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Can waiting lists for specialist medical clinics be reduced by implementing a structured, evidence-based approach to managing demand that protects appointments for new patients?

Submission date
13/03/2025

Recruitment status
Recruiting

Registration date
17/03/2025

Overall study status
Ongoing

Last Edited
14/03/2025

Condition category
Other

[X] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[_] Results
[_] Individual participant data
[X] Record updated in last year

Plain English summary of protocol

Background and study aims
Patients frequently face excessive waiting times for specialist medical outpatient clinics, negatively impacting timely care and health outcomes. Previous research has demonstrated that the translation of demand-driven strategies comprising the evidence-based Specific Timely Assessment and Triage (STAT) model effectively reduces wait times across multiple clinical settings.
The WaitLESS project will apply STAT strategies to eight clinics at Eastern Health, a large metropolitan health service in the eastern suburbs of Melbourne, Australia. The study will use a stepped wedge cluster randomised controlled trial design, in which the intervention will be introduced sequentially to eight clinics in random order, with a new pair of clinics commencing every 3 months. The researchers will measure the time from referral to first appointment for each new patient seen by the participating clinics as well as the number of people on waiting lists before and after the implementation of the STAT model and analyse differences, to see if waiting times and waiting lists reduce after the STAT model is implemented. Alongside the main study, the researchers will also examine the process of implementing the intervention (by measuring things like the number of appointments scheduled and attended, and the health services people use while waiting for outpatient appointments) and compare the costs of running the clinics before and after the changes are introduced.

Who can participate?
The majority of data collected in this study will be routinely collected healthcare data collected from hospital records, describing waiting times, the number of patients on waiting lists, use of clinic time (type and number of appointments attended) and costs of operating the clinics while using the different systems to manage demand.
Staff working in the clinics will be invited to participate in focus groups to talk about their experience of running the clinic using the existing and then the new model of managing

demand. Patients who attend the clinics during either the pre-implementation or post-implementation periods will also be invited to participate in interviews to talk about their experiences of getting a referral, awaiting an appointment and attending the clinics.

What does the study involve?
In this study the researchers will be implementing the new model of managing demand in eight outpatient clinics. Within each of the clinics, staff will receive training in the new model and will work through a structured process of analysing supply and demand, reducing backlogs through waiting list audits, and reorganising the clinic schedules and model of care to better align supply with demand. Staff participants will receive training and participate in the change process, as well as participate in three focus groups over the 2.5 years of the study. Patients who elect to participate will have a single interview with a project team member of about 30-45 minutes duration.

What are the possible benefits and risks of participating?
For the staff and patients who participate in the qualitative aspects of the study, there will be no risks of participating apart from the minor inconvenience of giving up time to participate in an interview (patients) or focus groups (staff). Insights gained from this qualitative data will help researchers understand the impacts of running outpatient clinics using the STAT model, including the benefits of the changes as well as any unintended consequences. Through this study, the researchers hope to demonstrate how wait lists for specialist medical clinics can be substantially and sustainably reduced at scale, using a practical, cost-effective strategy.

Where is the study run from?
La Trobe University (Australia)

When is the study starting and how long is it expected to run for?
January 2025 to December 2027

Who is funding the study?
National Health and Medical Research Council (Australia)

Who is the main contact?
Prof. Katherine Harding, Katherine.Harding@easternhealth.org.au

Contact information

Type(s)
Public, Scientific, Principal investigator

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Additional identifiers

Clinical Trials Information System (CTIS)
Nil known

ClinicalTrials.gov (NCT)
Nil known

Protocol serial number
E24-020-11382

Study information

Scientific Title
Waiting List Evidence to Support Specialist clinics (WaitLESS): a stepped wedge cluster randomised controlled trial of the Specific Timely Assessment and Triage model of demand management to reduce waiting lists in specialist outpatient medical clinics

Acronym
WaitLESS

Study objectives
Patients referred to specialist medical clinics that use the Specific Timely Assessment and Triage (STAT) approach to manage clinic demand will experience shorter waiting times from referral to first appointment compared to patients referred to clinics that are using a traditional "waitlist and triage" approach.

