Supplementary table 1. Survey items and measurement

**Section 1. Background**

| Sex          | Male; Female; Self identify |
|--------------|-----------------------------|
| Age          | 20-29; 30-39; 40-49; 50-59; 60-60; 70+ |
| Healthcare profession | Pharmacist; Physician; Scientist; Psychiatrist; Nurse practitioner; Other__ |
| Speciality   | Geriatrics; Cardiology; Transplant medicine; Mental health; Oncology or Haematology; Other |
| Years practicing | Less than 5; 5-9; 10-19; More than 20 |
| Prior instruction in PGx | Yes; No |
| If yes, settings where you have received training in PGx | Undergraduate curriculum; Postgraduate coursework; Residency training; Continuing medical education; Self-instruction; Seminar/workshop; Grand rounds; Other |

**Section 2: Knowledge, use and confidence**

| Rate current level of knowledge of… | 1. Poor; 2. Fair; 3. Good; 4. Very good; 5. Excellent |
|-------------------------------------|--------------------------------------------------|
| Basic genetics principles (e.g. inheritance patterns, somatic vs germline mutation) |
| Pharmacogenomic testing and availability |
| The role of drug metabolism phenotypes (e.g. a poor metaboliser) |
| Drug transporters and genes associated with toxicity (e.g., HLA/TPMT) |
| Drugs that should be accompanied by pharmacogenomics testing |

| Confidence in ability to… | 1. Strongly disagree; 2. Disagree; 3. Neutral; 4. Agree; 5. Strongly agree |
|----------------------------|---------------------------------------------------------------------------------|
| Identify clinical situations in which pharmacogenomics testing is indicated |
| Order pharmacogenomic tests |
| Inform patients of the risks and benefits of testing |
| **Apply pharmacogenomic information to manage my patients' drug therapy** |  |
|---|---|
| **Make appropriate adjustments to a patient's drug therapy based on their test results** |  |
| **Relevance of PGx** | Not at all relevant; Somewhat relevant; Relevant; Unsure |
| **Features predominately use to inform drug dosing (choose up to 4)** | Indication; Body weight; Body height; Body surface; Renal function; Liver function; Age; Sex; Drug monitoring; Pharmacogenomics; Biomarkers; Co-morbidities; Co-medication; Other___ |
| **CPIC Guidelines (2019)** list the following gene-drug pairs with Level A evidence (2019) you have 1. Ordered/recommended in the last 12 months; 2. Intend to order/recommend in the next 12 months | CFTR and Ivacaftor; CYP2B6 and efavirenz; CYP2C19 and Clopidogrel; CYP2C19 and Voriconazole; CYP2C9, HLA-B and Phenytoin; CYP2C9, VKORC1, CYP4F2 and Warfarin; CYP2D6 and Atomoxetine; CYP2D6 and Codeine; CYP2D6 and Ondansetron and Tropisetron; CYP2D6 and Tamoxifen; CYP2D6, CYP2C19 and SSRIs CYP2D6, CYP2C19 and Tricyclic Antidepressants; CYP3A5 and Tacrolimus; DPYD and Fluoropyrimidines; G6PD and Rasburicase; HLA-A, HLA-B and Carbamazepine and Oxcarbazepine; HLA-B and Abacavir; HLA-B and Allopurinol; IFNL3 and Peginterferon-alpha-based Regimens; SLCO1B1 and Simvastatin; TPMT, NUDT15 and Thiopurines; UGT1A1 and Atazanavir; RYR1, CACNA1S and Volatile anaesthetic agents and Succinylcholine |
| **Important to maximise the likelihood that you would order/recommend a pharmacogenomic test?** | 1. Not at all important; 2. Not very important; 3. Undecided; 4. Important; 5. Very important |
Regulatory approval from the Therapeutic Goods Administration (TGA)
Clinical practice guidelines recognised and standardised for my speciality
Relevant Clinical Pharmacogenomics Implementation Consortium (CPIC) guidelines
Systematic review of peer-reviewed literature
Original research article in peer-reviewed literature
Recommendation or experience of thought leaders or respected colleagues
Guidance from your local institution
Information included on drug label
Guidance from third-party pharmacogenomic testing laboratory

| Section 3. Benefits and barriers to implementation |
|--------------------------------------------------|
| Indicate the extent to which you agree or disagree with the perceived benefits of pharmacogenomic testing |
| Provide additional information to decide the best treatment for patients |
| Be useful to determine a patient’s optimum dose of medication |
| Improve drug effectiveness |
| Be useful to identify medication intolerance and reduce drug toxicity |
| Help determine whether a patient is at high or low risk of serious side effects |
| Help to decrease the time it takes to find the optimal dose of medication |
| Reduce the number of consultations with patients |
| 1. Strongly disagree; 2. Disagree; 3. Neutral; 4. Agree; 5. Strongly agree |
| Improve patients’ adherence to therapy   | 1. Would not affect; 2. Unsure; 3. Would affect |
| Facilitate exchanges of inter-professional information about patients’ care |   |
| Reduce overall costs for patients |   |
| Affect willingness to implement pharmacogenomics into practice |   |
| Lack of evidence-based information about pharmacogenomics |   |
| No clear clinical practice guidelines for the use |   |
| Uncertain value in pharmacogenomic testing |   |
| Results may not be accurate |   |
| Long delays between prescribing a test and receiving the results impacts on their usefulness |   |
| It is difficult to ensure that patients’ tests results will remain confidential |   |
| Testing is too expensive for most patients |   |
| Few pharmacogenomic tests are covered by Medicare |   |
| Testing could affect a patient’s insurance |   |
| Patients are resistant to testing |   |
| Pharmacogenomic testing could cause a patient psychological distress |   |
| Testing services are not readily available |   |
| I don’t have enough personal knowledge about pharmacogenomic testing |   |
| It is time consuming to keep up-to-date on the latest advances in the field |   |
| It is time consuming to order and/or explain results to patients |   |
| Pharmacogenomic testing may add additional liability |   |
| I am not familiar with the legal issues and regulations of testing |
|---------------------------------------------------------------|
| Patients should seek counselling about the risks, benefits and consequences of testing before they undertake testing |
| Health professionals that should be involved in PGx testing | Free text |
| Operational/system changes needed to implement PGx testing | Free text |
| Further comments | Free text |