Design
- This updated meta-analysis builds upon Brown et al. (2020) (PMID: 32016846), which included 1,550 patients from 4 combinatorial studies.
- Brown et al. demonstrated that care guided by combinatorial PGx testing significantly improved outcomes for patients with MDD compared to unguided care.

- Study logRR SE(logRR) Risk Ratio RR 95%-CI Weight
  - Oslin et al. 2012
    - 0.2611 0.1280 1.30 [1.01; 1.67] 43.3%
  - Tiwari et al. 2012
    - 0.3581 0.2678 1.30 [1.01; 1.67] 43.3%
  - Hall Flavin et al. 2012
    - 0.5218 0.2945 1.67 [1.14; 2.46] 48.8%
  - Winner et al. 2013
    - 0.6881 0.4116 1.87 [1.14; 3.08] 49.7%

- The Oslin et al. 2022 study had a design that was different from the other studies, notably use of PHQ-9 instead of HAM-D depression scale. Excluding this study from the overall meta-analysis had similar results: response RR=1.35, CI 1.15–1.59, p<0.001; remission RR=1.50, CI 1.26–1.87, p<0.001.

Conclusions
- Access to a combinatorial PGx test improved response and remission rates among adult patients with MDD who experienced at least one prior treatment failure.
- These findings further demonstrate the clinical utility of combinatorial PGx testing to inform medication selection in patients with MDD and one prior treatment failure.