AMERICAN DELIRIUM SOCIETY

Implementing, Growing, and Sustaining a Delirium Program

Introduction

This toolkit will provide health care professionals with a roadmap and resources to implement, grow, and sustain an evidence-based delirium care program.

Included are educational materials and useful tools for use by interprofessional teams to address the prevention, detection, diagnosis, treatment and management of delirium or acute encephalopathy. Metrics for measuring baseline status, tracking change over time and identifying areas for improvement are suggested.

This toolkit may be helpful to organizations looking to either start a delirium care program or enhance an existing program. It is designed to address the “who/what/when/where/how” of delirium care with concise and practical steps. You are encouraged to incorporate linked resources into your clinical workflow. Note that some tools may have copyright and require permission for use from the original authors, while many of the tools are delivered as examples that you may modify for your own adaptation.

WHAT’S INSIDE

Step 1: Getting Started

- Where to begin
- Defining the problem
- Executive leadership buy-in
- Clinical staff buy-in
- Making the case using your organization’s own data
- Round out your project team
- Choose stakeholder leadership

Step 2: Identifying Delirium

- Deciding whom to screen
- Deciding how to screen
- Deciding how often to screen
- Screening promotes action and allows for measurement

Step 3: Plan to Utilize Nonpharmacologic Interventions

- Where is the evidence?
- Inventory of items currently available
- Securing resources for personalized intervention
- Tips for successful use of nonpharmacologic interventions
- Evaluation

Step 4: Educate Frontline Clinical Staff

- Identify whom to educate
- Decide the education to be provided
- Decide how to educate
- Consensus Algorithms For Management of Delirium and Acute Encephalopathy
- Educate on delirium screening
- Educate on preventative strategies
- Educate teams on actions to take with any new positive delirium screen
- Educate providers on delirium diagnosis
- Educate team on determining etiology of delirium
- Educate on nonpharmacologic mitigation strategies
- Educate on use of pharmacologic “rescue” strategies

Step 5: Patients and Families

- Education for patients and families
- Support for patients and families

Step 6: Continuous Quality Improvement

- Remeasure outcome variables over time
- Measurement
- Audit processes for compliance
- Analysis and action

Thank you for your interest and efforts to make evidence-based delirium care a priority

IMPLEMENTING, GROWING, AND SUSTAINING A DELIRIUM PROGRAM

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Getting Started

Step 1

STEP 1

Where to Begin?

DEFINE THE CURRENT LANDSCAPE OF DELIRIUM AT YOUR FACILITY

- Is delirium acknowledged as an issue that needs attention?
- How is delirium currently identified and addressed?
- Which clinical staff currently direct or manage the care of delirious patients?
- What baseline data can you gather to present to executives and clinicians to increase their awareness and buy into the need for a delirium care program?
- What resources are currently in place to support a comprehensive delirium care program?

Defining the Problem

Who is raising the issue?

- Quality analyst
- Clinician
- Administrative executive

What drove this inquiry?

- External influence (conference, literature, regulatory review, national benchmarks)
- Internal concerns (quality measures, concerns raised by clinicians, patient/family satisfaction, legal actions)

