Systematic review

1. * Review title.

Give the title of the review in English

Assessing the Public Health Impact of Clinical Practice Research Datalink(CPRD)

2. Original language title.

For reviews in languages other than English, give the title in the original language. This will be displayed with the English language title.

3. * Anticipated or actual start date.

Give the date the systematic review started or is expected to start.

01/07/2024

4. * Anticipated completion date.

Give the date by which the review is expected to be completed.

29/08/2024

5. * Stage of review at time of this submission.

This field uses answers to initial screening questions. It cannot be edited until after registration.

Tick the boxes to show which review tasks have been started and which have been completed.

Update this field each time any amendments are made to a published record.

The review has not yet started: No

Review stage	Started	Completed
Preliminary searches	Yes	No
Piloting of the study selection process	Yes	No
Formal screening of search results against eligibility criteria	No	No
Data extraction	No	No
Risk of bias (quality) assessment	No	No
Data analysis	No	No

Provide any other relevant information about the stage of the review here.

6. * Named contact.

The named contact is the guarantor for the accuracy of the information in the register record. This may be any member of the review team.

Ikenna Lucky Nwogu

Email salutation (e.g. "Dr Smith" or "Joanne") for correspondence:

Mr Nwogu

7. * Named contact email.

Give the electronic email address of the named contact.

i.nwogu@imperial.ac.uk

8. Named contact address

Give the full institutional/organisational postal address for the named contact.

Sir Michael Uren Hub, Imperial College, 86 Wood Ln, London W12 0BZ

9. Named contact phone number.

Give the telephone number for the named contact, including international dialling code.

+447438991706

10. * Organisational affiliation of the review.

Full title of the organisational affiliations for this review and website address if available. This field may be

completed as 'None' if the review is not affiliated to any organisation.

Imperial College London

Organisation web address:

imperial.ac.uk

11. * Review team members and their organisational affiliations.

Give the personal details and the organisational affiliations of each member of the review team. Affiliation refers to groups or organisations to which review team members belong. **NOTE: email and country now MUST be entered for each person, unless you are amending a published record. PLEASE USE AN INSTITUTIONAL EMAIL ADDRESS IF POSSIBLE.**

Mr Ikenna Nwogu. Imperial College
Professor Jennifer Quint. Imperial College London
Dr Susan Hodgson. Medicines and Healthcare products Regulatory Agency(MHRA)
Dr Hannah Whittaker. Imperial College

12. * Funding sources/sponsors.

Details of the individuals, organizations, groups, companies or other legal entities who have funded or sponsored the review.

Health Data Research(HDR) UK Black Internship Programme

Grant number(s)

State the funder, grant or award number and the date of award

13. * Conflicts of interest.

List actual or perceived conflicts of interest (financial or academic).

None

There is no conflict of Interest in this review as we seek the update the review previously conducted.

14. Collaborators.

Give the name and affiliation of any individuals or organisations who are working on the review but who are not listed as review team members. **NOTE: email and country must be completed for each person, unless you are amending a published record.**

15. * Review question.

State the review question(s) clearly and precisely. It may be appropriate to break very broad questions down into a series of related more specific questions. Questions may be framed or refined using PI(E)COS or similar where relevant.

Is real world evidence influencing practice?

16. * Searches.

State the sources that will be searched (e.g. Medline). Give the search dates, and any restrictions (e.g. language or publication date). Do NOT enter the full search strategy (it may be provided as a link or attachment below.)

Pubmed, Embase, and National Clinical Guideline Centre

22/03/2015 to 30/06/2024

English Only

17. URL to search strategy.

Upload a file with your search strategy, or an example of a search strategy for a specific database, (including the keywords) in pdf or word format. In doing so you are consenting to the file being made publicly accessible. Or provide a URL or link to the strategy. Do NOT provide links to your search **results**.

Alternatively, upload your search strategy to CRD in pdf format. Please note that by doing so you are consenting to the file being made publicly accessible.

Do not make this file publicly available until the review is complete

18. * Condition or domain being studied.

Give a short description of the disease, condition or healthcare domain being studied in your systematic review.

The use of real-world evidence (RWE) specifically from the Clinical Practice Research Datalink(CPRD).

19. * Participants/population.

Specify the participants or populations being studied in the review. The preferred format includes details of both inclusion and exclusion criteria.

The United kingdom population seeking healthcare captured in the CPRD database.

