

Quality and Productivity: Proven Case Study

Medicines optimisation peer review: improving prescribing and lowering costs

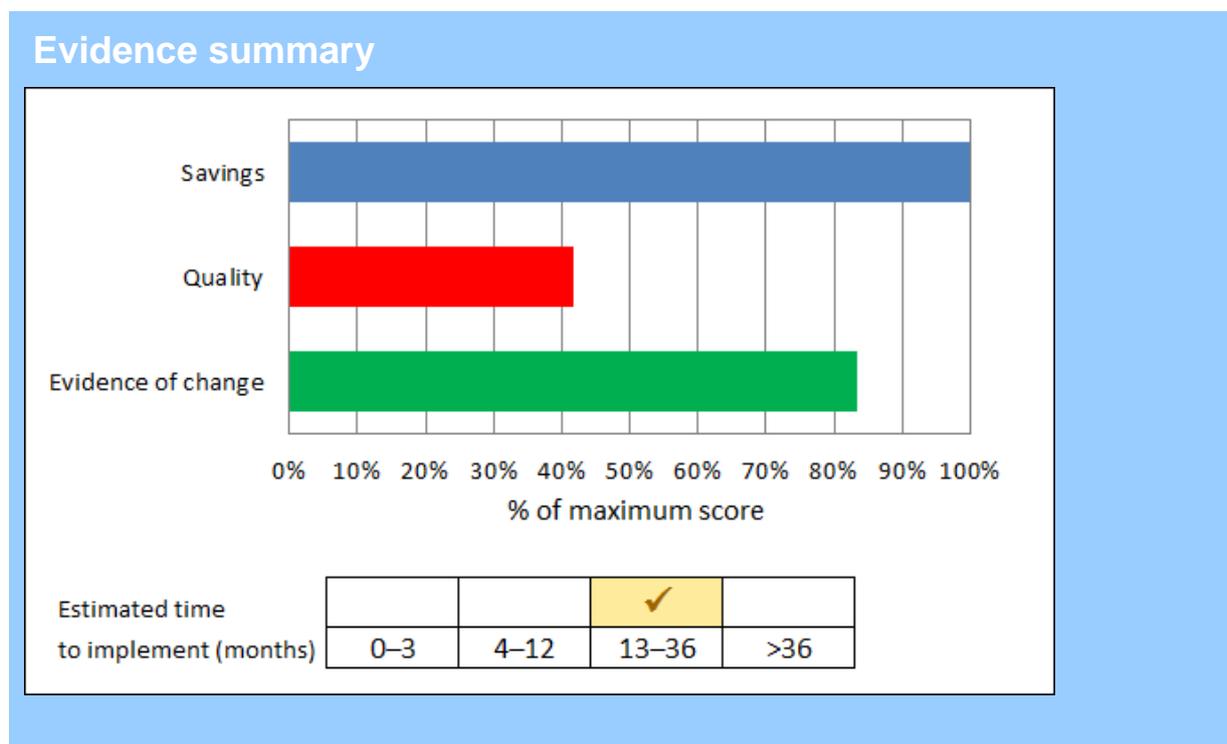
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Sharing good practice: What are 'Proven Quality and Productivity' case studies?

The NICE Quality and Productivity collection provides users with practical case studies that address the quality and productivity challenge in health and social care. All examples submitted are evaluated by NICE. This evaluation is based on the degree to which the initiative meets the Quality and Productivity criteria: savings, quality, evidence and implementability. The assessment of the degree to which this particular case study meets the criteria is represented in the summary graphic below.

Proven Quality and Productivity examples are case studies that show evidence of implementation and can demonstrate efficiency savings and improvements in quality.



