All Wales Medicines Strategy Group

Grŵp Strategaeth Meddyginiaethau Cymru Gyfan

PRESCRIBING INDICATORS 2010-11 – UPDATED FEBRUARY 2010

This paper sets out the proposed national prescribing indicators for 2010/11 retaining efficiency and safety principles as a means to monitor Local Health Board (LHB) prescribing patterns across Wales. The methods and principles used to determine the indicators and targets are also set out.

For many years the performance of the prescribing indicators were measured by the Welsh Assembly Government under the Service and Financial Framework (SaFF) targets. In 2007-08, they were removed from the SaFF, and now form part of the NHS Wales Annual Operating Framework (AOF) and are specified in the efficiency and productivity programme.

This guidance represents the view of the All Wales Medicine Strategy Group (AWMSG), which was arrived at after careful consideration of the available evidence. Implementation of the national indicators does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

Summary

AWMSG is asked to support implementation of the following prescribing indicators.

Indicator	Unit	Target
Statins	Low cost statins (simvastatin and pravastatin) as a percentage of all statin prescribing	Maintain performance levels within the upper quartile or show an increase towards the quartile above
ACE inhibitors	As percentage of drugs affecting the renin-angiotensin system	Maintain performance levels within the upper quartile or show an increase towards the quartile above
Chiral drugs	Items per 1,000PUs	Maintain performance levels within the lower quartile or show a reduction towards the quartile below
Hypnotics and anxiolytics	DDD per 1,000 patients	Maintain performance levels within the lower quartile or show a reduction towards the quartile below

NSAIDs	DDD per 1,000PUs	Maintain performance levels within the lower quartile or show a reduction towards the quartile below
	Ibuprofen and naproxen as a percentage of NSAID items	Maintain performance levels within the upper quartile or show an increase towards the quartile above
Antibiotics	Antibacterial items per 1,000 PUs	Maintain performance levels within the lower quartile or show a reduction towards the quartile below
	Top nine antibacterials (penicillin V, flucloxacillin, amoxicillin, oxytetracycline, doxycycline, erythromycin, clarythromycin, trimethoprim, nitrofurantoin) as a percentage of antibacterial items	Maintain performance levels within the upper quartile or show an increase towards the quartile above
	Quinolone items per 1,000 PUs	Maintain performance levels within the lower quartile or show a reduction towards the quartile below
	Trimethoprim 200mg 3 day treatment courses as a percentage of trimethoprim treatment	Maintain performance levels within the upper quartile or show an increase towards the quartile above

These prescribing indicators constitute guidance **only** and neither this document in isolation (nor as part of a wider policy) comprises a financial incentive scheme to any medical practices and/or practitioners to prescribe a specific named medicine.

Background

At the October 2003 meeting of AWMSG it was agreed that prescribing indicators were useful tools to promote rational prescribing. It was also noted there was unease with indicators that had an over-emphasis on cost rather than quality.

Prior to the establishment of AWMSG, prescribing advisers produced the basket of indicators that were used to monitor prescribing patterns across Local Health Groups. AWMSG tasked the All Wales Prescribing Advisory Group (AWPAG) with developing national indicators for 2010/11. A sub-group was set up to develop this issue consisting of the following members:

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Mrs Louise Howard-Baker
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Mrs Judith Vincent
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Method

The Indicator Working Group used the 2009/10 prescribing indicators as a starting point to develop indicators and targets for 2010/11. Additional factors taken into account also included consideration of the evidence base, current prescribing patterns across Wales, and benchmarking with the NHS Better Care, Better Value indicators in England.

Continuing with the principles previously agreed when developing an indicator:

- Indicators should be evidence based
- Indicators should be clear, easily understood and applicable at practice level
- Targets should be challenging but achievable, and based on the principle of encouraging all LHBs to achieve the prescribing rates of the best quartile
- Targets should be set based on prescribing data for the quarter ending March 2010
- Furthermore, at the All Wales Heads of Pharmacy and Medicines Management (HoPMM) meeting in June 2007, there was general agreement that the prescribing indicator sub-group should consider that the targets should address efficiency as well as quality.

