

NATIONAL INFUSION

COLLABORATIVE

State of Infusion Practice Report
July 2025

National Infusion Collaborative Network



43
States



586
Sites



120,488
Beds



42%
Live with
Interoperability

The National Infusion Collaborative programmed
38,047,626 infusions
January 1, 2025 through June 30, 2025

Who We Are

The NIC, formed in partnership with Purdue University's REMEDI organization and Bainbridge Health, brings together Pharmacy, Nursing, Quality, and Safety leaders focused on infusion pump data analytics and safety practices.

Mission

The goal of the National Infusion Collaborative is to leverage its unique network of practitioners and national dataset to drive unprecedented network benchmarking and knowledge-sharing.

Data

Data is from a vendor agnostic data set from over 575 hospitals across the United States. Data is being shared on a semi-annual basis to provide insight into infusion pump metrics and alert trends. Data in this report is from January 1, 2025 through June 30, 2025.

Network Benchmarking

January 1, 2025 through June 30, 2025

	DERS* Compliance	Alert Rate	Override Rate
NIC Network	89%	6.4%	69%
Live with Interoperability	90%	5.7%	72.4%
Not live with Interoperability	88.3%	7.2%	67.1%
Adult Hospital Type	89.6%	5.9%	70%
Pediatric Hospital Type	87.5%	8.2%	67%

* DERS: Dose Error Reduction Software



Interoperability pump programming occurred in **57.8%** of all infusions within health systems live with smart pump interoperability. (Range 19.2 – 85.5%)

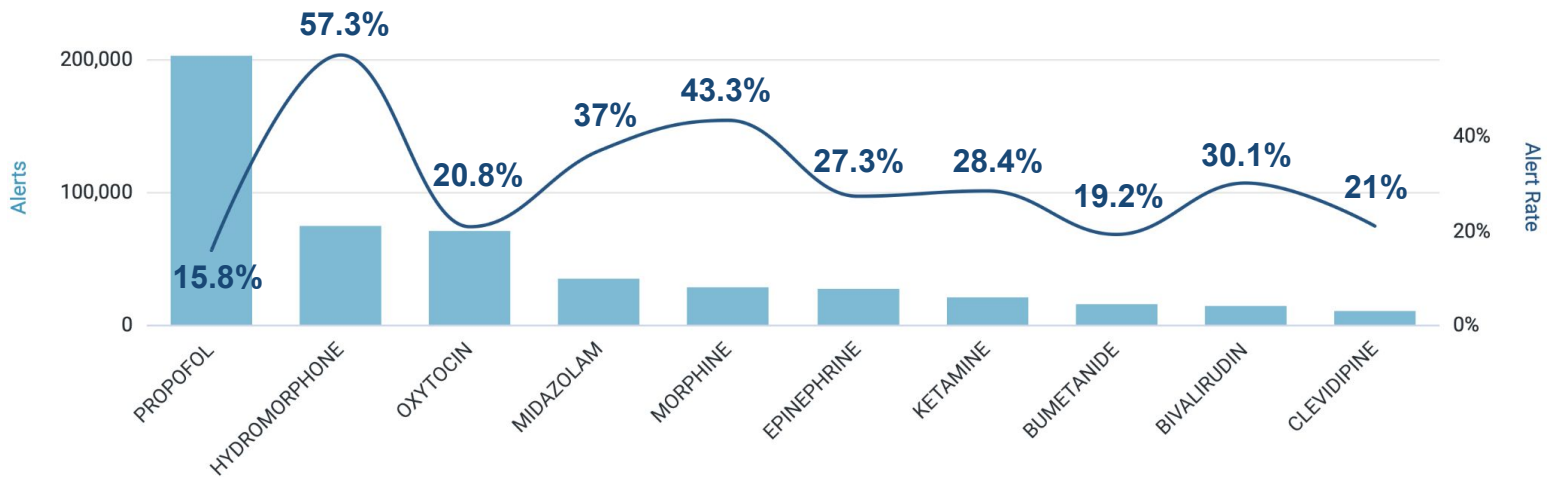
Health systems live with interoperability have on average **2 care profiles**. Those not live with interoperability have on average **4.3 care profiles**.



