antidepressant in the three months before or during pregnancy; [e]The following covariates were tested for inclusion: maternal age, maternal race/ethnicity, maternal pre-pregnancy body mass index (BMI), maternal education, early pregnancy smoking, early pregnancy alcohol use, folic acid use in the month before through the first pregnancy month, and parity. Based on the criteria outlined in the Methods section, the following covariates were retained in the final adjustment: maternal race/ethnicity (non-Hispanic White, not Non-Hispanic White), pre-pregnancy BMI (≥30.0 kg/m^2; <30.0 kg/m^2), maternal education (>12 years, ≤12 years), early pregnancy smoking (yes, no), and early pregnancy alcohol use (yes, no). Women with missing data on any of these maternal characteristics were excluded from the analysis (<5% maternal missing data); [f]Includes double outlet right ventricle (DORV) non-Tetralogy of Fallot and non-transposition of the great arteries types.

eTable 3. Risk for specific selected birth defects after early pregnancy exposure to any antidepressant and common antidepressant classes[a] compared to women who were unexposed to antidepressants in the three months before conception and during pregnancy,[b] National Birth Defects Prevention Study, 1997–2011

		Any Antidepressant[e]		Any SSRI[a]		Any SNRI[a]		Any Other Antidepressant[a]		Multiple Classes[f]	
Birth Defect[c]	*N* Unexposed[d]	*N* Exp.	aOR (95% CI)[g]	*N* Exp.	aOR (95% CI)[g]	*N* Exp.	aOR (95% CI)[g]	*N* Exp.	aOR (95% CI)[g]	*N* Exp.	aOR (95% CI)[g]
Controls	10,886	467		341		27		54		30	
Any heart defect	11,046	654	1.37 (1.21, 1.56)	466	1.33 (1.15, 1.54)	59	**2.27 (1.42, 3.64)**	65	1.18 (0.82, 1.70)	52	1.68 (1.07, 2.64)
Heterotaxia with CHD	303	12	1.12 (0.62, 2.03)	9	1.13 (0.57, 2.22)	–	—	–	—	–	—
Conotruncal defects	2,339	136	1.33 (1.09, 1.63)	105	1.41 (1.12, 1.77)	12	**2.21 (1.11, 4.42)**	9	0.79 (0.39, 1.61)	9	1.40 (0.66, 2.95)
Truncus arteriosus	115	8	1.36 (0.63, 2.97)	6	1.31 (0.53, 3.26)	–	—	–	—	–	—
Tetralogy of Fallot	1,081	65	1.43 (1.09, 1.88)	53	1.62 (1.20, 2.19)	4	1.59 (0.55, 4.58)	4	0.82 (0.30, 2.28)	–	—
DTGA	705	39	1.20 (0.86, 1.69)	29	1.23 (0.83, 1.81)	4	2.28 (0.79, 6.60)	–	—	–	—
DORV –TGA type	163	10	1.47 (0.74, 2.92)	8	1.55 (0.71, 3.36)	–	—	–	—	–	—
DORV – other type[h]	110	8	1.88 (0.90, 3.93)	5	1.58 (0.63, 3.95)	–	—	–	—	–	—
VSD – conoventricular type	131	4	0.74 (0.27, 2.02)	–	—	–	—	–	—	–	—
AVSD	327	19	1.17 (0.72, 1.90)	17	1.42 (0.85, 2.38)	–	—	–	—	–	—
APVR	340	25	1.89 (1.23, 2.88)	21	**2.15 (1.36, 3.41)**	–	—	–	—	–	—
TAPVR	279	11	1.04 (0.56, 1.93)	9	1.16 (0.59, 2.28)	–	—	–	—	–	—
PAPVR	61	14	**5.23 (2.85, 9.60)**	12	**6.07 (3.18, 11.57)**	–	—	–	—	–	—
LVOTO defects	2,002	139	1.51 (1.24, 1.84)	89	1.33 (1.04, 1.69)	18	**3.53 (1.89, 6.57)**	18	1.70 (0.99, 2.91)	13	**2.20 (1.14, 4.23)**
HLHS	585	44	1.69 (1.22, 2.35)	29	1.55 (1.05, 2.30)	6	**3.79 (1.44, 9.98)**	7	**2.40 (1.08, 5.33)**	–	—
Coarctation of the aorta	1,060	64	1.34 (1.02, 1.76)	40	1.14 (0.81, 1.59)	10	**3.88 (1.85, 8.15)**	6	1.09 (0.47, 2.55)	7	**2.29 (1.00, 5.24)**
Aortic stenosis	453	37	1.63 (1.14, 2.32)	25	1.50 (0.98, 2.31)	–	—	5	1.82 (0.72, 4.59)	4	**2.71 (0.94, 7.77)**
RVOTO defects	1,885	137	1.71 (1.40, 2.09)	101	1.71 (1.36, 2.16)	11	**2.49 (1.22, 5.09)**	8	0.87 (0.41, 1.85)	13	**2.49 (1.29, 4.78)**
Pulmonary atresia	240	15	1.64 (0.96, 2.80)	12	1.78 (0.98, 3.24)	–	—	–	—	–	—
Pulmonary valve stenosis	1,381	112	1.84 (1.48, 2.29)	83	1.86 (1.44, 2.39)	9	**2.64 (1.22, 5.68)**	7	1.01 (0.45, 2.22)	10	**2.46 (1.20, 5.06)**
Ebstein anomaly	169	6	0.88 (0.39, 2.02)	4	0.80 (0.29, 2.17)	–	—	–	—	–	—
Tricuspid atresia	163	7	1.25 (0.58, 2.71)	4	0.97 (0.35, 2.65)	–	—	–	—	–	—
Septal defects	4,271	215	1.20 (1.01, 1.42)	141	1.08 (0.88, 1.32)	20	**2.11 (1.17, 3.81)**	28	1.30 (0.82, 2.08)	19	1.63 (0.91, 2.90)
VSD – perimembranous type	1,517	67	1.04 (0.80, 1.36)	45	0.96 (0.70, 1.32)	7	**2.06 (0.89, 4.78)**	7	0.93 (0.42, 2.05)	5	1.20 (0.46, 3.09)
VSD – muscular type (simple)	152	7	1.99 (0.78, 5.07)	5	2.41 (0.78, 7.45)	–	—	–	—	–	—
VSD – muscular type (not simple)	599	31	1.23 (0.84, 1.82)	21	1.16 (0.73, 1.84)	5	**3.93 (1.49, 10.37)**	–	—	–	—
ASD – secundum type	2,189	117	1.29 (1.04, 1.59)	78	1.18 (0.92, 1.52)	10	**2.11 (1.01, 4.42)**	13	1.14 (0.60, 2.14)	12	**2.07 (1.05, 4.07)**
Single ventricle/complex heart	285	14	1.19 (0.67, 2.11)	12	1.38 (0.74, 2.56)	–	—	–	—	–	—
Amniotic band syndrome, limb anomalies only	201	7	0.82 (0.38, 1.77)	5	0.79 (0.32, 1.94)	–	—	–	—	–	—
Any neutral tube defect	1,968	87	1.12 (0.88, 1.43)	57	0.99 (0.74, 1.33)	10	**2.48 (1.18, 5.19)**	12	1.33 (0.69, 2.56)	6	1.25 (0.52, 3.02)
Anencephaly & craniorachischisis	590	29	1.34 (0.90, 2.00)	20	1.24 (0.77, 1.99)	5	**4.55 (1.72, 12.05)**	–	—	–	—
Spina bifida	1,167	54	1.10 (0.81, 1.48)	33	0.91 (0.62, 1.32)	5	1.95 (0.74, 5.14)	10	1.72 (0.84, 3.50)	4	1.33 (0.47, 3.80)

