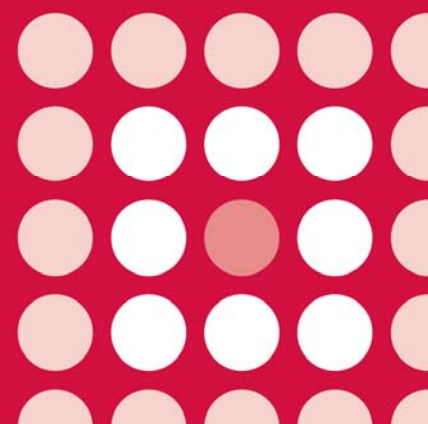




All Wales Therapeutics  
and Toxicology Centre  
Canolfan Therapiwteg a  
Thocsicoleg Cymru Gyfan

**NATIONAL PRESCRIBING INDICATORS 2013–2014**

**ANALYSIS OF MORPHINE AND TRAMADOL DATA TO JUNE 2013**



This report has been prepared by the Welsh Analytical Prescribing Support Unit (WAPSU), part of the All Wales Therapeutics and Toxicology Centre (AWTTC).

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This report should be cited as:

Welsh Analytical Prescribing Support Unit, All Wales Therapeutics and Toxicology Centre. National Prescribing Indicators 2013–2014: Analysis of Morphine and Tramadol Data to June 2013. October 2013



**NATIONAL PRESCRIBING INDICATORS 2013–2014  
ANALYSIS OF MORPHINE AND TRAMADOL DATA TO JUNE 2013**

**1.0 INTRODUCTION**

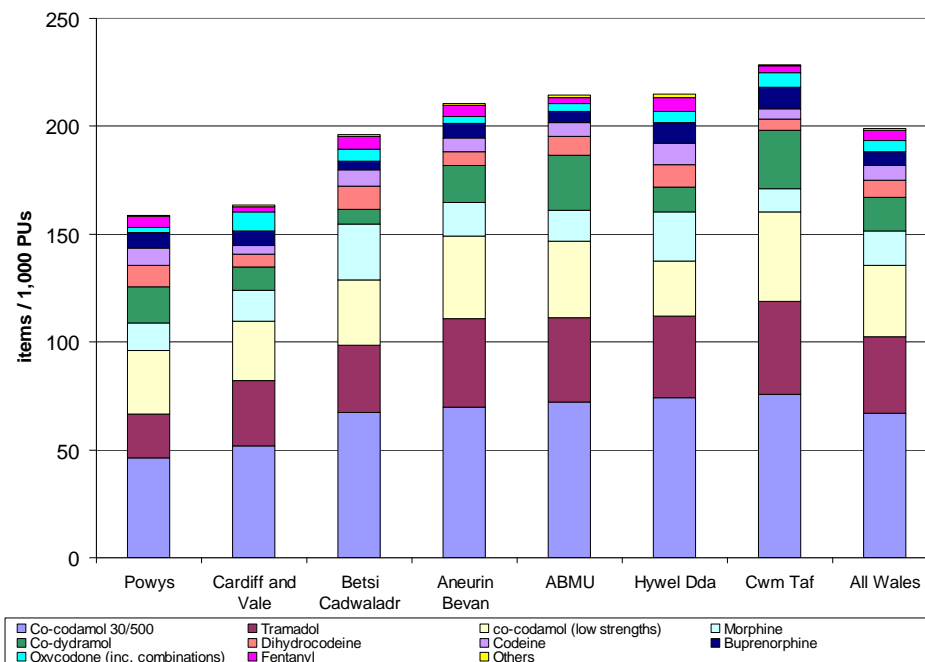
The All Wales Medicines Strategy Group (AWMSG) endorses National Prescribing Indicators (NPIs) as a means of promoting safe and cost-effective prescribing. The Welsh Analytical Prescribing Support Unit (WAPSU) currently provides quarterly reports outlining medicines usage for all of the NPIs at health board level. In addition to these quarterly reports, WAPSU will be providing more detailed information on specific NPIs and local comparators individualised to health board and locality cluster (the term given to clusters of GP practices grouped geographically by health boards).