Resources to Increase Awareness

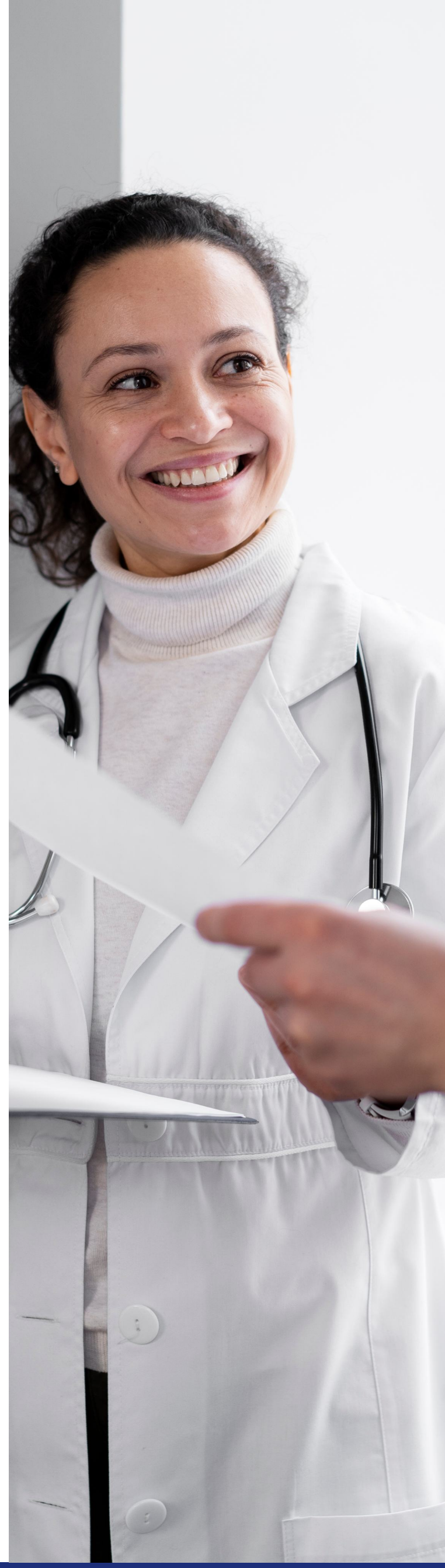
- Delirium: The Issue
- Facts on Delirium

Plan how and to whom to distribute within your facility. Consider:

- Executive Leadership meeting
- Divisional meeting (clinicians)
- Target informal leaders
- Nursing council
- Allied health team

Executive Leadership Buy-In

- Identify mission, vision and goals of the organization
- Align the potentially improved outcomes associated with an evidence-based delirium program with the organization's mission, vision and goals
  Examples include:
  - Promote optimal patient wellness and minimize patient harm
  - Provide optimal patient/family experience
  - Create a supportive practice environment for staff
- Link potential improvement of quality measures to an evidence-based delirium program
- Convey that a comprehensive delirium program will:
  - Utilize and build on existing resources
  - Restructure current processes to minimize the need for additional staff time



Clinical Staff Buy-In

- Ask front line staff to identify their current challenges with delirium prevention, detection and management
  - Questionnaire - Clinical Challenges
- Articulate how a delirium care program can address these issues
- Be sure to focus on these concerns when building your delirium care program
- Identify potential delirium champions across disciplines

Making the Case Using Your Organization's Own Data

Use any of the following available variables (proxies) to present baseline data to gain support for a delirium care program. These same variables can serve as a comparison to measure the impact of a program over time.

DELIRIUM INDICATOR VARIABLES TABLE

1. **Delirium prevalence (if delirium screening tool already in place)**
2. **Length of stay***
3. **Discharge disposition***
4. **30-day readmission rate***
5. **Mortality rate***
6. **Falls (with and without injury)***
7. **Physical restraint use***
8. **Use of benzodiazepines (new)***
9. **Use of antipsychotics (new)***
10. **Patient/family satisfaction***
11. **Hospital-acquired pressure ulcer rates***
12. **ICD-10-CM delirium / acute encephalopathy codes at discharge**

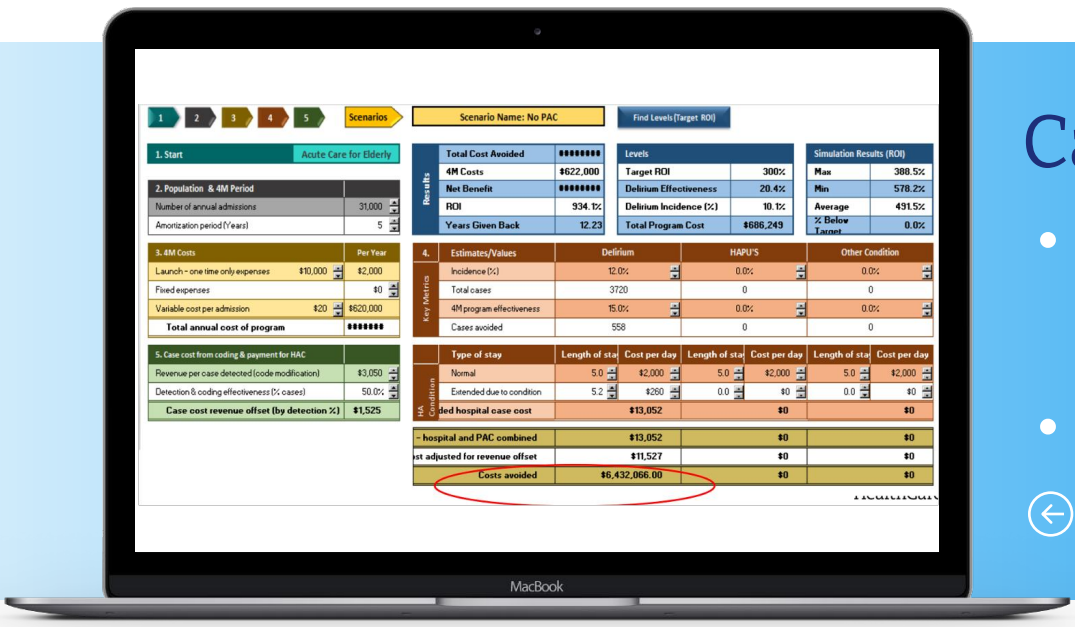
**The variable values can be presented separately for patients with and without delirium if you already have a reliable delirium screening mechanism. Otherwise include all patients regardless of presence or absence of delirium.*