Encephalocele	211	4	0.56 (0.21, 1.53)	4	0.75 (0.28, 2.05)	–	—	–	—	–	—
		Any Antidepressant[e]		**Any SSRI[a]**		**Any SNRI[a]**		**Any Other Antidepressant[a]**		**Multiple Classes[f]**	
Birth Defect[c]		*N* Exp.	aOR (95% CI)[g]	*N* Exp.	aOR (95% CI)[g]	*N* Exp.	aOR (95% CI)[g]	*N* Exp.	aOR (95% CI)[g]	*N* Exp.	aOR (95% CI)[g]
Hydrocephaly	454	22	1.15 (0.74, 1.78)	14	0.99 (0.57, 1.71)	–	—	–	—	4	**3.15 (1.10, 9.03)**
Dandy-Walker malformation	170	9	1.56 (0.78, 3.11)	7	1.65 (0.76, 3.58)	–	—	–	—	–	—
Cerebellar hypoplasia	55	5	**2.15 (0.84, 5.48)**	5	**2.93 (1.15, 7.50)**	–	—	–	—	–	—
Holoprosencephaly	146	8	1.61 (0.77, 3.34)	5	1.32 (0.53, 3.28)	–	—	–	—	–	—
Cataracts	332	15	0.88 (0.51, 1.53)	11	0.86 (0.45, 1.63)	–	—	–	—	–	—
Anophthalmos/microphthalmos	214	6	0.71 (0.31, 1.61)	–	—	–	—	–	—	–	—
Glaucoma/anterior chamber defects	162	15	**2.19 (1.25, 3.87)**	10	1.95 (0.98, 3.89)	–	—	4	**5.53 (1.94, 15.77)**	–	—
Anotia/microtia	632	24	1.26 (0.83, 1.93)	17	1.21 (0.73, 1.99)	–	—	4	2.04 (0.73, 5.71)	–	—
Choanal atresia	146	12	1.73 (0.95, 3.17)	8	1.60 (0.78, 3.32)	–	—	–	—	–	—
Any oral cleft	4,323	207	1.05 (0.89, 1.25)	139	0.95 (0.77, 1.16)	25	**2.35 (1.34, 4.13)**	21	0.95 (0.57, 1.58)	17	1.37 (0.75, 2.51)
Cleft palate only	1,443	72	1.04 (0.80, 1.35)	50	0.97 (0.71, 1.32)	12	**3.12 (1.53, 6.37)**	5	0.65 (0.26, 1.62)	5	1.20 (0.46, 3.11)
Cleft lip w/without cleft palate	2,880	135	1.06 (0.87, 1.30)	89	0.94 (0.73, 1.19)	13	1.97 (1.01, 3.87)	16	1.11 (0.63, 1.95)	12	1.46 (0.74, 2.87)
Esophageal atresia	683	43	1.36 (0.98, 1.88)	34	1.47 (1.02, 2.11)	–	—	–	—	4	1.94 (0.68, 5.55)
Intestinal atresia/stenosis	444	27	1.56 (1.03, 2.38)	17	1.27 (0.74, 2.15)	–	—	5	**2.82 (1.11, 7.14)**	–	—
Duodenal atresia/stenosis	224	11	1.12 (0.59, 2.14)	7	1.08 (0.50, 2.31)	–	—	–	—	–	—
Anorectal atresia/stenosis	985	42	1.08 (0.78, 1.49)	28	0.97 (0.66, 1.44)	–	—	6	1.40 (0.60, 3.28)	4	1.60 (0.56, 4.56)
Cloacal exstrophy	94	4	0.99 (0.36, 2.74)	–	—	–	—	–	—	–	—
Biliary atresia	184	7	1.00 (0.46, 2.15)	5	0.96 (0.39, 2.38)	–	—	–	—	–	—
Hypospadias, 2nd or 3rd degree	2,346	131	1.08 (0.86, 1.35)	92	1.02 (0.78, 1.32)	10	1.77 (0.73, 4.28)	18	1.52 (0.82, 2.81)	8	0.89 (0.39, 2.07)
Bilateral renal agenesis or hypoplasia	172	6	0.83 (0.36, 1.91)	4	0.75 (0.28, 2.06)	–	—	–	—	–	—
Any limb deficiency	1,137	53	1.13 (0.84, 1.52)	43	1.25 (0.90, 1.73)	–	—	6	1.11 (0.47, 2.59)	–	—
Longitudinal limb deficiency	430	17	0.96 (0.59, 1.59)	14	1.09 (0.63, 1.88)	–	—	–	—	–	—
Transverse limb deficiency	664	35	1.28 (0.89, 1.83)	29	1.43 (0.96, 2.12)	–	—	4	1.30 (0.47, 3.61)	–	—
Craniosynostosis	1,441	112	1.56 (1.25, 1.94)	93	1.77 (1.39, 2.26)	6	1.56 (0.64, 3.83)	7	0.82 (0.37, 1.81)	5	1.08 (0.42, 2.81)
Diaphragmatic hernia	802	49	1.43 (1.05, 1.95)	31	1.22 (0.83, 1.79)	–	—	10	**2.56 (1.29, 5.06)**	4	1.82 (0.64, 5.19)
Omphalocele	401	22	1.11 (0.69, 1.78)	14	0.94 (0.52, 1.69)	–	—	–	—	5	**4.66 (1.79, 12.13)**
Gastroschisis	1,309	68	1.29 (0.98, 1.72)	50	1.28 (0.92, 1.77)	8	**4.30 (1.83, 10.12)**	4	0.46 (0.14, 1.51)	5	1.63 (0.60, 4.39)
Sacral agenesis or caudal dysplasia	71	5	1.68 (0.66, 4.25)	4	1.85 (0.66, 5.18)	–	—	–	—	–	—