This report provides primary care prescribing information on the morphine NPI and also the tramadol local comparator. Morphine items as a percentage of strong opioid items has been included as an NPI since April 2012, to encourage use of morphine as the strong opioid of choice where appropriate. The prescribing of tramadol has been monitored as a local comparator since April 2009. Tramadol is subject to abuse and has been associated with dependence. The Office for National Statistics reported 175 deaths related to the misuse of tramadol in England and Wales in 2012. In light of this information and concerns raised by Welsh Government, the All Wales Prescribing Advisory Group (AWPAG) has proposed that monitoring of tramadol prescribing be included as an NPI for 2014–2015. The first part of this report includes All Wales comparative data and the second part contains data specific to [xxx] Health Board.

**2.0 NATIONAL PRESCRIBING DATA**

In the quarter to June 2013, opioid analgesics (including combinations with paracetamol or aspirin) accounted for 877,300 prescriptions issued by primary care prescribers in Wales. Figure 1 shows the breakdown of prescribing (excluding injectables) by health board. In all health boards, the highest proportions of prescriptions were for co-codamol 30/500, tramadol, and co-codamol lower strength (e.g. 8/500, 15/500) preparations.

**Figure 1. Breakdown of opioid prescribing by health board – Quarter ending June 2013**



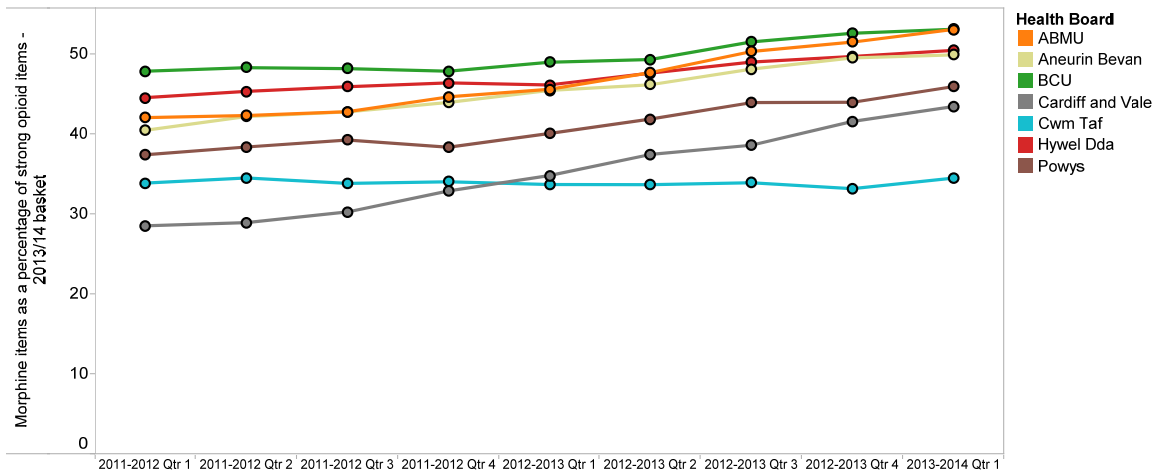
## 2.1 Morphine

*Unit of measurement:* Morphine items as a percentage of strong opioid items (specific basket of drugs\*)

*Target for 2013–2014:* Maintain performance levels within the upper quartile, or show an increase towards the quartile above (upper quartile threshold 56%)

As shown in Figure 2, there has been an upward trend in morphine prescribing as a percentage of strong opioid items in the majority of the seven health boards in Wales during the period 2011–2013. However, there was a difference of approximately 18.6% between the lowest prescribing (Cwm Taf 34.49%) and the highest prescribing (Betsi Cadwaladr University 53.11%) health boards in the quarter ending June 2013.

