

# Voice response system useful for monitoring anticoagulant patients

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Interactive voice response systems may help improve monitoring of patients taking anticoagulants such as warfarin while reducing the workload of clinical staff, found a study by Ottawa researchers in [CMAJ](#).

Oral anticoagulants are prescribed to approximately 5% of seniors and require diligent monitoring to avoid serious adverse events such as blood clots, hemorrhages and death. Monitoring warfarin use is labour intensive and challenging for both patients and medical staff.

The study, the first to use this interactive voice system, looked at an intervention where 226 patients were given medication instructions without direct human contact. Patients in the study group had stable anticoagulation control, spoke English, did not have hearing problems and 80% had been taking warfarin for more than 1 year. The system communicated information through dosage messages, appointment reminders and missed appointment messages to patients. Healthcare professionals reviewed daily web reports of the interactive voice response calls and contacted patients when dosage messages were unsuccessful.

"The interactive voice response system was effective in communicating complex information as 77.8% of messages were successfully delivered and did not require input from staff," write Dr. Alan Forster and coauthors from the Ottawa Hospital Research Institute and the University of Ottawa. "Importantly, the interactive voice response

system reduced the workload of clinic staff by 33%."

Study limitations were that it included a select group of patients with stable anticoagulation control who are not representative of most community-based patients.

In a related [commentary](#), Dr. Jerry Gurwitz of the University of Massachusetts Medical School writes that as managing warfarin therapy is expensive and labour-intensive, requiring frequent contact with patients to discuss results, provide instructions and schedule tests, "any technology-based intervention that could improve the quality and efficiency of anticoagulation care, while reducing costs, would be extremely attractive." He states that this study lays the foundation for more information-technology based approaches to oral anticoagulant management.

Source: Canadian Medical Association Journal ([news](#) : [web](#))

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