

**Table S1.** Two by two table for signal detection.

| Type of drug | Target adverse reaction reports | Other adverse reaction reports | Sum       |
|--------------|---------------------------------|--------------------------------|-----------|
| Target drug  | a                               | b                              | a+b       |
| Other drugs  | c                               | d                              | c+d       |
| Sum          | a+c                             | b+d                            | N=a+b+c+d |

a: number of reports containing both the target drug and target adverse reaction reports; b: number of reports containing other adverse reaction reports of the target drug; c: number of reports containing the target adverse reaction reports of other drugs; d: number of reports containing other drugs and other adverse reaction reports; N: number of reports.

**Table S2.** Four major algorithms were used for signal detection.

| Algorithms | Equation                                                                                           | Criteria                                    |
|------------|----------------------------------------------------------------------------------------------------|---------------------------------------------|
| ROR        | $ROR = (a/c)/(b/d)$<br>$95\%CI = e^{\ln(ROR) \pm 1.96(1/a + 1/b + 1/c + 1/d)^{0.5}}$               | $95\%CI > 1$ , $N \geq 3$                   |
| PRR        | $PRR = [a/(a+b)]/[c/(c+d)]$<br>$\chi^2 = [(ad-bc)^2]/[(a+b+c+d)(a+b)(c+d)(a+c)(b+d)]$              | $PRR \geq 2$ , $\chi^2 \geq 4$ , $N \geq 3$ |
| MGPS       | $EBGM = a(a+b+c+d)/[(a+c)(a+b)]$<br>$EBGM05 = e^{\ln(EBGM) - 1.64(1/a + 1/b + 1/c + 1/d)^{0.5}}$   | $EBGM05 > 2$                                |
| BCPNN      | $IC = \log_2 a(a+b+c+d)/[(a+c)(a+b)]$<br>$IC025 = e^{\ln(IC) - 1.96(1/a + 1/b + 1/c + 1/d)^{0.5}}$ | $IC025 > 0$                                 |

ROR: reporting odds ratio; PRR: proportional reporting ratio; MGPS, multi-item gamma Poisson shrinker; BCPNN: Bayesian confidence propagation neural network. a: number of reports containing both the target drug and target adverse reaction reports; b: number of reports containing other adverse reaction reports of the target drug; c: number of reports containing the target adverse reaction reports of other drugs; d: number of reports containing other drugs and other adverse reaction reports. 95%CI: 95% confidence interval; N: number of reports;  $\chi^2$ : chi-squared; EBGM: empirical Bayesian geometric mean; EBGM05: lower limit of 95%CI of EBGM; IC: information component; IC025: lower limit of 95%CI of the IC.