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Antipsychotic prescribing practices and patient, family member and healthcare professional perceptions of antipsychotic prescribing in acute care settings: a scoping review protocol

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ABSTRACT

Introduction Antipsychotic medications are commonly prescribed off-label in acutely ill patients for non-psychiatric clinical indications such as delirium or insomnia. New prescription initiation of antipsychotics in acute care settings increases the proportion of patients discharged home on antipsychotics without approved clinical indication. Long-term use of antipsychotics is associated with increased risk of sudden cardiac death, falls and cognitive impairment. An understanding of acute care off-label antipsychotic prescribing practices and healthcare professional, patient and family perceptions related to antipsychotic prescribing and deprescribing is necessary to facilitate in-hospital deprescribing initiatives.

Methods and analysis We present the protocol for a scoping review following the methodology proposed by Arksey and O'Malley and the Scoping Review Methods Manual by the Joanna Briggs Institute. We will search five databases including MEDLINE, EMBASE, CINAHL, PsycINFO and Web of Science from inception to 3 July 2021 (ie, planned search date). We will include both peer-reviewed and non-peer-reviewed qualitative and quantitative studies to identify antipsychotic prescribing practices, and to describe healthcare professional, patient and family perceptions towards antipsychotic prescribing and deprescribing in the acute care setting. Protocols, systematic and scoping reviews will be excluded. Two reviewers will calibrate and perform study screening and data abstraction for quantitative and qualitative outcomes of eligible studies. Quantitative outcomes will include study identifiers, demographics and descriptive statistics of antipsychotic prescribing practices. Qualitative synthesis describing perceptions on antipsychotic prescribing practices will include deductive thematic analysis with mapping of themes to the domains of the Theoretical Domains Framework, a 14-domain behaviour and behaviour change framework.

Ethics and dissemination No ethical approval will be required for this study as only data from published studies in which informed consent was obtained by primary investigators will be retrieved and analysed. The results of this scoping review will inform integrated knowledge translation initiatives aimed at in-hospital antipsychotic medication deprescribing.

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ This scoping review will describe off-label antipsychotic medication prescribing practices (ie, prescribing for clinical indications other than a primary psychiatric diagnosis) in the acute care setting and will synthesize perceptions on prescribing practices among patients,families and healthcare professionals using qualitative methods and the Theoretical Domains Framework to identify factors that influence the behaviours of healthcare professionals surrounding the implementation of evidence-informed recommendations.

⇒ Strengths of this scoping review include the identification of important facilitators and/or barriers, and stakeholder perceptions related to acute care off-label antipsychotic medication prescribing practices. The results of this scoping review will inform future strategies aimed to facilitate in-hospital antipsychotic medication deprescribing for hospitalised patients to improve patient drug safety.

⇒ Variability in reporting of antipsychotic prescribing practices and underlying perceptions is expected to be a limitation of this scoping review as there are significant gaps within the literature related to antipsychotic prescribing and deprescribing strategies within the acute care setting.

BACKGROUND

Antipsychotic medications are neuromodulating medications approved for the treatment of schizophrenia, bipolar disorder and depression.[1] These medications are commonly prescribed to hospitalised patients for off-label clinical indications such as delirium and insomnia.[1–3] Off-label prescribing describes the prescribing of a licensed medication in

a way that is not described in its summary of product characteristics.[4] Current acute care (in-hospital and critical care) guidelines recommend against the routine use of antipsychotic medications for the management of a number of off-label indications including delirium, insomnia and anxiety due to the lack of clinical benefit and potential risk of patient harm.[5–7] Long-term antipsychotic medication use is associated with increased risk of sudden cardiac death, falls and worsening cognitive impairment.[8 9] Despite these recommendations, acute care antipsychotic medication prescribing is prevalent and commonly leads to antipsychotic prescription continuation at the time of hospital discharge.[10 11] For example, among critically ill adult patients, up to 30% of patients prescribed an antipsychotic medication in the intensive care unit will be discharged from hospital with an ongoing prescription without approved clinical indication.[10 12]