Identify Existing Engaged Parties

Determine which healthcare professionals in your facility currently participate in care of delirious patients

- Geriatric specialists (all disciplines)
- Psychiatric specialists (all disciplines)
- Neurologic specialists (all disciplines)
- Palliative care specialists (all disciplines)
- Pharmacists
- Critical care specialists
- Cardiac Specialists
- Case Managers

Invite a representative from each group to be on the project team



Calculate Potential Savings

- Complete the Return on Investment (ROI) Calculator to estimate potential cost savings to the organization with a delirium care program.
- ROI Calculator Instructions

EXAMPLE OF A COMPLETED ROI CALCULATOR

Round out your Project Team

- Executive sponsor
- Quality leads
- Provider leads (represent different service lines)
- Nursing leads (represent different service lines)
- Rehab leads (PT, OT, Speech)
- Pharmacist leads
- Social work leads
- Patient/family representative
- Informatics
- Data analyst
- Volunteer services
- Philanthropy
- Marketing
- Supply chain
- Billers and coders

Choose Stakeholder Leadership

- Recruit 3-4 stakeholders to be leaders of the project team
- Set target dates and responsible parties for deliverables
  - Sample Timeline for Implementation
- Break into subgroups for each deliverable. Involve only those team members appropriate for each task. After completed, share with entire group
- Consider Plan-Do-Study-Act (PDSA) methods
- Decide if prioritized areas or universal start up is best
- Create an Overall Program Diagram

|| Summary

- Both executives and clinicians should be included when getting buy-in for a delirium program
- Raising awareness of the negative impact of delirium and integrating the significance of a delirium program to support the mission, vision and goals of the organization is critical
- Using the organization's own data to identify measures for a delirium program is important to make your case and measure future impact
- Build on existing resources

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Identifying Delirium/Acute Encephalopathy

Step 2

STEP 2

Deciding Whom to Screen

Decide on universal delirium screening vs screening only those at highest risk which include:

- Ages 0-5 and 65+
- Existing neurocognitive disorder (dementia, traumatic brain injury, brain tumor, prior stroke)
- History of delirium
- Requiring ICU-level care
- Undergoing major surgery

Delirium Screening	Pros	Cons
Universal	• All cases of delirium identified • Culture change	Time
High risk only	Targeting resources	Cases of delirium potentially missed

Deciding How to Screen

Many delirium screening tools exist, some are specific to the population being screened (ICU/non-verbal vs non-critically ill/verbal, adult vs pediatric), some require a multi-step process (basic screen followed by a more comprehensive screen if basic screen is positive for potential delirium). Visit these links for information on delirium screening tools:

- AGS CoCare®: CAM and HELP Tools
- Adult Delirium Info Cards
- Pediatric Info Cards
- Screening Tools
- Study: Stanford Proxy Test for Delirium

Deciding How Often to Screen

- Due to the fluctuating nature of delirium, it is recommended that screening take place at least every 12 hours during an episode of acute illness or injury
- Due to the high prevalence and subtle nature of hypoactive delirium, standardized screening should take place regularly during an episode of acute illness or injury. PROVE THE PERSON IS NOT DELIRIOUS.

