

## Patient-initiated appointment systems for adults with chronic conditions in secondary care: a Cochrane systematic review

Briefing Paper

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**P**atient-initiated appointment systems enable patients to make appointments at times when they feel they cannot manage their condition or where something has unexpectedly changed. This system does not completely replace the need for scheduled follow-up appointments, but the new system could reduce the number of those appointments allowing flexibility in the system to deal with new diagnoses as they emerge and quicker access to care when needed. Patient-initiated appointment systems often provide patients with an initial point of contact through a hotline which enables them to speak to a specialist nurse who can give them advice on their condition or arrange for an appointment with the consultant (which usually happens within a week). It is thought that as well as a more flexible service, patient-initiated appointment systems may lead to a reduction in the number of missed appointments and improve the overall experience of outpatient care for patients.



**This is a summary of a Cochrane systematic review that used robust methods to identify, appraise and bring together all the available information on the use of patient-initiated appointment systems for people with chronic conditions.**

We wanted to find out if patient-initiated appointments (appointments requested by the patient) for people with chronic and recurrent conditions is a better way of managing care in hospital outpatient settings than standard appointments scheduled by the consultant.

Specifically, we are interested in:

- whether these appointment systems can effectively manage disease without causing harm to patients and
- whether contact with health services or health service costs related to the provision of the patient-initiated system can be reduced compared with the consultant-led system.

## How did we do it?

**Finding the literature:** We searched 14 research databases, the references of included studies, relevant reviews and websites.

**Eligibility criteria:** We included randomised controlled trials (RCTs) that compared the use of patient-initiated appointment systems (PIAS) with consultant-led appointment systems. Studies were included if they were conducted in adults (over 18 years) diagnosed with a chronic or recurrent condition, and that reported on one of the following outcomes: Patient related outcomes, such as psychological or health/disease status; service utilisation in terms of

contact with the healthcare system including missed appointments; service utilisation in terms of costs; adverse events; patient satisfaction; clinician (consultant or specialist nurse) satisfaction; or failures of the 'system' were included.

**Study selection, data extraction, study quality and synthesis:** In line with best practice, all stages were completed independently by two reviewers. Where possible outcomes were brought together quantitatively using meta analysis methods, where this was not possible the outcomes were presented in tables and described narratively.

## Where was the evidence from?

17 studies were included in the review. Nine studies were from the UK, three were from Sweden, three from Denmark, one from Finland and one from the Netherlands. Studies included people with cancer, rheumatoid arthritis, inflammatory bowel disease, psoriasis, asthma and chronic obstructive pulmonary disease.

The quality of the evidence was restricted by the risk of bias associated with not being able to blind participants from the intervention and by using self-report measures for some outcomes. The certainty of the evidence is rated moderate to very low which means we cannot be certain



that the results are an accurate reflection of the performance of PIAS in comparison to usual care (consultant-led appointment systems).

## What did we learn?

### **Can patient-initiated appointment systems effectively manage disease without causing harm to patients ?**

The evidence in this review suggests there may be no difference in the anxiety, depression and quality of life experienced by people using the patient-initiated system compared to the consultant-led system.

Other aspects of disease status such as disability, pain, disease activity and other condition specific symptoms also show little to no difference between the people using the two appointment systems.

## What did we learn?

### Can patient-initiated appointment systems reduce contact with health services or health service costs in comparison with the consultant-led system?

The evidence in this review suggests there may be no difference in the number of contacts with health services between the two systems however it is possible that **who** is being contacted (e.g. GP, nurse, consultant) and **how** (face-face, or telephone) does change.

The evidence in this review is unclear about the difference in costs to the health care system between the patient-initiated and the consultant-led system. Although the raw figures suggest that in most studies the patient-initiated system costs less there is uncertainty around this data primarily due to the variability in reporting and the risk of bias.

Only one study reported on the costs to patients, this study found a significant reduction in the cost to those using the patient-initiated system.

Two studies reported on the impact on missed appointments both of which suggested missed appointments may be reduced in the patient-initiated system.

The findings of the review also suggest there may be little or no impact on the number of adverse events (e.g. relapses) between the two systems and that there may be little or no difference in the level of patient satisfaction experienced by people using either of the two appointment systems.

## What does this mean for outpatient services today?

The results of this systematic review of the evidence around patient-initiated appointment systems broadly suggest that there *may* be no harm to patients in using this alternative system of outpatient care. However, care will need to be taken to consider those patients who may truly benefit from the patient-initiated system and those for whom the system would not work, in particular taking into account the condition being monitored and the characteristics of the patient. Including a safety-net procedure may help to identify those for whom the service is not suitable.

Understanding the true impact of a patient-initiated appointment system (or any change in appointment systems) requires understanding the full impact on patients and their health service. Important areas to monitor are measures of disease status, quality of life, patient (and clinician) satisfaction, patient safety (such as number of relapses and time from relapse to treatment), missed appointments, contacts with health service professionals, and costs of care both to the patient and to the health service.

## What does this mean for research in this area?

Further research in this area would benefit from larger trials with longer periods of follow up to more fully understand the impact on patients and their outpatient care service. Research would also benefit from more standard measurements of commonly reported outcomes and a consistent set of service and cost related outcomes so that research can be more easily compared across conditions and settings.

It would be beneficial if future research could explore whether particular aspects of the patient-initiated system are associated with effectiveness such as the role of the general practitioner (GP), use of extra educational material or care management plans, and the content of the initial consultation. Future research might also consider variation in benefits according to particular population characteristics such as rurality, disability, access to transport, gender, age, length of time living with their condition and type of condition. Further knowledge in these area could help ensure a sustainable appointment system that is acceptable to patients and health care staff.

## Want to know more?

You can find the full Cochrane Systematic review in the Cochrane Library: <https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD010763.pub2/full>

Take a look at our blog site to find different perspectives on the use and experience of PIAS: <https://evidsynthteam.wordpress.com/>

You can find a printable version of this briefing paper along with other information and useful links on our website <https://www.arc-swp.nihr.ac.uk/research/systematic-review-of-patient-initiated-clinics-pic-in-secondary-care-for-people-with-chronic-disease> or by scanning the QR code.



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