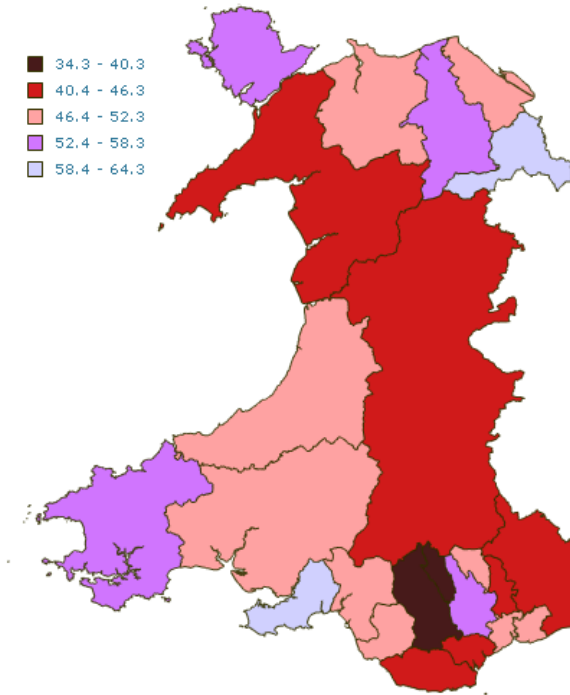
**Figure 2. Trend in morphine prescribing as a percentage of strong opioid items over time**



\*For the purpose of this NPI, the strong opioids included in the specific drug basket are: buprenorphine, dipipanone, fentanyl, hydromorphone, morphine, oxycodone, pentazocine, pethidine, tapentadol (excluding injectable formulations and buprenorphine preparations prescribed for the management of opioid dependence).

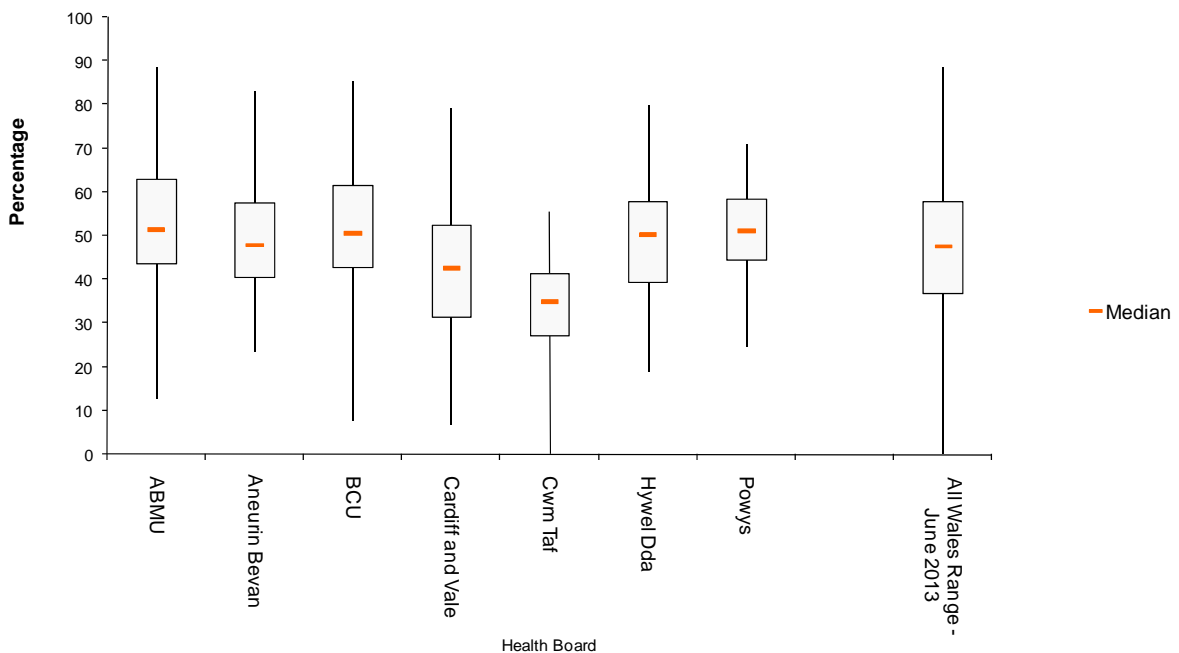
Figure 3 illustrates morphine items as a percentage of strong opioid prescribing across all of the 22 localities in Wales. The range of values has been divided into quintiles, and each locality coloured according to the quintile into which it falls. The map clearly illustrates the areas of proportionally low morphine usage across Wales (coloured brown and red).