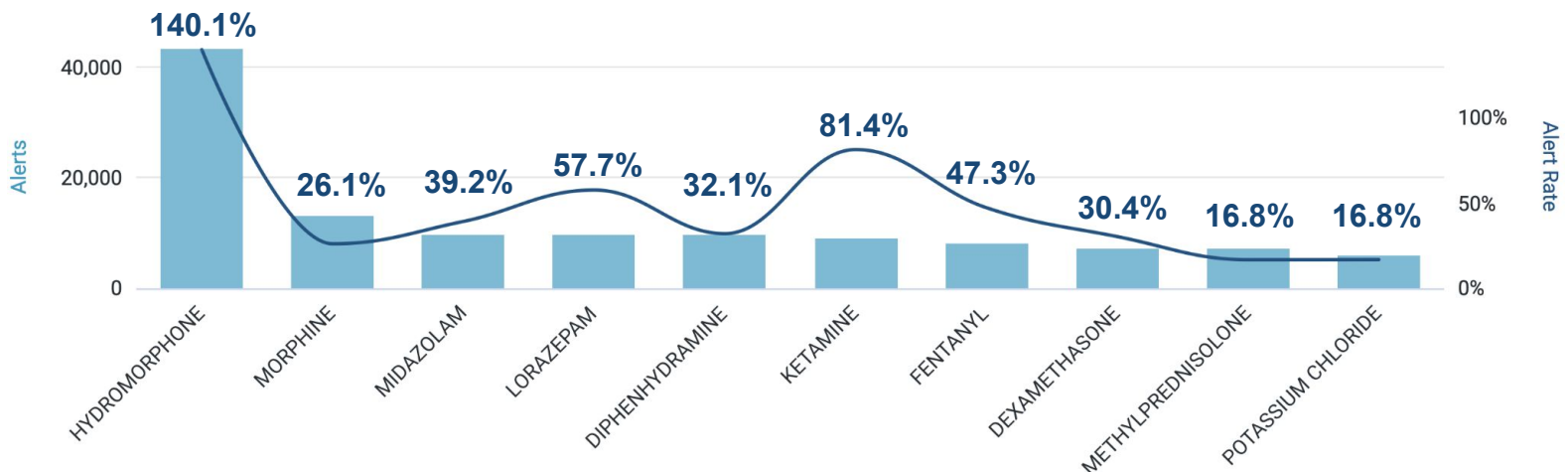
Alert Metrics

January 1, 2025 through June 30, 2025

High Alert and Alert Rate Entries in Adult Patients



High Alert and Alert Rate Entries in Pediatric Patients



A Closer Look at Alert Trends

- **2,121,593 alerts** fired across the NIC over 6 months
- Focusing on entries with both a high number of alerts and a high alert rate:
 - **Propofol** continues to have a high number of alerts due to use in both anesthesia and non-anesthesia care areas
 - **Hydromorphone** consistently has a high number of alerts and a high alert rate in both patient populations
 - **Bivalirudin** has a high number of both upper and lower dose alerts in adult patients. It can be challenging to establish dose limits for medications dependent on therapeutic laboratory monitoring
 - Alert rate has increased for **Ketamine** in pediatric patients, due to multiple indications with different dosing regimens

Standardize 4 Safety Update

Concentration Adoption

Epinephrine - Adult Continuous Infusions

1/1/2024 – 6/30/2024

Concentration	% of Hospital Systems
16 mcg/mL	64%
32 mcg/mL	41%
* 20 mcg/mL	31%
64 mcg/mL	31%
10 mcg/mL	26%
* 40 mcg/mL	23%
4 mcg/mL	21%
8 mcg/mL	18%

1/1/2025 – 6/30/2025

Concentration	% of Hospital Systems
16 mcg/mL	54%
* 20 mcg/mL	46%
32 mcg/mL	46%
* 40 mcg/mL	31%
64 mcg/mL	31%
10 mcg/mL	28%
4 mcg/mL	18%
8 mcg/mL	18%

