

Supplementary data

Supplementary Table S1: Principle of disproportionality analysis and standard of signal detection.

Methods	Calculation formula	Inclusion standard of positive signal
ROR	$ROR = \frac{(a/c)}{(b/d)}$	$a \geq 3$ and 95%CI >1
	$SE(\ln ROR) = \sqrt{\left(\frac{1}{a} + \frac{1}{b} + \frac{1}{c} + \frac{1}{d}\right)}$	
	$95\%CI = e^{\ln(ROR) \pm 1.96 \sqrt{\frac{1}{a} + \frac{1}{b} + \frac{1}{c} + \frac{1}{d}}}$	
PRR	$PRR = \frac{a/(a+b)}{c/(c+d)}$	$a \geq 3$ and 95%CI >1
	$SE(\ln PRR) = \sqrt{\left(\frac{1}{a} - \frac{1}{a+b} + \frac{1}{c} - \frac{1}{c+d}\right)}$	
	$95\%CI = e^{\ln(PRR) \pm 1.96 \sqrt{\left(\frac{1}{a} - \frac{1}{a+b} + \frac{1}{c} - \frac{1}{c+d}\right)}}$	
BCPNN	$IC = \log_2 \frac{a(a+b+c+d)}{(a+b)(a+c)}$	1) No Signal(-): $IC_{025} \leq 0$ 2) Low Signal(+): $0 < IC_{025} \leq 1.5$ 3) Medium Signal(++): $1.5 < IC_{025} \leq 3$ 4) High Signal(+++): $IC_{025} > 3$
	$IC_{025} = \log_2 \frac{(a + \gamma 11)(a + b + c + d + \alpha)(a + b + c + d + \beta)}{(a + b + c + d + \gamma)(a + b + \alpha 1)(a + c + \beta 1)}$	
	$V(IC) = \frac{1}{(\ln 2)^2} \left\{ \left[\frac{(a + b + c + d) - a + \gamma - \gamma 11}{(a + \gamma 11)(1 + a + b + c + d + \gamma)} \right]^2 \right.$	
	$+ \left[\frac{(a + b + c + d) - (a + b) + a - \alpha 1}{(a + b + \alpha 1)(1 + a + b + c + d + \alpha)} \right]^2$	
	$+ \left[\frac{(a + b + c + d) - (a + c) + \beta - \beta 1}{(a + c + \beta 1)(1 + a + b + c + d + \beta)} \right]^2 \left. \right\}$	
	$\gamma = \gamma 11 \frac{(a + b + c + d + \alpha)(a + b + c + d + \beta)}{(a + b + \alpha 1)(a + c + \beta 1)}$	
	$IC - 2SD = E(IC) - 2\sqrt{V(IC)}$	
	Where $\alpha 1 = \beta 1 = 1$; $\alpha = \beta = 2$; $\gamma 11 = 1$	
	$EBGM = \frac{a(a+b+c+d)}{(a+c)(a+b)}$	
	$EBGM05 = e^{\ln(EBGM) - 2\sqrt{1.64\left(\frac{1}{a} + \frac{1}{b} + \frac{1}{c} + \frac{1}{d}\right)}}$	
MGPS		EBGM05 > 2 and a > 0