Screening Tips

- Screens are generally performed by nurses with first time positive screens being referred to the provider for further assessment and confirmation of a diagnosis of delirium.
- Screens are only as accurate as the screener. Staff will need education and validation of performance to have a reliable process for identifying delirium and tracking rates.
- Many screens require knowledge of the patient's **baseline** mental status (when not ill or injured) to determine if the current state is different from normal **for that individual**. Baseline data can be gathered from the family/acquaintances or prior documentation in the electronic health record.

Additional Screening Mechanisms

Single-channel EEG is an objective tool that can identify brainwave changes indicative of a delirious state

Screening Promotes Action and Allows for Measurement

- When delirium screening is put in place, rates of delirium identification typically increase and then begin to decrease once evidence-based prevention and management strategies are integrated into standard care
- Delirium screening (process and result) should be integrated into the electronic health record (EHR) and made part of standard of care
- Positive delirium screens can trigger:
  - Provider notification
  - Delirium Order Sets
  - Plans of care

|| Summary

Routine screening for delirium will promote early detection and prompt action

DETERMINE

- Who will screen.
- Who will be screened and how often
- How will screening be performed
- Next steps following a positive screen

Plan to Utilize Nonpharmacologic Interventions

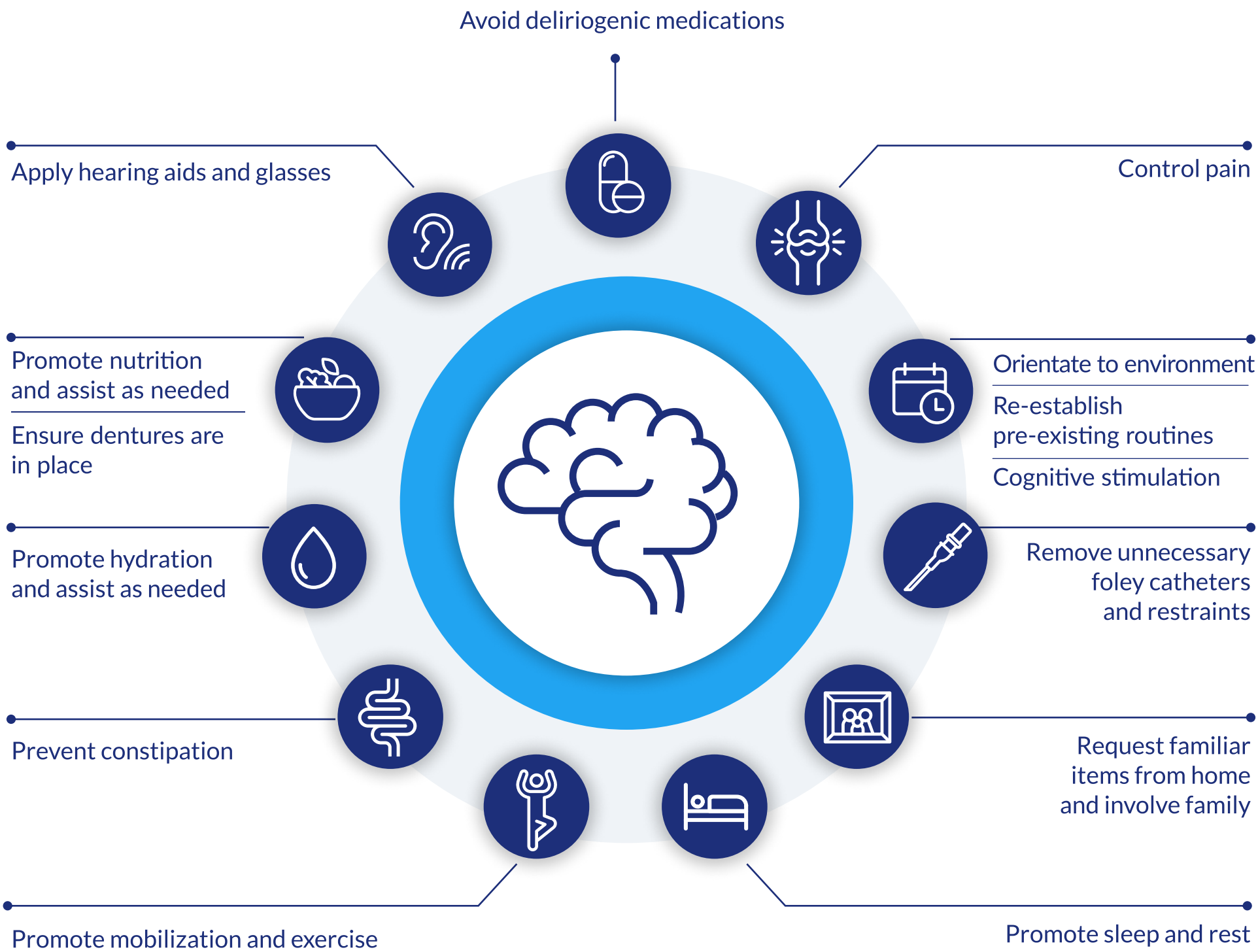
Step 3

STEP 3

Where is the Evidence?

Many studies have demonstrated positive outcomes (delirium prevention/decreased distress in patients experiencing delirium) from the implementation of a multi-component, individualized set of nonpharmacologic interventions

NONPHARMACOLOGIC INTERVENTIONS FOR DELIRIUM PREVENTION AND MANAGEMENT



Inventory of Items Currently Available

Some nonpharmacologic interventions require the availability of specific items at the bedside. Identify items currently available at your facility.

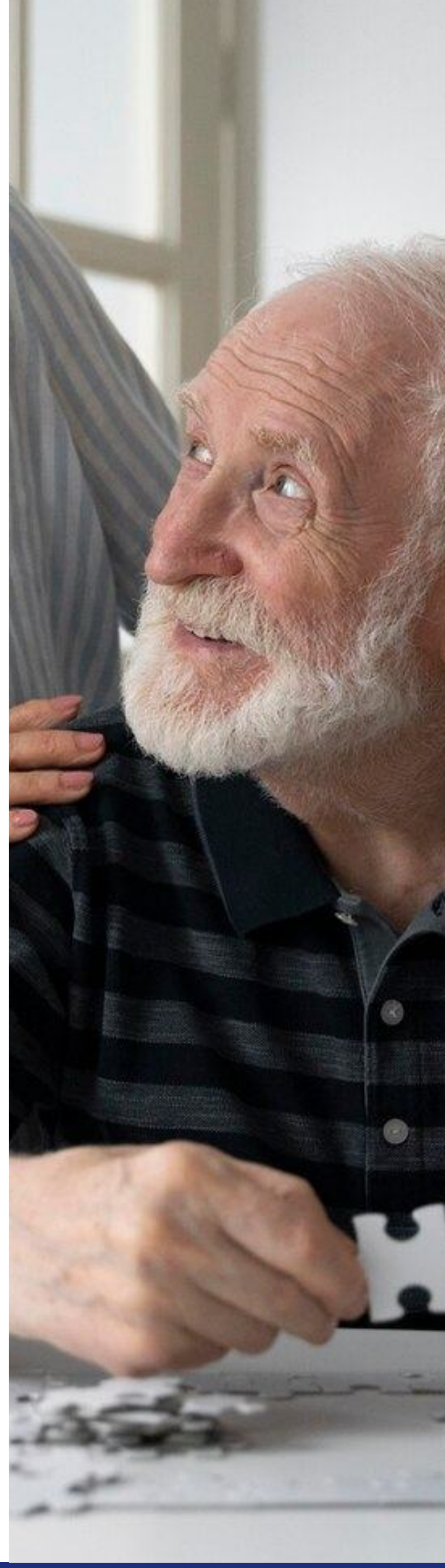
EXAMPLES

- Earplugs and eye masks for sleep enhancement
- Jigsaw puzzles
- Electronic tablets for games
- Stuffed animals
- Music device for preferred music
- Crossword puzzle books and pens
- Hand-held weights or pedal bikes

Securing Resources for Personalized Intervention

- Identify items you want to have available in your facility for staff to choose from when planning care for each patient. Create a Comprehensive List of Nonpharmacologic Items resources for your facility.