In-hospital deprescribing, defined by Reeve *et al* as 'the process of withdrawal of an inappropriate medication, supervised by a healthcare professional with the goal of managing polypharmacy and improving outcomes,' has been suggested as a possible strategy to reduce the proportion of patients discharged from hospital with ongoing prescriptions for antipsychotic medications.[13] In-hospital deprescribing currently remains an uncommon practice in the acute care environment. Limited uptake of in-hospital deprescribing may be influenced by previously identified factors that impact prescribing practices of healthcare professionals when engaging in off-label prescribing such as patient features, illness features, established evidence of drug benefit and the risk of adverse effects.[4] Characterising acute care off-label antipsychotic medication prescribing and deprescribing practices is an important step to understanding the facilitators and barriers to effective, sustainable antipsychotic deprescribing strategies.[9] Defining the current scope of literature of patient, family and healthcare professional perceptions, and their identified facilitators and/or barriers to antipsychotic deprescribing is essential to establishing collaborative multidisciplinary efforts to modify prescribing practices of antipsychotic medications that promote rational prescribing and deprescribing during hospitalisation.[14 15]

We present a study protocol for a scoping review to characterise off-label antipsychotic medication prescribing practices in acute care settings, to describe patient, family and healthcare professional perceptions on antipsychotic prescribing practices, and to identify facilitators and/or barriers that impact antipsychotic prescribing practices. It is important to identify facilitators and barriers to behaviour change in relation to off-label antipsychotic prescribing and deprescribing practices to develop effective interventions to minimise off-label antipsychotic prescribing and to promote antipsychotic medication deprescribing. The Theoretical Domains Framework (TDF) is a 14-domain behaviour and behaviour change framework that aims to determine the factors influencing behaviour of healthcare professionals surrounding the implementation of evidence-informed recommendations providing a validated tool to identify important themes surrounding antipsychotic prescribing perceptions.[16 17] In using the TDF in our data abstraction and analysis, we will be able to identify theoretically driven behaviour change techniques to inform appropriate targeted strategies to address identified facilitators and barriers. The results of this scoping review will inform future interventional strategies to facilitate in-hospital antipsychotic medication deprescribing to improve patient safety through responsible prescribing practices.

Review question

The scoping review protocol was developed based on the scoping review methodology from Arksey and O'Malley and the Scoping Review Methods Manual proposed by the Joanna Briggs Institute.[18 19] The Preferred Reporting Items for Systematic Reviews and Meta-analyses Protocols (PRISMA) guideline was followed to develop and report the protocol.[20] Scoping review methodology will be used to understand off-label antipsychotic prescribing practices and perceptions in order to gain a breadth of understanding for this clinically relevant question where previous comprehensive synthesis of the literature has not been completed.[18] We will follow the PRISMA Extension for Scoping Reviews (PRISMA-ScR) checklist for reporting the review and have registered the scoping review on Open Science Framework (10.17605/OSF.IO/W635Z).[21]

The scoping review will address the following research questions:

1. What prescribing practices do healthcare professionals use in the acute care setting to guide prescribing and deprescribing of newly initiated antipsychotic medications in patients prescribed an antipsychotic off-label for clinical indications other than primary psychiatric diagnoses?
2. What perceptions, facilitators and/or barriers do healthcare professionals, patients and families identify that influence the way off-label antipsychotic medications are prescribed or deprescribed in the acute care setting for patients for clinical indications other than primary psychiatric diagnoses?

Eligibility criteria

The components of population, exposure, comparator, outcome, study design and time frame will be defined as follows:

- Population, clinical indication(s) and condition(s): Adult patients (as defined in the primary paper) admitted to any acute care setting excluding care centres associating with the acute care setting (eg, rehabilitation units, long-term acute care units), their family members and healthcare professionals (eg, physicians, nurses, pharmacists).
- Interventions/exposure: Antipsychotic medication administration for clinical indications other than a primary psychiatric diagnosis (eg, psychosis, schizophrenia, bipolar disorder) or dementia. Antipsychotic

medications will include: haloperidol/Haldol, quetiapine/Seroquel (immediate release and extended release), risperidone/Risperidal (immediate release and extended release), ziprasidone/Zeldox/Geodon, aripiprazole/Abilify, olanzapine/Zyprexa and methotrimeprazine/Nozinan.