Ethics approval required
Ethics approval required

Ethics approval(s)
1. approved 09/01/2025, Eastern Health Human Research Ethics Committee (5 Arnold Street, Box Hill, 3128, Australia; +61 (0)3 9895 3398; ethics@easternhealth.org.au), ref: E24-020-11382

2. approved 14/01/2025, La Trobe University Human Research Ethics Committee (Plenty Road, Bundoora, 3086, Australia; +61 (0)3 9479 1443; humanethics@latrobe.edu.au), ref: E24-020-11382

Study design
Stepped wedge cluster randomized controlled trial

Primary study design
Interventional

Study type(s)
Other

Health condition(s) or problem(s) studied
Health conditions for which patients are seeking care at one of the following eight medical specialist clinics: general neurology, movement disorders, cardiology, endocrinology, gastroenterology, gynaecology, paediatrics, respiratory

Interventions
Stepped wedge cluster randomized controlled trial with four pairs (n = 8 clinics) of specialty medical outpatient clinics (clusters), with a 6-month pre-intervention period followed by sequential introduction of the STAT model at each pair of clinics at 3 monthly intervals. Post-implementation data collection continues at all sites for 6 months after implementation at the final cluster. The duration of pre- and post-implementation periods for each cluster will vary for each clinic, depending on which step they are randomised to (see Figure 1: Study Design in study outputs table):
Clinics 1 and 2 (step 1): Pre-implementation period 6 months, implementation 6 months, post-implementation 15 months
Clinics 3 and 4 (step 2): Pre-implementation period 9 months, implementation 6 months, post-implementation 12 months
Clinics 5 and 6 (step 3): Pre-implementation period 12 months, implementation 6 months, post-implementation 9 months
Clinics 7 and 8 (step 4): Pre-implementation period 15 months, implementation 6 months, post-implementation 6 months

The intervention being tested is the Specific Timely Assessment and Triage (STAT) model for managing demand in outpatient and community health services. Implementation of STAT involves a five-step process of:
1. Analysis of supply and demand
2. Calculation of capacity required for new patients to keep up with new referrals at the rate of demand
3. A short-term, targeted intervention to address existing backlogs
4. Preservation of capacity within clinic schedules for new appointments based on demand
5. Analysis of modification of workflow to enable patients to move through the service at the rate required to keep up with demand.

With the STAT model in place, service providers aim to book new patients into appointments directly on referral without using waiting lists, and manage demand through triaging patients to tailored care pathways rather than limiting access to initial appointments. This is in contrast to usual care (control condition) in which patients are placed on waiting lists and allocated a triage category on referral, and new patients are booked in from the waiting list when appointments become available. Implementation support for the STAT model will include staff training, short-term resources to assist with auditing existing waiting lists, and a temporary part-time clinic.

Intervention Type
Other

Primary outcome(s)
Waiting time measured as the time from referral to first appointment (in days) for all patients who receive a first appointment with a participating clinic during the pre- or post-implementation period of the trial

Key secondary outcome(s))

Patient-level health service outcomes:
1. Attendance is measured as attended or failed to attend for each index appointment (first appointment attended) for all new patients during the pre-implementation period and post-implementation period.
2. Appointment outcome as rebooked or discharged for each index appointment (first appointment attended) for all new patients during the pre-implementation period and post-implementation period.
3. Health service use (emergency visits) is measured as the number of presentations to the public Emergency Department servicing the local region, 6 months prior to and 6 months after the index appointment (collected for patients whose index appointment falls in the final 6 months of the pre-implementation period or the first 6 months of the post-implementation period at each clinic)
4. Health service use (hospital admissions) is measured as the number of admissions to public hospitals servicing the local region, 6 months prior to and 6 months after the index appointment (collected for patients whose index appointment falls in the final 6 months of the pre-implementation period or the first 6 months of the post-implementation period at each clinic)
5. Health service use (bed days) is measured as the number of nights spent in public hospitals servicing the local region, 6 months prior to and 6 months after the index appointment (collected for patients whose index appointment falls in the final 6 months of the pre-implementation period or the first 6 months of the post-implementation period at each clinic)