- Work with Supply Chain to determine:
  - Cost center for each item (facility absorbs cost vs patient charge)
  - Par amount to avoid depletion
  - Storage location of each item
  - Method of delivery to the bedside
  - Cleaning process (if a reusable item)
    **consult infection control*
  - Disposition of item at time of patient discharge



Tips for Successful Use of Nonpharmacologic Interventions

- Items should be available 24/7
- Staff need to know what items are available and how to access them. Create a Poster of Nonpharmacologic Items.
- Seamless delivery to the bedside
- Consider recruiting and training volunteers to assist with accessing and using the nonpharmacologic approach with the patient (when appropriate)
- Consider fund raising to defer the cost of purchasing items:
  - Philanthropy (individual donors, community organizations)
  - Grants
  - Events (gala, golf tournament)

Evaluation

- Track most commonly used items
- Ask staff for feedback on need for additional items
- Integrate new evidence-based nonpharmacologic interventions into your facility's list of available options
- Ask staff to share stories of successful use of nonpharmacologic interventions

|| Summary

- Identify currently available items
- Choose additional items
- Work with supply chain to develop a process for purchasing, storing and delivering items to the bedside
- Work with infection control regarding processes for multi-use items
- Explore funding options
- Obtain feedback from staff and add additional items as needed
- Consider pre-packaged/ generic kit versus tailored items

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Educate Front Line Clinical Staff

Step 4

STEP 4

Identifying Whom to Educate

- You may begin with a department or subspecialty that has a documented or assumed high rate of delirium or patients at high risk of delirium

EXAMPLE

- ICUs
- Emergency departments
- Neurology units

- You may begin with a hospital-wide educational plan
- Consider developing initial education and periodic refreshers for all individuals (clinical and ancillary staff, students and volunteers) who have contact with delirious or at risk patients in the designated location (unit vs all areas)

Decide How to Educate

A variety of educational approaches can be effective to teach delirium concepts

These include:

- In person lecture
- In person case study discussion
- Overview: Delirium Assessment, Prevention and Treatment
- Voice over educational slides
- Video viewing
- Simulation/Escape Room
- Teach, coach and mentor at bedside (teacher demo with student return demo)
- Podcasts

Decide What to Educate

- Incorporate delirium competencies for staff and the facility into your educational plan
  - Delirium Competencies
- Provide an overview of delirium using one or more of the following recommended videos:
  - What is Delirium
  - The Under-recognized Medical Emergency "How to Try This"
  - Delirium-Causes, Symptoms, Diagnosis, Treatment and Pathology
- Introduce algorithm/pathway for prevention, diagnosis, treatment, and management of delirium

Delphi Algorithms for Management of Delirium and Acute Encephalopathy[1]

Developed by International Expert Consensus Panel 2023

- **Three algorithms for specific patient groups:**
  - Algorithm for Patients in Hospital Wards
  - Algorithm for Patients after Cardiac Surgery
  - Algorithm for Patients in Intensive Care Units

- **Five supplemental reference cards:**

  Delirium Delphi Reference Cards

  - Reference Card A: Nonpharmacologic Preventive Measures
  - Reference Card B: Alternative diagnoses in patients with possible acute encephalopathy/delirium
  - Reference Card C: Potential sources of pain and discomfort in non-communicating patients
  - Reference Card D: Drugs with strong anticholinergic effects
  - Reference Card E: Less common underlying causes of acute encephalopathy/delirium

[1]Ottens TH et al. The Delphi Delirium Management Algorithms: a practical tool for clinicians, the result of a modified Delphi expert consensus approach. Delirium (Bielef.) 2024

Educate on Delirium Screening

Depending upon which delirium tool you have chosen to implement in your facility, consider:

- Reviewing and posting specific administration and interpretation instructions in an accessible site, such as directly into the EHR screening tool documentation field
- Show videos of delirious persons and have staff complete the delirium screening tool to identify features
- Observe staff completing the delirium assessment tool on simulated or real patients

Educate on Preventative Strategies

- Reorientation
- Mobilization
- Sensory and cognitive stimulation
- Promoting nighttime rest
- Nutrition
- Hydration
- Elimination
- Make this content available on an EHR, on poster/ pocket card, and organization's internal website:
  - Delirium Delphi Algorithms Reference Card A
  - Nonpharmacologic Interventions for Delirium Prevention and Management