- Comparator(s): All comparators and comparisons are of interest.
- Outcomes: Perceptions of antipsychotic prescribing practices, which may include facilitators and/or barriers (eg, perceptions on clinical indications, benefits and/or risks of antipsychotic prescribing, perceptions on efficacy). Antipsychotic medication prescribing practices, which may include prescribing and/or deprescribing (eg, preferred antipsychotic medication type prescribed, proportions of patients receiving antipsychotic medications, description of deprescribing initiatives).
- Study design: Any observational or experimental and quasi-experimental original peer-reviewed research study including randomised control trials, non-randomised control trials, interrupted time series, before and after studies, qualitative studies, surveys, case studies and case reports. Non-peer-reviewed abstracts (eg, conference abstracts) and studies of original research will also be included. Protocols, book chapters, Dissertations, editorials, opinion pieces, systematic or scoping reviews will be excluded.
- Time frame: No time limit on publication date will be set.

METHODS AND DESIGN

Eligible study designs

We will include both peer-reviewed articles and any non-peer-reviewed articles that report novel results of primary observational studies (eg, cohort studies, case–control studies, semi-structured interviews, focus groups and surveys) and primary experimental or quasi-experimental studies (eg, randomised control trials, before-and-after studies and interrupted times series). We will exclude study protocols, book chapters, dissertations, editorials, opinion pieces, and systematic and scoping reviews. We will include a search of the grey literature in this study using Web of Science to identify relevant additional studies or abstracts to ensure our scoping review is thorough and retrieves the full scope of available literature to develop an in-depth and meaningful understanding of off-label antipsychotic prescribing practices and perceptions surrounding prescribing and deprescribing. A search of the grey literature will be completed as it is possible that some studies on prescribing practices and perceptions may not be peer-reviewed and used as preliminary data to inform larger studies or quality improvement initiatives.

Participant eligibility

Eligible study populations will include adult patients (as defined in the primary paper) that are hospitalised at an acute care facility (eg, critically ill, medical or surgical ward patients), family members of this patient population, and all healthcare professionals including but not limited to physicians, nurses and pharmacists. We will exclude patients admitted to an acute care facility for a primary psychiatric diagnosis (eg, psychosis, schizophrenia, depression, bipolar disorder) or dementia as well as those patients who are in specialised care facilities or long-term care facilities. This study population reflects those typically involved in the prescribing process of antipsychotic medications in acute care facilities for off-label clinical indications.

Eligible exposures

The primary eligible exposure is antipsychotic medication administration for clinical indications other than a primary psychiatric diagnosis. We will include several antipsychotic medications that are commonly used for the management of delirium and insomnia in acute care patients based on previous research studies and clinical experience.[10 22–24] We will include the following antipsychotic medications in this scoping review: haloperidol/Haldol, quetiapine/Seroquel, risperidone/Risperidal, ziprasidone/Zeldox/Geodon, aripiprazole/Abilify, olanzapine/Zyprexa and methotrimeprazine/Nozinan.

Eligible outcome measures

All eligible studies will report on at least one of the following outcomes: (1) antipsychotic medication prescribing practices including prescribing or deprescribing strategies, and/or (2) perceptions related to off-label antipsychotic medication prescribing among patients,family members or healthcare professionals. Studies reporting on antipsychotic prescribing practices will quantitatively describe outcomes of how off-label antipsychotic medications are prescribed. Examples of potential antipsychotic prescribing practice outcomes identified will include descriptions of reported or measured antipsychotic medication type prescribed, reported antipsychotic clinical indications and descriptions of deprescribing initiatives. Studies reporting on perceptions of antipsychotic prescribing will qualitatively describe outcomes of factors that impact stakeholder perceptions on prescribing antipsychotics. Examples of stakeholder perceptions may include but are not limited to perceptions on perceived benefits and/or risks of antipsychotic prescribing, perceived antipsychotic prescribing competence (eg, knowledge of antipsychotic prescribing guidelines) and perceptions on antipsychotic deprescribing efficacy. Eligible studies may also describe facilitators and/or barriers to deprescribing of antipsychotic medications but is not required for scoping review eligibility. Eligible studies must address at least one of the study outcomes to be included.

Eligible time frame

There will be no time frame set for this search strategy and all databases will be searched from their inception to the search date. All databases will be searched on the

same day. No eligible time frame will be set for this study as we aim to understand the breadth of off-label antipsychotic prescribing practices and perceptions and document temporal trends of prescribing practices, if possible.

