

Using evidence to stop ineffective practice:

NICE and Cochrane work together

Speaker: Dr Gillian Leng, Deputy Chief Executive, NICE

Authors: Mary Docherty, Sarah Garner, Tarang Sharma, Peter Littlejohns, Bhash Naidoo and Moni Choudhury
Research and Development, NICE

Background

Controlling expenditure while protecting quality of care

- Increasing need to control costs whilst protecting the quality of health care delivered and patient safety
- Health Technology appraisal has been used as a tool to manage the **entry** of new interventions into system
- Interest turning to methods involving identification of **existing** interventions thought to be clinically or cost ineffective
- Concept described by the term '**Disinvestment:**'

'The practice of stopping or restricting the use of low-value healthcare practices to enable resources to be shifted to higher-value care.'

Disinvestment: solution or distraction

- The prospect of saving money by stopping ineffective practices is appealing however opinions are divided:
 - **Proponents believe there is much wastage and opportunities for improvement including cost savings and patient safety outcomes**
 - **Opponents argue clinicians themselves are adept at identifying unsafe or clinically ineffective practice**



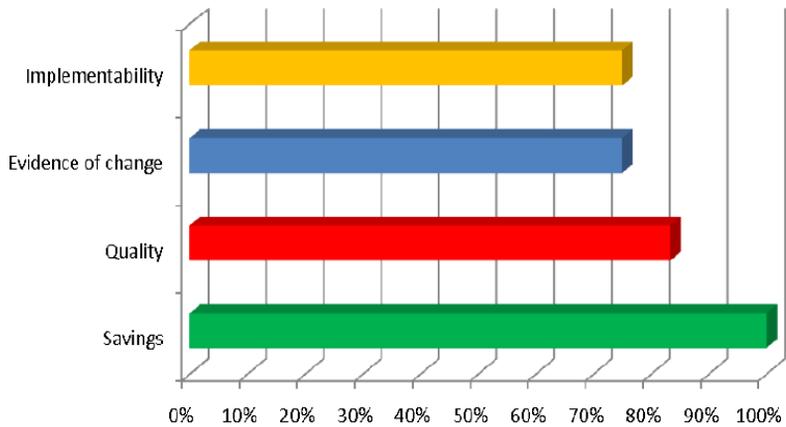
NICE and QIPP

- **NICE** was originally established to ensure consistent access to clinical and cost effective technologies through its **technology appraisal programme**
- Budget impact of introduction of new technologies lay outside its remit
- From 2002 NICE under pressure from UK Health Select Committee to issue disinvestment guidance
- 2009 pressures increased with the Department Health launch of the **Quality, Innovation, Productivity and Prevention (QIPP)** initiative
- **NHS Evidence** designated as national portal for highlighting Quality and Productivity projects.

NHS Evidence QIPP page

Assessing QIPP case studies: 4 domains

Evidence summary



The QIPP challenge and evidence

- In order to identify potential disinvestment candidates a robust **evidence base** is needed
- **Cochrane reviews** provide high-quality assessments of randomised controlled trial evidence supporting healthcare interventions
- Some reviews conclude that an intervention is **unproven** and should be used **only in research**, or is **ineffective or harmful** and should not be used
- Cochrane reviews have added advantage of evaluating interventions that **fall outside of NICE's remit**: e.g. off-label, narrow focus, low budget impact topics which on aggregate may offer **disinvestment savings and patient safety gains**

NICE and Cochrane work together

- NICE and Cochrane produce **gold standard** products for evidence based medicine
- For a pilot project the UK Cochrane Centre sent NICE published **Cochrane systematic reviews** concluding an intervention **could not be recommended**
- NICE summarised reviews and published as 'Cochrane Quality and Productivity' topics on **NHS evidence**
- Topics from **high-quality reviews** were used to highlight **disinvestment suggestions for local exploration and implementation.**



The Cochrane Collaboration
Working together to provide the best evidence for health care

