Plan Overview

A Data Management Plan created using DMPonline

Title: Assessing the impact of COVID-19 on dental antibiotic prescribing in England

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Template: University of Manchester Generic Template

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Project abstract:
Antibiotic resistance is a global health emergency. Unnecessary prescribing of antibiotics drives the development and spread of infections which are resistant to antibiotics. Before the COVID-19 pandemic, dentists were responsible for over 10% of dental antibiotic use in England. Since the start of the pandemic there has been a dramatic 25% increased in dental antibiotic prescribing which has been slow to reduce. Research undertaken before the COVID pandemic, by the principle investigator, identified a wide range of factors influencing dentists' decision whether to prescribe antibiotics. The aim of this research is to identify which factors were important during COVID so that they can be used to design new approaches to reducing the rate of dental antibiotic prescribing in England.

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Copyright information:

Assessing the impact of COVID-19 on dental antibiotic prescribing in England

Manchester Data Management Outline

1. Will this project be reviewed by any of the following bodies (please select all that apply)?

- Ethics

2. Is The University of Manchester collaborating with other institutions on this project?

- No - only institution involved

3. What data will you use in this project (please select all that apply)?

- Acquire new data

4. Where will the data be stored and backed-up during the project lifetime?

- University of Manchester Research Data Storage Service (Isilon)

5. If you will be using Research Data Storage, how much storage will you require?

- < 1 TB

6. Are you going to be receiving data from, or sharing data with an external third party?

- No

7. How long do you intend to keep your data for after the end of your project (in years)?

- 5 - 10 years

Guidance for questions 8 to 13

Highly restricted information defined in the [Information security classification, ownership and secure information handling SOP](#) is information that requires enhanced security as unauthorised disclosure could cause significant harm to individuals or to the University and its ambitions in respect of its purpose, vision and values. This could be: information that is subject to export controls; valuable intellectual property; security sensitive material or research in key industrial fields at particular risk of being targeted by foreign states. See more [examples of highly restricted information](#) .

Personal information, also known as personal data, relates to identifiable living individuals. Personal data is classed as special category personal data if it includes any of the following types of information about an identifiable living individual: racial or ethnic origin; political opinions; religious or similar philosophical beliefs; trade union membership; genetic data; biometric data; health data; sexual life; sexual orientation.

Please note that in line with [data protection law](#) (the UK General Data Protection Regulation and Data Protection Act 2018), personal information should only be stored in an identifiable form for as long as is necessary for the project; it should be pseudonymised (partially de-identified) and/or anonymised (completely de—identified) as soon as practically possible. You must obtain the appropriate [ethical approval](#) in order to use identifiable personal data.

8. What type of information will you be processing (please select all that apply)?

- Anonymised personal data

9. How do you plan to store, protect and ensure confidentiality of any highly restricted data or personal data (please select all that apply)?

- Other (please list below in less than 100 words)

Use Qualtrics survey tool to collect data with 'anonymise' feature enabled.

10. If you are storing personal information (including contact details) will you need to keep it beyond the end of the project?

- Not applicable

11. Will the participants' information (personal and/or sensitive) be shared with or accessed by anyone outside of the University of Manchester?

- Not applicable

12. If you will be sharing personal information outside of the University of Manchester will the individual or organisation you are sharing with be outside the EEA?

- Not applicable

13. Are you planning to use the personal information for future purposes such as research?

- No

14. Who will act as the data custodian for this study, and so be responsible for the information involved?

Wendy Thompson

15. Please provide the date on which this plan was last reviewed (dd/mm/yyyy).

Project details

What is the purpose of your research project?

This is a cross sectional study of dentists working in primary dental care in England, using an online survey. The main aim is to assess the factors influencing increased prescribing of antibiotics by dentists in England since the start of the COVID-19 pandemic, so that they can be used in later studies to design approaches to safely reduce dental antibiotic prescribing.
This study will build on research undertaken by the principal investigator before the COVID-19 pandemic and will inform national and international policy on dental antibiotic stewardship.

What policies and guidelines on data management, data sharing, and data security are relevant to your research project?

The University of Manchester Records Management Policy
The University of Manchester Publications Policy
The University of Manchester IT policies and guidelines
The University of Manchester Intellectual Property Policy

Responsibilities and Resources

Who will be responsible for data management?