Details of initiative

Purpose	To engage GP practices to optimise prescribing and implement NICE guidance.
Description (including scope)	<p>It can be difficult for prescribers to keep abreast of the large volume of relevant guidance and research. They must identify important new information and what is out of date among what they already know. This initiative aims to make this process easier by identifying relevant evidence and changes to practice, and then changing behaviours through peer discussions. These peer reviews allow time to discuss the evidence base behind the guidance, allowing concerns and questions to be raised and answered.</p> <p>The aim of medicines optimisation peer reviews is to influence prescribers to ensure evidence-based, safe, cost effective prescribing. This improves clinical outcomes for patients, reduces variation between localities, improves alignment with NICE guidance and improves performance against relevant indicators.</p> <p>This is done by:</p> <ul style="list-style-type: none">• identifying important new evidence and guidance• examining local prescribing data• sharing the evidence base and updating prescribers' knowledge of NICE guidance• using peer discussions to challenge and debate, leading to self-reflection and a change in culture and outcomes• securing engagement with the medicines optimisation QIPP plan. <p>Front-line clinical staff have a large measure of control and influence over day-to-day decision making, which is often greater than that of staff in formal positions of authority. Rather than telling GPs exactly what to do, the initiative therefore focuses on encouraging GPs to believe that change is necessary and desirable, allowing them to discuss the evidence and arrive at conclusions and solutions.</p>
Topic	Medicines use and procurement, safe care, long-term conditions
Other information	None provided

Savings delivered

Amount of savings delivered	The peer review programme contributes to the medicines optimisation savings achieved by the Medicines Management Team and GP practices (net £1.7 million in 2013/14, £2.0 million in 2014/15). Savings include reductions in prescribing where
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	<p>prescribing is not supported by the evidence, and savings from switching to cheaper alternatives where clinically appropriate.</p> <p>These savings are on the clinical commissioning group (CCG) prescribing budget for a population of 320,000. The stated figures take the cost of any substitute medicines into account.</p>
Type of saving	Cash savings from reduced medicines spend and wastage
Any costs required to achieve the savings	<p>The savings were achieved within the existing CCG prescribing budget. An additional £31,500 was invested to fund GP practices to attend peer review meetings under the CCG engagement programme. Each practice receives a payment of £500 to attend the meeting. This has been taken into account in the figure for annual savings. The CCG does not offer any other prescribing incentive scheme.</p> <p>A medicines management dietitian post was created to review GP prescribing of nutritional supplements, gluten-free products and orlistat, at a cost of £50,000.</p> <p>These are ongoing costs but are far less than the resulting savings.</p>
Programme budget	Main category 23 'Other', sub-category E 'Multiple conditions'
Supporting evidence	Prescribing data demonstrates substantial reductions in prescribing of 'do not prescribe' items, and switching to more clinically and cost effective medicines as recommended in national guidance.

Quality outcomes delivered

Impact on quality of care or population health	<p>There is a decrease in inappropriate prescribing in many areas, but it is hard to demonstrate the effect on outcomes. Inappropriate antibiotic prescribing has decreased and <i>Clostridium difficile</i> infections (CDI) have reduced as seen below, although a causal link is difficult to establish.</p> <ul style="list-style-type: none">• 2013/14 – 103 cases• 2014/15 – 101 cases• 2015/16 – 93 cases.
Impact on patients, people who use services and/or population safety	Hypnotic prescribing has been included as a quality area in peer reviews because of national concerns regarding use of these drugs. The risks associated with the long-term use of hypnotic drugs include falls, accidents, cognitive impairment (including a possible increased risk of dementia), dependence and withdrawal symptoms.

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Hypnotic prescribing is a difficult issue to tackle in GP practices. The difficulties of reducing long-term hypnotics have been discussed at peer reviews. Since the introduction of this initiative, prescriptions for hypnotics have reduced significantly among practices previously identified as prescribing substantially more than the national average of these drugs. This should lead to improved patient safety, although data for adverse events is not available.

Impact on patients, people who use services, carers, public and/or population experience

For many patients this initiative will not have any effect on the patient experience, beyond the outcomes and safety effects already noted. But for some patients there will be an improvement in their experience, because they will have fewer medicines to take.

Supporting evidence

Prescribing data has been provided showing substantial reductions in the prescription of antibiotics and hypnotics.

Evidence of effectiveness

Evidence base for case study

The initiative is underpinned by National Audit Office guidance (2007) on changing practice among prescribers, which recommends assigning specific medicines management team members to work with certain practices to develop tailored action plans. The report highlighted that the most effective method of communicating with clinicians was to visit them. But this is also the most expensive, so it is crucial to make the most of every visit. The peer reviews were an efficient way for the senior team to meet and communicate with clinicians.

