# Information Services

**Antidepressant prescribing 2015/16 and 2016/17**

**Information to help you understand how this data was produced and how it can be used**

**Overview**

The purpose of these datasets is to provide a breakdown of prescribing of antidepressants by age group for the 12 months ending 31 March 2016 and 31 March 2017. These two years are the most recent periods for which patient level data is available.

Antidepressants are a type of medication used to treat clinical depression or prevent it recurring. It should however be noted that some medications classified as antidepressants are used for non-mental health purposes such as to treat bedwetting in young children and to support pain management. As such, there is a need to be cautious in drawing conclusions.

**Correct use of statistics**

Care should be taken in interpreting the data provided and users of this data are advised to carefully read these ‘Caveats and assumptions’. If you wish to use the data or have any queries in relation to this data, please contact the NHSBSA at  nhsbsa.help@nhs.net

**Data sources**

**Prescription data**

NHSBSA Prescription Services process prescriptions for Pharmacy Contractors, Appliance Contractors, Dispensing Doctors and Personal Administration with information then used to make payments to pharmacists and appliance contractors in England for prescriptions dispensed in primary care settings (other arrangements are in place for making payments to Dispensing Doctors and Personal Administration). This involves processing over 1 billion prescription items and payments totalling over £9 billion each year. The information gathered from this process is then used to provide information on costs and trends in prescribing in England and Wales to over 25,000 registered NHS and Department of Health users.

Analysis is based on data from ePACT 2 as at 8 March 2018. This is sourced from the NHSBSA Information Services Data Warehouse and is derived from products prescribed on NHS prescriptions and dispensed in the Community. The data captured from prescription processing is used to calculate reimbursement and remuneration and includes prescription items which were prescribed in England and dispensed in the community in England, Wales, Scotland, Northern Ireland, Guernsey, Jersey, Alderney and the Isle of Man. The data excludes:

* items not dispensed, disallowed and those returned to the contractor for further clarification
* items which are prescribed and dispensed in prisons, hospitals and private prescriptions
* items dispensed in England but prescribed outside of England
* items prescribed but not presented for dispensing or not submitted to NHS Prescription Services by the dispenser.

The datasets include prescription items which were prescribed in England. The majority of prescriptions dispensed are from GPs, but prescriptions by dentists, nurses, pharmacists and prescriptions from a hospital or a Community Health Trust are also included, provided they were dispensed in the community in England, Wales, Scotland, Northern Ireland, Jersey, Guernsey, Isle of Man and Alderney. The data was extracted on 8 March 2018.

The Data Warehouse also uses data from the Personal Demographic Service (PDS) data to inform age calculations. This is the national electronic database of NHS patient details such as name, address, date of birth and NHS Number, maintained by NHS Digital.

**Population Estimates**

Population Estimates for England are also used to contextualise patient data. They have been sourced from ONS Population Estimates for UK, England and Wales, Scotland and Northern Ireland: Mid-2016, <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwalesscotlandandnorthernireland>

**Time period**

Prescription batches submitted for processing by dispensing contractors during the months of April 2015 to March 2016 and April 2016 to March 2017 inclusive.

**BNF Sections**

Analysis is limited to items classified within the BNF belonging to Section 4.3 Antidepressant Drugs. It is based on items for which the NHSBSA has calculated reimbursement. BNF sections are based on the structure as defined in the pseudo BNF72.

**Patients**

Patients have been identified via the NHS number captured from the prescription. Not all prescriptions contain an NHS number/validated age so patient counts by age are only based on items where an NHS number and age is held and items counts by age are only based on where age is held. At an overall level in 2015/16 there were 97.5% of antidepressant prescription items with an age and 94.5% with an NHS number and age. In 2016/17 there were 98.2% of antidepressant prescription items with an age and 96.7% with an NHS number and age.

Note:

* The percentage of prescription items with an NHS number and age can however vary by age group, geography, time period and other factors (also see note on NHS number accuracy).
* Care should be taken when comparing patient and item counts by age over the two analysis periods as a greater proportion of items were allocated an age in 2016/17. The greater match rate may be down to an increase in electronic prescribing as the NHS number capture rate is higher.
* Patient counts and rates based on age group must not be added together since patients may appear in more than one group if their age group changes over the analysis period.

Patient age has been determined from either the age and/or date of birth on the prescription form and/or the date of birth from the associated record in PDS data. Where age has been calculated from date of birth, it is based on the last day of the prescription submission month. Age is allocated at prescription form level so if patients have received prescriptions over multiple months in a time period and their age changes, they will appear in both age groups in the patient counts. **Therefore patient counts should not be summed across age groups.** Further details about age allocation can be found [here](https://www.nhsbsa.nhs.uk/sites/default/files/2018-02/180115%20Age%20Logic%20Summary%20Flow%20Chart%20-%20Revised%20Layout.pdf):

ONS population estimates (used as the denominator for percentages) are based on a point in time so that people are counted only once whereas patient counts are more fluid in the analysis period. For example patients may change age group in the same analysis period and appear in two age groups. Patients may also have died since the prescriptions were written.

**Data quality**

**Prescriber, practice and drug accuracy**

NHS Prescription Services have a variety of validation streams throughout prescription processing to support accurate capture of the data. In addition, a retrospective sample is completed in the month following reimbursement to identify the accuracy of prescription processing information. The check includes the accuracy of prescriber, practice and drug information, but does not include the personal details of the patient. The information is used to populate a number of Key Performance Indicators, the results of which are published on the [NHSBSA website](https://www.nhsbsa.nhs.uk/pharmacies-gp-practices-and-appliance-contractors/payments-and-pricing/how-we-process-prescriptions) on a monthly basis.

The monthly ‘Information Accuracy’ estimates that at least 99.6% of all items are processed with no errors relating to the product or prescriber/practice (in the year to September 2017, against a target of 99.3%). The sample is not representative at a more granular level; as such the level of accuracy is undetermined for across specific groups such as drugs, geographies, time periods etc. It should also be noted that the identification of errors in the accuracy checking sample does not result in amendments to data held in NHSBSA systems.

There are some data quality issues with data for patients aged 6 years and under for prescribing of antidepressants. A sample of the data was compared to the images of the paper prescription forms from which the data was generated. These checks revealed issues in the reliability of data in patients aged 6 years and under and severe issues in those aged 2 years and under. Whilst data for this age group remains in the overall counts, they are not allocated to an age group.

**NHS number accuracy**

During prescription processing NHS numbers are captured for all electronic messages and 92% of paper items. The NHSBSA investigate the accuracy of NHS numbers captured from paper forms on an ad-hoc basis (generally every six months). The personal details captured (NHS number, date of birth and age) are compared against those on the prescription form for a random sample of items. The NHS number captured typically matches that on the prescription form for over 99.9% of items. The results represent the accuracy for all items processed; as such the level of accuracy is undetermined for specific medicines, age groups, geographies, time periods and other factors. The NHS number for electronic messages is that extracted from practice systems and is assumed to be correct.  As the utilisation of EPS increases, the coverage and accuracy of this data will increase.

**PDS accuracy**

Ages used in the analysis may draw on data from the PDS national database. PDS records are usually created when patients first register with a GP and newly-born-babies are now also allocated with an NHS number. This data has been used because it is the national authoritative source of patient demographic data but the NHSBSA cannot guarantee the data quality.

**General**

Figures produced in datasets and reports are compared to previously published figures and completed analysis where possible. Processes are in place to review work undertaken, to ensure that methodology, data content and presentation of data are appropriate.

Any requests in relation to this data should be made directly to the NHSBSA by contacting nhsbsa.help@nhs.net