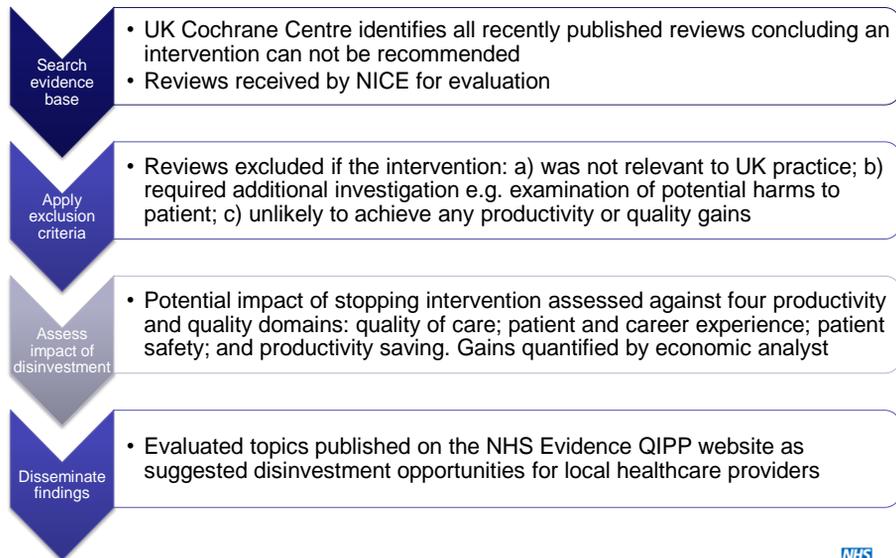
Methods

- Over five months newly published Cochrane reviews concluding that an intervention could not be recommended were assessed by NICE against four domains:
 - **Quality of care**
 - **Patient and carer experience**
 - **Patient safety**
 - **Productivity savings.**

Reviews were excluded if the intervention:

- **Was not relevant to UK practice**
- **Required additional investigation**
- **Was unlikely to achieve gains in any domains.**

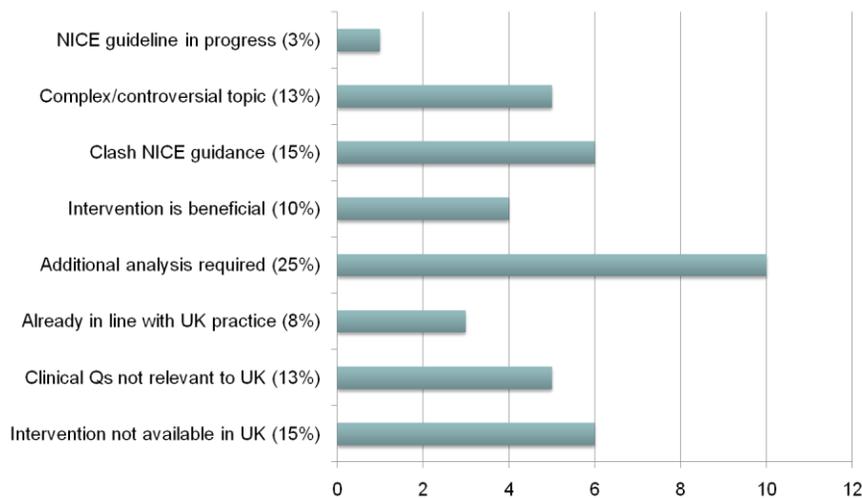
The process: from Cochrane to QIPP



Results

- 65 reviews were appraised over 5 months
- 43% highlighted candidate interventions for local disinvestment
- 57% of reviews were rejected
- 36 Cochrane Quality Improvement topics have now been published on the NHS website suggesting potential candidates for local disinvestment.
- <http://www.evidence.nhs.uk/qipp>

Reasons for rejecting reviews



Additional analysis required

Withdrawal of an intervention based on **insufficient evidence** rather than **positive evidence** of harm or inefficacy led to **specific patient safety concerns**

Reason for exclusion	Number	Examples
Additional analysis: for example non-RCT data or safety data would be required before a disinvestment conclusion could be confirmed.	10 4 of 10 specific patient safety concern	<ul style="list-style-type: none"> • Teicoplanin versus vancomycin for proven or suspected infection • Physical methods for preventing DVT in stroke • Minimally invasive surgery versus open surgery for the treatment of solid abdominal and thoracic neoplasms in children • Anticoagulant therapy for deep vein thrombosis (DVT) in pregnancy

Some significant savings

- Most could not be quantified, but two suggested significant savings:
 - **Stopping the use of Minocycline for the treatment of acne suggested £2 million savings**
 - **Limiting the use of Long-acting insulin analogues and substituting NPH insulin (human isophane insulin) for type 2 diabetes mellitus suggested £2 million savings**

Minocycline for acne vulgaris: efficacy and safety.

Reducing unnecessary practice: What are Cochrane 'Quality and Productivity' topics?

NICE has developed the Cochrane Quality and Productivity (QP) topics to help the NHS identify practices which could be significantly reduced or stopped completely, releasing cash and/or resources without negatively affecting the quality of NHS care.

Each Cochrane QP topic has been derived from a systematic review undertaken by reviewers from the Cochrane Collaboration. Each month the UK Cochrane Centre notifies NICE about new or updated Cochrane reviews that conclude that:

- the evidence shows that the practice is harmful or ineffective and should not be used
- there is insufficient evidence to support widespread use of the practice, suggesting that it should be used only in a research or audit project.