The following indicators are proposed as the next step in developing indicators, which are clear, easily understood and have achievable targets. In addition, the indicators should, wherever possible, continue to be an integral part of an educational programme that targets the relevant professionals to reinforce the likelihood of achieving a favourable outcome.

The hypnotics and anxiolytic and non-steroidal anti-inflammatory drug (NSAID) targets will require sustained input over a number of years. This should not deter endeavours to deliver change and achieve measurable progress year on year.

Statins

The National Institute for Health and Clinical Excellence (NICE) Technology Appraisal -Statins for the Prevention of Cardiovascular Disease[1] and the Lipid Modification clinical guideline[2] recommend that:

- 40mg simvastatin (or drug of similar efficacy and acquisition cost) should be offered to:
    - Adults over 40 who have a ≥20% ten year risk of developing cardiovascular disease (CVD).
    - All adults with clinical evidence of CVD.

- If there are potential drug interactions, or simvastatin 40mg is contraindicated, a lower dose or alternative preparation such as pravastatin may be chosen. Higher intensity statins should not routinely be offered to people for the primary prevention of CVD.

- For primary prevention, the level of CVD risk should be estimated using an appropriate risk calculator, or by clinical assessment for people for whom an appropriate risk calculator is not available (for example, older people, people with diabetes or people in high-risk ethnic groups).

- For primary prevention, there is no target for total or low density lipoprotein (LDL) cholesterol.

- For secondary prevention, where 40mg of simvastatin does not reduce the total cholesterol (TC) to below 4mmol/l or the LDL cholesterol does not fall below 2mmol/l consider increasing the dose of simvastatin to 80mg.

- These levels are intended to "guide treatment rather than be a figure patients are expected to achieve". This is because "more than a half of patients will not achieve a total cholesterol of less than 4mmol/litre or an LDL cholesterol of less than 2mmol/litre". An 'audit' level of TC of 5mmol/l should be used to assess progress in patient groups with CVD.

- It is not cost-effective to try to take more patients to target using higher cost statins such as atorvastatin.

It is recognised that more intensive treatment is recommended in patients with Type 2 Diabetes with CVD or albuminuria to reach a TC < 4mmol/l or LDL <2mmol/l[16]

The NICE meta-analysis of all placebo-controlled trials (primary and secondary prevention studies) that published data in a usable form indicated that therapy with a statin was associated with a statistically significant reduction in risk of all-cause mortality, cardiovascular mortality, coronary heart disease (CHD) mortality and fatal myocardial infarction (MI).

Similarly a recent meta-analysis by Zhou and colleagues looking at the evidence for pravastatin, simvastatin and atorvastatin showed there was no difference among the statins in reducing fatal CHD, non-fatal MI, fatal and non-fatal strokes, all CVD, or mortality due to any cause[3]. All of the studies showed a similar reduction in lipid levels.

Simvastatin 20–40mg daily has been shown in large, well conducted clinical trials (4S and HPS)[4,5] to reduce clinically relevant events such as heart attacks and strokes.

Pravastatin is also available as a generic product. Pravastatin has clinical outcome data from the PROSPER[6], WOSCOPS[7], CARE[8] and LIPID[9] studies that show reduced rates of MI and death due to cardiovascular causes. The PROSPER study provides good evidence for the use of pravastatin in elderly patients. It is pragmatic to use pravastatin 40mg daily in simvastatin or atorvastatin intolerant patients where benefits and risks have been assessed[10].

Atorvastatin 10mg daily also has clinical outcome data showing evidence of benefit (ASCOT-LLA and CARDS)[11,12]. It is, however, over thirteen times the cost of generic simvastatin 40mg daily.

Studies have now been published for rosuvastatin that use patient orientated outcomes. The JUPITER study demonstrated that rosuvastatin 20mg per day reduced the risk of major cardiovascular events compared to placebo, in patients who would not be considered to be at high risk of cardiovascular disease based on usual risk factors, apart from an elevated high-sensitivity C-reactive protein[17].