Initiatives on targeting specific classes of medicines or conditions refer to relevant NICE guidance and advice:

- Cholesterol reduction (ezetimibe, Omacor): CG181, CG172 (NICE 2013b, 2014, 2016).
- Respiratory (reduced steroids and improved inhaler technique): KTT5, QS25 statement 4 (NICE 2013c, NICE 2015c).
- Urinary incontinence (solifenacin): CG171 (NICE 2013a).
- Antibiotic prescribing: CG69, KTT9, and NG15 (NICE 2008, 2009, 2015a).
- Nutritional supplements: CG32 (2006).
- Hypnotics: TA77, KTT6 (NICE 2004, 2015b).

The topics selected for discussion were taken from the annual medicines optimisation QIPP plan. This is developed by the senior medicines management team based on NICE guidance and key therapeutic topics, local guidance, prescribing data, evaluation of current work streams and feedback from GP

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	practices. It identifies opportunities to improve efficiency, effectiveness and quality of prescribing across the CCG.
Evidence of deliverables from implementation	<p>There is systematic reporting of results for some topics, across the CCG area.</p> <p>Improvements in prescribing patterns and a consequent reduction in medicines spend have been demonstrated in the following areas:</p> <ul style="list-style-type: none">• do not prescribe items: £150,000• cholesterol reduction (ezetimibe, Omacor): £130,000• respiratory (reduced steroids and improved inhaler technique): £110,000• urinary incontinence (solifenacin): £125,000 (Apr 15 – Feb 16)• nutritional supplements: £234,000. <p>Please note this list is not exhaustive, it only details the highest saving areas.</p>
Where implemented	Wigan Borough Clinical Commissioning Group.
Degree to which the actual benefits matched assumptions	Overall savings were more than anticipated.
If initiative has been replicated how frequently/widely has it been replicated	Within the CCG, practices learn from each other. In some localities the success of a practice and the processes they shared inspired others to implement changes. Prescribing data for the CCG shows a reduction in prescribing of targeted drugs year on year.
Supporting evidence	Prescribing data demonstrates substantial reductions in prescribing of 'do not prescribe' items, and switching to more clinically and cost-effective medicines as per national guidance.

Details of implementation

Implementation details	<p>Medicines optimisation peer reviews are annual meetings run at the locality level (groups of GP practices that meet and work together), because practices within localities have built trust in each other and this encourages open and frank discussion. The meetings are facilitated by the senior medicines management pharmacists and the GP clinical champion for the locality. Each meeting is attended by 5 to 6 practices, represented by the practice manager and a prescriber.</p> <p>There are generally around 11 meetings over a 2-month period.</p>
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Meetings need to be run at a time convenient to practices. Planning is essential to ensuring a positive outcome and time must be allowed for this.

Topics are chosen based on NICE guidance, NICE key therapeutic topics (KTT), prescribing data and local priorities. The aim is to improve patient care with a reduction in less cost-effective medicines or improving the safe use of medicines.

Before the meetings, benchmarked prescribing data are distributed at the locality level. This allows comparisons between practices within the locality and year on year. The topics and prescribing data are discussed with the practice-based medicines management technicians. Feedback is obtained on likely barriers to implementation and examples of good practice. Full team involvement is essential to ensure a consistent message is shared with practices. The technicians are then able to discuss the peer reviews with practices, providing early support to the practice manager.

At the peer reviews, the key discussion points are:

- the reason for topic selection
- NICE guidance and current evidence base
- prescribing data
- what can be done to improve practice.

Prescribers are encouraged to share views and prescribing practices. Skilled facilitation by the senior pharmacists and GP clinical champions ensures decision making and prescribing behaviour is influenced, allowing prescribers to learn from each other in a supportive environment.

Practices showing good prescribing practice share why they believe they have been successful. The senior pharmacists ensure that all key messages are delivered and attend all meetings, allowing ideas from other localities to be shared.

Each practice selects 3 areas to work on in the next 12 months. The medicines management technicians then proactively work with practices to ensure the agreed changes are implemented. This allows practices to select the approach best suited to their needs. The technicians provide further prescribing data, advice and support. This follow up work and support is a vital part of the process to ensure there are measurable achievements.