Bolded text delineates a meaningfully elevated association per criteria outlined in Methods (aOR ≥2.0 with lower confidence interval bound ≥0.8); SSRI, Selective serotonin reuptake inhibitor; SNRI, Serotonin-norepinephrine reuptake inhibitor; Exp, exposed; CHD, congenital heart disease; DTGA, d'Transposition of the great arteries; DORV, double outlet right ventricle; AVSD, atrioventricular septal defect; APVR, anomalous pulmonary venous return; TAPVR, total anomalous pulmonary venous return; PAPVR, partial anomalous pulmonary venous return; LVOTO, left ventricular outflow tract obstruction; HLHS, hypoplastic left heart syndrome; RVOTO, right ventricular outflow tract obstruction; VSD, ventricular septal defect; ASD, atrial septal defect. [a]*Monotherapy* antidepressant exposure to this specific medication class during early pregnancy (defined as one month prior to conception through the third pregnancy month). Medication classes were included if there was ≥0.2% prevalence of use of the medication class among control mothers; [b]Unexposed to any antidepressant in the three months before conception through the end of pregnancy; [c]Birth defects included in the NDBPS for which there were ≥4 exposed cases for each medication class were included in this analysis. Dashed-lines represent defects for which the number of exposed cases for that medication class did not meet the required threshold; [d]Unexposed to any antidepressant in the three months before conception through the end of pregnancy; [e]Exposure to any antidepressant, which could include polypharmacy antidepressant exposure, in the month before conception through the third pregnancy month; [f]Exposure to more than one class of antidepressant, including those that did not meet the ≥0.2% prevalence threshold (e.g., TCA-NEs), in the month before conception through the third pregnancy month; [g]The following covariates were tested for inclusion: maternal age, maternal race/ethnicity, maternal pre-pregnancy body mass index (BMI), maternal education, early pregnancy smoking, early pregnancy alcohol use, folic acid use in the month before through the first pregnancy month, and parity. Based on the criteria outlined in the Methods section, the following covariates were retained in the final adjustment: maternal race/ethnicity (non-Hispanic White, not Non-Hispanic

White), pre-pregnancy BMI (≥30.0 kg/m^2; <30.0 kg/m^2), maternal education (>12 years, ≤12 years), early pregnancy smoking (yes, no), and early pregnancy alcohol use (yes, no). Women with missing data on any of these maternal characteristics were excluded from the analysis; [h]Includes double outlet right ventricle (DORV) non-Tetralogy of Fallot and non-transposition of the great arteries types.

eTable 4. **Risk for specific selected birth defects after early pregnancy exposure to common antidepressant medications[a] compared to women who were only exposed to an antidepressant outside of early pregnancy,[b] which at least partially accounts for confounding by the underlying condition, National Birth Defects Prevention Study, 1997–2011**

	Selective Serotonin Reuptake Inhibitors (SSRIs)															
		Sertraline[a]		Fluoxetine[a]		Paroxetine[a]		Citalopram[a]		Escitalopram[a]		Venlafaxine[a]		Bupropion[a]	
Birth Defect[c]	*N.* Exposed Not Early Pregnancy[d]	*N* Exp.	aOR (95% CI)[e]	*N* Exp.	aOR (95% CI)[e]	*N* Exp.	aOR (95% CI)[e]	*N* Exp.	aOR (95% CI)[e]	*N* Exp.	aOR (95% CI)[e]	*N* Exp.	aOR (95% CI)[e]	*N* Exp.	aOR (95% CI)[e]
Controls	125	129		81		43		39		35		21		45	
Any heart defect	149	156	1.00 (0.72, 1.40)	125	1.29 (0.89, 1.87)	69	1.31 (0.84, 2.06)	50	1.12 (0.69, 1.83)	43	1.07 (0.64, 1.79)	47	1.94 (1.09, 3.47)	57	1.09 (0.69, 1.73)
Conotruncal defects	28	40	1.33 (0.77, 2.30)	27	1.48 (0.81, 2.69)	13	1.28 (0.60, 2.71)	11	1.20 (0.54, 2.66)	10	1.22 (0.54, 2.78)	8	1.53 (0.60, 3.90)	8	0.75 (0.31, 1.77)
Tetralogy of Fallot	14	21	1.44 (0.70, 2.95)	13	1.42 (0.63, 3.18)	6	1.20 (0.43, 3.34)	5	1.06 (0.35, 3.20)	6	1.48 (0.52, 4.19)	–	—	4	0.74 (0.23, 2.41)
DTGA	8	10	1.17 (0.45, 3.09)	9	1.74 (0.64, 4.72)	4	1.45 (0.42, 5.07)	–	—	–	—	–	—	–	—
DORV – other type[f]	1	–	—	–	—	–	—	–	—	–	—	–	—	–	—
AVSD	5	6	1.04 (0.29, 3.74)	4	1.26 (0.33, 4.89)	–	—	4	**3.73 (0.86, 16.27)**	–	—	–	—	–	—
APVR	5	–	—	6	1.89 (0.56, 6.42)	6	**3.49 (1.01, 12.10)**	–	—	–	—	–	—	–	—
TAPVR	4	–	—	–	—	4	2.89 (0.69, 12.08)	–	—	–	—	–	—	–	—
LVOTO defects	33	26	0.73 (0.41, 1.31)	29	1.31 (0.74, 2.33)	9	0.78 (0.35, 1.76)	7	0.68 (0.27, 1.67)	12	1.26 (0.58, 2.73)	15	**2.57 (1.16, 5.68)**	14	1.18 (0.58, 2.43)
HLHS	13	12	0.89 (0.39, 2.02)	8	0.93 (0.37, 2.36)	–	—	–	—	4	0.98 (0.29, 3.26)	5	1.86 (0.54, 6.42)	5	1.05 (0.35, 3.16)
Coarctation of the aorta	11	7	0.53 (0.19, 1.47)	15	**2.06 (0.89, 4.74)**	4	1.05 (0.32, 3.47)	5	1.43 (0.46, 4.47)	5	1.50 (0.48, 4.69)	8	**4.19 (1.46, 12.02)**	5	1.23 (0.40, 3.78)
Aortic stenosis	8	7	0.74 (0.25, 2.19)	8	1.52 (0.55, 4.23)	–	—	–	—	–	—	–	—	4	1.49 (0.42, 5.34)
RVOTO defects	30	35	1.16 (0.67, 2.01)	25	1.31 (0.72, 2.39)	14	1.35 (0.65, 2.80)	12	1.54 (0.70, 3.42)	9	1.25 (0.53, 2.98)	8	2.01 (0.77, 5.25)	8	0.85 (0.36, 2.04)
Pulmonary valve stenosis	25	31	1.26 (0.70, 2.27)	19	1.26 (0.65, 2.46)	13	1.54 (0.72, 3.30)	9	1.47 (0.61, 3.56)	6	1.02 (0.38, 2.79)	7	2.20 (0.79, 6.13)	7	0.92 (0.36, 2.32)
Septal defects	53	50	0.92 (0.58, 1.46)	36	1.05 (0.63, 1.75)	28	1.51 (0.85, 2.69)	14	0.91 (0.45, 1.84)	10	0.71 (0.33, 1.56)	18	**2.20 (1.06, 4.56)**	24	1.32 (0.73, 2.41)
VSD – perimembranous (not simple)	23	10	0.41 (0.19, 0.90)	11	0.74 (0.34, 1.59)	12	1.50 (0.69, 3.26)	6	0.85 (0.32, 2.28)	4	0.57 (0.18, 1.81)	6	1.56 (0.56, 4.37)	6	0.73 (0.28, 1.92)
VSD – muscular	6	7	1.12 (0.37, 3.43)	8	2.02 (0.67, 6.07)	4	1.91 (0.51, 7.07)	–	—	–	—	4	**3.51 (0.86, 14.29)**	–	—
ASD – secundum	27	32	1.16 (0.66, 2.05)	17	0.97 (0.50, 1.90)	14	1.48 (0.71, 3.09)	9	1.19 (0.50, 2.80)	5	0.72 (0.26, 2.05)	9	**2.28 (0.91, 5.71)**	12	1.34 (0.62, 2.93)
Single ventricle/ complex heart	2	–	—	–	—	–	—	–	—	–	—	–	—	–	—
Any neutral tube defect	25	16	0.62 (0.31, 1.22)	16	1.00 (0.50, 1.98)	11	1.15 (0.51, 2.60)	5	0.60 (0.19, 1.85)	7	1.14 (0.44, 2.92)	9	**2.58 (1.01, 6.57)**	11	1.34 (0.60, 3.00)
Anencephaly & craniorachischisis	5	7	1.35 (0.42, 4.37)	4	1.25 (0.33, 4.85)	6	**3.43 (0.99, 11.82)**	–	—	–	—	5	**9.14 (1.91, 43.83)**	–	—
Spina bifida	18	9	0.48 (0.21, 1.11)	10	0.85 (0.38, 1.95)	4	0.48 (0.13, 1.70)	4	0.57 (0.16, 2.05)	5	1.05 (0.36, 3.07)	4	1.45 (0.44, 4.80)	9	1.38 (0.57, 3.34)
Hydrocephaly	4	6	1.46 (0.40, 5.31)	–	—	–	—	–	—	–	—	–	—	–	—
Dandy-Walker malformation	0	–	—	–	—	–	—	–	—	–	—	–	—	–	—
Cataracts	3	–	—	–	—	–	—	–	—	–	—	–	—	–	—
Glaucoma/ anterior chamber defects	3	–	—	–	—	–	—	–	—	–	—	–	—	–	—

