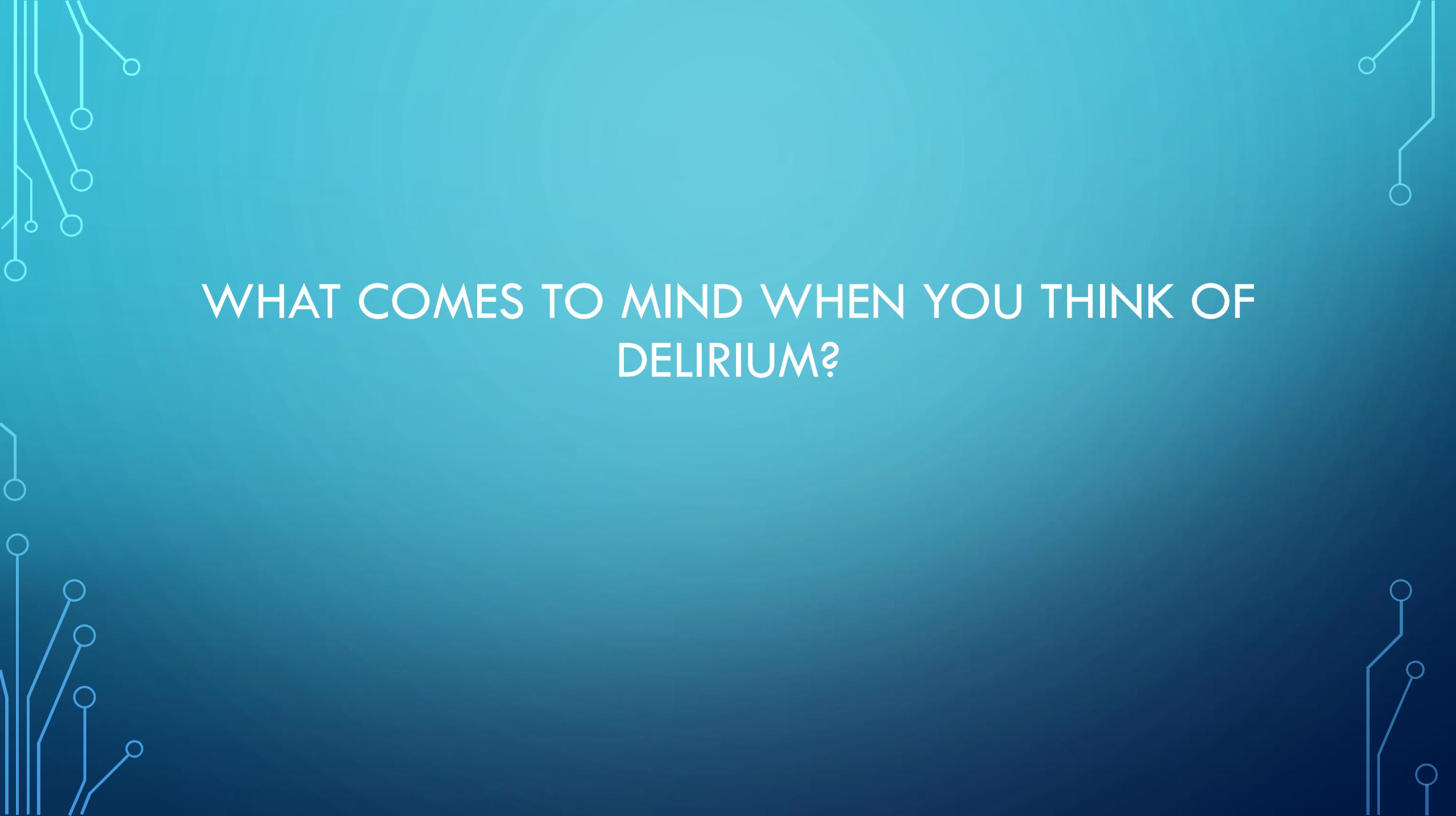




# DELIRIUM PREVENTION & TREATMENT

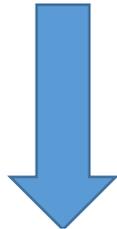
ESTHER TAOFIGA, NZROT,  
WARDS 8MED, 8C, ICU  
DUNEDIN HOSPITAL



WHAT COMES TO MIND WHEN YOU THINK OF  
DELIRIUM?

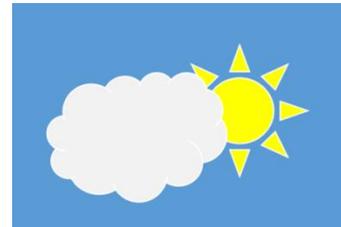
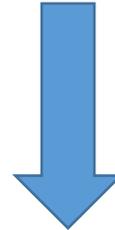
# Is this level of confusion 'normal' for the patient?