**Figure 3. Morphine as a percentage of strong opioid items (specific basket\*) – Quarter ending June 2013**



There is also considerable variation between practices within individual health boards as shown in Figure 4. The box and whisker plot below shows the range of prescribing within each health board. The central orange line represents the median value, and the box represents the range of the middle 50% of practices.

**Figure 4. Box and whisker plot showing variation in morphine as a percentage of strong opioid items – Quarter ending June 2013**



## 2.2 Tramadol

*Unit of measurement:* Tramadol as a percentage of opioid analgesic items (CASPA.net basket)

Figure 5 shows that tramadol use as a percentage of opioid analgesic items has reduced slightly in all health boards across Wales over the past two years; however, if total quantity measured as defined daily doses (DDD)<sup>†</sup> per 1,000 patients is plotted (see Figure 6), all but one health board (Powys Teaching Health Board) prescribed more tramadol (DDD per 1,000 patients) in the quarter to June 2013 compared to the same period in 2011. This discrepancy occurs because total opioid prescribing is also increasing, masking the upward trend in tramadol prescribing. It has therefore been proposed by AWPAG that if tramadol is introduced as an NPI for 2014–2015, the monitoring parameter will be DDDs per 1,000 patients. The data in this document are therefore presented using this monitoring parameter.

Figure 5. Trend in tramadol prescribing as a percentage of all opioid items

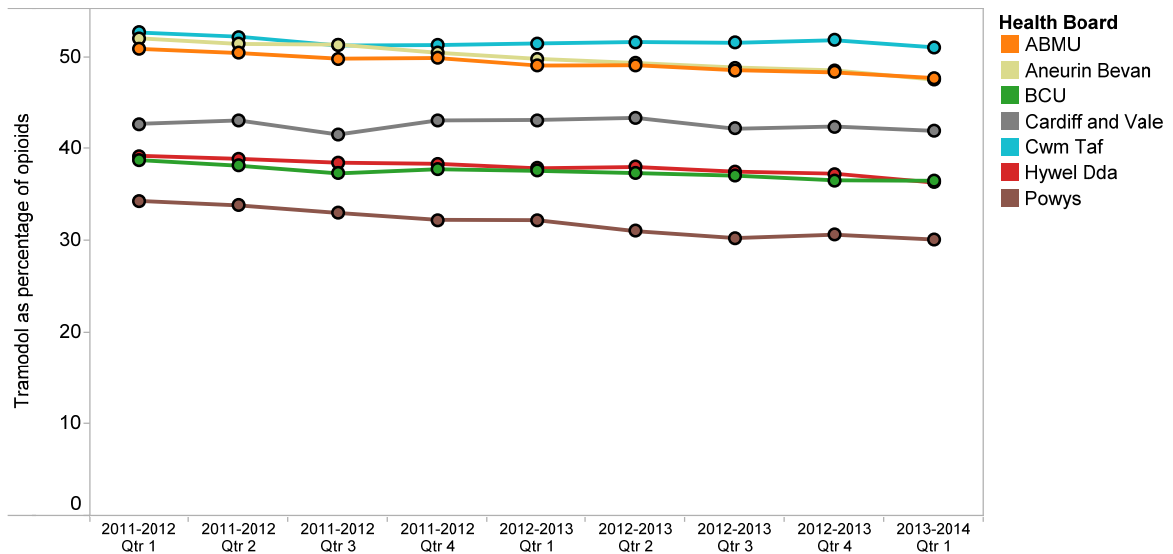
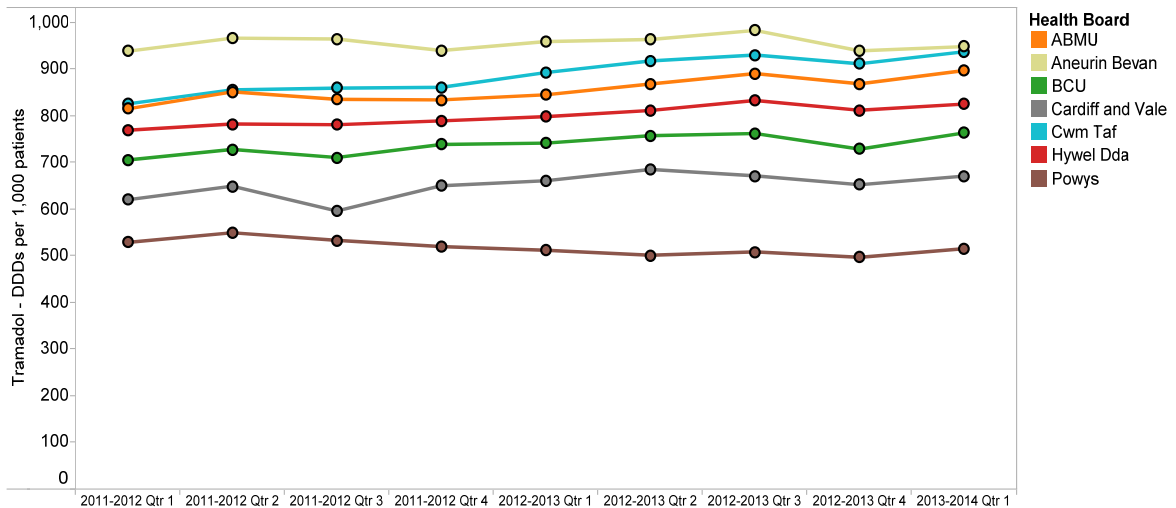


