NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE

Centre for Clinical Practice

Review of Clinical Guideline (CG76) - Medicines adherence: Involving patients in decisions about prescribed medicines and supporting adherence

Background information

Guideline issue date: 2009

2 year review: 2011

National Collaborating Centre: Primary care

Review recommendation

- The guideline should not be updated at this time.

Factors influencing the decision

Literature search

1. From initial intelligence gathering and a high-level randomised control trial (RCT) search clinical areas were identified. Through this stage of the process 7 studies were identified relevant to the guideline scope. The identified studies were related to the following clinical areas within the guideline:
    - Correlation between increasing adherence and clinical benefit
    - Main causes of non-adherence
    - Interventions effective in increasing adherence

No new evidence was identified which would change or invalidate current guideline recommendations.

2. No evidence was identified which directly answered the research recommendations presented in the original guideline.

3. Two ongoing clinical trials (publication dates unknown) were identified focusing on a new method (MD. 2) of monitoring medicine adherence and comparing tele-monitoring versus usual care.

Guideline Development Group and National Collaborating Centre perspective

4. A questionnaire was distributed to GDG members and the National Collaborating Centre to consult them on the need for an update of the guideline. Five responses were received with respondents highlighting that since publication of the guideline no literature has become available.

5. Ongoing research was cited by GDG members including:

    - Crockett et al, (2011) Impact on decisions to start or continue medicines of providing information to patients about possible benefits and/or harms: A systematic review and meta-analysis.
    - Another review which is in the process of being updated is O'Connor et al, (2009) Decision aids for people facing health treatment or screening decisions. *Cochrane Database of Systematic Reviews*.

6. All respondents agreed that there was insufficient new evidence to update the guideline.

Implementation and post publication feedback

7. In total 38 enquiries were received from post-publication feedback, most of which were routine. Most queries were related to

implementation and audit of the guideline, or concerns about information in the guideline about legal liability.

8. No new evidence was identified through post publication enquiries or implementation feedback that would indicate a need to update the guideline.

Relationship to other NICE guidance

9. There is no specific NICE guidance related to this topic.

Summary of Stakeholder Feedback

Review proposal put to consultees:
The guideline should not be updated at this time.
The guideline will be reviewed again according to current processes.

10. In total seventeen stakeholders commented on the review proposal recommendation during the 2 week consultation period.

11. Eleven stakeholders agreed with the review proposal recommendation that this guideline should not be updated at this time.

12. Those stakeholders that disagreed with the review proposal commented that:

    - There are interventions effective in increasing adherence. References were made to studies in patients with diabetes and congestive heart failure using tele-monitoring to improve adherence, as well as studies using simplification of the dosing regimen to increase medicine adherence from patients who underwent liver transplantation. However, as the aim of the guideline is to provide guidance for all healthcare professionals on how to improve adherence across all long-term conditions overall, the scope of the guideline does not make reference to specific conditions. Hence,

data and evidence from specific conditions were excluded by the original guideline developer and the guideline development group during the development of this guideline, as well as in this particular review for update.

- The use of electronic medicine monitoring should be included in the guideline as methods of monitoring adherence. However, there was no evidence identified during the high level RCT search and no evidence was submitted by stakeholders.

13. During consultation, additional areas to consider for future review included:
    - The signposting of resources relating to evidence of the benefit of using coaching tools, such as goal setting and action planning.
    - New medicines behaviours in patients' routines to support adherence.

14. During consultation, stakeholders suggested a new area to consider that was not included in the original scope, which was guidance for young people especially young people with cancer who require support for medicine adherence.

15. Individual stakeholder comments can be viewed in Appendix 1.

Anti-discrimination and equalities considerations

16. No evidence was identified to indicate that the guideline scope does not comply with anti-discrimination and equalities legislation. The original scope contains recommendations for medicine adherence for all adults. The scope also stated that the guideline recommendations may be considered for anyone younger than 16 years who is deemed competent to express a view on their prescription.

Conclusion

Through the process no additional areas were identified which were not covered in the original guideline scope or would indicate a significant

change in clinical practice. There are no factors described above which would invalidate or change the direction of current guideline recommendations.

