46br∞klyn

Drug Pricing Down Under Dashboard

Data sources

- The [Pharmaceutical Benefits Scheme (PBS) Drug File](#)
- [Gold Standard Drug Database](#) (GSDD)
- CMS [National Average Drug Acquisition Cost (NADAC)](#) Database

How we created our dataset

The 46brooklyn Drug Pricing Down Under Dashboard is constructed in part with proprietary data from Elsevier's GSDD files. As a result, it is not possible to fully replicate the database in the public domain.

1. The Australian PBS drug file (i.e. drug file) was downloaded from the PBS website and loaded into 46brooklyn's SQL database based upon [PBS specified parameters](#).

2. 46brooklyn modified this database by creating new fields necessary to join the drug file to the GSDD. New fields include the following (along with how they were derived):

Field Name	Derivation
AU_Product_Strength_Name	Modified contents of **AMT MPP PREFERRED ITEM** name to eliminate package size information from the field resulting in an equivalent full product name for the line
AU_PK_Size	Modified contents of **AMT MPP PREFERRED ITEM** name to extract package size information
AU_Dosage_Form	Formula derived dosage form based upon **AMT MPP PREFERRED ITEM** field
AU_Strength	Extracted strength for drug item by obtaining numeric characters from **AU_Product_Strength_Name** field
AU_Brand vs. Generic Status	Formula derived based upon whether the drug product line had: 1) an associated brand premium in Australia, 2) a AU Brand name that matched a U.S. brand name (defined based upon products with NDA or BLA application types) or 3) whether there was only a single description product name within the drug file (i.e. would appear to be single source)

3. 46brooklyn then modified individual line items to ensure proper matching to the GSDD database. This included nomenclature, dosage form, and/or strength modifications. Examples include, but are not limited to, the following:

    - Modifying PBS listed Drug (MP) names to U.S. equivalents (e.g. "salbutamol" changed to "albuterol")
    - Modifying PBS listed Drug (MP) names to U.S. generic base names (e.g. "3TC" to "lamivudine")
    - Converting AU_Strengths into equivalent U.S. strengths (e.g. "Symbicort 100 / 6" converted to "Symbicort 80-4.5")
    - Converting PBS listed maximum quantities into U.S. equivalent billing units (e.g. "1" Xolair 75mg/0.5ml syringe converted to "0.5" Xolair 75mg/0.5ml syringe)

4. Averaged the PBS maximum quantity and the PBS identified cost for maximum quantity dispensed (i.e. Commonwealth Price for Max Qty field, aka Dispensed Price for Maximum Quantity (DPMQ)) for each drug product line within the drug file to the corresponding Drug (MP) name (i.e. generic name), Brand/Generic status, strength, and dosage form.

5. Joined the average cost and maximum quantity to the corresponding U.S. NDC (assuming NDC was currently active and not repackaged) based upon matches of:
    a. Drug (MP) Name = U.S. generic name
    b. AU Brand / Generic status = U.S. brand vs. generic status
    c. AU Strength = U.S. strength
    d. AU Dosage Form = U.S. dosage form

6. Utilizing GSDD, 46brooklyn identified the most recently available WAC prices for all listed NDCs within the database.

7. Utilizing CMS, 46brooklyn identified the most recently available NADAC prices for all listed NDCs within the database.

8. Multiplied the AU average maximum quantities for each line by either the NADAC unit price or the WAC per unit if no NADAC.
    a. For NDCs whose price was determined by NADAC, added $5.50 USD to the total to account for AU included dispensing fees

9. Averaged U.S derived prices (i.e. NADAC + 5.50 or WAC) across product name for those products with multiple NDCs

10. Created parameters for users to control for AU to USD conversion rates as well as rebate percentages