Anotia/microtia	5	4	0.80 (0.21, 3.04)	–	—	–	—	4	2.35 (0.58, 9.58)	–	—	–	—	–	—
Any oral cleft	49	45	0.87 (0.54, 1.41)	36	1.18 (0.70, 1.98)	20	1.12 (0.59, 2.12)	17	1.32 (0.67, 2.62)	12	0.97 (0.46, 2.06)	22	**2.93 (1.43, 6.00)**	17	1.08 (0.55, 2.10)
Cleft palate only	21	16	0.71 (0.35, 1.43)	12	0.89 (0.41, 1.93)	8	0.95 (0.38, 2.39)	6	1.07 (0.39, 2.92)	5	0.92 (0.32, 2.68)	11	**3.26 (1.30, 8.22)**	4	0.57 (0.18, 1.77)
Cleft lip with or without cleft palate	28	29	0.98 (0.55, 1.76)	24	1.38 (0.74, 2.55)	12	1.23 (0.57, 2.65)	11	1.59 (0.70, 3.61)	7	1.05 (0.41, 2.68)	11	**2.92 (1.20, 7.08)**	13	1.48 (0.69, 3.19)
Esophageal atresia	7	9	1.20 (0.43, 3.33)	12	**2.61 (0.98, 6.93)**	4	1.64 (0.46, 5.90)	5	2.16 (0.63, 7.41)	–	—	–	—	–	—
Intestinal atresia/stenosis	3	–	—	–	—	–	—	–	—	–	—	–	—	–	—
Duodenal atresia/stenosis	0	–	—	–	—	–	—	–	—	–	—	–	—	–	—
Anorectal atresia/stenosis	8	12	1.68 (0.64, 4.42)	7	1.54 (0.52, 4.56)	–	—	5	2.16 (0.62, 7.48)	–	—	–	—	6	2.52 (0.78, 8.11)
Hypospadias, 2nd or 3rd degree	24	39	1.91 (1.02, 3.59)	17	1.00 (0.48, 2.09)	12	1.49 (0.64, 3.50)	13	1.69 (0.72, 3.98)	9	1.10 (0.43, 2.84)	8	**2.57 (0.84, 7.93)**	15	1.91 (0.84, 4.33)
Any limb deficiency	11	12	1.09 (0.46, 2.57)	14	1.96 (0.84, 4.56)	7	1.82 (0.66, 5.01)	4	1.43 (0.41, 4.97)	6	2.17 (0.72, 6.54)	–	—	4	1.06 (0.31, 3.61)
Longitudinal limb deficiency	4	–	—	6	2.34 (0.64, 8.57)	–	—	–	—	–	—	–	—	–	—
Transverse limb deficiency	6	9	1.46 (0.51, 4.23)	8	2.02 (0.67, 6.06)	4	1.91 (0.51, 7.08)	4	2.33 (0.60, 9.06)	4	2.11 (0.55, 8.12)	–	—	4	1.65 (0.43, 6.24)
Craniosynostosis	19	37	1.89 (1.03, 3.46)	24	1.93 (0.99, 3.75)	10	1.50 (0.65, 3.48)	9	1.51 (0.62, 3.66)	9	1.71 (0.70, 4.15)	4	1.29 (0.39, 4.23)	7	0.99 (0.39, 2.54)
Diaphragmatic hernia	4	11	**2.72 (0.84, 8.81)**	7	2.62 (0.74, 9.29)	4	2.86 (0.69, 11.94)	7	**5.11 (1.29, 20.24)**	–	—	–	—	9	**6.50 (1.85, 22.88)**
Omphalocele	5	6	1.14 (0.34, 3.84)	–	—	–	—	–	—	–	—	–	—	–	—
Gastroschisis	21	17	0.76 (0.37, 1.56)	9	0.67 (0.29, 1.59)	15	**2.11 (0.97, 4.59)**	–	—	4	1.01 (0.31, 3.35)	7	**3.67 (1.19, 11.29)**	4	0.72 (0.22, 2.35)