The following table shows the absolute and percentage reductions in LDL-cholesterol concentration according to the statin and the daily dose used[13].

	5mg	10mg	20mg	40mg	80mg
Atorvastatin		1.79 (1.62 to 1.97) 37%	2.07 (1.90 to 2.25) 43%	2.36 (2.12 to 2.59) 49%	2.64 (2.31 to 2.96) 55%
Fluvastatin			1.02 (0.90 to 1.13) 21%	1.30 (1.19 to 1.41) 27%	1.58 (1.40 to 1.76) 33%
Pravastatin		0.95 (0.83 to 1.07) 20%	1.17 (1.10 to 1.23) 24%	1.38 (1.31 to 1.46) 29%	
Rosuvastatin	1.84 (1.74 to 1.94) 38%	2.08 (1.98 to 2.18) 43%	2.32 (2.20 to 2.44) 48%	2.56 (2.42 to 2.70) 53%	
Simvastatin		1.31 (1.22 to 1.40) 27%	1.54 (1.46 to 1.63) 32%	1.78 (1.66 to 1.90) 37%	2.01 (1.83 to 2.19) 42%

Law MR, Wald NJ, Rudnicka AR. Quantifying effect of statins on low density lipoprotein cholesterol, ischaemic heart disease, and stroke: systematic review and meta-analysis. BMJ 2003; 326: 1423-9.

From the table below, it can be seen that simvastatin 40mg daily (recommended to be taken as at night) reduces LDL-cholesterol to the same extent as atorvastatin 10mg daily.

Drug	Strength	Reductions in serum LDL-cholesterol	Cost for 28 days*
Simvastatin	40mg	37%	£1.38
Pravastatin	40mg	29%	£2.96
Fluvastatin	80mg	33%	£19.20
Atorvastatin	10mg	37%	£13.00
Rosuvastatin	5mg	38%	£18.03

*February 2010 costs (based on BNF dose range for hypercholesterolaemia)[13].

There has been ongoing debate regarding the target cholesterol levels that should be aimed for. The Joint British Societies' guideline recommended lower targets, although it is acknowledged that there are no clinical trials which have evaluated the relative and absolute benefits of cholesterol lowering to different total and LDL cholesterol targets in relation to clinical events[14]. The NICE Clinical Guideline 67 suggests that after simvastatin 80mg, there is no value in chasing these targets with other, less cost effective treatments[2].

Simvastatin 40mg at night costs £1.38 for 28 days treatment, pravastatin 40mg at night costs £2.96 for 28 days treatment, atorvastatin 10mg daily costs £13.00 for 28 days treatment[13]. The NHS can treat nine patients with simvastatin 40mg at night for less than treating one patient with atorvastatin 10mg daily.

At the end of March 2009, simvastatin and pravastatin accounted for 71% of statins prescribing in primary care. The performance of LHBs ranged between 76% and 56%. Benchmarking with England, however, demonstrates that no LHB is achieving the highest level of performance with the upper quartile of Primary Care Trusts (PCTs; 78%). This demonstrates that greater efficiencies could be made in Wales.

