Plan Overview

A Data Management Plan created using DMPonline

Title: Reducing Avoidable Admissions in Acute Hospital Care: The role and impact of Same Day Emergency Care Services

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Project abstract:

Research Question
What impact are Same Day Emergency Care (SDEC) services having on patterns of acute hospital admission and discharge?
Background
Emergency Departments (EDs) in England are under exceptionally high demand, and emergency hospital admissions are rising. On average, 95% of inpatient beds are full. High bed occupancy is a driver of worsening ED performance, directly impacting ambulance response and handover times. Up to
80% of beds are filled by unplanned admissions, and many patients are discharged <24 hours suggesting alternative management may avoid admission for some patients.
Reducing admissions is an NHS priority as it is acknowledged to be inefficient, expensive and not always in patients' best interests. SDEC services were established to provide investigation, care and
treatment for patients without admission. Under the NHS Long Term Plan, SDEC was intended to be
available 12 hours/day, 7 days/week nationally from 2019/20 [NHS 2019]. However, SDEC has been
inconsistently implemented across England, and no research has been carried out into its effectiveness
in reducing emergency admissions.
Aims
This study aims to:
1) Review the evidence relating to different definitions and perspectives on attendances suitable for
SDEC (WP1)
2) Describe a taxonomy of current SDEC services nationally (WP1)
3) Understand current acute admission patterns and their variation across England (WP2)
4) Measure the impact of introducing SDEC services in reducing emergency admissions, improving

ED
performance, NHS costs and patient safety (WP2&3)
5) Identify features of SDECs that have successful impact on admission rates, ED performance and NHS costs (WP3)
Methods & Timelines
This mixed methods study has 3 work packages:
WP1 (m1-15) International rapid literature review of definitions of patients and conditions suitable for
attendance at SDEC services. A national survey of Acute Hospital Trusts to describe a taxonomy of SDEC services.
WP2 (m1-17) Apply definitions of SDEC conditions from WP1 to explore trends in activity and outcomes
over time, variation between hospitals, and patient groups using CUREd+, a national linked NHS dataset
of routine ED, hospital admissions, outpatients and deaths. Model costs of introducing SDEC services in
terms of avoidable admissions, reattendance, readmission, hospital length of stay, outpatient appointments.
WP3 (m13-27) Detailed case studies of 9-10 SDEC services with different configurations to understand
impact on ED performance, hospital admissions, staff and patient experience.
Integration and dissemination of findings (m28-30)
Anticipated impact and dissemination
This study has significant policy, service and patient relevance given that reducing hospital admissions
is a key priority for government and NHSE. Developing effective SDEC services is one of 10 high impact
interventions that NHSE are advocating to address winter pressures. Identifying criteria for success as
well as defining use, cost-effectiveness, and patient outcomes will inform future strategies ensuring SDEC service delivery is supported by strong evidence.
Dissemination will use multiple media including academic outputs, short reports and podcasts for consumers such as policy makers, commissioners, acute hospitals, Royal Colleges/Societies. We will
utilise animations and shorter written and illustrated summaries presented through social media to ensure a wide readership including patients and public.

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Reducing Avoidable Admissions in Acute Hospital Care: The role and impact of Same Day Emergency Care Services

Defining your data

- What digital data (and physical data if applicable) will you collect or create during the project?
- How will the data be collected or created, and how will you assure the quality of your data collection and processing?
- Approximately how much digital data will be generated (in GB, MB, etc), and what formats will they be in (e.g. .docx, .txt, .jpeg)?
- Are you using pre-existing datasets? Give details if possible, including conditions of use.

What digital data (and physical data if applicable) will you collect or create during the project?

We will *collect* survey responses from Type-1 emergency departments in England.

We will *create* a small XLSX file to record details of iterations of taxonomy development.

We will *create* an XLSX file to track survey responders' membership of taxonomic groups.

We will *create* a DOCX files (version controlled) that present interim taxonomies in tabular form. This document will also contain the appraisals of the Project Stakeholder Group.

We will *create* a XLSX file to record the Project Steering/Oversight Group's evaluations of model fidelity. Each Group member will submit a 0-100 score.

How will the data be collected or created, and how will you assure the quality of your data collection and processing?

We will use the Qualtrics online survey tool to collect survey responses. Qualtrics is a university-approved online survey tool.

Contributions from the Project Stakeholder Group and Project Steering/Oversight Group will be collected via email.

Approximately how much digital data will be generated (in GB, MB, etc), and what formats will they be in (e.g. .docx, .txt, .jpeg)?