Bolded text delineates a meaningfully elevated association per criteria outlined in Methods (aOR ≥2.0 with lower confidence interval bound ≥0.8); Exp, exposed; DTGA, d'Transposition of the great arteries; DORV-other, double outlet right ventricle, other type; AVSD, atrioventricular septal defects; APVR, anomalous pulmonary venous return; TAPVR, total anomalous pulmonary venous return; LVOTO, left ventricular outflow tract obstruction; HLHS, hypoplastic left heart syndrome; RVOTO, right ventricular outflow tract obstruction; VSD, ventricular septal defect; ASD, atrial septal defect. [a]*Monotherapy* antidepressant exposure to this specific medication component during early pregnancy (defined as one month prior to conception through the third pregnancy month); [b]Exposed to an antidepressant 2–3 months before pregnancy (B3, B2) and/or in the second or third trimesters of pregnancy (P4–P9) only. This may include monotherapy or polytherapy antidepressant use within this time period; [c]Birth defects included in the NBDPS for which there were ≥4 exposed cases for each medication were included in this analysis. Dashed-lines represent defects for which the number of exposed cases for that medication did not meet the required threshold. [d]Cases whose mothers were exposed to an antidepressant, but only outside of early pregnancy. This may include monotherapy or polytherapy antidepressant use within this time period; [e]The following covariates were tested for inclusion: maternal education (>12 years, ≤12 years); this covariate was retained in the final adjusted analysis based on criteria outlined in the Methods section. Women with missing education data were excluded from the analysis (<5% maternal missing data); [f]Includes double outlet right ventricle (DORV) non-Tetralogy of Fallot and non-transposition of the great arteries types

eTable 5. Risk for specific selected birth defects after early pregnancy exposure to any antidepressant and to common antidepressant medication classes[a] compared to women who were only exposed to an antidepressant only outside of early pregnancy, which at least partially accounts for confounding by underlying condition,[b] National Birth Defects Prevention Study, 1997–2011

		Any Antidepressant[e]		Any SSRI[a]		Any SNRI[a]		Any Other Antidepressant[a]		Multiple Classes[f]	
Birth Defect[c]	*N.* Exposed Not Early Pregnancy[d]	*N* Exp.	aOR (95% CI)[g]	*N* Exp.	aOR (95% CI)[g]	*N* Exp.	aOR (95% CI)[g]	*N* Exp.	aOR (95% CI)[g]	*N* Exp.	aOR (95% CI)[g]
Controls	125	467		341		27		54		30	
Any heart defect	149	654	1.18 (0.91, 1.55)	466	1.14 (0.87, 1.51)	59	**2.07 (1.21, 3.56)**	65	1.03 (0.66, 1.59)	52	1.47 (0.88, 2.46)
Heterotaxia with CHD	4	12	0.82 (0.26, 2.59)	9	0.84 (0.25, 2.79)	–	—	–	—	–	—
Conotruncal defects	28	136	1.29 (0.82, 2.03)	105	1.36 (0.85, 2.16)	12	1.91 (0.83, 4.36)	9	0.71 (0.31, 1.62)	9	1.29 (0.55, 3.03)
Truncus arteriosus	1	–	—	–	—	–	—	–	—	–	—
Tetralogy of Fallot	14	65	1.24 (0.67, 2.28)	53	1.38 (0.74, 2.58)	4	1.23 (0.36, 4.18)	4	0.62 (0.20, 2.00)	–	—
DTGA	8	39	1.29 (0.59, 2.84)	29	1.31 (0.58, 2.94)	4	1.83 (0.50, 6.71)	–	—	–	—
DORV –TGA type	3	–	—	–	—	–	—	–	—	–	—
DORV – other type[h]	1	–	—	–	—	–	—	–	—	–	—
VSD – conoventricular type	1	–	—	–	—	–	—	–	—	–	—
AVSD	5	19	1.08 (0.39, 2.99)	17	1.26 (0.45, 3.53)	–	—	–	—	–	—
APVR	5	25	1.42 (0.53, 3.80)	21	1.60 (0.59, 4.35)	–	—	–	—	–	—
TAPVR	4	11	0.79 (0.24, 2.53)	9	0.85 (0.26, 2.83)	–	—	–	—	–	—
PAPVR	1	–	—	–	—	–	—	–	—	–	—
LVOTO defects	33	139	1.09 (0.71, 1.68)	89	0.96 (0.61, 1.50)	18	**2.63 (1.24, 5.55)**	18	1.24 (0.64, 2.41)	13	1.60 (0.75, 3.41)
HLHS	13	44	0.86 (0.45, 1.65)	29	0.79 (0.40, 1.57)	6	1.96 (0.62, 6.20)	7	1.20 (0.45, 3.21)	–	—
Coarctation of the aorta	11	64	1.52 (0.78, 2.98)	40	1.28 (0.64, 2.58)	10	**4.38 (1.62, 11.89)**	6	1.22 (0.42, 3.48)	7	**2.60 (0.93, 7.29)**
Aortic stenosis	8	37	1.18 (0.53, 2.61)	25	1.08 (0.47, 2.48)	–	—	5	1.48 (0.46, 4.83)	4	2.04 (0.57, 7.34)
RVOTO defects	30	137	1.26 (0.81, 1.97)	101	1.26 (0.79, 1.99)	11	**2.39 (1.00, 5.70)**	8	0.68 (0.29, 1.61)	13	1.95 (0.89, 4.26)
Pulmonary atresia	3	–	—	–	—	–	—	–	—	–	—
Pulmonary valve stenosis	25	112	1.27 (0.79, 2.06)	83	1.27 (0.77, 2.09)	9	**2.46 (0.96, 6.34)**	7	0.75 (0.30, 1.89)	10	1.83 (0.78, 4.30)
Ebstein anomaly	1	–	—	–	—	–	—	–	—	–	—
Tricuspid atresia	2	–	—	–	—	–	—	–	—	–	—
Septal defects	53	215	1.11 (0.77, 1.60)	141	0.98 (0.67, 1.44)	20	**2.07 (1.03, 4.16)**	28	1.26 (0.72, 2.22)	19	1.55 (0.78, 2.96)
VSD – perimembranous type	23	67	0.78 (0.47, 1.30)	45	0.70 (0.41, 1.21)	7	1.53 (0.58, 4.06)	7	0.71 (0.29, 1.76)	5	0.87 (0.31, 2.50)
VSD – muscular type (simple)	2	–	—	–	—	–	—	–	—	–	—
VSD – muscular type (not simple)	6	31	1.34 (0.54, 3.29)	21	1.25 (0.49, 3.17)	5	**3.66 (0.97, 13.81)**	–	—	–	—
ASD – secundum type	27	117	1.19 (0.75, 1.90)	78	1.07 (0.66, 1.74)	10	**2.16 (0.89, 5.23)**	13	1.18 (0.56, 2.49)	12	1.85 (0.83, 4.13)
Single ventricle/complex heart	2	–	—	–	—	–	—	–	—	–	—
Amniotic band syndrome, limb anomalies only	1	–	—	–	—	–	—	–	—	–	—
Any neutral tube defect	25	87	0.92 (0.56, 1.51)	57	0.81 (0.48, 1.36)	10	**2.46 (1.00, 6.05)**	12	1.18 (0.54, 2.55)	6	1.06 (0.39, 2.83)