Yes



Dementia

No



Delirium

# HYPO VS HYPER

Hypoactive Delirium	Hyperactive Delirium
Lethargic	Restless
Slow to respond	Impulsive
Confused	Hallucinating
Quiet	Confused
Poor eye contact	Aggressive
	Pulling at lines / NG tube
Can fluctuate between types, or have mixed presentation of symptoms	

# WHY SHOULD WE CARE ABOUT DELIRIUM?

- Delirium affects 14-56% of all hospitalised elderly patients
- 35-40% of delirium cases are preventable
- $\frac{1}{3}$  of patients remain delirious at 6 months
- $\frac{2}{3}$  of patients at 1 year function at the same level of a moderate TBI
- 80% of ventilated patients will experience some level of delirium during their hospital stay
- Increases risk of falls, pressure injuries, length of hospital stay

# WHY SHOULD WE CARE ABOUT DELIRIUM?

- Mortality Rate increases by 11% for every 48 hrs of delirium (González et al., 2009)
- Study of 45 UK acute care hospitals: delirium was associated with increased length of stay and increased mortality at 1 month (Geriatric Medicine Research Collaborative, 2019)
- Study of 6724 patients 65+ years in Scotland:
  - 35% had delirium / dementia / cognitive impairment on admission
  - Of those 52% died within 2 years
  - Delirium alone was associated with increased mortality 6 months after admission
  - Dementia (+/- delirium) associated with increased mortality 3 months after admission (Hapca et al., 2018)

# LONG TERM EFFECTS

- Decreased social engagement
- Poor stress management
- Difficulty managing finances/ medication
- Difficulty managing appointments
- Grocery shopping/ meal planning
- Depression
- Decreased quality of interpersonal relationships
- PTSD

# RISK FACTORS

- History of dementia
- Advanced age
- Have poor eyesight or hearing
- Have an infection or sepsis e.g. UTI
- Surgical patients
- Certain high-risk medicines
- Have heart failure
- High medical acuity (restraints, invasive lines)





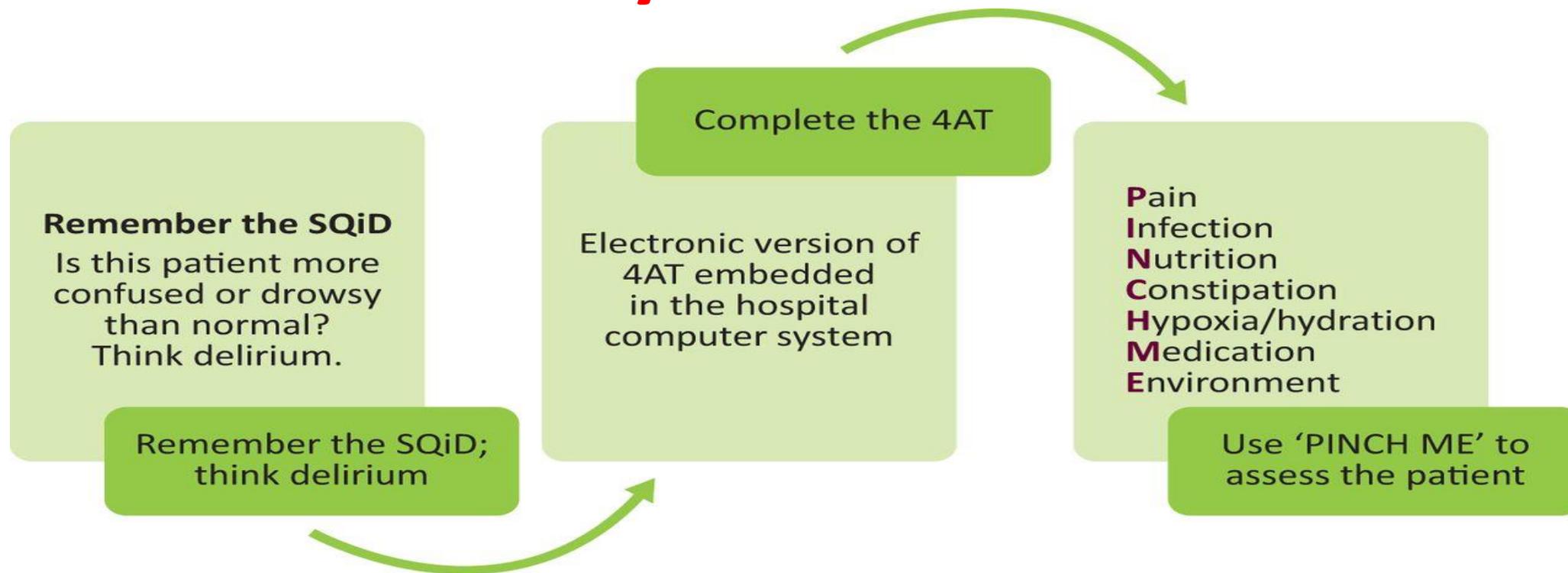
# PREVENTION IS KEY!

