



# Provincial ICU Delirium Initiative

Improving recovery and quality of care for critically ill patients

| Our challenge   | Results to date   |   |
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| <p><b>12,800</b><br/>patients per year<sup>1</sup> treated in Alberta intensive care units (ICUs)</p> <hr/> <p><b>2 out of 3</b><br/>patients admitted to the ICU can develop delirium</p> <hr/> <p><i>Delirium increases complications and lengthens ICU stays</i></p> | <p><b>All 21</b><br/>Alberta ICUs now follow provincial standards and best practices</p> <p><b>= more consistent screening</b></p> <hr/> <p><b>↓ 10% ↓</b><br/>decrease<br/>in number of days patients in ICU experience delirium</p> | <p><i>Fewer days in ICU and hospital<br/>lower risk of delirium</i></p> <hr/> <p><b>\$750,000 per year</b><br/>in estimated cost savings</p> <hr/> <p><i>Improved recovery, quality of care, patient and family experiences and value</i></p> |

## What was the issue?

Each day, doctors and nurses provide life-saving interventions for critically ill adults and children across Alberta. Because of their severe illness and the need for life-support (e.g., breathing machines) and aggressive treatment, 2 out of 3 patients can develop confusion and agitation (called delirium). This often occurs within days of their ICU admission and can be very unsettling for patients and their families. Delirium also extends ICU stays and complicates treatment.<sup>2</sup> Although delirium is usually temporary, the effects can be debilitating and long-lasting.

## What we did to address it

In 2015, the Critical Care SCN, along with operational leaders and frontline clinicians, identified delirium as a top priority to improve quality of care in ICUs. We brought practitioners from across the province together to share their knowledge and identify ways to prevent ICU delirium and improve health outcomes. Our goals were to develop provincial standards for managing pain, sedation and ICU care that would prevent or reduce delirium; help care providers identify and manage delirium; and reduce the risk of long-term impacts on patients' function and quality of life.

Frontline care providers teamed up with clinical and operational leaders to refine processes and develop solutions that reflected the best available evidence. They partnered with eCritical, the electronic medical record repository used in all Alberta ICUs, and developed a dashboard to better monitor patient agitation, sedation, mobility and delirium symptoms; track patient outcomes; and evaluate ICU performance.<sup>3</sup> Each unit also identified opportunities to build other quality improvement initiatives into this work that reflected local priorities.

Patients and families were important partners in this initiative. They shared their experiences with ICU delirium and created resources to support others recovering from the effects of ICU delirium. These resources are available through MyHealth.Alberta.ca.

## How this work is making a difference

Since implementing these changes, the quality of delirium care has improved across the province. All patients admitted to an ICU now receive care that is consistent with delirium best practices<sup>4</sup> regardless of where they receive that care. And families and friends now have access to better information about ICU delirium and recovery.

Risks to patient safety have also decreased. Patients are spending fewer days on a breathing machine and being monitored more frequently.<sup>4</sup> There has also been a 10% decrease in the number of days patients experience ICU

delirium. This is contributing to reduced lengths of stay in hospital, fewer complications and improved recovery.

## What's next?

Researchers and care providers are looking to extend this work to improve the prevention, early detection and management of delirium in other care settings where delirium is common. This commitment is part of the Alberta Dementia Strategy and Action Plan.

## Long road to recovery: One patient's journey from the ICU to a healthier future

"Imagine this...type A, incredibly organized, mother of two, small business owner. Your days are incredibly structured and well organized. Work, volunteer, children's activities. You're the ultimate multi-tasker. Then one day you wake up with no idea where you are or how you got there."

After spending five weeks in intensive care — three of them in an induced coma — Nadine Foster knows first-hand the debilitating effects of delirium.

"After I was discharged I spent six months more or less bedridden," she says. "My previous sharp mental focus was gone and my attention span was very limited. I wasn't able to read or watch TV."

"My memory was also impacted. I would forget things that typically I wouldn't, ranging from something minor, like an item to pick up at the grocery store, to more important things, like people in my life."

It's been a long road back for Nadine who, aside from her cognitive challenges, weighed just 85 pounds and couldn't walk when she left hospital. She has no memory of her time in the ICU, but recalls vivid dreams or hallucinations, which are often associated with delirium.

Today, Nadine has made nearly a full recovery and she now shares her experiences as a Patient Advisor for the Critical Care SCN. She's helped create resources to support other patients and families, and one day hopes to return to the ICU as a registered nurse. "My goal now is to work with ICU patients, or recovering ICU patients. I understand the patient and family perspective and I think I have something to offer in terms of helping people come back — both physically and cognitively," Foster says.

To learn more, visit [www.ahs.ca/ccscn](http://www.ahs.ca/ccscn)