Search methods for identification of studies

MEDLINE, EMBASE, PsycINFO and CINAHL will be searched for key words relating to antipsychotic medication prescribing practices and experiences. Web of Science will be searched for unpublished grey literature. The search strategy for MEDLINE has been developed in consultation with a professional health sciences librarian (online supplemental appendix 1). The search strategy for the other databases has been adapted from the MEDLINE strategy. A broad range of search terms that include subject headings and keywords have been selected that reflect antipsychotic medications prescribing practices as well as perceptions of patients, their families and healthcare professionals on antipsychotic medication prescribing and deprescribing. Search terms are focused on adult critically ill and hospitalised patients, family members, and healthcare professionals, antipsychotic medication administration, prescribing and deprescribing practices (including facilitators, barriers or strategies), and patient or healthcare professional perceptions, and experiences. Studies published in any language will be considered.

Selection of eligible studies

Records identified through the search will first be imported into Endnote V.X9 (Clarivate, Philadelphia, USA) for deduplication. The primary reviewer (NJ) will remove duplicates using the deduplication strategy outlined by Bramer *et al* before importing titles and abstracts for review into Covidence (Veritas Health Innovation, Melbourne, Australia).[25] Covidence software will be used to store and manage eligible studies. Prior to the screening of titles and abstracts, two reviewers (NJ and ZS) will complete a calibration exercise of at least 50 random citations to ensure 100% agreement before commencing the full titles and abstracts screening protocol for eligible studies. The same two reviewers (NJ and ZS) will then each independently complete screening of titles and abstracts so that all screening has been duplicated for the selection of eligible studies for potential inclusion based on a predefined inclusion and exclusion criteria (table 1). We will develop screening questions for study inclusion eligibility (table 2). Any study selected at this stage by either of the reviewers will proceed on to the next stage. Two reviewers (NJ and SJM) will then each review all full texts independently to ensure duplication of full-text review for inclusion eligibility and for the development of the data abstraction table. We will complete an additional calibration exercise for the screening of reference lists of articles meeting eligibility criteria. The same two reviewers (NJ and SJM) will each screen reference lists independently and in duplicate for potentially relevant articles. Both reviewers will acquire and review independently all potentially relevant full-text articles identified through this process for eligibility in the scoping review. If articles are not available in English, they will be translated either

Table 1 Inclusion and exclusion criteria for a scoping review of antipsychotic medication prescribing practices in the acute care setting for clinical indications other than primary psychiatric disorders

Inclusion	Exclusion
Any observational, experimental or quasi-experimental original peer-reviewed studies or non-peer-reviewed records (eg, conference abstracts) that report novel results from research studies	The study is a study protocol, editorial, opinion piece, or systematic or scoping review
The study population includes patients, their family members and/or healthcare professionals of hospitalised or critical care adult patients (as defined in the primary paper)	The study population includes patients, family members, and/or healthcare professionals of hospitalised children, or neonates
	The study population includes patients, family members, and/or healthcare professionals of those being treated for a primary psychiatric disorder (includes: psychosis, schizophrenia, generalised anxiety disorder, bipolar disorder) or dementia
The study includes/addresses at least one of the following antipsychotic medications: haloperidol/Haldol, quetiapine/Seroquel, risperidone/Risperidal, ziprasidone/Zeldox/Geodon, aripiprazole/Abilify, olanzapine/Zyprexa, methotrimeprazine/Nozinan.	The study includes/addresses an antipsychotic medication other than listed in the inclusion criteria
The study describes antipsychotic medication prescribing or deprescribing practices/patterns, or facilitators, or barriers (eg, deprescribing algorithms, lack of follow-up) to deprescribing antipsychotic medications prescribed off-label in an acute care setting	The study describes antipsychotic medication prescribing or deprescribing practices/patterns, or facilitators, or barriers to deprescribing antipsychotic medications in either an outpatient setting, long-term care facility or nursing home
The study's outcome(s) includes one of the following: 1. Any description of antipsychotic prescribing practices (prescribing or deprescribing) 2. Any perceptions from patients, family members and/or healthcare professionals of hospitalised or critically ill patients with antipsychotic medication prescribing or deprescribing	The study's outcome(s) are either: 1. Not a description of antipsychotic prescribing practices (prescribing or deprescribing) 2. Not a description of any perceptions from patients, family members or healthcare professionals of hospitalised patients