20. * Intervention(s), exposure(s).

Give full and clear descriptions or definitions of the interventions or the exposures to be reviewed. The preferred format includes details of both inclusion and exclusion criteria.

Identifying National guidelines or guidances that have referenced CPRD in the publication from 2016-2024

21. * Comparator(s)/control.

Where relevant, give details of the alternatives against which the intervention/exposure will be compared (e.g. another intervention or a non-exposed control group). The preferred format includes details of both inclusion and exclusion criteria.

Not Applicable

22. * Types of study to be included.

Give details of the study designs (e.g. RCT) that are eligible for inclusion in the review. The preferred format includes both inclusion and exclusion criteria. If there are no restrictions on the types of study, this should be stated.

The specific inclusion criteria are as follows: 1) a UK guideline/ guidance and 2) references research using data from CPRD or GPRD. Documents are excluded if they met one or more of the following criteria: 1) Irrelevant, 2) Not written in English, 3) Not a guidance or guideline (any other primary or secondary research paper), 4) Only mention CPRD/GPRD (e.g. as a potential source for future studies), 5) Not available (as being updated) and 6) Draft documents or in consultation. Reference lists of all studies previously identified as having met the inclusion criteria will also be manually reviewed for additional relevant documents

23. Context.

Give summary details of the setting or other relevant characteristics, which help define the inclusion or exclusion criteria.

The search and assessment of eligibility for included studies were performed by two reviewers working independently. Any duplicate documents were consolidated. All decisions were reached by consensus, with the addition of a third reviewer where required. A relevant PRISMA flow chart was constructed to detail the number of papers retrieved and the steps undertaken.

24. * Main outcome(s).

Give the pre-specified main (most important) outcomes of the review, including details of how the outcome is defined and measured and when these measurement are made, if these are part of the review inclusion criteria.

The study aims to identify national guidelines or guidance published in England from 2016 onward which have referenced studies using the governmental primary care data provider the Clinical Practice Research Datalink(CPRD). The outcome is defined as the presence of references to CPRD/GPRD studies within the guidelines or guidances. The measurement involves identifying and examining relevant documents published from 2016 to 2024, extracting information on the cited CPRD studies, and categorizing the evidence provided by these studies. The data is collected during the data extraction phase of the systematic review, where two independent investigators extract data from the included documents and reach a consensus on the findings. The review inclusion criteria specify that the documents must be UK guidelines/guidances published from 2016 onward and must reference research using data from CPRD or GPRD.

Measures of effect

Please specify the effect measure(s) for you main outcome(s) e.g. relative risks, odds ratios, risk difference, and/or 'number needed to treat.

25. * Additional outcome(s).

List the pre-specified additional outcomes of the review, with a similar level of detail to that required for main outcomes. Where there are no additional outcomes please state 'None' or 'Not applicable' as appropriate to the review

Not Applicable

Measures of effect

Please specify the effect measure(s) for you additional outcome(s) e.g. relative risks, odds ratios, risk difference, and/or 'number needed to treat.

26. * Data extraction (selection and coding).

Describe how studies will be selected for inclusion. State what data will be extracted or obtained. State how this will be done and recorded.

All data will be extracted by two independent investigators and consensus reached after the involvement of a third investigator where needed. Articles with full text availability will be considered. The following information will be extracted for each identified document meeting the inclusion criteria: title, year of publication, the CPRD studies cited, the exact sentences referencing and the type of guideline/ guidance and the references

27. * Risk of bias (quality) assessment.

State which characteristics of the studies will be assessed and/or any formal risk of bias/quality assessment tools that will be used.

This review will not involve primary research, hence no quality assessment is necessary

28. * Strategy for data synthesis.

Describe the methods you plan to use to synthesise data. This **must not be generic text** but should be **specific to your review** and describe how the proposed approach will be applied to your data. If meta-analysis is planned, describe the models to be used, methods to explore statistical heterogeneity, and software package to be used.

A purely descriptive approach will be adopted for data synthesis. Sums and means will be derived where appropriate. No further statistical analysis will be undertaken.

29. * Analysis of subgroups or subsets.

State any planned investigation of 'subgroups'. Be clear and specific about which type of study or participant will be included in each group or covariate investigated. State the planned analytic approach.

There is no planned investigation of sub-groups or sub-sets in this review

30. * Type and method of review.

Select the type of review, review method and health area from the lists below.