Clinic outcomes:
1. Clinic supply is measured as the number of clinic appointments scheduled each week during the pre-implementation, implementation and post-implementation periods at each participating clinic
2. Clinic use is measured as the number of clinic appointments attended each week during the pre-implementation, implementation and post-implementation periods at each participating clinic
3. Allocation of clinic resources is measured as the number of appointments scheduled for new and review patients each week during the pre-implementation, implementation and post-implementation periods at each participating clinic
4. Allocation of professional services is measured as the number of appointments scheduled for different team members (doctor, nurse, allied health professional) each week during the pre-implementation, implementation and post-implementation periods at each participating clinic
5. Waiting list size is measured as the number of patients on the waiting list (defined as patients who have been referred but have not had an appointment time confirmed within the following 8 weeks) each week during the pre-implementation, implementation and post-implementation periods at each participating clinic

Process measures:
6. Additional contacts are measured as contacts with clinic staff outside of the allocated clinic appointments (e.g. telephone advice and follow-up) each week during the post-implementation period at each participating clinic
7. Backlog reduction audit outcome will be measured during the implementation period as the number of patients removed from the waiting list (with reason for removal) and the number of patients booked for appointments. These numbers will be expressed as a proportion of the total number of patients on the waiting list on the first day of the implementation period at each participating clinic.

Cost data:
Economic data will be collected using a combination of customised questionnaires (completed at the end of months 3, 6, 9, 12, 15, 18, 21, 24, 27), using a structured interview with each

participating clinic manager and health service finance reports reporting on clinic activity over the previous 3 months. These data will be used to conduct a health economic analysis from the service perspective and include:
1. The cost of the intervention (including additional paid hours for the staff contributing to the implementation of the intervention, additional clinics to reduce backlogs, costs associated with the development of resources to support the intervention, and training costs for staff)
2. The cost of routine service delivery (staff time, infrastructure costs associated with clinic space)
3. Revenue (government funding provided for service delivery)

Qualitative outcomes:
1. Staff perceptions of demand management processes will be collected using focus groups conducted midway through the pre-implementation, implementation, and post-implementation periods for each pair of clinic sites randomised to receive the intervention in the step of the stepped wedge trial. Each focus group will include staff from a pair of clinics (four groups per time period, 12 groups in total, n = 8-10 participants per group)
2. Consumer perceptions of access to outpatient clinics pre and post-implementation (qualitative data, semi-structured interviews conducted during the pre and post-implementation periods, n = 24 in each time period, 48 total)

Completion date
31/12/2027

Eligibility

Key inclusion criteria
Quantitative data will be routinely collected data from health systems and will not require recruitment of participants.

Qualitative data recruitment:

Clinic Staff:
All staff involved in the delivery of services at the participating clinic (estimated n = 4 to 8 per clinic) will be invited to participate in focus groups at three times during the trial, aligned with the stages of implementation (pre, during and post). Staff participants will include medical staff, clerical staff and other members of the team (such as nursing and/or allied health professionals) as appropriate for each clinic, as well as the relevant managers of the service.

Consumers will be eligible for inclusion if they:
1. Attend a first appointment with the participating clinic during the period of interest
2. Are over 18 years of age
3. Are judged by the specialist they see in the clinic to have the capacity to provide consent
4. Have sufficient oral communication capacity to be able to participate in an interview of up to 45 minutes duration with a researcher (with an interpreter if required)
Of those who express interest, participants will be purposively selected with the intention to include participants from all 8 clinics and diversity in relation to age, gender identity, cultural diversity and health status.

Participant type(s)
Patient, Health professional

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 years

Sex
All

Key exclusion criteria
Does not meet the inclusion criteria

Date of first enrolment
01/04/2025

Date of final enrolment
27/06/2027

Locations

Countries of recruitment
Australia

Study participating centre
Eastern Health
5 Arnold Street
Box Hill, VIC
Australia
3128

Sponsor information

Organisation
La Trobe University

ROR
https://ror.org/01rxfrp27

Funder(s)

Funder type
Research council

Funder Name
National Health and Medical Research Council

Alternative Name(s)
National Health and Medical Research Council, Australian Government, NHMRC National Health and Medical Research Council, NHMRC

Funding Body Type
Government organisation

Funding Body Subtype
National government

Location
Australia

Results and Publications

Individual participant data (IPD) sharing plan
The datasets generated during and/or analysed during the current study will be stored in the La Trobe University publicly available repository OPAL (https://opal.latrobe.edu.au/)

IPD sharing plan summary
Stored in publicly available repository

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Other files			14/03/2025	No	No
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes