

Use of the NIDUS Resources to Advance Research: A Real World Example

Presenter: Karin Neufeld, MD, MPH

Time	Section
04:41	<u>Introduction to topic</u>
05:05	<u>Objectives</u> <ul style="list-style-type: none"> • Review procedural steps in systematic review process • Review research question- antipsychotic medications for (prevention of delirium? Treatment of delirium?) • How we used NIDUS resources to complete this research • Overview of key findings
05:29	<u>Systematic Review Steps</u> <ul style="list-style-type: none"> • Assembling a team <ul style="list-style-type: none"> ○ Data search and review team, content expert, methods expert, information specialist • Developing a protocol <ul style="list-style-type: none"> ○ Develop a question and write a protocol (define eligibility criteria [inclusion/exclusion]) ○ Register the protocol (Prospero—prospectively registered systematic reviews) • Data collection • Data synthesis <ul style="list-style-type: none"> ○ Results of findings from systematic review ○ Meta-analysis (if appropriate) • Interpretation of data • Update <ul style="list-style-type: none"> ○ Updating the literature search prior to publication
06:11	<u>AHRQ Background</u> <ul style="list-style-type: none"> • Evidence-based practice centers (EPC) program • Currently includes 9 centers • AHRQ offers contracts to perform systematic reviews (in addition to other activities) • Topic nomination procedures include federal partners • The Research Question <ul style="list-style-type: none"> ○ Request for task order: <ul style="list-style-type: none"> ▪ AHRQ distributes the RFTO ▪ Response to sponsoring organizations—AGS & APA ▪ AGS requested this as supporting revision of the next Beers criteria ○ Question 1: what are the benefits and harms for antipsychotics compared to each other, placebo, or non-drug approaches to prevent delirium? ○ Question 2: what are the benefits and harms for antipsychotics compared to each other, placebo or non-drug approaches in the treatment of delirium (resolution of delirium, delirium free days, mortality, function, complications from treatment)? <ul style="list-style-type: none"> ▪ Do the harm vs. benefits differ in some subgroups of older adults with delirium (such as persons with dementia, critically ill or ICU patients, long-term care)?
09:03	<u>Assembling a Team</u> <ul style="list-style-type: none"> • Lists out all of the people involved
11:17	<u>Developing a Protocol</u> <ul style="list-style-type: none"> • Study design—analytic framework—key question 1 (infographic) • Study design—analytic framework—key question 2 (infographic) • Key questions refined with input from key informants (KI) and a technical expert panel • Critical outcomes chosen a priori • Through voting mechanism by KI • Determined for each sub-population and overall

	<ul style="list-style-type: none"> • Registered with PROSPERO • Delirium Severity Harmonization (tools from NIDUS website → measurement and harmonization) <ul style="list-style-type: none"> ○ Exclusion criteria: studies that did not use a validated instrument to diagnose delirium ○ Protocol included the NIDUS measurement harmonization ○ Only studies using instruments found on the hub were included in the review ○ Also used crosswalk tool
21:16	<p><u>Data Collection</u></p> <ul style="list-style-type: none"> • 2 independent reviewers screened each abstract • Created and pilot tested data extraction forms • Each article underwent double review by 2 reviewers • Risk of bias assessment by 2 independent reviewers and categorized into low, high or unclear ROB
22:28	<p><u>Data synthesis</u></p> <ul style="list-style-type: none"> • Table of data for key question 1 <ul style="list-style-type: none"> ○ Table indicates that there are large gaps in the literature that do not address the questions posed in this review • Table of data for key question 2 <ul style="list-style-type: none"> ○ A bit more data filled in, but still large gaps in literature • Delirium severity: treatment of delirium (meta-analysis figure) → wouldn't have been able to do without NIDUS resources • Prevention of Delirium → meta-analysis figure • Key findings of the AHRQ Review <ul style="list-style-type: none"> ○ When using haloperidol/second generation antipsychotics (SGAs) to prevent delirium or treat delirium: <ul style="list-style-type: none"> ▪ No difference in the hospital LOS ▪ Little or no evidence to determine the effect of antipsychotics on many outcomes ▪ SGAs may decrease delirium in postoperative patients ▪ Haloperidol/SGAs: little or no difference in sedation or EPS ▪ Heart-related SEs (QT prolongation) occurred more frequently with antipsychotics (note: but not statistically significant so) ▪ Future studies needed to assess effects on: <ul style="list-style-type: none"> • Agitation and distress, subsequent memories of delirium, caregiver burden and distress, inappropriate continuation of antipsychotic therapy, and long-term cognitive and functional outcomes
32:12	<p><u>Dissemination</u></p> <ul style="list-style-type: none"> • Published 2 articles in Ann Internal Med
33:09	<p><u>Questions and Answers</u></p>