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The acceptability, effectiveness and cost-effectiveness of Enhanced Patient Observation in reducing the risk of self-harm and suicide on psychiatric wards

Submission date
20/11/2026

Recruitment status
No longer recruiting

Registration date
26/11/2026

Overall study status
Ongoing

Last Edited
26/11/2026

Condition category
Mental and Behavioural Disorders

[ ] 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
People who are admitted to psychiatric wards because they may be at risk of self-harm or suicide are sometimes placed under Enhanced Patient Observation (EPO), where they are observed more closely by staff. This study aims to use anonymised electronic health records to investigate whether EPO reduces the risk of self-harm or suicide during psychiatric admission and in the three months after discharge. The study will also examine whether the use of EPO varies between different groups of patients and assess its cost-effectiveness.

The plan is to conduct target trial emulation (TTE) using clinical data, comparing patients on EPO to those not on EPO, measuring their risk of self-harm or suicide during the admission and in the 3 months after discharged. This study will represent the first investigation into the effectiveness of a widely-used and expensive intervention that has questionable acceptability to patients.

Who can participate?
All psychiatric inpatients aged 18–64 years with an admission to a general adult ward (including psychiatric intensive care inpatient wards) in the trust over the period of interest (approximately 2008-2022 depending on data availability at each CRIS site), regardless of diagnosis.

What does the study involve?
The study uses existing anonymised electronic health records and cost data from six mental health NHS trusts in England: North London NHS Foundation Trust; South London and the Maudsley NHS Foundation Trust; Oxford Health NHS Foundation Trust; Cambridge & Peterborough NHS Foundation Trust; Hampshire & Isle of Wight Healthcare NHS Foundation Trust (formerly Southern Health); Cumbria, Tyne and Wear and Northumberland NHS Trust. Researchers will compare patients who received EPO with those who received other levels of observation during psychiatric admission. They will analyse outcomes including self-harm and suicide during admission and in the three months after discharge.

What are the possible benefits and risks of participating?
As the study uses anonymised routine electronic health records, no direct benefits or risks to participants are specified.

Where is the study run from?
North London NHS Foundation Trust, UK.

When is the study starting and how long is it expected to run for?
March 2026 to December 2028.

Who is funding the study?
National Institute for Health and Care Research.

Who is the main contact?
Prof Alexandra Pitman, a.pitman@ucl.ac.uk

Contact information

Type(s)
Principal investigator, Public, Scientific

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Additional identifiers

Study information

Scientific Title
The acceptability, effectiveness and cost-effectiveness of Enhanced Patient Observation in reducing the risk of self-harm and suicide on psychiatric wards

Acronym
EPO

Study objectives

1. Identify, using anonymised electronic health records (EHRs) for two diverse mental health NHS trusts, episodes of Enhanced Patient Observation (EPO) for risk of self-harm (SH) to define the group of interest for a target trial emulation, and use this to compare the socio-demographic and clinical characteristics of inpatients under EPO or intermittent/general observations to assess whether patterns of provision vary by factors such as ethnicity or autism diagnosis.
2. Model an emulated trial, using routine EHR data for two London mental health NHS trusts (and up to four other national sites), to evaluate the effectiveness of EPO in reducing risk of SH or suicide during (and immediately after) psychiatric admission compared with other observation levels.
3. Model, using the same trusts' routine EHR and cost data, a cost-effectiveness analysis (CEA) and cost consequence analysis (CCA) relating to use of EPO in reducing the risk of SH and suicide on psychiatric wards.

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 10/01/2020, Health Research Authority (2 Redman Place, Stratford, London, E20 1JQ, United Kingdom; +44 (0)207 104 8144; janet.messer@hra.nhs.uk), ref: 23-083

Primary study design
Observational

Secondary study design
Target trial emulation or equivalent

Study type(s)

Health condition(s) or problem(s) studied
Suicide risk

Interventions
Using 2008-2022 EHR data from C&I CRIS (and similar periods in separate models for SLaM and up to 4 satellite CRIS sites) this study will conceptualise a sequence of 'trials' in which eligible inpatients are classified as on EPO or intermittent or general observations for every consecutive day of psychiatric admission (and the three months after discharge) over these periods. Other permutations will reflect changes in observation levels within one bed day. As per an RCT, where time zero is defined as the time when eligibility is met, the alternative treatment strategies commence, and the follow-up begins, time zero will be defined as the start of admission. Patients will be followed up with repeated daily measures of their observation status until SH, suicide death, loss to follow-up, or the end of follow-up (three months after discharge). The effects of observation levels on a combined endpoint of SH or suicide will be estimated. The risk by observation levels will be estimated over time via pooled logistic regression and use inverse-probability weighting to account for treatment-confounder feedback in estimation of per protocol effects, as listed above. These will help address time varying confounding by indication; that individuals placed on EPO are those at highest risk, and they will be placed there at a time when they have the highest risk. It will be assumed that patients in each group adhered to their treatment assignment (or rather that staff adhered to the level of observations designated), as this is consistent with routine practice, and therefore will estimate the per protocol effect (equivalent to the effect of receiving the treatment as prescribed in the protocol). Appropriate methods will be used to account for temporal variation over this period of 15 years.

Intervention Type
Behavioural

Primary outcome(s)
1. Suicide and self-harm during psychiatric admission and the 3 months following discharge measured using data collection from routine electronic health records (EHRs) at one time point during this study

Key secondary outcome(s)

Completion date
31/12/2028

Eligibility

Key inclusion criteria
Inpatients on acute psychiatric wards in England

Healthy volunteers allowed
No

Age group
Mixed

Lower age limit
18 Years

Upper age limit
100 Years

Sex
All

Total final enrolment
0

Key exclusion criteria
Not meeting the key inclusion criteria

Date of first enrolment
16/03/2026

Date of final enrolment
20/11/2026

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
North London NHS Foundation Trust
4th Floor, East Wing
St. Pancras Hospital
4 St. Pancras Way
London
England
NW1 0PE

Study participating centre
NIHR Maudsley Biomedical Research Centre
Maudsley Hospital
Denmark Hill
London
England
SE5 8AZ

Study participating centre
NIHR Oxford Health Biomedical Research Centre
4000 John Smith Drive
Oxford Business Park South
Oxford
England
OX4 2GX

Study participating centre
Cambridgeshire and Peterborough Mental Health Partnership Tr Hq
Elizabeth House, Fulbourn Hospital
Cambridge Road
Fulbourn
Cambridge
England
CB21 5EF

Study participating centre
Cumbria, Northumberland, Tyne and Wear NHS Foundation Trust
St Nicholas Hospital
Jubilee Road
Gosforth

Newcastle upon Tyne
England
NE3 3XT

Study participating centre
Hampshire and Isle of Wight Healthcare NHS Foundation Trust
Tatchbury Mount Hospital
Calmore
Southampton
England
SO40 2RZ

Sponsor information

Organisation
North London NHS Foundation Trust

ROR
https://ror.org/01jgmvf05

Funder(s)

Funder type

Funder Name
National Institute for Health and Care Research

Alternative Name(s)
National Institute for Health Research, NIHR Research, NIHRresearch, NIHR - National Institute for Health Research, NIHR (The National Institute for Health and Care Research), NIHR

Funding Body Type
Government organisation

Funding Body Subtype
National government

Location
United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not expected to be made available