Supplementary Table S2: Baseline Data Results of Drug-Related Galactorrhea

Variable	Formula	Total
Weight	(Mean $\pm$ SD)	73.46 $\pm$ 21.31
Age	(Mean $\pm$ SD)	28.36 $\pm$ 13.27
Gender		
Female	n (%)	2609(44.48)
Male	n (%)	3256(55.52)
Reporter		
Consumer	n (%)	3624(60.12)
Physician	n (%)	1149(19.06)
Other health-professional	n (%)	673(11.16)
Pharmacist	n (%)	444(7.37)
Lawyer	n (%)	138(2.29)
Country		
United States	n (%)	4732(77.02)
Others	n (%)	748(12.17)
United Kingdom	n (%)	182(2.96)
Germany	n (%)	142(2.31)
France	n (%)	127(2.07)
Spain	n (%)	71(1.16)
Austria	n (%)	68(1.11)
India	n (%)	63(1.03)
Route		
Oral	n (%)	4239(68.99)
Intramuscular	n (%)	642(10.45)
Others	n (%)	611(9.94)
Intra-Uterine	n (%)	82(1.33)
Subcutaneous	n (%)	81(1.32)
Transdermal	n (%)	16(0.26)
Intravenous	n (%)	13(0.21)
Sublingual	n (%)	13(0.21)
Outcome		
Other Serious (Important Medical Event)	n (%)	1708(74.16)
Hospitalization - Initial or Prolonged	n (%)	495(21.49)
Life-Threatening	n (%)	39(1.69)
Disability	n (%)	32(1.39)
Death	n (%)	18(0.78)
Required Intervention to Prevent Permanent Impairment/Damage	n (%)	9(0.39)
Permanent Impairment/Damage	n (%)	1(0.04)
Congenital Anomaly	n (%)	1(0.04)

Supplementary Table S3: Disproportionality Analysis Results of Drug-Related Galactorrhea