The size of survey responses will be on the order of MBs, and will be in CSV format.

The size of all created documents will be on the order of MBs, and will be in XLSX and DOCX format.

Are you using pre-existing datasets? Give details if possible, including conditions of use.

We will not use any pre-existing datasets.

Looking after data during your research

- Where will you store digital data during the project to ensure it is secure and backed up regularly? (University research storage)
- How will you name and organise your data files?
- If you collect or create physical data, where will you store these securely?
- Will you use extra security precautions for any of your digital or physical data? (E.g. for sensitive and/or personal data)
- What metadata/documentation will you create for your data? (E.g. a README file including methodology and file structure; descriptive metadata to enable discovery in a data repository)

Storage and Security
The survey data will be collected through Qualtrics, which is a university-recommended survey tool. The survey responses will be downloaded from Qualtrics and stored in the project's X:drive folder, as per universities guidelines. The data will not include personal data relating to human participants. The University's Information Security Policies will be abided by at all times. All project staff have up-to-date IT security, confidentiality, and privacy training.

Data access by non-university members of the project team

This section is in response to reviewers' requests following our amendments to include a non-university member in the project staff. This external member of the project staff has been given an external university account that will enable them to access the study data in the same secure way that the university project staff members do. All storage and security stipulations still apply to all project staff.

Identifiability

Survey responses will be identifiable at the hospital-trust level, during processing. The hospital-trust identifier will be removed from any data shared as part of publications. The hospital identifier for each survey will also be removed before final storage, as noted in 'Storing data after your research'.

Metadata and documentation

A README.md file located in the survey-response folder will contain the following details.
"

This folder contains data relating to a survey of Type-1 emergency departments in England, as part of work-package 1b of the NIHR-funded project NIHR160821 "Reducing Avoidable Admissions in Acute Hospital Care: The role and impact of Same Day Emergency Care Services"
(see https://fundingawards.nihr.ac.uk/award/NIHR160821).

The files herein are:

- Survey_responses.CSV: survey responses from Type-1 emergency departments in England.
- taxonomy_iteration_record.XLSX: details of iterations of taxonomy development.
- taxonomy_membership_record.XLSX: membership of taxonomic groups.
- *_taxonomy_table.DOCX: interim taxonomies in tabular form. This document will also contain the appraisals of the Project Stakeholder Group.
- PSG_taxonomy_evaluation.XLSX: Project Steering/Oversight Group's evaluations of model fidelity.

"

Storing data after your research

- Which data supporting your research conclusions will be stored on a long-term basis after the end of the project?
- Where will the data be stored after the project (e.g. University of Sheffield repositoryORDA, or a subject-specific repository) and for how long (e.g. standard TUoS retention period of minimum 10 years after the project)?
- Will your chosen long-term data storage incur any financial costs?

All data will be moved to ORDA for reference and access by other researchers. The data does not contain any sensitive data. The hospital-trust identifier for each survey will be removed before storage.

Sharing data after your research

- How will you make data available outside of the research group after the project? (E.g. openly available through a repository, or on request through your department)
- Will you make all of your data available, or are there reasons you can’t do this? (E.g. personal data, commercial or legal restrictions, very large datasets)
- If you can’t share all of your data, how might you make as much of it available as possible? (E.g. anonymisation, participant consent, sharing analysed data only)
- How will you make your data as widely accessible as possible? (E.g. include a data availability statement in publications; ensure published data has a DOI)
- Will there be any delay before making data available? If so, give the reasons for this.

Data will be stored in ORDA, which provides a DOI. This DOI will be shared in academic publications and in the funder's reports.

There will not be any delay making the data available.

Putting your plan into practice

- Who will be responsible for data management in the project? (There may be more than one person)
- Do you require any extra resources to put your data management plan into practice? Will this incur any financial costs?

The project manager and work-package lead, Ciarán McInerney, will be responsible for data management of this work-package's data. Ultimately responsibility lies with the project leads, Richard Jacques and Sue Mason.

No extra resources or financial costs are required to put the data management plan into practice. The X:drive folder has already been set up.

Planned Research Outputs

Journal article - "A taxonomy of same-day emergency-care services in the UK"

Planned research output details

Title	DOI	Type	Release date	Access level	Repository(ies)	File size	License	Metadata standard(s)	May contain sensitive data?	May contain PII?
A taxonomy of same-day emergency-care services in ...		Journal article	Unspecified	Open	None specified		None specified	None specified	No	No