Educate Team on Actions to Take with Any New Positive Delirium Screen

- Screener notifies provider and unit nursing staff of positive screen. Delirium ISBAR. Provider assesses patient promptly using the appropriate delirium algorithm to :
  - Verify the diagnosis of delirium
  - Identify and treat common underlying causes
- Team begins treatment of etiology and delirium symptoms
- Team involves family in plan of care:
  - Delirium Guide for Patients and Families
  - Pediatric Delirium Guide for Patients and Families
- Team monitors effectiveness of treatments
- If no improvement or worsening of symptoms, provider explores less common underlying causes
  - Reference Card E: Less common underlying causes of acute encephalopathy/delirium

Educate Providers on Delirium Diagnosis

- Verify the diagnosis of delirium
- Rule out other acute, potentially life-threatening conditions

EXAMPLES

- Stroke, meningitis/encephalitis, seizure, Wernicke encephalopathy, serotonin syndrome, neuroleptic malignant syndrome
- Make this content available to providers on an electronic device or a pocket card
  - Delirium Delphi Algorithms Reference Card B: Alternative diagnoses in patients with possible acute encephalopathy/delirium

Educate Team on Determining Etiology of Delirium

- Identify and treat common underlying causes
- Recommendations are based upon the patient's type and severity of illness or injury. Choose the appropriate algorithm (ward vs ICU vs cardiac surgery)
- Providers can consult STEP 2 of the algorithm[1] for guidance including:
  - Delirium Delphi Algorithms Reference Card D: Drugs with strong anticholinergic effects
- Providers can use a Delirium Order Set in the EHR to order diagnostic studies
- Providers can use a Delirium Provider Note in the EHR to document their work-up and findings

Educate on Nonpharmacologic Mitigation Strategies

- Provide Delirium Delphi Algorithms Reference Card A and/or Nonpharmacologic Interventions for Delirium Prevention and Management
- Provide Poster of Nonpharmacologic Items identifying nonpharmacologic resource items available at your facility
- Review how to document use and effectiveness of each item/approach in the EHR
- Educate staff to gather information from the patient and family to match items to the patient's preference and current ability
- Staff can visit the following video:
  - VA Agitated Behaviors Among Older Hospitalized Patients

Educate on Use of Pharmacologic "Rescue" Strategies

- Providers can reference the appropriate Delphi Algorithms for Management of Delirium and Acute Encephalopathy and use a Delirium Order Set in the EHR to order ongoing care
- Providers can view PowerPoint Pharmacology - A Modifiable Risk Factor for Delirium
- Integrate medication review into clinical rounds
- Current evidence does not support the use of medications to prevent or treat delirium
- Selected patients with severe symptoms of hyperactive delirium may benefit from short-term, low dose antipsychotic therapy
- Nonpharmacologic measures should be tried first and then in combination with medications to decrease distress

|| Summary

- ✓ Identify staff to receive the education
- ✓ Choose methods of education and related tools
- ✓ Clinical practice to reinforce standard of care:
  - Algorithms
  - EHR documentation formats
  - Medication alerts

IMPLEMENTING, GROWING, AND SUSTAINING A DELIRIUM PROGRAM

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Patients and Families

Step 5

STEP 5

Education for Patients and Families

Provide information to families and patients on:

- What is delirium (signs, symptoms, causes)
- How to prevent delirium
- How to help a delirious loved one during hospitalization and after discharge
- Delirium Guide For Patients and Families
- Pediatric Delirium Guide for Patients and Families

Support for Patients and Families

- If delirium develops:
  - Inform family
  - Educate family
  - Involve family
- Identify existing resources within your facility:
  - Delirium experts
  - Social services
  - Volunteers
- Develop additional resources:
  - Outpatient clinics for delirium recovery

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Continuous Quality Improvement