Drug name	ROR (95%CI)	PRR (95%CI)	MGPS (95%CI)	BCPNN (95%CI)	PRR (X ²)	P value
Risperidone	346.71(329.73 to 364.57)	340.49(340.44 to 340.54)	155.37(148.98 to 162.04)	7.28(5.61 to 8.95)	340.49(520000.43)	<0.001
Paliperidone	98.04(92.06 to 104.41)	97.16(97.1 to 97.22)	78.32(74.3 to 82.55)	6.29(4.62 to 7.96)	97.16(92905.43)	<0.001
Aripiprazole	5.22(4.53 to 6.01)	5.21(5.07 to 5.36)	5.08(4.51 to 5.72)	2.34(0.68 to 4.01)	5.21(653.04)	<0.001
Quetiapine	3.92(3.33 to 4.62)	3.92(3.76 to 4.09)	3.85(3.36 to 4.42)	1.95(0.28 to 3.61)	3.92(312.51)	<0.001
Olanzapine	5.03(4.24 to 5.97)	5.03(4.86 to 5.2)	4.94(4.28 to 5.7)	2.3(0.64 to 3.97)	5.03(423)	<0.001
Escitalopram	9.84(8.17 to 11.85)	9.83(9.64 to 10.01)	9.67(8.27 to 11.3)	3.27(1.61 to 4.94)	9.83(879.72)	<0.001
Venlafaxine	5.81(4.78 to 7.06)	5.8(5.61 to 6)	5.72(4.86 to 6.74)	2.52(0.85 to 4.18)	5.8(402.74)	<0.001
Lurasidone	18.33(14.72 to 22.83)	18.29(18.07 to 18.51)	18.07(15.04 to 21.71)	4.18(2.51 to 5.84)	18.29(1306.95)	<0.001
Fluoxetine	5.42(4.26 to 6.88)	5.41(5.17 to 5.65)	5.36(4.39 to 6.55)	2.42(0.76 to 4.09)	5.41(241.95)	<0.001
Citalopram	4.61(3.61 to 5.89)	4.61(4.37 to 4.86)	4.58(3.73 to 5.61)	2.19(0.53 to 3.86)	4.61(182.03)	<0.001
Setraline	3.72(2.88 to 4.82)	3.72(3.46 to 3.98)	3.7(2.98 to 4.59)	1.89(0.22 to 3.55)	3.72(114.43)	<0.001
Ziprasidone	11.25(7.86 to 16.1)	11.23(10.88 to 11.59)	11.18(8.28 to 15.1)	3.48(1.82 to 5.15)	11.23(278.38)	<0.001
Brexpiprazole	9.54(6.44 to 14.14)	9.53(9.14 to 9.93)	9.5(6.84 to 13.2)	3.25(1.58 to 4.91)	9.53(190.2)	<0.001
Haloperidol	4.63(3.1 to 6.92)	4.63(4.23 to 5.03)	4.62(3.3 to 6.46)	2.21(0.54 to 3.87)	4.63(68.08)	<0.001
Paroxetine	3.78(2.44 to 5.86)	3.78(3.34 to 4.22)	3.77(2.61 to 5.44)	1.91(0.25 to 3.58)	3.78(40.72)	<0.001
Cabergoline	15.35(9.66 to 24.39)	15.33(14.86 to 15.79)	15.28(10.37 to 22.52)	3.93(2.27 to 5.6)	15.33(240.35)	<0.001
Medroxyprogesterone acetate	7.06(4.44 to 11.22)	7.06(6.59 to 7.52)	7.04(4.78 to 10.37)	2.82(1.15 to 4.48)	7.06(93.3)	<0.001
Asenapine	13.22(8.09 to 21.6)	13.2(12.71 to 13.69)	13.17(8.73 to 19.86)	3.72(2.05 to 5.39)	13.2(179.96)	<0.001
Norgestimate	5.08(3.06 to 8.44)	5.08(4.57 to 5.59)	5.07(3.32 to 7.75)	2.34(0.68 to 4.01)	5.08(49.05)	<0.001
Etonogestrel	4.19(2.38 to 7.39)	4.19(3.63 to 4.76)	4.19(2.61 to 6.73)	2.07(0.4 to 3.73)	4.19(29.12)	<0.001
Fluvoxamine	25.17(13.92 to 45.51)	25.1(24.51 to 25.69)	25.05(15.26 to 41.13)	4.65(2.98 to 6.31)	25.1(254.08)	<0.001
Ramelteon	15.28(8.45 to 27.62)	15.25(14.66 to 15.84)	15.23(9.28 to 24.99)	3.93(2.26 to 5.6)	15.25(146.26)	<0.001
Cariprazine	8.39(4.36 to 16.14)	8.38(7.73 to 9.04)	8.37(4.84 to 14.47)	3.07(1.4 to 4.73)	8.38(58.44)	<0.001
Estradiol	7.75(3.87 to 15.51)	7.74(7.05 to 8.44)	7.74(4.33 to 13.82)	2.95(1.28 to 4.62)	7.74(46.93)	<0.001
Lansoprazole	5.24(2.62 to 10.49)	5.24(4.55 to 5.93)	5.23(2.93 to 9.35)	2.39(0.72 to 4.05)	5.24(27.41)	<0.001
Lorcaserin	11.89(5.66 to 24.97)	11.88(11.14 to 12.62)	11.86(6.38 to 22.07)	3.57(1.9 to 5.24)	11.88(69.65)	<0.001
Drospirenone	9.38(3.9 to 22.55)	9.37(8.49 to 10.24)	9.36(4.49 to 19.5)	3.23(1.56 to 4.89)	9.37(37.34)	<0.001
Iloperidone	24.72(9.26 to 65.99)	24.66(23.68 to 25.63)	24.64(10.84 to 56.03)	4.62(2.95 to 6.29)	24.66(90.73)	<0.001
Rabeprazole	11.62(4.36 to 31)	11.61(10.63 to 12.59)	11.6(5.11 to 26.37)	3.54(1.87 to 5.2)	11.61(38.77)	<0.001
Ethinylestradiol	33.77(10.86 to 104.96)	33.64(32.51 to 34.77)	33.62(13.02 to 86.85)	5.07(3.4 to 6.74)	33.64(94.97)	<0.001
Isotretinoin	12.86(4.14 to 39.92)	12.84(11.71 to 13.97)	12.84(4.98 to 33.12)	3.68(2.01 to 5.35)	12.84(32.75)	<0.001
Metoclopramide	10.8(3.48 to 33.51)	10.78(9.65 to 11.91)	10.78(4.18 to 27.81)	3.43(1.76 to 5.1)	10.78(26.62)	<0.001