Table 2 Screening questions for study eligibility for scoping review of antipsychotic medication prescribing practices in the acute care setting for clinical indications other than primary psychiatric disorders

	Characteristics for assessment		
Screening questions	Yes—include	No—exclude	Unclear—include
Study design: Does the title or abstract describe an original peer-reviewed or non-peer-reviewed observational or interventional research study?	Yes—The study design is original peer-reviewed or non-peer-reviewed observational or interventional.	No—The study is not original peer-reviewed or non-peer-reviewed observational or interventional research.	Unclear—The study design is unclear as to whether it is original peer-reviewed or non-peer-reviewed research and/or observational or interventional.
Population: Does the population of interest include critically ill or hospitalised patientsfamily members and/or healthcare professionals?	Yes—The study population describes critically ill or hospitalised patients, family members and/or healthcare professionals.	No—The study population includes outpatients or long-term care patients.	Unclear—It is unclear if the study population is critically ill or hospitalised patients, family members and/or healthcare professionals.
Exposure: Does the study include the administration of an antipsychotic medication?	Yes—The study intervention includes the administration of an antipsychotic medication.	No—The intervention of interest does not include the administration of an antipsychotic medication.	Unclear—It is unclear if the intervention addresses the administration of an antipsychotic medication.
Outcome: Does the title and/or abstract include the description of antipsychotic prescribing practices (prescribing or deprescribing) and/or the perceptions, experiences, facilitators and/or barriers to deprescribing of antipsychotic medications?	Yes—One or more of the study outcomes are related to the description of antipsychotic prescribing practices, and/or perceptions, experiences, facilitators and/or barriers to medication deprescribing of antipsychotic medications.	No—There is no study outcome reported related to the description of antipsychotic prescribing practices and/or perceptions, experiences, facilitators, and/or barriers to medication deprescribing of antipsychotic medications.	Unclear—It is unclear if the study outcome is related to the description of antipsychotic prescribing practices, and/or perceptions, experiences, facilitators, and/or barriers to medication deprescribing of antipsychotic medications.

through a reviewer with fluency in the specific language or by using electronic translation tools such as Google Translate or Yandex, which have been identified to be reliable for translating documents for systematic reviews and reliably generating sentences in the target language from the source language.[26 27] Disagreements in study selection will be resolved through discussion or if necessary through a third reviewer (KDK).

Data abstraction from included studies

Data abstraction will include study identifiers, study design, included participant numbers and demographics, antipsychotic medication exposure type, and outcome information with prescribing or deprescribing strategies, if applicable (table 3). We will summarise perceptions, facilitators or barriers qualitatively using the TDF for analysis which is described further below.[17 28]

A data abstraction form will be piloted with a subset of studies in Microsoft Excel to assure clarity, comprehensive inclusion of relevant findings and ease of use. Two

Table 3 Proposed data abstraction table for eligible studies included in the scoping review of antipsychotic medication prescribing practices in the acute care setting for clinical indications other than primary psychiatric disorders

Data domain	Data categories
Study identifiers: From a peer-reviewed published study	Authors' names; study title; publication type; publication date; journal, volume, issue and page numbers of publication; and digital object identifier
Study design: Primary original peer-reviewed or non-peer-reviewed observational or interventional research	Study type or design; time frame of study; location of study (ie, country)
Population: Adult acute care patients, family members and healthcare professionals (including physicians, nurses and pharmacists)	Definition and size (ie, N) of the source population(s); relevant demographic information (eg, age, sex, gender); admitting diagnosis, patient hospital length of stay (if applicable)
Exposure: Administration of an antipsychotic medication	Method of recruitment; type of antipsychotic medication administered; inclusion and exclusion criteria; baseline imbalances; duration of study
Outcomes: Antipsychotic prescribing or deprescribing strategies; patient, family and/or healthcare professional centred outcomes	Approaches or strategies used to facilitate antipsychotic prescribing or deprescribing including facilitators and/or barriers; author's recommendations and conclusions Patient, family and/or healthcare professional-centred outcomes: perceptions and/or experiences related to medication prescribing and deprescribing of antipsychotic medications