Type of review

Cost effectiveness

No

Diagnostic
No

Epidemiologic
No

Individual patient data (IPD) meta-analysis
No

Intervention
No

Living systematic review
No

Meta-analysis
No

Methodology
No

Narrative synthesis
No

Network meta-analysis
No

Pre-clinical
No

Prevention
No

Prognostic
No

Prospective meta-analysis (PMA)
No

Review of reviews
No

Service delivery
No

Synthesis of qualitative studies
No

Systematic review
Yes

Other

No

Health area of the review

Alcohol/substance misuse/abuse

No

Blood and immune system

No

Cancer

No

Cardiovascular

No

Care of the elderly

No

Child health

No

Complementary therapies

No

COVID-19

No

Crime and justice

No

Dental

No

Digestive system

No

Ear, nose and throat

No

Education

No

Endocrine and metabolic disorders

No

Eye disorders

No

General interest

No

Genetics

No

Health inequalities/health equity
No

Infections and infestations
No

International development
No

Mental health and behavioural conditions
No

Musculoskeletal
No

Neurological
No

Nursing
No

Obstetrics and gynaecology
No

Oral health
No

Palliative care
No

Perioperative care
No

Physiotherapy
No

Pregnancy and childbirth
No

Public health (including social determinants of health)
Yes

Rehabilitation
No

Respiratory disorders
No

Service delivery
No

Skin disorders

No

Social care

No

Surgery

No

Tropical Medicine

No

Urological

No

Wounds, injuries and accidents

No

Violence and abuse

No

31. Language.

Select each language individually to add it to the list below, use the bin icon to remove any added in error.

English

There is not an English language summary

32. * Country.

Select the country in which the review is being carried out. For multi-national collaborations select all the countries involved.

England

33. Other registration details.

Name any other organisation where the systematic review title or protocol is registered (e.g. Campbell, or The Joanna Briggs Institute) together with any unique identification number assigned by them. If extracted data will be stored and made available through a repository such as the Systematic Review Data Repository (SRDR), details and a link should be included here. If none, leave blank.

34. Reference and/or URL for published protocol.

If the protocol for this review is published provide details (authors, title and journal details, preferably in Vancouver format)

Add web link to the published protocol.

Or, upload your published protocol here in pdf format. Note that the upload will be publicly accessible.

No I do not make this file publicly available until the review is complete

Please note that the information required in the PROSPERO registration form must be completed in full even if access to a protocol is given.

35. Dissemination plans.

Do you intend to publish the review on completion?

Yes

Give brief details of plans for communicating review findings.?

Publication and information for CPRD for their website and feedback to PPI groups

36. Keywords.

Give words or phrases that best describe the review. Separate keywords with a semicolon or new line. Keywords help PROSPERO users find your review (keywords do not appear in the public record but are included in searches). Be as specific and precise as possible. Avoid acronyms and abbreviations unless these are in wide use.

systematic review; “CPRD”, “Clinical Practice Research Datalink”, “GPRD”, and “General Practice Research Database”

37. Details of any existing review of the same topic by the same authors.

If you are registering an update of an existing review give details of the earlier versions and include a full bibliographic reference, if available.

This review is an update of our earlier systematic review and is being undertaken to discover new insights.The citation for the existing review is Oyinlola, J.O., Campbell, J. & Kousoulis, A.A.Is real world evidence influencing practice? A systematic review of CPRD research in NICE guidances. BMC Health Serv Res 16, 299(2016).https://doi.org/10.1186/s12913-016-1562-8

38. * Current review status.

Update review status when the review is completed and when it is published.New registrations must be ongoing so this field is not editable for initial submission.

Please provide anticipated publication date

Review_Ongoing

39. Any additional information.

[1 changed]

Provide any other information relevant to the registration of this review.

Real world evidence(RWE), derived from large healthcare databases like CPRD, offers valuable insights into the effectiveness and safety of interventions in real-world settings, where patients are often more diverse and have more comorbidities than those in RCTs. Incorporating RWE into their practice, practitioners can enhance decision-making, personalize treatment plans, and improve patient outcomes by selecting interventions that are more likely to be effective and safe for their specific patient population, ultimately leading to improved health outcomes.

40. Details of final report/publication(s) or preprints if available.

Leave empty until publication details are available OR you have a link to a preprint (NOTE: this field is not editable for initial submission). List authors, title and journal details preferably in Vancouver format.

Give the link to the published review or preprint.