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**Specific Question: Are text messages more cost-effective than telephone reminders in improving outpatient consultation attendance rates?**

### **Clinical bottom line**

There is moderate quality evidence that text messages are more cost-effective than telephone calls in improving consultation attendance. Clinically, text reminders could be used as the most cost effective way to reduce non-attendance rates.

### **Why is this important?**

Locally and nationally non-attendance to clinical appointments comes at a substantial cost to the NHS. Anecdotally, one of the most common reasons for non-attendance is that the patient simply forgets about the appointment. There is variation nationally and internationally around the type of reminders used such as postal messages, calls to land lines or mobile phones and mobile text messaging.

To improve attendance in local Physiotherapy services, consideration was being given to the use of telephone or text message reminders. Clinicians and managers alike were interested in the cost-effectiveness of both these methods.

### **Search timeframe (e.g. 2006-2016)**

### **Inclusion Criteria**

	Description	Search terms (In the final document this should be a combination of your clinical and librarian search terms)
<b>Population and Setting</b>	Adults attending outpatient consultations in community care/outpatient setting	Adults Primary Care Primary Health Care Community Physiotherapy Musculoskeletal Outpatient clinics Outpatient appointments
<b>Intervention or Exposure</b>	Text message reminders	Text messaging Text message* SMS message* MMS message Text*

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Getting Evidence into Clinical Practice:  
Musculoskeletal Research Facilitation Group (CAT Group)  
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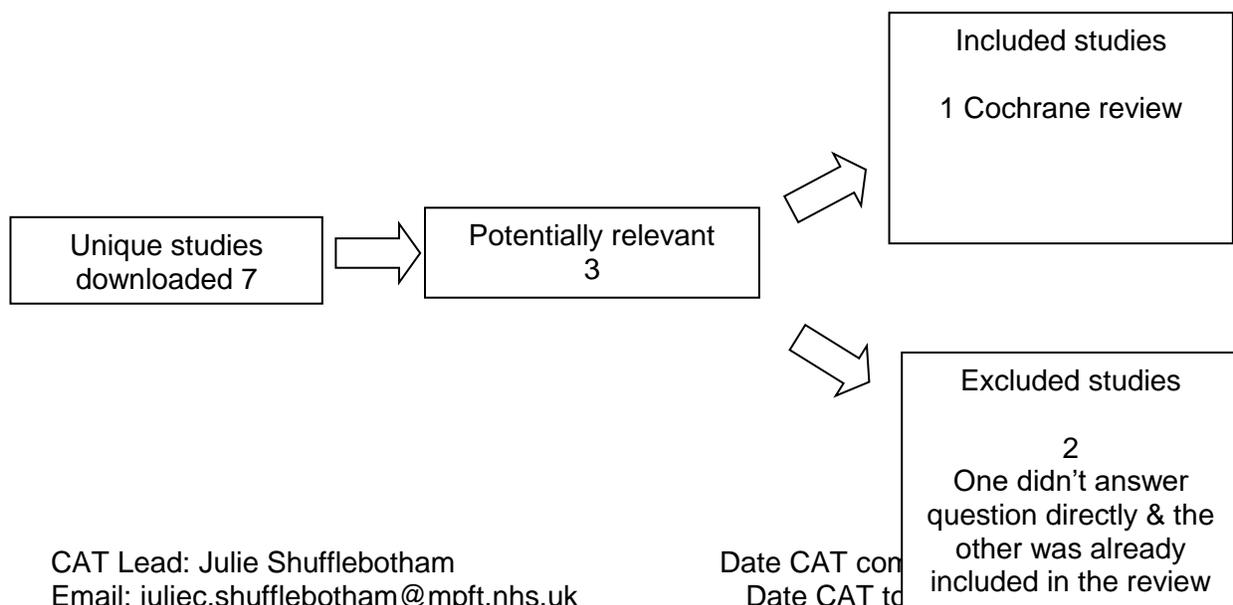
		Electronic notification Text messages reminders
<b>Comparison, if any</b>	Telephone reminders	Telephone Phone
<b>Outcomes of interest</b>	Attendance, cost effectiveness	Patient attendance Attendance Non attendance No show patients Attendance rates DNA rates Program cost effectiveness Cost effectiveness Cost effect*
<b>Types of studies</b>		Randomised controlled trials Systematic reviews

**Routine Databases Searched**

Clinical Knowledge Summaries, PEDro, BMJ Updates, Clinical Evidence, TRIP, Database, NICE, HTA, Bandolier, The Cochrane Library, Medline, Cinahl, Embase, PsycInfo, Professional websites. Joanna Briggs Institute, Web of science, Sports discus and Pub med

**Date of search- 2009 to 2019**

**Results of the search**



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Table 1- Detail of included studies

First Author, year and type of study	Population and setting	Intervention or exposure tested	Study results	Assessment of quality and comments
<p>Guroi-Urganci 2013 Cochrane systematic review</p>	<p>6615 patients attending healthcare appointments</p> <p>Studies from Australia, Africa, Europe and Asia</p> <p>All care settings (primary, secondary, community and outpatient settings)</p> <p>Eight RCT's were included in review</p>	<p>Primary objective was to assess the effects of mobile phone messaging reminders for attendance at healthcare appointments</p> <p>Secondary objectives include the assessments of costs</p>	<p>Two studies reported that mobile text message reminders are more cost effective than phone calls</p> <p>There is moderate evidence from seven studies that mobile text messaging improved the rate of attendance compared to no reminders</p> <p>There is also moderate evidence from three studies that mobile text message had similar impact to phone call reminders</p>	<p>The two reviewers asked a clearly focussed question and updated a previous Cochrane review</p> <p>Broad literature search including trial registers and article reference lists</p> <p>The reviewers are unclear about the selective reporting of bias in seven studies, but most studies had random sequence generation, allocation concealment and blinding</p> <p>The results of the review are combined, this is reasonable, the studies all had similar results</p>

## Summary

Two large randomised controlled trials in the Cochrane review reported in their cost effectiveness analysis that text message reminders are more cost-effective than phone call reminders. Chen (2008) recruited 1859 clients attending a health promotion centre at the University in China and Leong (2006) analysed data from 993 patients attending seven primary care centres in Malaysia.

## Implications for Practice/research

There is evidence that in outpatient settings a text message reminder is more cost-effective than a phone call. Clinically the most cost-effective way to reduce non-attendance is to send text message reminders, this could have strategic implications for service managers.

## What would you tweet? (140 characters)

Text messaging reminders are a cost effective way of reminding patients of their appointment date and time and reducing DNAs. This could have a substantial cost saving for the NHS #save our NHS @NHS

## References

Chen ZW, Fang LZ, Chen LY, Dai HL. Comparison of an SMS text messaging and phone reminder to improve attendance at a health promotion center: A randomized controlled trial. *Journal of Zhejiang University: Science B* 2008;9(1):34-8.

Leong KC, Chen WS, Leong KW, Mastura I, Mimi O, Sheikh MA, et al. The use of text messaging to improve attendance in primary care: a randomized controlled trial. *Family Practice* 2006;23(6):699-705.

Liew, S.M., Tong, S.F., Lee, V.K.M., Ng, C.J., Leong, K.C. and Teng, C.L. (2009). Text messaging reminders reduce non-attendance in chronic disease follow up: a clinical trial. *British Journal of General Practice*, Dec 1:59 (569): 916-920

GuroI-Urganci, I., de Jongh, T., Vodopivec-Jamsek, V., Atun, R and Car, J. (2013). Mobile phone messaging reminders for attendance at healthcare appointments. *Cochrane Database of Systematic Reviews*