reviewers (NJ and SJM) will complete data abstraction independently. The first reviewer will complete data abstraction for all included studies first after which the second reviewer will review all data abstracted by the first reviewer to ensure accuracy. Disagreements will be resolved through discussion or by a third reviewer (KDK), if necessary. For any missing or unclear data that cannot be extracted, we will contact the corresponding author via email for clarification. A 4-week period will be allocated for responses with one follow-up email planned at the 2-week interval within this time period if no response is received. The methodological quality of included studies will not be assessed as the aim of this scoping review is to identify potential prescribing and deprescribing practices and strategies, as well as stakeholder perceptions, facilitators and/or barriers to antipsychotic medication deprescribing.

Strategies for data synthesis

Data synthesis will involve both quantitative and qualitative analysis. Some studies may address one or both prespecified study outcomes. Studies will be evaluated for inclusion for either quantitative and/or qualitative analysis dependent on study outcomes and available data for abstraction. Quantitative analysis will be composed of descriptive statistics of antipsychotic prescribing practices including frequencies and proportions of prescriber preferred antipsychotic medications, as appropriate. We will characterise antipsychotic medication prescribing practices by reporting approaches or strategies used to facilitate antipsychotic prescribing or deprescribing initiatives including facilitators and/or barriers, author recommendations and conclusions, as applicable (table 3).

Perceptions of antipsychotic prescribing practices will be described qualitatively. Qualitative analysis will consist of two coders (NJ and SJM) analysing included studies in two stages using the TDF for analysis to identify key factors that influence antipsychotic prescribing practices. The TDF is a theoretical framework of 14 behaviour and behaviour change domains initially developed to identify relevant factors that influence the behaviour of healthcare professionals surrounding the implementation of evidence-informed recommendations.[28] In the first stage, we will use deductive thematic analysis following the methods described by Braun and Clarke by reading text line-by-line of both the results and discussion sections as appropriate of included studies to identify and categorise specific codes to the TDF domains.[29] In the second stage, the two coders (NJ and SJM) will analyse text for discrete themes within each domain extracted from included eligible studies. Disagreements in coding of text to a domain will be resolved by discussion between the coders.[28] Using the TDF for data analysis will allow for linkage of identified priority domains found in this scoping review to behaviour change techniques through the Behaviour Change Wheel for future antipsychotic deprescribing intervention study designs.[17] Data management and analysis will occur in NVivo V.12 (QSR International, Melbourne, Australia).

Presentation of the results

A flow diagram following the PRISMA-ScR will demonstrate where and why citations are removed during screening and additional full-text searches[21] (figure 1). We will present all included studies in narrative synthesis. We will develop a table of the included studies that will describe study identifiers, period of study and setting, participant sample size, participant demographics, antipsychotic medication exposure type and duration, quantitative and qualitative outcome(s) including but not limited to perceptions, experiences, facilitators, barriers and author's conclusions. We will report descriptive statistics of antipsychotic prescribing practices within this table or in narrative synthesis and will include frequencies and proportions, as appropriate. We will report identified relevant domains from the TDF in a separate figure with a narrative summary in the results.

Patient and public involvement

In collaboration with the research group, our multidisciplinary team of healthcare professionals (ie, pharmacist, physician) were involved in the development of the research question, proposed methodology and overall design of this scoping review protocol. These knowledge users will continue to be involved in the project throughout the process of dissemination of the results of this scoping review. Future development of an integrated knowledge translation initiative aimed at in-hospital antipsychotic medication deprescribing that will be informed by the results of this scoping review will include patient and healthcare professional involvement in study design, key priority setting discussions and consultations.

