Supplementary Table S3. Principle of dis-proportionality measure and standard of signal detection.

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

Abbreviation: ROR, reporting odds ratio; PRR, proportional reported ratio; BCPNN, Bayesian confidence propagation neural network; MGPS, multi-item gamma poisson shrinker; CI, confidence interval; IC, information component.