Wendy Thompson - Principal Investigator

What resources will you require to deliver your plan?

Access to Qualtrics tool for the purpose of collecting data.
Access to The University of Manchester Research Data Storage System (Isilon) for long term storage of data.

Data Collection

What data will you collect or create?

Online survey data will be collected. The questionnaire will consist of a total of 24 questions including a mixture of closed, multiple choice and open free text to obtain both quantitative and rich qualitative data relating to the study outcomes.
The questions are in 4 sections:
1) Do you consent to participate? - 1 question asking participants to confirm they have read the PIS and wish to participate
2) About you - 8 questions:
- one eligibility question (Q2 - Are you a registered dentist who has practised clinical dentistry in primary dental care in England since March 2019 (i.e. for at least a year before the COVID pandemic)?)
- six demographic questions
- the primary research question (Q9 - Did the COVID-19 pandemic affect the number of antibiotics you prescribed between April 2020 and March 2021, compared to the previous year (April 2019 to March 2020)?)
3) Tell us about your experience of antibiotic prescribing - 11 questions
4) Optional questions - 4 questions

The demographic questions will facilitate comparison of the results between groups. They will not identify the participants.

How will the data be collected or created?

The data will be collected using the Qualtrics survey tool with the 'anonymise' and 'prevent multiple responses' features enabled to ensure individual participants cannot be identified and that they cannot complete the survey more than once. The survey will be self administered using an on-line link to access. Participants will be invited to participate in the study via an invitation on the For Dentists, By Dentists facebook group which incorporates a link to the survey. Following the data collection period of

3 months, the survey will be automatically closed to new participants using the pre-set feature in the Qualtrics system. Raw data collected by the system will be downloaded in a TSV or Excel format and stored immediately on the University of Manchester Research Data Storage System (Isilon). The Qualtrics system will be used to generate reports on the responses which will be uploaded onto Isilon.

Documentation and Metadata

What documentation and metadata will accompany the data?

A README file will be maintained which outlines the methods used to generate the dataset which can be read alongside the dataset.

Ethics and Legal Compliance

How will you manage any ethical issues?

This project has been referred for Proportionate UREC Review.

All data will be collected anonymously using the Qualtrics survey system with the 'anonymise' feature enabled to ensure study participants cannot be identified. All study participants will be give a participant information sheet to read which outlines how their data will be handled. Consent will be implied by them completing the survey.

No participants will be contacted directly. No contact details will be collected.

How will you manage copyright and Intellectual Property Rights (IPR) issues?

All copyright and Intellectual Property issues will be managed in accordance with The University of Manchester Intellectual Property Policy.

Storage and backup

How will the data be stored and backed up?

All data will be stored on the University of Manchester Research Data Storage System (Isilon) as soon as it is downloaded from Qualtrics. All documents and working drafts will be backup up to Isilon at the end of each session.

How will you manage access and security?

Access to the data will be restricted to the Principal Investigator (Wendy Thompson)

Selection and Preservation

Which data should be retained, shared, and/or preserved?

The findings of this study will be published in open access journals and will include a summary of the survey findings. Future studies may be conducted which build on these findings as part of dental antimicrobial stewardship efforts to develop new approaches to optimising dental antibiotic prescribing in England. It is likely that these studies, will take place within the next 5 years. If they do not, it is likely that the detail within the data beyond that which has been published will be outdate and therefore of limited value after a 10 year period. All data collected through the survey questions may be useful for future studies and therefore should be kept for 5 years after publication of the data

What is the long-term preservation plan for the dataset?

Data will be accessible via the Manchester Research Data Storage System (Isilon) for a period of 5 years following completion of the study, after which it will be securely destroyed.

Data Sharing

How will you share the data?

The data will be made publically available to other researchers via the data repository Figshare. The data will be linked to a DOI which will enable other researchers to acknowledge reuse of the data. The data will be licensed via a creative commons license to allow adaptions of our work to be shared under the same or compatible license. The license will not permit use for commercial purposes. Machine readable metadata will be added which includes the title of the work and the names of the attributable authors to allow others to acknowledge the re-use of the data.

Are any restrictions on data sharing required?

The data will be made publically available. The data will be licensed via a creative commons license to allow adaptions of our work to be shared under the same or compatible license. The license will not permit use for commercial purposes.