1. National Institute for Health and Clinical Excellence. Technology Appraisal 94. Statins for the prevention of cardiovascular events; January 2006. Available at: http://guidance.nice.org.uk/TA94.
2. National Institute for Health and Clinical Excellence. Clinical Guideline 67. Lipid modification; May 2008. Available at: http://guidance.nice.org.uk/CG67.
3. Zhou Z, Rahme E, Pilote L. Are statins created equal? Evidence from randomised trials of pravastatin, simvastatin and atorvastatin for cardiovascular disease prevention. Am Heart J 2006; 151: 273-81.
4. Scandinavian Simvastatin Survival Study Group. Randomised trial of cholesterol lowering in 4444 patients with coronary heart disease: the Scandinavian Simvastatin Survival Study (4S). Lancet 1994; 344: 1383-9.
5. Heart Protection Study Collaborative Group. MRC/BHF Heart Protection Study of cholesterol lowering with simvastatin in 20,536 high risk individuals: a randomised placebo-controlled trial. Lancet 2002; 360: 7-22.
6. Shepherd J, Blauw GJ, Murphy MB, et al. Pravastatin in elderly individuals at risk of vascular disease (PROSPER): a randomized controlled trial. Lancet 2002; 360: 1623-30.
7. Prevention of coronary heart disease with pravastatin in men with hypercholesterolemia. West of Scotland Coronary Prevention Study Group (WOSCOPS). N Engl J Med 1995; 333(20): 1301-7.
8. Sacks FM, Pfeffer MA, Moye LA, et al. The effect of pravastatin on coronary events after myocardial infarction in patients with average cholesterol levels (CARE). N Engl J Med 1996; 335: 1001-1009.
9. Long-Term Intervention with Pravastatin in Ischaemic Disease (LIPID) Study Group. Prevention of cardiovascular events and death with pravastatin in patients with coronary heart disease and a broad range of initial cholesterol levels. N Engl J Med 1998; 339: 1349-1357.
10. NHS Clinical Knowledge Summaries. Lipid modification. Available at: http://www.cks.library.nhs.uk/lipids_management/in_depth/management_issues?hierarchy=Idn180546n264759n180580n237976%2cIdn180546n264759n180580n237976n240466%2cIdn180546n264759n180580n237976n240466n239286#NodeIdn180546n264759n180580n237976n240466n239286. Accessed 29th May 2007.
11. Sever PS, Dahlöf B, Poulter NR, et al. Prevention of coronary and stroke events with atorvastatin in hypertensive patients who have average or lower-than-average cholesterol concentrations, in the Anglo-Scandinavian Cardiac Outcomes Trial — Lipid Lowering Arm (ASCOT-LLA): a multicentre randomized controlled trial. Lancet 2003; 361: 1149-58.
12. Colhoun HM, Betteridge DJ, Durrington PN et al. Primary prevention of cardiovascular disease with atorvastatin in type 2 diabetes in the Collaborative Atorvastatin Diabetes Study (CARDS): multicentre randomised placebo-controlled trial. Lancet 2004; 364(9435): 685-96.
13. TSO Drug Tariff; February 2010. Available at: http://www.ppa.org.uk/ppa/edt_intro.htm. Accessed 24th February 2010.
14. Joint British Societies' Guidelines On Prevention Of Cardiovascular Disease In Clinical Practice Available at: http://www.bcs.com/download/651/JBS2final.pdf. Accessed 26th March 2007.
15. Institute for Innovation and Improvement NHS Better Care, Better Value Indicators Available at: http://www.productivity.nhs.uk/index.asp. Accessed 26th March 2007.
16. National Institute for Health and Clinical Excellence. Clinical Guideline 87. Lipid modification. (Partial update of NICE Clinical Guideline 66). Available at: http://guidance.nice.org.uk/CG87.

17. Higher dose rosuvastatin in lower risk patients MeReC Monthly No. 10. Available at: http://www.npc.co.uk/ebt/merec/cardio/cdlipids/resources/merec_monthly_no10.pdf.

***Purpose*:** Appropriate prescribing of statins with the lowest acquisition cost can make considerable savings with limited difference in therapeutic outcome.

Unit of measure: Percent items simvastatin and pravastatin as percentage of total statin items (excluding combinations of statins with ezetimibe).

Target for 2010/2011: Maintain performance levels within upper quartile or show an increase towards the quartile above.

ACE inhibitors as a percentage of drugs acting on the renin angiotensin System

The National Institute for Healthcare and Clinical Excellence (NICE) Clinical Guidelines for hypertension stated that the benefit from angoitensin converting enzyme (ACE) inhibitors and angiotensin-II receptor antagonists were closely correlated and that they should be treated as equal in terms of efficacy (although due to cost differences, ACE inhibitors should be initiated first)[1].