17. The guideline should not be considered for an update at this time.

Relationship to quality standards

18. This topic is not currently being considered for a quality standard.

19. This topic is currently being considered as one of the proposed library of NICE Quality Standard NHS healthcare topics

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Centre for Clinical Practice
September 2011

Appendix 1

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CG76 Medicines Adherence - review proposal consultation comments table

18-31 July 2011

Stakeholder	Agree with proposal not to update?	Comments	Comments on areas excluded from original scope	Comments on equality issues	Reply to comments
Napp Pharmaceuticals Ltd	Agree with the proposal not to update at this time	Thank you for the opportunity to review the consultation document. At this stage Napp agrees with the proposal that the guideline should not be reviewed.			Thank you very much for your comment.
Merck Serono	Disagree with proposal not to update	**Clinical area 3: Interventions effective in increasing adherence** Merck Serono disagree with the guideline conclusion (NCCPC document p.13): "because evidence supporting interventions to increase adherence is inconclusive". A CADTH guideline ("Overview of home telehealth for chronic disease management"			Thank you very much for your comment. However, the guideline excluded evidence from specific disease areas because the aim of the guideline is to provide guidance for all healthcare

Stakeholder	Agree with proposal not to update?	Comments	Comments on areas excluded from original scope	Comments on equality issues	Reply to comments
		December 2008) concludes from systematic review and meta-analysis in diabetes that home telemonitoring was found to provide better glycemic control (lower HBA1c) in patients with diabetes than usual care. The CADTH states that “home telemonitoring seems to reduce re-hospitalization and BDOC but results in a higher use of primary care and specialist clinics compared with usual care.” CADTH reports similar findings in the management of congestive heart failure. Merck Serono fully supports the Canadian guideline conclusions and suggests that this section clinical area 3 should be updated considering all types of evidences.			professionals on how to improve adherence across all long-term conditions overall. Therefore the scope of the guideline does not make reference to specific conditions, and data from specific conditions was excluded by the guideline developer during the development of this guideline, as well as this particular review for update.

Stakeholder	Agree with proposal not to update?	Comments	Comments on areas excluded from original scope	Comments on equality issues	Reply to comments
		Merck Serono believes that real-world data should be considered in order to fully assess interventions effective in increasing adherence.			
Merck Serono	Disagree with proposal not to update		**Assessing adherence** We understand that there is two methods in assessing adherence: • Direct: blood, urine or bodily fluids examine for the presence of the medicine or a metabolite • Indirect: self-report, pill counts, prescription reordering, electronic medicine monitoring. However, we disagree that electronic medicine monitoring are considered as per indirect methods		Thank you very much for your comment. The current recommendations on assessment of adherence do not include undertaking any biochemical tests. The recommendations state the following: 1.2.1 Recognise that non adherence is common and that most patients are non adherent sometimes.

Stakeholder	Agree with proposal not to update?	Comments	Comments on areas excluded from original scope	Comments on equality issues	Reply to comments
			when some electronic injection devices are able to accurately (up to the micro liter) and specifically measure adherence to treatment without further intervention. Therefore we are proposing that the described methods should be outline like below: • Direct: ○ Non invasive: urine, and electronic medicine monitoring ○ Invasive: blood, bodily fluids examine for the presence of the medicine or a metabolite (excluding urine) • Indirect: self-report,		Routinely assess adherence in a non judgemental way whenever you prescribe, dispense and review medicines. 1.2.2 Consider assessing non adherence by asking the patient if they have missed any doses of medicine recently. Make it easier for them to report non adherence by: • asking the question in a way that does not apportion blame • explaining why you are asking the question • mentioning a specific time

Stakeholder	Agree with proposal not to update?	Comments	Comments on areas excluded from original scope	Comments on equality issues	Reply to comments
			pill counts, prescription reordering, electronic medicine monitoring. We believe that autoinjectors incorporating a reminder function can help patients overcome problems with self-injection and manage unintentional non adherence, and subsequently improve treatment adherence. Merck Serono believes that where possible, objective measurement of adherence should be employed.		period such as 'in the past week' • asking about medicine-taking behaviours such as reducing the dose, stopping and starting medicines. 1.2.3 Consider using records of prescription re ordering, pharmacy patient medication records and return of unused medicines to identify potential non adherence and patients needing additional support.
Merck Serono	Disagree with proposal not to update		**Supporting adherence (1.2)** Merck Serono believes that assessing non-adherence could be easier		Thank you very much for your comment. This information will be passed on to the