Anencephaly & craniorachischisis	5	29	1.46 (0.55, 3.87)	20	1.40 (0.51, 3.83)	5	**7.97 (1.65, 38.61)**	–	—	–	—
Spina bifida	18	54	0.79 (0.45, 1.40)	33	0.63 (0.34, 1.18)	5	1.54 (0.51, 4.68)	10	1.26 (0.54, 2.93)	4	0.93 (0.29, 2.96)
		Any Antidepressant[e]		**Any SSRI[a]**		**Any SNRI[a]**		**Any Other Antidepressant[a]**		**Multiple Classes[f]**	
Birth Defect[c]	*N.* Exposed Not Early Pregnancy[d]	*N* Exp.	aOR (95% CI)[g]	*N* Exp.	aOR (95% CI)[g]	*N* Exp.	aOR (95% CI)[g]	*N* Exp.	aOR (95% CI)[g]	*N* Exp.	aOR (95% CI)[g]
Encephalocele	2	–	—	–	—	–	—	–	—	–	—
Hydrocephaly	4	22	1.53 (0.52, 4.55)	14	1.29 (0.42, 4.00)	–	—	–	—	4	**4.17 (0.98, 17.77)**
Dandy-Walker malformation	0	–	—	–	—	–	—	–	—	–	—
Cerebellar hypoplasia	0	–	—	–	—	–	—	–	—	–	—
Holoprosencephaly	2	–	—	–	—	–	—	–	—	–	—
Cataracts	3	–	—	–	—	–	—	–	—	–	—
Anophthalmos/microphthalmos	4	6	0.45 (0.12, 1.64)	–	—	–	—	–	—	–	—
Glaucoma/anterior chamber defects	3	–	—	–	—	–	—	–	—	–	—
Anotia/microtia	5	24	1.30 (0.48, 3.49)	17	1.25 (0.45, 3.46)	–	—	4	1.84 (0.47, 7.23)	–	—
Choanal atresia	1	–	—	–	—	–	—	–	—	–	—
Any oral cleft	49	207	1.18 (0.81, 1.72)	139	1.06 (0.72, 1.56)	25	**2.91 (1.47, 5.76)**	21	1.08 (0.58, 1.99)	17	1.57 (0.78, 3.15)
Cleft palate only	21	72	0.93 (0.55, 1.58)	50	0.87 (0.50, 1.52)	12	**3.09 (1.26, 7.54)**	5	0.58 (0.21, 1.64)	5	1.02 (0.35, 2.95)
Cleft lip w/without cleft palate	28	135	1.37 (0.86, 2.16)	89	1.19 (0.74, 1.92)	13	**3.02 (1.30, 7.02)**	16	1.45 (0.71, 2.96)	12	1.96 (0.88, 4.40)
Esophageal atresia	7	43	1.55 (0.68, 3.53)	34	1.68 (0.72, 3.91)	–	—	–	—	4	2.27 (0.62, 8.31)
Intestinal atresia/stenosis	3	–	—	–	—	–	—	–	—	–	—
Duodenal atresia/stenosis	0	–	—	–	—	–	—	–	—	–	—
Anorectal atresia/stenosis	8	42	1.64 (0.72, 3.75)	28	1.46 (0.62, 3.43)	–	—	6	2.04 (0.65, 6.45)	4	2.50 (0.68, 9.23)
Cloacal exstrophy	0	–	—	–	—	–	—	–	—	–	—
Biliary atresia	2	–	—	–	—	–	—	–	—	–	—
Hypospadias, 2nd or 3rd degree	24	131	1.51 (0.89, 2.55)	92	1.42 (0.83, 2.44)	10	**2.89 (1.00, 8.38)**	18	**2.02 (0.93, 4.39)**	8	1.17 (0.45, 3.04)
Bilateral renal agenesis or hypoplasia	1	–	—	–	—	–	—	–	—	–	—
Any limb deficiency	11	53	1.36 (0.69, 2.69)	43	1.48 (0.74, 2.98)	–	—	6	1.32 (0.46, 3.82)	–	—
Longitudinal limb deficiency	4	17	1.25 (0.41, 3.80)	14	1.34 (0.43, 4.18)	–	—	–	—	–	—
Transverse limb deficiency	6	35	1.61 (0.66, 3.92)	29	1.81 (0.73, 4.48)	–	—	4	1.39 (0.37, 5.20)	–	—
Craniosynostosis	19	112	1.59 (0.94, 2.69)	93	1.79 (1.05, 3.06)	6	1.63 (0.58, 4.58)	7	0.82 (0.32, 2.08)	5	1.08 (0.35, 2.94)
Diaphragmatic hernia	4	49	**3.15 (1.11, 8.93)**	31	**2.70 (0.93, 7.83)**	–	—	10	**5.74 (1.70, 19.40)**	4	**4.23 (0.98, 18.18)**
Omphalocele	5	22	1.20 (0.45, 3.25)	14	1.91 (0.36, 2.88)	–	—	–	—	5	**4.23 (1.14, 15.78)**
Gastroschisis	21	68	0.95 (0.55, 1.63)	50	0.90 (0.51, 1.59)	8	**3.65 (1.24, 10.74)**	4	0.55 (0.17, 1.76)	5	1.24 (0.41, 3.71)
Sacral agenesis or caudal dysplasia	0	–	—	–	—	–	—	–	—	–	—

Bolded text delineates a meaningfully elevated association per criteria outlined in Methods (aOR ≥2.0 with lower confidence interval bound ≥0.8); SSRI, Selective serotonin reuptake inhibitor; SNRI, Serotonin-norepinephrine reuptake inhibitor; Exp, exposed; CHD, congenital heart disease; DTGA, d'Transposition of the great arteries; DORV, double outlet right ventricle; AVSD, atrioventricular septal defect; APVR, anomalous pulmonary venous return; TAPVR, total anomalous pulmonary venous return; PAPVR, partial anomalous pulmonary venous return; LVOTO, left ventricular outflow tract obstruction; HLHS, hypoplastic left heart syndrome; RVOTO, right ventricular outflow tract obstruction; VSD, ventricular septal defect; ASD, atrial septal defect. [a]*Monotherapy* antidepressant exposure to this specific medication class during early pregnancy (defined as one month prior to conception through the third pregnancy month). Medication classes were included if there was ≥0.2% prevalence of use of the medication class among control mothers; [b]Exposed to an antidepressant 2–3 months before pregnancy (B3, B2) and/or in the second or third trimesters of pregnancy (P4–P9) only. This may include monotherapy or polytherapy antidepressant use within this time period; [c]Birth defects included in the NDBPS for which there were ≥4 exposed cases for each medication class were included in this analysis. Dashed-lines represent defects for which the number of exposed cases for that medication class did not meet the required threshold; [d] Exposed to an antidepressant 2–

3 months before pregnancy (B3, B2) and/or in the second or third trimesters of pregnancy (P4–P9) only. This may include monotherapy or polytherapy antidepressant use within this time period; [e]Exposure to any antidepressant, which could include polypharmacy antidepressant exposure, in the month before conception through the third pregnancy month; [f]Exposure to more than one class of antidepressant, including those that did not meet the ≥0.2% prevalence threshold (e.g., TCA-NEs), in the month before conception through the third pregnancy month; [g]The following covariates were tested for inclusion: maternal education (>12 years, ≤12 years); this covariate was retained in the final adjusted analysis based on criteria outlined in the Methods section. Women with missing education data were excluded from the analysis; [h]Includes double outlet right ventricle (DORV) non-Tetralogy of Fallot and non-transposition of the great arteries types.