Think  
**PINCHES ME**  
kindly



- Pain
- Infection
- Nutrition
- Constipation
- Hydration
- Exercise
- Sleep
- Medication
- Environment

# Delirium Pathway



SQUID-SINGLE QUESTION IN DELIRIUM

## 4AT – Screening for Delirium & Cognitive Impairment



The 4 AT is a screening tool designed for rapid initial assessment of delirium and cognitive impairment.

### Instructions for completion:

- Part of routine admission assessment of all patients >65 years, repeated each shift for 5 days and if score 0 stop.
- All patients with a history of dementia, delirium, or cognitive impairment
- Rescreen if RADAR (Recognise Acute Delirium as Routine) has a new score of 1 or more
- **DOCUMENT** Each score on patients' observation chart and in notes

Test	Result	Score
<b>Alertness</b> This includes patients who may be markedly drowsy (e.g. difficult to rouse and/or obviously sleepy during assessment) or agitated/hyperactive. Observe the patient. If asleep, attempt to wake with speech or gentle touch on shoulder. Ask the patient to state their name and address to assist rating.	<ul style="list-style-type: none"><li>• Normal, fully alert, but not agitated, throughout assessment</li><li>• Mild sleepiness for &lt;10 seconds after waking, then normal</li><li>• Clearly abnormal</li></ul>	 0 0 4
<b>AMT4</b> Age, date of birth, place (name of the hospital or building), current year	<ul style="list-style-type: none"><li>• No mistakes</li><li>• 1 mistake</li><li>• 2 or more mistakes/untestable</li></ul>	 0 1 2
<b>Attention</b> Ask the patient: "Please tell me the months of the year in backwards order, starting at December." To assist initial understanding one prompt of "What is the month before December?" is permitted.	<ul style="list-style-type: none"><li>• Achieves 7 months or more correctly</li><li>• Scores &lt;7 months / refuses to start</li><li>• Untestable (cannot start because unwell, drowsy, inattentive)</li></ul>	 0 1 2
<b>Acute change or fluctuating course</b> Evidence of significant change or fluctuation in: alertness, cognition, other mental function (e.g. paranoia, hallucinations) arising over the last 2 weeks and still evident in last 24hrs	<ul style="list-style-type: none"><li>• No</li><li>• Yes</li></ul>	 0 4
<b>4AT score</b> 4 or above: possible delirium +/- cognitive impairment, 1-3: possible cognitive impairment 0: delirium or cognitive impairment unlikely but still possible		

# WHAT CAN WE DO ABOUT IT?

"Non-pharmacological interventions are the treatments of choice for delirium"

(Andersen-Ranberg et al., 2022)

Non-pharmacological multicomponent interventions are shown to be most effective in decreasing incidence of delirium and preventing falls

(Martinez et al., 2015; Hshieh et al., 2015)

## Supporting Patients with a Delirium

### Hypoactive Delirium

- Lethargic
- Slow to respond
- Confused
- Quiet
- Poor eye contact
- Tearful/low mood

### Mixed / Fluctuating

- Frequently changing

<b>P</b>	Pain
<b>I</b>	Infection
<b>N</b>	Nutrition &
<b>C</b>	Constipation
<b>H</b>	Hydration
<b>E</b>	Exercise
<b>S</b>	Sleep
<b>M</b>	Medication
<b>E</b>	Environment

### Hyperactive Delirium

- Restless
- Impulsive
- Hallucinating
- Confused
- Aggressive
- Pulling at IV lines / NG tube

Hypoactive Delirium	All Delirium patients	Hyperactive Delirium
<p>'PINCHES ME' Kindly has been evaluated (above)</p> <p>Patient Personal Profile (101746) and/or Sunflower (200177) should be completed for all patients</p>		
<p><b>Family Involvement</b></p> <ul style="list-style-type: none"> <li>• Encourage them to prompt activities</li> </ul>	<p><b>Family Involvement</b></p> <ul style="list-style-type: none"> <li>• Receive delirium information</li> <li>• Have open access visiting</li> <li>• Complete personal profile/sunflower</li> <li>• Bring in patient's clothes and personal items</li> <li>• Support care as able</li> </ul>	<p><b>Family Involvement</b></p> <ul style="list-style-type: none"> <li>• Reassures patient if experiencing visual disturbances or hallucinations</li> </ul>