Stakeholder	Agree with proposal not to update?	Comments	Comments on areas excluded from original scope	Comments on equality issues	Reply to comments
			using electronic devices. In the current NICE guideline, non-adherence is estimated by asking question to patients. We believe that the use of electronic device measuring non-adherence should provide an opportunity to healthcare professionals to stop escalating to more expensive and potentially less safe medicine.		guideline developers for consideration during a future update of the guideline.
Merck Serono	Disagree with proposal not to update		**Communication between healthcare professionals.** We believe that healthcare professionals involved in reviewing medicines should be informed by "real world" adherence and objective measurement of treatment adherence without being confronted with difficult discussion or		Thank you very much for your comment. This information will be passed on to the guideline developers for consideration during a future update of the guideline.

Stakeholder	Agree with proposal not to update?	Comments	Comments on areas excluded from original scope	Comments on equality issues	Reply to comments
			situation with self-reported adherence by patients (to understand treatment adherence in “real world”).		
AstraZeneca		AstraZeneca would like to thank NICE for the opportunity to comment on the consultation document for CG76 - medicines adherence			
AstraZeneca	A partial update may be appropriate	**Q: How common is non-adherence? What is the correlation between increasing adherence and clinical benefit?** The consequences of non adherence can be particularly devastating for those with specific conditions such as long term conditions and serious mental illness. In relation to this clinical question AstraZeneca would consider there to be new			Thank you very much for your comment. The evidence being referred to is specifically for certain classes of drugs and specific patients with schizophrenia and not generic across patient groups as per the protocol in the guideline. But, this information will be passed on to

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		clinical data /clinical guidelines since the last review, which should be considered. <u>Non-steroidal anti-inflammatory drugs (NSAID)</u> A large, population-based, multidatabase study demonstrated that, during non-selective NSAID use, non-adherence to Gastro-protective agents (GPA) was associated with a 2.4-fold increased risk of upper gastrointestinal (UGI) bleeding and ulcers and a 1.9-fold increased risk of UGI bleeding alone. With every 10% decrease in GPA adherence, the risk increased by 9% for UGI bleeding and ulcers and 6% for UGI bleeding alone. *Gut doi:10.1136/gut.2011.239848* <u>Serious Mental Illness (SMI)</u>			the guideline developers for consideration during the future update of the guideline.

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		The recently published British Association of Psychotherapy (BAP) guidelines (May 2011) for the pharmacological treatment of schizophrenia documents the issues of non adherence for patients with schizophrenia and considers the considerable clinical consequences of non adherence. For patients with schizophrenia non adherence is the most common cause of relapse. *Journal of Psychopharmacology, May 2011; vol. 25, 5: pp. 567-620* The British Journal of Clinical Pharmacy cites that poor adherence has been associated with relapse and poorer patient outcomes and, within the mental health setting, 55-60% of re-admissions have been found to be a result of non-			

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		compliance. British Journal of Clinical Pharmacy Jun 2011:3(6): <u>Combination Inhalers</u> The BTS guidelines *(revised May 2011)* recommend combination inhalers to aid compliance when a long acting β2 agonist is given in combination with an inhaled steroid. Combination inhalers are recommended to: • guarantee that the long-acting β2 agonist is not taken without inhaled steroid • improve inhaler adherence.			
TYAC (Teenagers and young adults with cancer)	Agree to update	TYAC as an organisation would support actions that encourage greater adherence with regards medication. The organisation is concerned with young people that have a	Could not establish the age range of those surveyed in the CALD group, suggestive of older adults.		Thank you very much for your comment. However, stated in the scope is that the guideline

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		cancer diagnosis and the issue of adherence is sometimes relevant to this group. We believe that young people should be linked with specialist services that are age appropriate, and that through these services young people will be encouraged and supported to adhere to treatment regimes which is obviously vital in relation to cancer treatment protocols.			recommendations may be considered for anyone younger than 16 years who is deemed competent to express a view on their prescription.
RCN	Agree	The Royal College of Nursing agrees with the proposal that the guideline should not be updated at this time. We note the proposal that the guideline will be reviewed again according to current processes. There are no further comments to add at this stage			Thank you very much for your comment.
Department		No comment			Thank you very