NICE has assessed this Cochrane QP topic against the QIP criteria and has summarised the topic, supporting evidence, likely ease of implementation, impact on productivity savings (cash and resources) and on the quality of NHS care. The topic has also been mapped onto any existing NICE guidance and other guidance accredited by NHS Evidence.

This NICE assessment has not been informed by evidence of practical implementation. If a Cochrane QP topic has been implemented users are encouraged to submit their experience as a QIP example using the QIP user guide in order to inform other NHS users.

Summary

The 'Implications for practice' section of Cochrane review stated:

'The 27 studies included in this review do not provide any clear and unbiased evidence to support the first-line use of minocycline in the treatment of acne. Although it has been shown to be an effective treatment for moderate acne vulgaris at a dose of 100 mg per day, no study has conclusively shown any important clinical difference between the tetracycline antibiotics or other commonly used therapies. Given that it is 2.3 to 4.8 times more expensive than (oxy)tetracycline in the UK (Drug Tariff Jan 2000) depending on the formulation, the additional cost of minocycline is not justified on the basis of clinical

NICE summary of review conclusions

Minocycline is an effective treatment for moderate acne vulgaris, but this review found no reliable randomised control trial evidence to justify its continued first-line use, especially given the price differential and the concerns that still remain about its safety. Its efficacy relative to other acne therapies could not be reliably determined because of the poor methodological quality of the trials and lack of consistent outcome measures. Similarly the relative risk of adverse drug reactions could not be ascertained reliably and no recommendations can be made concerning the appropriate dose that should be used. It is hoped that this review will highlight the inadequacy of acne trials in general and encourage improvements in methodological quality and standards of reporting.

NICE comment

Stopping the use of minocycline as the first-line systemic antibiotic for management of acne vulgaris, outside of well designed clinical trials, is likely to improve the quality of patient care and savings of approximately £2.2m may be generated by replacing its use with a safe, effective and less costly alternative.

Potential productivity savings

Estimate of current NHS usage	An estimated 1.2 million people in England currently seek medical advice for acne. Prescribing data from 2008 show just over 260,000 prescriptions issued for minocycline.
Level of productivity savings anticipated	Using the October 2010 BNF prices (which exclude VAT), the estimated savings of substituting minocycline for an alternative tetracycline is approximately £2.2 million
Type of saving	The savings are likely to be cash-releasing efficiency savings
Any costs required to achieve the savings	There is not likely to be a cost barrier to change
Other information	The savings are likely to impact on community prescribing

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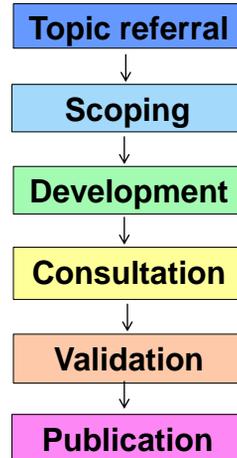
Overview of results

- Many interventions were **no longer in use** following successful implementation of NICE guidelines
- Quantification of potential productivity savings was difficult due to limited NHS usage and cost data. More **resource-intensive analysis** is needed
- The process was **resource-intensive** – approximately 40 man-hours and a cost of £1500 per topic
- Most had insufficient evidence for their efficacy making a **disinvestment recommendation inappropriate and occasionally potentially harmful** in the absence of a robust national decision-making process
- To achieve **real productivity savings, people, structures and values** need to be assessed as well as **marginal clinical activity**

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Implications for guideline developers

- This suggests **alternative disinvestment strategies may be needed to achieve productivity savings requiring** infrastructure, resources and robust national processes.
- **Encouraging guideline developers to identify inappropriate practices as opportunities for disinvestment** is likely to be more productive than relying on systematic reviews alone.



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Acknowledgements & contacts

Links:

Cochrane QIPP, NHS Evidence

http://www.evidence.nhs.uk/search?fs=qippcat.Category_CochraneQIPP

Research and Development, Clinical and Public Health Directorate:

<http://www.nice.org.uk/aboutnice/howwework/researchanddevelopment/about.jsp>

Authors:

- Dr Mary Docherty, Clinical Advisor
- Dr Sarah Garner, Associate Director
- Ms Tarang Sharma, Senior Analyst
- Professor Peter Littlejohns, Executive Director
- Dr Bhash Naidoo, Associate Director
- Miss Moni Choudhury, Analyst

Contact:

- Tarang Sharma, Tel: +44 (0) 161 219 3876;
- Email: Tarang.Sharma@nice.org.uk

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