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<b>Activities/Orientation</b> <ul style="list-style-type: none"> <li>Assistance with eating meals and drinking as may be struggling to initiate</li> <li>Ensure Meal Tray mat red side is used</li> </ul>	<b>Activities/Orientation</b> <ul style="list-style-type: none"> <li>Daily routine</li> <li>Mobilise, sit in chair for all meals</li> <li>Dress daily in own clothes</li> <li>Encourage normal sleep/wake</li> <li>Use My Care Plan Boards</li> <li>Reorientate: clocks, calendars, newspapers, windows</li> </ul>	<b>Activities/Orientation</b> <ul style="list-style-type: none"> <li>Folding towels</li> <li>Magazines, board games</li> <li>Word finds, sudoku (print from internet if none on ward)</li> </ul>
<b>Patient care and support</b> <ul style="list-style-type: none"> <li>Regular toileting prompts</li> <li>Monitor for constipation or urinary retention</li> </ul>	<b>Patient care and support</b> <ul style="list-style-type: none"> <li>Intentional Rounding</li> <li>Hygiene needs assistance</li> <li>Pressure Injury Prevention</li> <li>Reduce catheter/IV lines where possible</li> </ul>	<b>Patient care and support</b> <ul style="list-style-type: none"> <li>Increased falls risk if impulsive movements (consider falls alarm though may not tolerate)</li> </ul>
<b>Sensory</b> <ul style="list-style-type: none"> <li>Radio with music choice from personal profile if possible</li> <li>Hand massage with moisturiser</li> <li>Consider shared room to increase stimulation</li> </ul>	<b>Sensory</b> <ul style="list-style-type: none"> <li>Clear communication</li> <li>Hearing aids</li> <li>Glasses</li> <li>Avoid unnecessary bed moves</li> </ul>	<b>Sensory</b> <ul style="list-style-type: none"> <li>Noise awareness – may be overstimulated</li> <li>Consider single room</li> <li>Be aware of 'triggers'</li> </ul>

# HYPO VS HYPER

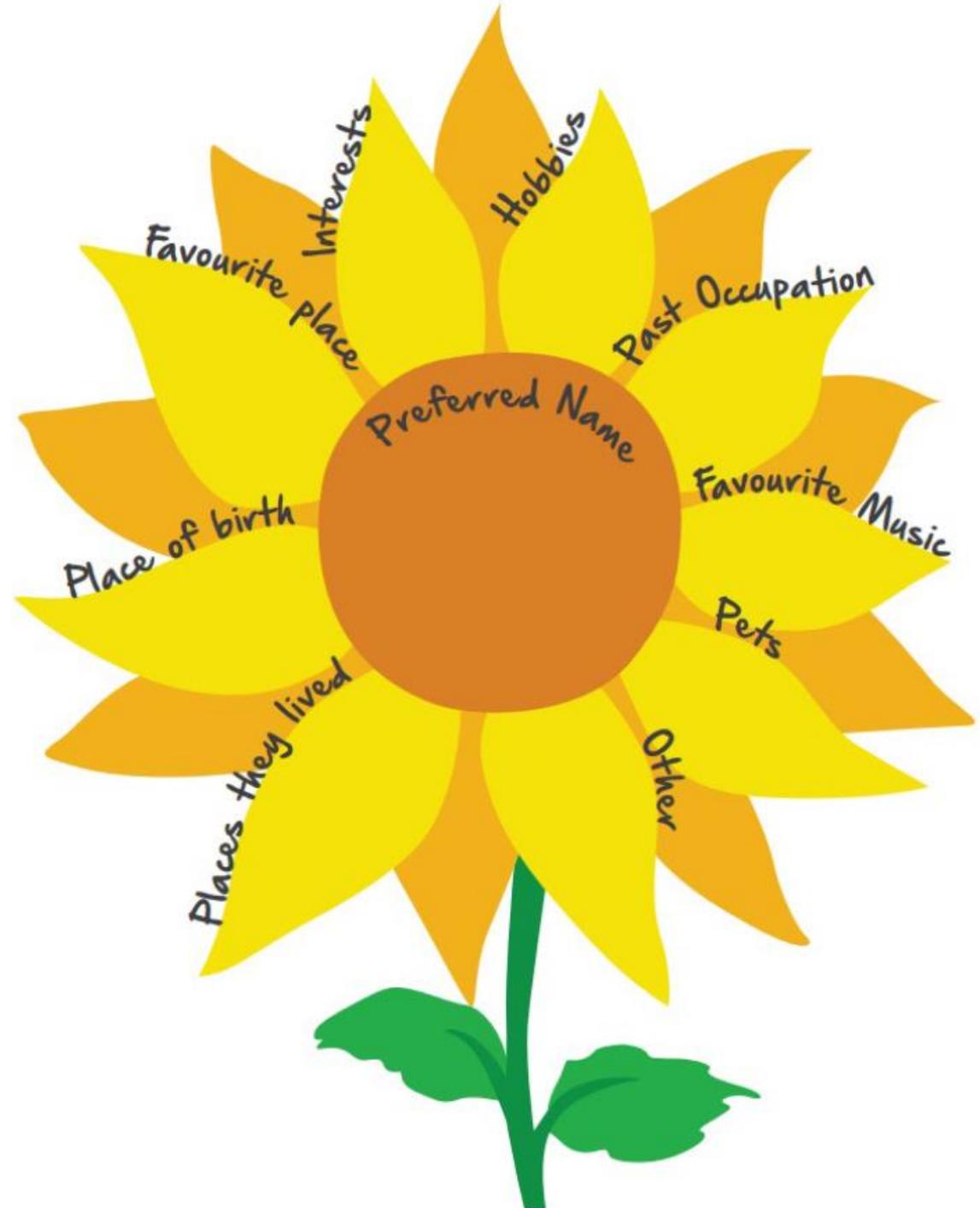
Hypoactive Delirium	Hyperactive Delirium
Lethargic	Restless
Slow to respond	Impulsive
Confused	Hallucinating
Quiet	Confused
Poor eye contact	Aggressive
	Pulling at lines / NG tube
Can fluctuate between types, or have mixed presentation of symptoms	