Stakeholder	Agree with proposal not to update?	Comments	Comments on areas excluded from original scope	Comments on equality issues	Reply to comments
of Health					much for your comment.
Nottinghamshire Healthcare NHS Trust	Agree		the impact in terms of environmental sustainability should be considered. 60 % of NHA carbon footprint is procurement and about 20% of that is drugs and often no adherence is linked to medication lying around unused.		Thank you very much for your comment.
CNWL (Central and and North West London NHS Foundation Trust)	Agree with proposal to not update	We agree that there is insufficient new evidence to warrant a review of the guideline			Thank you very much for your comment.
Royal College of Psychiatrists		This is an excellent document, balanced, thorough and encompasses all the current thinking in adherence.			Thank you very much for your comment.
Royal College of		I would recommend that EVERYONE reads the exec			Thank you very much for your

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Psychiatrists		summary, which highlights the important steps to improve adherence.			comment.
Royal College of Psychiatrists		The challenge will be making it work in practice and in my opinion this needs to be done in teams rather than by individuals.			Thank you very much for your comment.
Astellas Pharma Ltd	Disagree with proposal not to update	Astellas are aware of published data in the area of transplantation linking increased adherence with simplification of the dosing regimen from twice daily to once daily, that has been published since the previous Clinical Guideline was published. Reference: Beckebaum S, Iacob S, Sweid D et al. Efficacy, safety, and immunosuppressant adherence in stable liver	None		Thank you very much for your comment. The aim of the guideline is to provide guidance for all healthcare professionals on how to improve adherence across all long-term conditions overall. Therefore the scope of the guideline does not make reference to

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		transplant patients converted from a twice-daily tacrolimus-based regimen to once-daily tacrolimus extended release formulation. Transplant International 2011; 24 (7): 666-675			specific conditions, and data from specific conditions was excluded by the guideline developer during the development of this guideline, as well as this particular review for update.
Bristol-Myers Squibb	We agree with the proposal to update the guideline	No further comments			Thank you very much for your comment.
Royal Pharmaceutical Society		The RPS endorses the UKCPA response, which highlights several key areas that should be addressed in any update of the current guidance.			Thank you very much for your comment. This information will be passed on to the guideline developers for consideration during the future update of the

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					guideline.
Royal Pharmaceutical Society		The RPS requests that any update of the guidance should include a pharmacist on the development group, as pharmacists are key healthcare professionals influential in supporting patients to manage their medicines.			Thank you very much for your comment. This information will be passed on to the guideline developers for consideration during the future update of the guideline.
Royal Pharmaceutical Society		We request that any updates of the guidance take into consideration the changes in the new medicines service for community pharmacists, due to be implemented in October 2011. The new service will have a greater focus for community pharmacists around supporting medicines adherence and improving patient outcomes.			Thank you very much for your comment. This information will be passed on to the guideline developers for consideration during the future update of the guideline.
UKCPA		We would strongly encourage	UKCPA		Thank you very

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		the update to include a summary of evidence-based interventions focussed on communication styles which support/enhance medicines adherence. It would be useful for pharmacy practitioners to know what skills they need to communicate effectively. Perhaps they could be directed to resources that describe how they can provide information to support patients and then work with patients to create action-focussed ways of implementing their plans, such as how and when patients will implement changes and how they will monitor what they have done. Pharmacists can then follow up the patients and support them to follow their action plan. Patients' "ownership" of adherence is fundamental.			much for your comment. This is already covered within the recommendations of the guideline..

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UKCPA		It would be useful for the guidance to describe and signpost to resources relating to evidence of the benefit of using coaching tools, such as goal setting and action planning, including new medicines behaviours in patients' routines to support adherence. Techniques from motivational interviewing, such as discussing benefits and concerns and use of the decisional balance, have also been found to be effective.			Thank you very much for your comment. This information will be passed on to the guideline developers for consideration during the future update of the guideline.
UKCPA		The guidance should include reference to the need for healthcare practitioners to consider (discretely and sympathetically) the literacy of the patient and hence their ability to read the medicine label. There are often low literacy levels in prisons and in the travelling community. Many			Thank you very much for your comment. This is already covered in the recommendations within the guideline.

