## Fig 2

### Strengths

**Real-life setting**
- Good reflection of routine clinical practice
- Good generalizability
- Unselected population, reflects real-world patients

**Greater power than clinical trials to detect rare events**
- Large number of patients
- Long observation period

**Can be used to study multiple outcomes and address several research questions**

**Can conduct 'add-on' studies to examine further aspects of disease or treatment**

**Possibility for linkage to external sources**

**Allows predictive analyses, such as**
- Associations between patient and disease characteristics
- Specific outcomes in both the short-term and long-term

**Allows comparative analyses across treatments, such as**
- Switching between treatments
- Drug survival
- Drug discontinuation rates

### Challenges

**Expensive**
- Often extend over many years
- May require web-based systems for data capture and input
- Needs high levels of administrative support
- Requires meticulous data collection and recording (difficult to sustain)

**Less accurate than clinical trials for monitoring efficacy**
- Subject to confounding by indication, owing to lack of randomization
- Study validity can be threatened by lack of control group
- Missing data

**Often 'isolated’**
- May require linkage to external sources
- May require combination with other datasets to increase power

**Risk of multiple confounders (requiring advanced analytical techniques for accurate data interpretation)**

**Associations but no causal-links can be established between exposure variables and outcomes**

**Results may be affected by channelling bias**