# HOW TO HELP – ALL TYPES

- Daily routine
  - Up in chair for all meals
  - Dress daily in own clothes (provides familiarity)
  - Encourage normal sleep/wake cycle
- Sensory aids
  - Hearing aids (and charger or batteries) glasses, ask family to bring these in if needed
- Orientation
  - Orientation board
  - Newspaper
  - Able to see out the window, see clock or watch

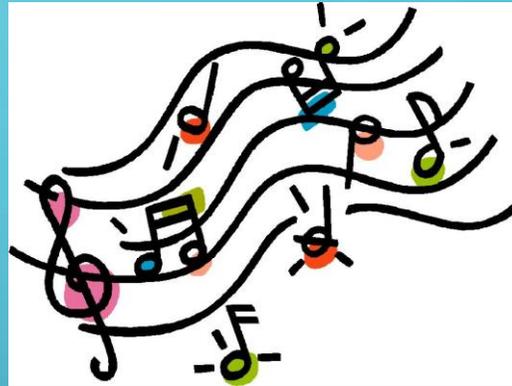
# HOW TO HELP – ALL TYPES

- Family involvement
  - Request to bring in patient's clothes, personal belongings, family photos
  - Complete the Personal Profile (101746) or Sunflower includes information of patient's interests, whanau, music preferences. Can be utilised in conversation with Patient Watch
  - [Understanding-and-preventing-delirium-tips-for-family-13-Sept.pdf \(sialliance.health.nz\)](#)
- Remove catheters when able
- Mobilisation early and regularly in admission
- Allied Health Assistant or Health Care Assistant Programmes



# HOW TO HELP - HYPOACTIVE

- Assistance with meals
- Toileting prompts
- Oral hygiene
- Sensory input
  - Music
  - Hand massage



# HOW TO HELP - HYPERACTIVE

- Activities
  - Folding towels
  - Wiping tables
  - Word finds, sudoku, colouring in (can be downloaded)
  - Utilise Personal Profile to support meaningful tasks
- Noise awareness
  - May be overstimulated
  - Clear communication
  - Single room may be beneficial
- Family involvement
  - Reassurance in light of hallucinations / visual disturbances



## Supporting Patients with a Delirium

### Hypoactive Delirium

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# DELIRIUM OPERATIONAL GROUP

- Sensory kits for each ward in process of being purchased
- Involved in training HCAs in delirium care and monitoring
- Supporting roll out of 4AT assessment tool (to replace the CAM)
- Keen to have members from each ward represented on the group

The image features a blue gradient background with white circuit-like lines in the corners. These lines consist of straight paths that branch out and terminate in small circles, resembling a stylized PCB or network diagram. The lines are positioned in the top-left, top-right, bottom-left, and bottom-right corners, framing the central text.

ANY QUESTIONS?

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