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		people (especially adults) are embarrassed to admit that they cannot read. The use of pictogram labels has been hugely effective but there is still a need for a pharmacist to see the patient regularly so that they can check that they really do understand their medication regime.			
UKCPA		The current guidelines lack emphasis and detail on how to identify adherence and non-adherence. In order to be able to address non-adherence one must identify the reasons behind it. There are many adherence assessment tools that are very useful to use in practice, but may have different focuses: with some focussing on tendencies towards non-adherence, some on actual non-adherence and some looking at barriers to			Thank you very much for your comment. This is already covered in the guideline.

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		adherence. Practical tools should be identified that can be used assess these areas. The guidance should also offer solutions and examples to address the barriers to adherence.			
RCPCH	Yes	It is a fairly straightforward guideline.			Thank you very much for your comment.
RCPCH	Yes	Not aware of any significant new evidence. This guideline does not address issues specific to medicines adherence in children and adolescents (see above), but this does not necessarily justify updating it currently.	Although this guideline provides appropriate general information about medicines adherence, when it is revised consideration should be given to mentioning the difficulty with medicine adherence in children due to a lack of formulations relevant to this age group for some medicines. Reduced adherence in adolescents who are striving to become		Thank you very much for your comment. However, stated in the scope is that the guideline recommendations may be considered for anyone younger than 16 years who is deemed competent to express a view on their prescription.

Stakeholder	Agree with proposal not to update?	Comments	Comments on areas excluded from original scope	Comments on equality issues	Reply to comments
			autonomous could also be acknowledged.		
RCPCH	Yes	No significant new evidence appears to have emerged that would lead to a change in the guideline.			Thank you very much for your comment.
RCPCH	Yes	No new evidence.	The guidance states page 27, "Groups that will not be covered Children and young people. However, the guideline recommendations may be considered for a child or young person who is deemed competent to express a view on their prescription." Comments: 1. Perhaps this guideline should be renamed "Medicine adherence in adults". 2. Children and adolescents should be considered separately		Thank you very much for your comment. This information will be passed on to the guideline developers for consideration during the future update of the guideline.

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			even if they are "deemed competent to express a view on their prescription." as the influences on these individuals will be very different from adults.		
RCPCH	Yes	There doesn't appear to be any new literature.	It doesn't look at a population of adolescents, a group where their initial control of medication may be by the parent/guardian and then as they get older they will have to take on the responsibility. How this new responsibility alongside other major changes occurring in their lives will have an impact on their adherence is not really looked at but not sure if the guidance has scope to look at specific populations.		Thank you very much for your comment. This information will be passed on to the guideline developers for consideration during the future update of the guideline.
RCPCH	Yes	It will be more practical if the guidelines say "Medication adherence in teenagers".			

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		There should be a separate section on teenagers. Non-compliance is a big issue in teenagers (11 years onwards).			
RCPCH	Yes	Not aware of any other material which would justify changing the guidance.			Thank you very much for your comment.
RCPCH	Yes	We do not know of any other work.			Thank you very much for your comment.
RCPCH	Yes	We would agree that there is no new evidence published which would require an update to the guideline.			Thank you very much for your comment.
RCPCH	Yes	We are unaware of new information.			Thank you very much for your comment.
RCPCH	Yes	There are some small studies but we haven't seen anything that is robust in terms of changing the current guidance yet.			Thank you very much for your comment.
Original GDG member	Agree	The guideline reads as a cogent and reasonable synthesis of evidence as it currently stands. The	Original exclusions remain reasonable		Thank you very much for your comment.

Stakeholder	Agree with proposal not to update?	Comments	Comments on areas excluded from original scope	Comments on equality issues	Reply to comments
		presentation is clear and practical			
NHS Direct	Agree do not need to update		Interventions: Include telemonitoring using devices and telephone follow up – Any value ? Review of medicines: Community pharmacists are going to be offering a "new medicines service" and targeted MURS from October 2011 targeting particular disease areas and high risk medicines. What is the evidence that this is effective in terms of cost and patient outcome ? An evaluation is being commissioned by DH		Thank you very much for your comment. We will consider this at the next review.
Hafal	AGREE	Agree that there is no new evidence to invalidate current guideline recommendations.	None		Thank you very much for your comment.