Implementation for different topics:

Urinary incontinence

In the 2015/16 peer review programme appropriate management of urinary incontinence was discussed. Before the meetings the senior medicines management team met with urologists and senior pharmacists from the local acute trust to discuss appropriate messages for GPs and to secure a commitment from the trust clinicians to follow the NICE guidance in terms of first-

line drug treatments.

Clinicians were updated on the current NICE guidance (CG171, 2013a) using the academic detailing aid produced by NICE. Discussions were facilitated on the use of medication in this condition and the first-line agents. It was clear from prescribing data that the local area was a high user of solifenacin, an item not recommended by NICE for first-line use. Many clinicians had assumed solifenacin was a first-line agent because it was commonly recommended by specialists from the local acute trust. Discussions centred around the evidence base for the drugs and claims made by pharmaceutical companies about the side effects of these medications and the discussions already held with the acute trust. The need to regularly review therapy to assess continued need was also highlighted.

From April 2015 to February 2016 savings of £125,000 were achieved by either stopping a drug treatment or switching to a recommended first-line agent such as tolterodine immediate release.

Nutritional supplements

The 2014/15 peer reviews discussed the prescribing of nutritional supplements in line with NICE guideline CG32 (2006). As part of the discussions, practices were offered the services of a medicines management dietitian to help them review their prescribing of nutritional supplements, gluten-free products and orlistat. The dietitian provided advice on food fortification and different feeding options before the use of supplements. This improved the quality of life of patients because it allows them to eat and enjoy appropriate foods, making socialising easier. This work resulted in annual savings of £234,000 for an investment of £50,000 in the first year.

Antibiotic prescribing

Antibiotic prescribing was included in peer reviews because of high levels of prescribing across the clinical commissioning group (CCG) and the strong link between antibiotic usage and *Clostridium difficile* infections (CDI). The use of antibiotics for viral infections was discouraged in accordance with NICE guideline CG69 (2008) and KTT9 (2009) and the use of antibiotics most commonly associated with CDI was reduced. The peer reviews enabled practices to share how they manage patient expectations, secure full practice engagement, and use back-up antibiotics and the CCG antimicrobial guidelines. This also supports the NICE antimicrobial stewardship guideline NG15 (2015).

In 2015/16 both total use of antibiotics and avoiding the use of broad spectrum antibiotics were discussed. These discussions have contributed to an overall reduction in prescribing and use of broad-spectrum antibiotics. Over several years CCG antibiotic prescribing levels have fallen to, or slightly below, the England

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average. The CCG has exceeded the requirements to meet the NHS England Antibiotic Quality Premium in 2015/16, which required more than 1% reduction in antibiotic prescribing.

Hypnotics

The long term use of hypnotics is associated with side effects and adverse events, and the drugs may be abused. Relevant NICE guidance and advice (NICE 2004, NICE 2015b) along with local prescribing data, was used to spur discussions at peer reviews. The difficulties of reducing the use of hypnotics were also discussed. GP practices were keen to learn from those that had successfully reduced prescribing of hypnotics, and best practice spread through the peer discussions. The practices with the highest levels of prescribing achieved substantial reductions after the reviews.

Respiratory conditions

Steroids may be prescribed inappropriately, and incorrect inhaler technique is common, leading to increased morbidity and mortality. Relevant guidance (NICE 2013c, NICE 2015c) was identified and discussed at peer review meetings. A reduction in steroid spending was achieved, and clinicians were better informed about correct inhaler technique.

Cholesterol reduction

Two drugs (Omacor and ezetimibe) were identified in NICE guidance as having little evidence to support their use for primary or secondary prevention in the general population, although ezetimibe may have a role in patients with primary (heterozygous familial or non-familial) hypercholesterolaemia (NICE 2013b, 2014, 2016). The evidence was discussed at peer review meetings. Practices discussed the importance of patient outcomes and positive patient responses to discontinuing these items, because it was seen as one less medication to take.

Time taken to implement

Can be achieved between 1 and 3 years. In total, all the peer review meetings only take a few working days, but time is needed to analyse the evidence in different areas, decide objectives and schedule the meetings. Time may also be needed to recruit staff, for example a dietitian, depending on the areas chosen.

Ease of implementation

Affects multiple NHS organisations across a clinical commissioning group. Once a format for the peer review meetings is established it can be replicated for small groups of practices, which eases implementation.