The updated NICE clinical guideline for Type 2 diabetes recommends ACE inhibitors first-line for all patients with raised blood pressure, reserving an angiotensin receptor blocker (ARB) for continuing intolerance to ACE inhibitor[2].

In a systematic review of 43 randomised controlled trials (RCTs) of ACE inhibitors & ARB versus placebo and ACE inhibitors versus ARB, ACE inhibitors reduced all cause mortality in patients with diabetic nephropathy whereas ARBs did not. Both had similar effects on renal outcomes. Therefore choice should be based on cost[3].

Angiotensin-II receptor antagonists have not been shown to increase life expectancy compared to ACE inhibitor therapy for patients with heart failure due to left ventricular systolic dysfunction in several RCTs[4]. Two Angiotensin-II receptor antagonists marketed in the UK currently have a licence for the treatment of heart failure[5].

The incidence of side effects with ACE inhibitors is estimated to be 3-25%[6]. The NICE Clinical Guideline for hypertension states that “80% of patients starting on ACE inhibitors would continue with these, but that 20% would switch to ARBs due to an inability to tolerate ACE inhibitors (expert opinion)”[1].

It is proposed that for 2010/11 the indicator should be reframed to promote the higher use of ACE inhibitors as being positive, rather than a higher use of ARBs being negative. The new measure would also allow for any prescribing of directly acting renin inhibitors to be captured.

1. National Institute for Health and Clinical Excellence. Clinical Guideline 34. Hypertension: Management of hypertension in adults in primary care; June 2006. Available at: http://guidance.nice.org.uk/CG34/niceguidance/word/English. Accessed 17th March 2007.
2. National Institute for Health and Clinical Excellence. Clinical Guideline 66 (update of NICE Clinical Guidelines E, F G and H). Type 2 diabetes; May 2008. Available at: http://guidance.nice.org.uk/CG66.
3. Strippoli GF, et al. BMJ 2004; 329: 828i.
4. National Institute for Health and Clinical Excellence. Clinical Guideline 5. Chronic heart failure; October 2003. Available at : http://guidance.nice.org.uk/CG5/guidance/pdf/English. Accessed 17th May 2007.
5. British National Formulary. Available at: http://www.bnf.org. Accessed 17th May 2007.
6. Office of Fair Trading report. Annexe M: Current price inefficiencies and potential benefits of value-based pricing; February 2007. Available at: http://www.oft.gov.uk/shared_oft/reports/comp_policy/oft885m.pdf. Accessed on 17th March 2007.

Purpose: Drugs affecting the renin-angiotensin system are used for a wide range of common medical conditions. There are significant cost differences between ACE inhibitors and ARBs. By ensuring that clinicians follow NICE guidelines and initiate patients on one of the lower cost drugs, prescribing costs can be reduced.

Unit of measure: Items of ACE inhibitors as a percentage of all drugs affecting the renin-angiotensin system.

Target for 2010/11: Maintain performance levels within the upper quartile or increase towards the quartile above.

Chiral Drugs

The vast majority of drugs are manufactured and marketed as a mixture of enantiomers (racemic mixtures). Enantiomers have the same chemical formula but a different three-dimensional configuration (or mirror image) and are the result of the manufacturing process. One of the enantiomers may have little or no effect in the body and is completely harmless. Recent advances in chemistry, however, have allowed the active enantiomer to be isolated and a number of drugs are now available containing only the active molecule.

Several such drugs are currently marketed in the UK, with further products in the pipeline and the evidence suggests that whilst there may be clinical differences between the single enantiomer and the racemic mixture, the magnitude of such benefits is variable.

The case for a review of prescribing of chiral drugs has been made in several publications[1,2,3] on the grounds of cost-effectiveness and a lack of robust evidence to demonstrate a significant clinical advantage. They are marketed at a premium price and can offer limited demonstrable clinical advantages over existing products and generally have not been compared with them. Patients, stabilised on treatment with a well established safety profile may be switched to a “black triangle” product with limited or no clinical advantage.