Figure 6. Trend in tramadol DDDs per 1,000 patients



<sup>†</sup>The defined daily dose (DDD), developed by the World Health Organisation, is a unit of measurement whereby each medicine is assigned a value within its recognised dosage range. The value is the assumed average maintenance dose per day for a medicine when used for its main indication in adults. This allows comparison between different formulations with different administration regimens.

Figure 7 illustrates tramadol prescribing measured as DDDs per 1,000 patients across the 22 localities in Wales, identifying particularly high usage in Blaenau Gwent and Merthyr Tydfil. Figure 8 shows the usage in greater detail. The colour and size of the box indicates the level of usage in each locality (the larger the box and deeper the red, the higher the usage; the smaller and greener the box, the lower the usage).

Figure 7. Tramadol DDDs per 1,000 patients – Quarter ending June 2013

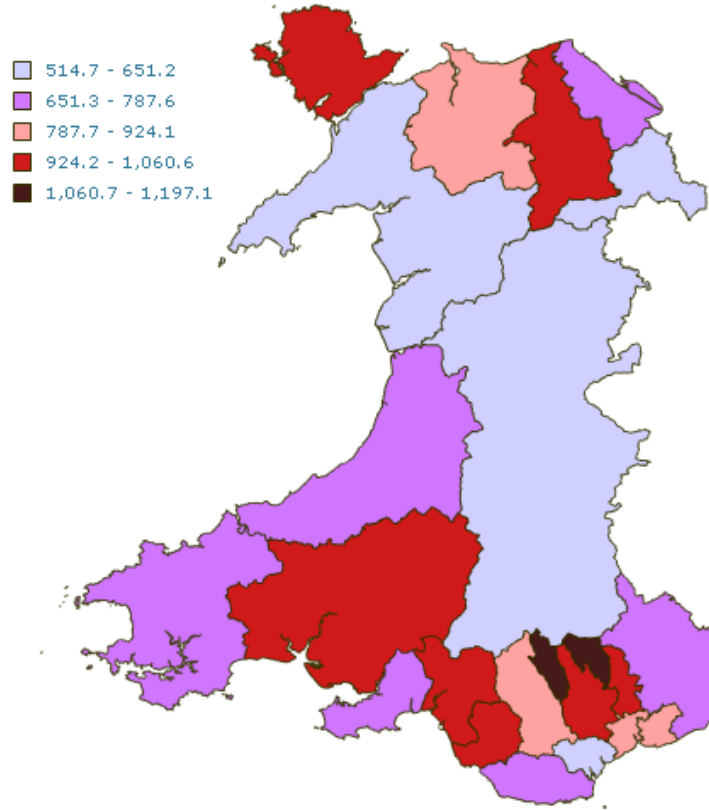


Figure 8. Treemap of tramadol DDDs per 1,000 patients – Quarter ending June 2013