Level of support and commitment

Evidence that all stakeholders are fully committed and engaged in delivery.

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Barriers to implementation

It can be hard to change embedded habits. Preparation and skilled facilitation are important to improve the likelihood of the initiative being accepted by GPs. In practice this means having accurate, up-to-date prescribing data and a GP champion who is convinced of the need to change practice and can help to facilitate the discussions. Medicines management technicians at the GP practices provide support to bring about the agreed changes.

Obstacles to change are identified and interventions matched to the problems. GPs not following the evidence base are encouraged to share the reasons for this and then ask prescribers implementing the evidence to show how these barriers have been overcome in their practice. Experience has shown that tailoring interventions to identified barriers is more likely to improve practice than simple dissemination of guidance.

Practices have found that spending longer in patient consultations to explain why antibiotics may not be needed leads to less demand. Instead of issuing delayed prescriptions, where patients are asked only to collect the antibiotics if they need them after 3 days, 1 practice now asks patients to return in 2 to 3 days if they still think they need antibiotics, at which point a prescription is issued. This has reduced inappropriate prescribing.

Addressing dependency on hypnotics can be difficult. Smaller practices have nominated GPs to specialise in this area, and they see all affected patients. Larger practices have enlisted the help of a specialist counsellor.

Risks

There should not be clinical risks associated with improved adherence to national guidance. However, medicines decisions are always on a case-by-case basis, taking patients' individual circumstances and preferences into account.

Supporting evidence

The Quality Premium was assessed using STAR (13)-PU. This is a prescribing unit used to standardise prescribing to allow comparison between different sized practices and CCGs. It is calculated using the number of patients, taking into account age, gender and specifics relevant to antibiotic prescribing. It includes only oral antibiotics. In 2013/14 the CCG scored 1.213, giving a target of 1.170. The CCG achieved a reduction to 1.118 at the end of 2015/16.

Further evidence

Dependencies

Access to prescribing data is essential to identify areas and practices where prescribing of certain medicines is above the national average.

Contacts and resources

Contacts and resources

If you would like any further information please email: qualityandproductivity@nice.org.uk and we will forward your enquiry and contact details to the provider of this case study. Please quote reference 16/0001 in your email.

National Audit Office (2007) [influencing prescribing cost and quality in primary care](#)

National Institute for Health and Care Excellence (2016) [Ezetimibe for treating primary heterozygous-familial and non-familial hypercholesterolaemia](#) NICE technology appraisal guidance 385

National Institute for Health and Care Excellence (2015a) [Antimicrobial stewardship: systems and processes for effective antimicrobial medicine use](#) NICE guideline NG15

National Institute for Health and Care Excellence (2015b) [Hypnotics](#) NICE advice KTT6

National Institute for Health and Care Excellence (2015c) [High-dose inhaled corticosteroids in asthma](#) NICE advice KTT5

National Institute for Health and Care Excellence (2015d) [Medicines optimisation: the safe and effective use of medicines to enable the best possible outcomes](#) NICE guideline NG5

National Institute for Health and Care Excellence (2014) [Cardiovascular disease: risk assessment and reduction, including lipid modification](#) NICE guideline CG181

National Institute for Health and Care Excellence (2013a) [Urinary incontinence in women: management](#) NICE guideline CG171

National Institute for Health and Care Excellence (2013b) [Myocardial infarction: cardiac rehabilitation and prevention of further MI](#) NICE guideline CG172

National Institute for Health and Care Excellence (2013c) [Asthma](#) NICE quality standard 25

National Institute for Health and Care Excellence (2009) [Antibiotic prescribing – especially broad spectrum antibiotics](#) NICE advice KTT9

National Institute for Health and Care Excellence (2008) [Respiratory tract infections \(self-limiting\): prescribing antibiotics](#) NICE guideline CG69

National Institute for Health and Care Excellence (2006) [Nutrition support for adults: oral nutrition support, enteral tube feeding and parenteral nutrition](#) NICE guideline CG32

National Institute for Health and Care Excellence (2004a) [Guidance on the use of zaleplon, zolpidem and zopiclone for the short-term management of insomnia](#) NICE technology appraisal

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guidance 77

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