Parent Drug	Cost for 28 days*	Chiral Drug	Cost for 28 days*
Cetirizine10mg	£1.02	Levocetirizine 5mg	£4.39
Omeprazole 10mg caps	£1.77		
Omeprazole 20mg caps	£1.76	Esomeprazole 20mg	£18.50
Omeprazole 40mg caps	£8.88	Esomeprazole 40mg	£25.19

*February 2010 costs[4].

1. Office of Fair Trading report. Annexe M: Current price inefficiencies and potential benefits of value-based pricing; February 2007. Available at: http://www.oft.gov.uk/shared_oft/reports/comp_policy/oft885m.pdf. Accessed 17th March 2007.
2. Drug and Therapeutics Bulletin Volume 44 No. 10; October 2006.
3. Prolonging market exclusivity of medicines – implications for the NHS. WeMeReC Bulletin Volume10 No. 2; July 2003.
4. TSO Drug Tariff; February 2010. Available at: http://www.ppa.org.uk/ppa/edt_intro.htm. Accessed 24th February 2010.

It is proposed that for 2010/11 the measure should be changed to items per 1,000PU. This is because the existing measure for this indicator could disadvantage practices that preferentially prescribe larger quantities of lansoprazole, loratidine or fluoxetine than omeprazole or cetirizine, as the denominator previously used for 2009/10 only covered the enantiomers and the parent drugs and not other equally valid first line choices.

Purpose: Prescribing of racemic mixture as first choice over single enantiomer preparation can make considerable savings with limited difference in therapeutic outcome.

Unit of Measure: esomeprazole and levocetirizine items per 1,000PU

Target for 2010/11: Maintain performance levels within the lower quartile or reduction towards the quartile below.

Hypnotics and anxiolytics

It is recognised that prescribing of hypnotics and anxiolytics is appropriate in some circumstances, and that for some geographical areas this is a more challenging agenda than others. Good practice needs to be promoted and a reduction in the prescribing of hypnotics and anxiolytics targeted.

***Purpose*:** There are disproportionately more hypnotics and anxiolytics prescribed in Wales compared to England than in any other drug category.

Unit of measure: Defined daily dose of hypnotics (4.1.1) and anxiolytics (4.1.2) prescribed per 1,000 patients.

Target for 2010/11: Maintain performance levels within the lower quartile or reduction towards the quartile below

Non-steroidal anti-inflammatory drug (NSAID) prescribing

Purpose: There is overwhelming evidence to reduce prescribing of NSAIDs especially in the elderly. The Committee on Safety of Medicines (CSM), now the Medicines and Healthcare products Regulatory Agency (MHRA), have issued five warnings to prescribers regarding the gastrointestinal dangers of NSAIDs, culminating in the following warning issued in 2003:

Reminder: Gastrointestinal toxicity of NSAIDs

All NSAIDs, including ibuprofen and COX-2 inhibitors are associated with reports of serious gastrointestinal (GI) toxicity. The elderly and those taking concomitant aspirin are high-risk groups.

Detailed advice on the GI safety of NSAIDs (including aspirin and selective COX-2 inhibitors) has previously been provided. The CSM continues to receive reports of serious and fatal GI reactions associated with NSAIDs.

In October 2006 and December 2007, the MHRA issued further warnings on the increase risk of thrombotic events associated with the long term use of NSAIDs[2,3].