eTable 6. Risk for specific selected birth defects after early pregnancy exposure to common antidepressant medications[a] compared to women who were only exposed to an antidepressant outside of early pregnancy,[b] which at least partially accounts for confounding by the underlying condition, National Birth Defects Prevention Study, 1997–2011

		Selective Serotonin Reuptake Inhibitors (SSRIs)													
		Sertraline[a]		Fluoxetine[a]		Paroxetine[a]		Citalopram[a]		Escitalopram[a]		Venlafaxine[a]		Bupropion[a]	
Birth Defect[c]	*N.* Exposed Not Early Pregnancy[d]	*N* Exp.	aOR (95% CI)[e]	*N* Exp.	aOR (95% CI)[e]	*N* Exp.	aOR (95% CI)[e]	*N* Exp.	aOR (95% CI)[e]	*N* Exp.	aOR (95% CI)[e]	*N* Exp.	aOR (95% CI)[e]	*N* Exp.	aOR (95% CI)[e]
Controls	125	129		81		43		39		35		21		45	
Any heart defect	149	156	0.97 (0.69, 1.37)	125	1.33 (0.91, 1.95)	69	1.27 (0.80, 2.00)	50	1.11 (0.68, 1.83)	43	1.16 (0.69, 1.97)	47	1.91 (1.05, 3.45)	57	1.06 (0.66, 1.71)
Conotruncal defects	28	40	1.29 (0.74, 2.24)	27	1.43 (0.76, 2.70)	13	1.21 (0.57, 2.57)	11	1.08 (0.47, 2.47)	10	1.26 (0.55, 2.89)	8	1.43 (0.55, 3.73)	8	0.68 (0.28, 1.69)
Tetralogy of Fallot	14	21	1.36 (0.66, 2.83)	13	1.40 (0.60, 3.26)	6	1.18 (0.42, 3.32)	5	1.03 (0.34, 3.17)	6	1.57 (0.55, 4.53)	–	—	4	0.77 (0.23, 2.60)
DTGA	8	10	1.22 (0.46, 3.24)	9	2.16 (0.75, 6.21)	4	1.23 (0.34, 4.45)	–	—	–	—	–	—	–	—
DORV – other type[f]	1	–	—	–	—	–	—	–	—	–	—	–	—	–	—
AVSD	5	6	1.07 (0.29, 3.91)	4	1.40 (0.34, 5.75)	–	—	4	**4.59 (0.90, 23.52)**	–	—	–	—	–	—
APVR	5	–	—	6	2.41 (0.63, 9.20)	6	**4.29 (1.13, 16.32)**	–	—	–	—	–	—	–	—
TAPVR	4	–	—	–	—	4	**4.13 (0.86, 19.85)**	–	—	–	—	–	—	–	—
LVOTO defects	33	26	0.65 (0.36, 1.17)	29	1.34 (0.74, 2.43)	9	0.71 (0.30, 1.64)	7	0.66 (0.26, 1.64)	12	1.33 (0.60, 2.93)	15	**2.58 (1.13, 5.88)**	14	1.14 (0.55, 2.39)
HLHS	13	12	0.83 (0.36, 1.93)	8	0.95 (0.35, 2.53)	–	—	–	—	4	0.99 (0.29, 3.36)	5	1.77 (0.50, 6.28)	5	1.14 (0.36, 3.58)
Coarctation of the aorta	11	7	0.48 (0.17, 1.35)	15	**2.09 (0.88, 4.95)**	4	0.95 (0.28, 3.27)	5	1.32 (0.41, 4.21)	5	1.80 (0.55, 5.89)	8	**4.77 (1.58, 14.36)**	5	1.10 (0.34, 3.52)
Aortic stenosis	8	7	0.62 (0.21, 1.89)	8	1.60 (0.57, 4.49)	–	—	–	—	–	—	–	—	4	1.24 (0.32, 4.83)
RVOTO defects	30	35	1.08 (0.62, 1.89)	25	1.42 (0.76, 2.64)	14	1.22 (0.57, 2.57)	12	1.49 (0.66, 3.36)	9	1.25 (0.52, 3.00)	8	1.84 (0.69, 4.91)	8	0.86 (0.35, 2.15)
Pulmonary valve stenosis	25	31	1.17 (0.64, 2.13)	19	1.33 (0.67, 2.63)	13	1.32 (0.60, 2.91)	9	1.46 (0.59, 3.56)	6	1.04 (0.37, 2.87)	7	2.14 (0.75, 6.09)	7	0.92 (0.35, 2.42)
Septal defects	53	50	0.90 (0.56, 1.44)	36	1.15 (0.68, 1.94)	28	1.42 (0.79, 2.55)	14	0.91 (0.44, 1.85)	10	0.77 (0.34, 1.73)	18	**2.28 (1.08, 4.84)**	24	1.21 (0.64, 2.29)
VSD – perimembranous (not simple)	23	10	0.41 (0.18, 0.90)	11	0.82 (0.37, 1.80)	12	1.48 (0.67, 3.28)	6	0.84 (0.31, 2.28)	4	0.63 (0.20, 2.03)	6	1.48 (0.51, 4.27)	6	0.74 (0.27, 2.02)
VSD – muscular	6	7	1.07 (0.34, 3.33)	8	2.44 (0.77, 7.77)	4	1.52 (0.35, 6.69)	–	—	–	—	4	3.09 (0.70, 13.57)	–	—
ASD – secundum	27	32	1.08 (0.60, 1.95)	17	1.05 (0.53, 2.10)	14	1.42 (0.67, 3.00)	9	1.17 (0.49, 2.79)	5	0.76 (0.26, 2.21)	9	**2.50 (0.97, 6.45)**	12	1.15 (0.50, 2.64)
Single ventricle/ complex heart	2	–	—	–	—	–	—	–	—	–	—	–	—	–	—
Any neutral tube defect	25	16	0.60 (0.30, 1.20)	16	0.94 (0.46, 1.93)	11	1.14 (0.50, 2.60)	5	0.56 (0.18, 1.76)	7	1.14 (0.44, 3.01)	9	**2.47 (0.95, 6.40)**	11	1.21 (0.51, 2.89)
Anencephaly & craniorachischisis	5	7	1.29 (0.39, 4.22)	4	0.97 (0.21, 4.41)	6	**3.76 (1.06, 13.33)**	–	—	–	—	5	**9.82 (1.88, 51.20)**	–	—
Spina bifida	18	9	0.46 (0.20, 1.08)	10	0.86 (0.37, 1.97)	4	0.47 (0.13, 1.68)	4	0.53 (0.15, 1.96)	5	1.04 (0.35, 3.10)	4	1.43 (0.42, 4.81)	9	1.25 (0.48, 3.23)
Hydrocephaly	4	6	1.40 (0.38, 5.15)	–	—	–	—	–	—	–	—	–	—	–	—
Dandy-Walker malformation	0	–	—	–	—	–	—	–	—	–	—	–	—	–	—
Cataracts	3	–	—	–	—	–	—	–	—	–	—	–	—	–	—
Glaucoma/ anterior chamber defects	3	–	—	–	—	–	—	–	—	–	—	–	—	–	—
Anotia/microtia	5	4	1.06 (0.25, 4.55)	–	—	–	—	4	2.96 (0.66, 13.26)	–	—	–	—	–	—
Any oral cleft	49	45	0.83 (0.50, 1.35)	36	1.21 (0.70, 2.07)	20	1.07 (0.56, 2.04)	17	1.32 (0.66, 2.62)	12	0.92 (0.42, 2.04)	22	**2.83 (1.35, 5.93)**	17	0.97 (0.48, 1.95)
Cleft palate only	21	16	0.71 (0.35, 1.46)	12	0.97 (0.44, 2.12)	8	0.96 (0.38, 2.44)	6	1.10 (0.40, 3.05)	5	0.82 (0.25, 2.68)	11	**3.11 (1.21, 8.00)**	4	0.66 (0.20, 2.15)