Anticipated challenges and limitations

There are a few anticipated challenges for this scoping review. The quality and variability of the evidence on off-label antipsychotic prescribing practices and underlying perceptions is expected to be of poor quality or absent given the significant gaps within the literature related to prescribing and deprescribing strategies within the acute care setting. However, our broad and comprehensive search strategy will retrieve the best quality evidence available to provide an understanding of the current literature on antipsychotic prescribing practices in acute care settings. This will inform future directions for targeted studies to address these knowledge gaps. The antipsychotic medication list selected for this scoping review reflects the most common off-label antipsychotic medications prescribed within the acute care setting identified in the current literature and through clinical experience.[10 22–24] Limiting the search strategy to the most common antipsychotic medications used in the acute care setting for non-psychiatric diagnoses will ensure feasibility however may limit generalisability in clinical environments where other antipsychotic medications may be more commonly

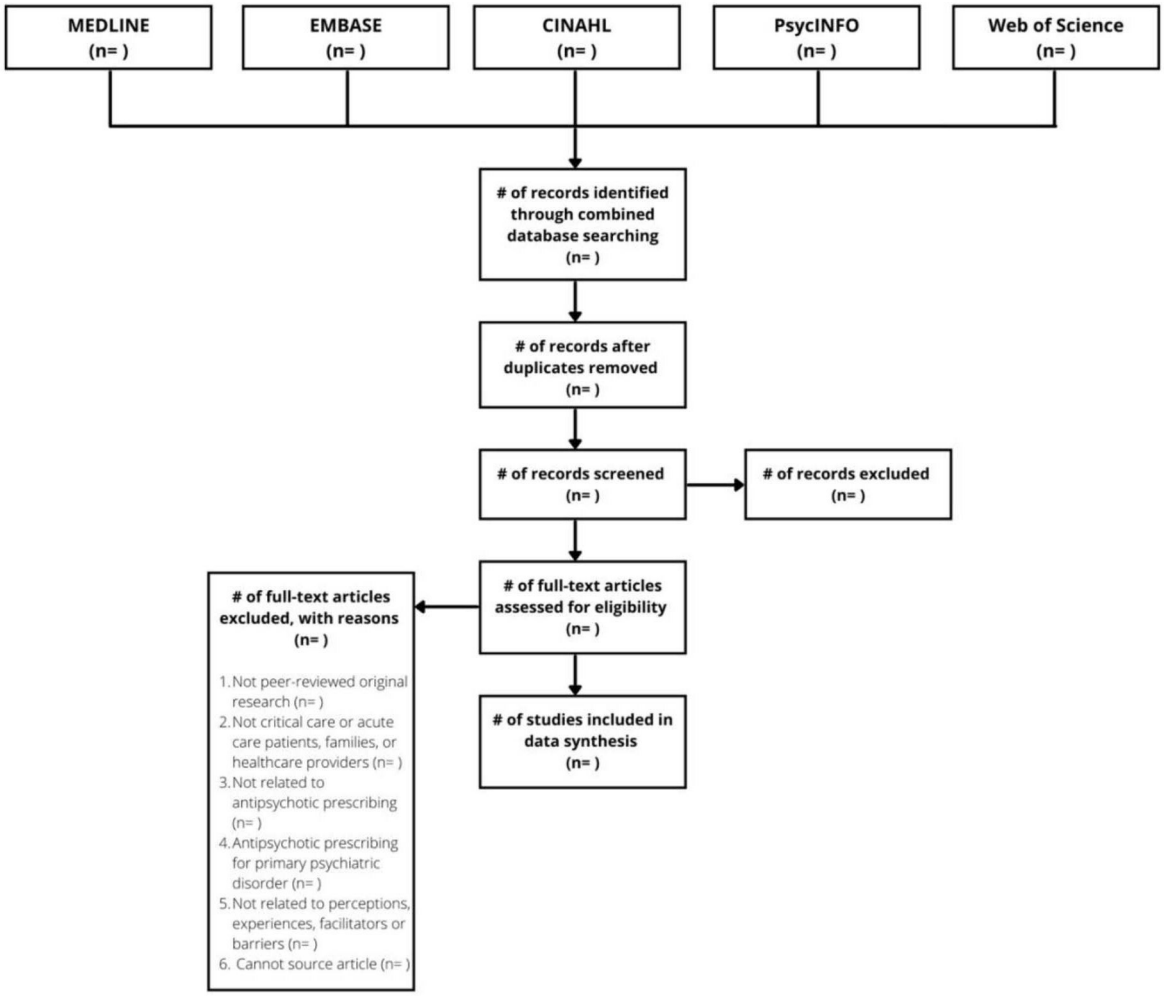

Figure 1 PRISMA flow diagram. PRISMA, Preferred Reporting Items for Systematic Reviews and Meta-Analyses.