Prescribers are reminded:

- GI and cardiovascular risks of NSAIDs may be minimised by selecting the lowest dose for the shortest duration.
- Risks of GI toxicity are higher in the elderly.
- Diclofenac 150mg daily has the same thrombotic risk profile similar to that of at least one coxib (etoricoxib) and possibly others.
- Epidemiological data do not suggest and increase risk of myocardial infarction when naproxen 1000mg daily or ibuprofen at lower doses (less than 1,200mg daily) are used.
- Aspirin and another NSAID should only be used together when absolutely necessary - the combination substantially increases GI risk. Patients taking long-term aspirin should be reminded to avoid NSAIDs, including those bought without prescription.
- Ibuprofen is associated with the lowest GI risk of the traditional NSAIDs, but serious and fatal GI reactions have been reported in association with its use.
- Clinical trial data suggest that selective COX-2 inhibitors have GI safety advantages over standard NSAIDs, but serious and fatal GI reactions have none the less been associated with these drugs.
- Prescribing should be based on the safety profiles of individual NSAIDs or coxibs and on individual patient risk profiles (e.g. GI and cardiovascular).
- Prescribers should not switch between NSAIDs without careful consideration of the overall safety profile of the products, a patient's individual risk factors, and patient preference.

Ensure NSAID treatment is not contraindicated before prescribing.

1. MHRA/CSM (2003) Gastrointestinal toxicity of NSAIDs. Current Problems in Pharmacogivilance. 29: 8-9.
2. MHRA safety warning; October 2006. Available at: http://www.mhra.gov.uk/Safetyinformation/Safetywarningsalertsandrecalls/Safetywarningsandmessagesformedicines/CON2025040. Accessed 24th February 2010.
3. MHRA Drug Safety Update Volume 1, Issue 5, December 2007. Available at: http://www.mhra.gov.uk/Publications/Safetyguidance/DrugSafetyUpdate/CON2033216. Accessed 24th June 2008.

Unit of measure: *NSAIDs* Defined daily dose per 1,000 PUs

Target for 2010/11: Maintain performance levels within the lower quartile or reduction towards the quartile below

Unit of measure: Ibuprofen and naproxen as percentage of NSAIDs items

Target for 2010/11: Maintain performance levels within the upper quartile or show an increase towards the quartile above

Antibiotics

Members of AWMSG have previously supported the suggestion that the Antimicrobial Resistance Group (ARG) should advise on the development of any national indicators. The ARG have recommended that the following national indicators be produced.

***Purpose*:** Antimicrobial resistance is an increasing problem and requires multifaceted interventions to address the problem. Monitoring the prescribing of antibacterials raises the awareness of local variation in prescribing patterns and supports better antibacterial stewardship.

Unit of measure:

1. Antibacterial items per 1,000 PUs
2. Top nine antibacterials (penicillin V, flucloxacillin, amoxicillin, oxytetracycline, doxycycline, erythromycin, clarithromycin trimethoprim nitrofurantoin) as a percentage of antibacterial items
3. Quinolone items per 1,000 PUs
4. Trimethoprim 200mg 3 day treatment courses as a percentage of trimethoprim treatment

The above indicators only cover antibacterials appearing in Chapter 5 (Infections) of the BNF.

Targets for 2010/11:

Concern has been expressed from ARG regarding the establishment of targets for antibiotic prescribing indicators, as there is no clear evidence base for setting the targets. ARG has recommended that data on indicators should be presented in a comparative form without targets. It is, however, recognised that for the purposes of establishing a set of national indicators there needs to be an associated target despite this limitation. It is therefore proposed that for indicators 1 and 3 this should

be maintain performance levels within the lower quartile or reduction towards the quartile below and for indicator 2 and 4 this should be maintain performance levels within the upper quartile or increase towards the quartile above.

Removal of the Generic prescribing indicator

The Indicator Working Group has recommended that this indicator be discontinued for 2010/11 to allow the introduction of indicators for antibiotic prescribing. It is suggested that the generic indicator is maintained as a local comparator.

At the end of March 2009, ten LHBs achieved the target of 99% with a range of 1.37% between the lowest and highest performing LHBs. However, the upper quartile based on March 2008 data was actually 98.83%. Using this figure means that 13 LHBs achieved the target.

The Department of Health launched a consultation document in January 2010 asking for views on three options for the implementation of generic substitution in England following the Pharmaceutical Price Regulation Scheme (PPRS) 2009. This consultation will close on 30th March 2010 and should have a beneficial effect in this area.