Cleft lip with or without cleft palate	28	29	0.92 (0.51, 1.68)	24	1.38 (0.72, 2.66)	12	1.14 (0.52, 2.50)	11	1.60 (0.70, 3.67)	7	1.07 (0.40, 2.85)	11	**2.99 (1.19, 7.54)**	13	1.22 (0.54, 2.73)
Esophageal atresia	7	9	1.16 (0.40, 3.34)	12	**3.10 (1.08, 8.93)**	4	1.75 (0.47, 6.48)	5	2.50 (0.70, 8.92)	–	—	–	—	–	—
		Selective Serotonin Reuptake Inhibitors (SSRIs)													
		Sertraline[a]		**Fluoxetine[a]**		**Paroxetine[a]**		**Citalopram[a]**		**Escitalopram[a]**		**Venlafaxine[a]**		**Bupropion[a]**	
Birth Defect[c]	*N*. Exposed Not Early Pregnancy[d]	*N* Exp.	aOR (95% CI)[e]	*N* Exp.	aOR (95% CI)[e]	*N* Exp.	aOR (95% CI)[e]	*N* Exp.	aOR (95% CI)[e]	*N* Exp.	aOR (95% CI)[e]	*N* Exp.	aOR (95% CI)[e]	*N* Exp.	aOR (95% CI)[e]
Intestinal atresia/stenosis	3	–	—	–	—	–	—	–	—	–	—	–	—	–	—
Duodenal atresia/stenosis	0	–	—	–	—	–	—	–	—	–	—	–	—	–	—
Anorectal atresia/stenosis	8	12	1.54 (0.58, 4.09)	7	1.74 (0.57, 5.28)	–	—	5	2.04 (0.56, 7.40)	–	—	–	—	6	**2.72 (0.80, 9.31)**
Hypospadias, 2nd or 3rd degree	24	39	1.74 (0.91, 3.32)	17	0.87 (0.40, 1.90)	12	1.27 (0.53, 3.07)	13	1.67 (0.70, 3.99)	9	0.92 (0.34, 2.50)	8	2.35 (0.74, 7.48)	15	1.97 (0.84, 4.65)
Any limb deficiency	11	12	1.02 (0.42, 2.51)	14	**2.07 (0.87, 4.92)**	7	1.83 (0.66, 5.10)	4	1.45 (0.41, 5.13)	6	2.23 (0.71, 7.03)	–	—	4	1.35 (0.37, 4.90)
Longitudinal limb deficiency	4	–	—	6	**3.17 (0.80, 12.53)**	–	—	–	—	–	—	–	—	–	—
Transverse limb deficiency	6	9	1.31 (0.43, 3.98)	8	1.77 (0.57, 5.45)	4	1.96 (0.52, 7.36)	4	2.31 (0.59, 9.03)	4	1.98 (0.48, 8.12)	–	—	4	2.47 (0.58, 10.42)
Craniosynostosis	19	37	1.74 (0.94, 3.21)	24	1.74 (0.87, 3.48)	10	1.40 (0.60, 3.31)	9	1.37 (0.54, 3.44)	9	1.38 (0.55, 3.47)	4	1.15 (0.34, 3.84)	7	1.07 (0.40, 2.85)
Diaphragmatic hernia	4	11	**2.60 (0.80, 8.49)**	7	3.14 (0.76, 12.89)	4	2.66 (0.62, 11.53)	7	**4.76 (1.17, 19.42)**	–	—	–	—	9	**6.92 (1.81, 26.50)**
Omphalocele	5	6	0.84 (0.23, 3.09)	–	—	–	—	–	—	–	—	–	—	–	—
Gastroschisis	21	17	0.84 (0.40, 1.78)	9	0.73 (0.30, 1.79)	15	**2.30 (1.03, 5.14)**	–	—	4	1.18 (0.32, 4.27)	7	**4.09 (1.25, 13.46)**	4	0.54 (0.13, 2.19)

Bolded text delineates a meaningfully elevated association per criteria outlined in Methods (aOR ≥2.0 with lower confidence interval bound ≥0.8); Exp, exposed; DTGA, d'Transposition of the great arteries; DORV-other, double outlet right ventricle, other type; AVSD, atrioventricular septal defects; APVR, anomalous pulmonary venous return; TAPVR, total anomalous pulmonary venous return; LVOTO, left ventricular outflow tract obstruction; HLHS, hypoplastic left heart syndrome; RVOTO, right ventricular outflow tract obstruction; VSD, ventricular septal defect; ASD, atrial septal defect. [a]*Monotherapy* antidepressant exposure to this specific medication component during early pregnancy (defined as one month prior to conception through the third pregnancy month); [b]Exposed to an antidepressant 2–3 months before pregnancy (B3, B2) and/or in the second or third trimesters of pregnancy (P4–P9) only. This may include monotherapy or polytherapy antidepressant use within this time period; [c]Birth defects included in the NBDPS for which there were ≥4 exposed cases for each medication were included in this analysis. Dashed-lines represent defects for which the number of exposed cases for that medication did not meet the required threshold. [d]Cases whose mothers were exposed to an antidepressant, but only outside of early pregnancy. This may include monotherapy or polytherapy antidepressant use within this time period; [e]Final adjusted models were adjusted for maternal race/ethnicity (non-Hispanic White, not Non-Hispanic White), pre-pregnancy BMI (≥30.0 kg/m^2; <30.0 kg/m^2), maternal education (>12 years, ≤12 years), early pregnancy smoking (yes, no), and early pregnancy alcohol use (yes, no). Women with missing data on any of these maternal characteristics were excluded from the analysis (<5% maternal missing data); [f]Includes double outlet right ventricle (DORV) non-Tetralogy of Fallot and non-transposition of the great arteries types.