used (eg, low health resource clinical environments). However, this is not expected to impact the overall perceptions on antipsychotic medication use within the acute care setting. Further, significant variability in the types of prescribing practices is expected within different health systems dependent on available resources and hospital administrative structures which may impact the generalisability of the identified prescribing and/or deprescribing strategies. For example, the availability of electronic health record systems may impact the potential antipsychotic deprescribing strategies assessed and have limited applicability in low-resource settings where electronic health record system usage is less common.[30]

ETHICS AND DISSEMINATION

No ethical approval will be required for this study as only data from published studies in which informed consent was obtained by primary investigators will be retrieved and analysed. No human or animal participants will be recruited for this study. We have used integrated knowledge translation throughout the development of this study by collaborating with healthcare professionals in the formulation of the study question and study design to ensure applicable clinical relevance. We will disseminate the outputs of this scoping review to identified stakeholder groups with both an active and passive dissemination strategy including publications, presentations and engagement with relevant stakeholders regarding the results of this scoping review.

DISCUSSION

The proposed scoping review will identify the available evidence on antipsychotic medication prescribing and deprescribing practices, additionally outlining the perceptions and experiences of patients, their families and healthcare professionals surrounding antipsychotic medication prescribing and deprescribing in acute care settings.

Antipsychotic medication prescribing in the acute care setting is prevalent for clinical indications where these medications are not traditionally recommended such as delirium or insomnia.[1] To improve safe prescribing practices of antipsychotic medications, an understanding of the current literature identifying deprescribing initiatives and perceptions on antipsychotic prescribing and deprescribing practices are important to developing

evidence-informed interventions that prioritise deprescribing antipsychotic medications for hospitalised patients. Currently, to our knowledge, there are no comprehensive reviews of the available literature on how antipsychotic medications are prescribed and deprescribed and the impact of patient, family and healthcare professional perceptions on these prescribing practices. In using the TDF to map factors influencing the behaviours of healthcare professionals around the implementation of evidence-informed recommendations, our work will provide a framework that can be used for integrated knowledge translation initiatives.[17 31] We anticipate that this scoping review will inform future studies on effective antipsychotic deprescribing interventions within the acute care setting aimed at reducing ongoing antipsychotic medication prescriptions while balancing the risk of patient safety and/or symptom recurrence.

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Appendix 1. MEDLINE database search strategy

1	exp antipsychotic agents/
2	(antipsychotic* or anti-psychotic* or neuroleptic* or psychotropic* or haldol or haloperidol or quetiapine or seroquel or risperidone or risperidal or olanzapine or zyprexa or methotrimeprazine or nozinan or ziprasidone or zeldox or geodon or aripiprazole or abilify).ti,ab,kf.
3.	or/1-2
4	exp attitude of health personnel/
5	exp attitude to health/
6	exp health knowledge, attitudes, practice/
7	(knowledge adj2 attitude* adj2 perception*).ti,ab,kf.
8	(knowledge adj2 attitude* adj2 practice*).ti,ab,kf.
9	(attitude* or stance* or opinion* or insight* or percepti* or belie* or facilitator* or facilitat* or experience* or perspective* or barrier* or challeng*).ti,ab,kf.
10	or/4-9
11	exp critical illness/
12	exp intensive care units/
13	exp critical care/
14	exp hospitalization/
15	exp inpatients/
16	exp hospitals/
17	(critical care* or critical ill* or critically ill* or intensive care* or intensive care unit* or ICU* or inpatient* or hospitaliz* or admit* or admission* or hospital*).ti,ab,kf.
18	or/11-17
19	exp Practice Patterns, Physicians/
20	exp Drug Prescriptions/
21	(deprescrib* or deprescrip* or de-prescrib* or de-prescrip* or discontinu* or dis-continu* or deadopt* or de-adopt* or de-implement* or deimplement* or prescrib* or prescrip* or practic*).ti,ab,kf.
22	(prescri* adj2 practice*).ti,ab,kf.
23	(prescri* adj2 pattern*).ti,ab,kf.
24	or/19-23
25	3 and 10 and 18 and 24