Epinephrine - Pediatric Continuous Infusions

1/1/2024 – 6/30/2024

Concentration	% of Hospital Systems
16 mcg/mL	50%
* 10 mcg/mL	38%
* 40 mcg/mL	30%
64 mcg/mL	30%
32 mcg/mL	30%
* 20 mcg/mL	25%
200 mcg/mL	18%
8 mcg/mL	18%
60 mcg/mL	15%
100 mcg/mL	15%

1/1/2025 – 6/30/2025

Concentration	% of Hospital Systems
16 mcg/mL	50%
* 10 mcg/mL	38%
* 20 mcg/mL	36%
* 40 mcg/mL	31%
32 mcg/mL	26%
64 mcg/mL	24%
100 mcg/mL	19%

* ASHP S4S recommended concentration

A Closer Look at Standardize 4 Safety

- ASHP’s Standardize for Safety initiative highlights the importance of infusion data and national drug standards to improve safety, simplify pharmacy operations, promote ready-to-use products, and reduce medication waste.
- Adoption of S4S Epinephrine continuous infusion concentrations** has grown from 2024 to 2025, with increased adoption of **20 mcg/mL** and **40 mcg/mL** in both the adult and pediatric patient population
- Requests for consideration of a change to an S4S list can be submitted here: [ASHP S4S Submit a Recommendation](#)

NIC Meetings Recap

[NIC Resources Archive Here](#)

Bolus Dose Administrations

June 2025 | [Watch Here](#)

June 2025's NIC meeting featured **Sara Mirzaei, PharmD, BCPS, BCPPS, CPHQ**, Medication Safety Specialist, and **Lani Ochoa, BSN, RN, CPN**, Medication Safety Specialist, from **The Children's Hospital Colorado**.

They shared how they used a quality improvement framework to analyze bolus from infusion administrations using data-driven insights in order to effectively enact change in their drug library limits and bedside clinical practice.



Sara Mirzaei, PharmD, BCPS, BCPPS, CPHQ

The Children's Hospital of Colorado
Medication Safety Specialist



Lani Ochoa, BSN, RN, CPN

The Children's Hospital of Colorado
Medication Safety Specialist

Evaluating Real-World Infusion Data to Understand Intravenous Smart Pump Medication Administration Practices

March 2025 | [Watch Here](#)

In the March 2025 NIC meeting, **Stephen Eckel, Pharm.D, MHA**, University of North Carolina, Eshelman School of Pharmacy, and **Dan Degnan, Pharm.D, MS, CPPS, FASHP**, Purdue University College of Pharmacy, presented the latest research and findings from the network data set.

Following a review of two years of infusion data from over 100 hospitals, the researchers shared the volume, frequency, and types of alarms that occur. They will also discuss how these smart pump alarms can impact nursing workflow and suggest needed research on ways to help minimize healthcare worker disruptions.



Stephen Eckel, Pharm.D, MHA

Associate Dean for Global Engagement
Associate Professor, University of North Carolina, Eshelman School of Pharmacy
Director of Pharmacy, Innovation Services at UNC Medical Center



Dan Degnan, PharmD, MS, CPPS, FASHP

Associate Director of Professional Program Laboratories
Purdue University College of Pharmacy

News You Can Use

Next Meeting: *Innovative Approaches to Driving DERS Compliance*

When: September 17, 2025 - 3pm ET - 4pm ET

About: NIC members from **ChristianaCare** and **Stony Brook Medical Center** will share how they have improved DERS compliance through a combination of novel mechanisms and multidisciplinary engagement.



[Register Here](#)

NIC LISTSERV Is Live!



Thank you to those who have signed up. The NIC Listserv is open to all hospital and academic organizations that have joined the NIC.

[Learn More & Join Here](#)

Questions? Miss a Meeting?

Future **topic ideas** or **general feedback** can be sent to joannehatfield@bainbridgehealth.com.

The [NIC Meeting Archive](#) is accessible to all NIC members.

Thank you to the member organizations who support the NIC



UMass**Amherst**

Elaine Marieb Center for Nursing
and Engineering Innovation



Regenstrief Center for
Healthcare Engineering