Step 6

STEP 6

Remeasure Outcome Variables Over Time

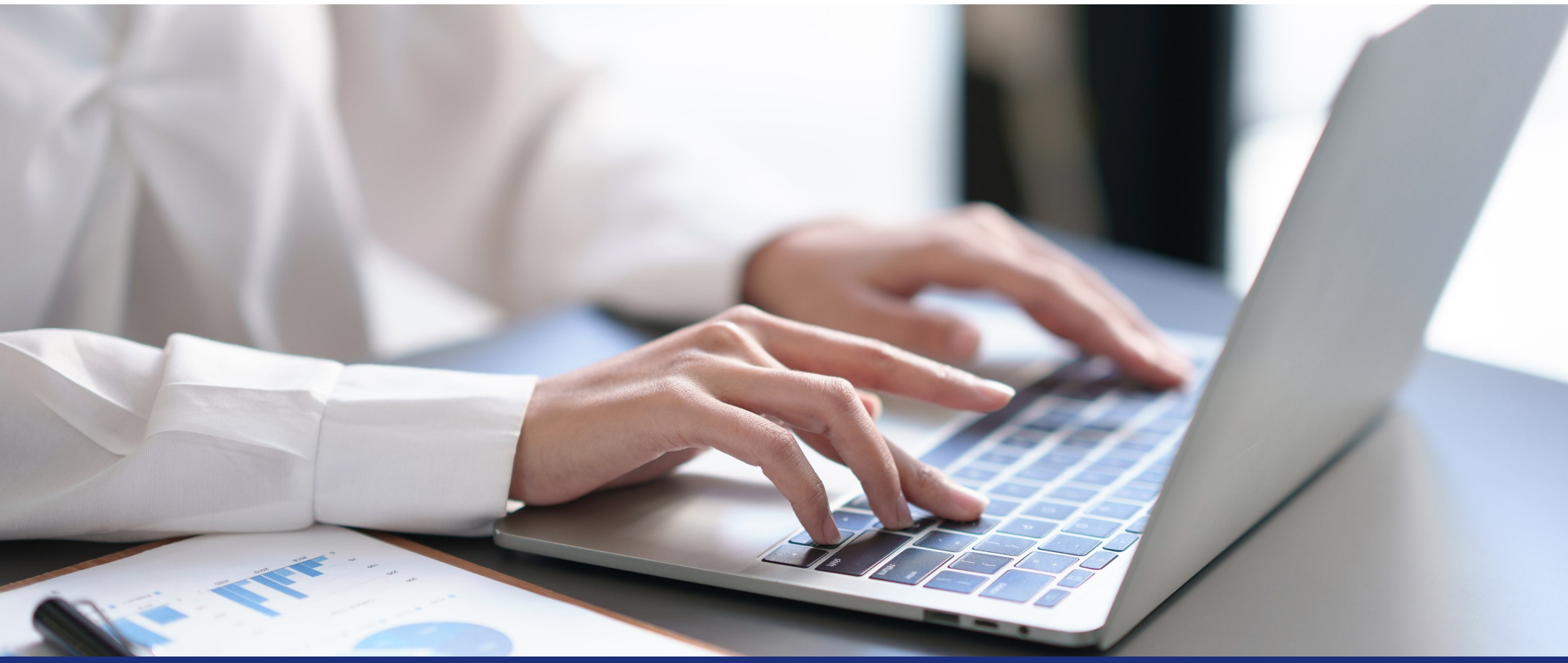
Use the same variables measured at baseline to determine the impact of a program over time.

DELIRIUM INDICATOR VARIABLES TABLE

1. Delirium prevalence
2. Length of stay
3. Discharge disposition
4. 30-day readmission rate
5. Mortality rate
6. Falls (with and without injury)
7. Physical restraint use
8. Use of benzodiazepines (new)
9. Use of antipsychotics (new)
10. Patient/family satisfaction
11. Hospital-acquired pressure ulcer rates
12. ICD-10-CM delirium/acute encephalopathy codes at discharge

Measurement

- Determine the frequency of measurement (monthly, quarterly, annually)
- Determine how to group the data (all units, by service line, by type of unit)
- Determine how to display the data
- Determine who will see the data



Audit Processes for Compliance

- Delirium screenings completed:
  - Frequency
  - Accuracy
- Preventative measures:
  - In place
  - Documented
- Positive screens acted on:
  - Promptness
  - Thoroughness
  - Use of algorithms/pathways/order sets

Analysis and Action

- Identify success and gaps
- Complete Return on Investment (ROI) Calculator to demonstrate cost savings
- Encourage story telling among staff to share learnings

|| Summary

- ✓ Demonstrate change over time measuring meaningful variables and tracking trends
- ✓ Share feedback with stakeholders
- ✓ Focus on areas that need improvement
- ✓ Celebrate successes often