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WHITE PAPER

Connected Pediatric Care

A practical framework for family participation and virtual clinical support in children's hospitals



For children's hospital leaders · Nursing · Medical · Technology · Executive

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EXECUTIVE SUMMARY

Connecting every child to the right expertise

Children's hospitals can build connected care around the relationships that shape a child's stay: the child and family, the bedside team, and the specialists whose expertise may sit in another unit, another campus, or another hospital across the region.

A shared virtual care foundation keeps those relationships connected from admission through treatment and the transition home. Connected pediatric care brings family participation, virtual nursing, specialist consultation, and virtual observation into routine clinical workflows.

A camera in the room is only the starting point. Staffing, clinical ownership, family access, and clear escalation pathways determine whether the service works.

For executive, nursing, medical, and technology leaders, the practical opportunity is to pick a focused set of pediatric workflows, establish a baseline, and expand as local evidence supports the next step. Programs must reflect developmental differences, guardian involvement, adolescent privacy, and the physical realities of neonatal and pediatric rooms.

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01 | THE PEDIATRIC CHALLENGE

Why pediatric care needs its own connected care model

Connected care models built for adult med-surg units do not transfer directly to children's hospitals. Pediatric care differs in who participates, how expertise is distributed, and what the room has to accommodate.

01

The family is part of the care team

A parent may be working, caring for siblings, or traveling between home and hospital when rounds begin. A second guardian may need discharge teaching from another city. Consent, education, and decision-making run through caregivers.

02

Specialist expertise is concentrated

Neonatology, pediatric critical care, and pediatric subspecialties are often centered at a regional children's hospital. Community hospitals and lower-level nurseries depend on that hub for timely guidance, sometimes before a transport team can arrive.

03

One hospital serves many developmental stages

An infant's guardians, a school-age child, and an adolescent each need a different communication approach, and adolescents may require confidential conversations defined by clinical policy.

04

The room is different

Clinicians need to see clinical detail in a crib, bassinet, or isolette without obstructing hands-on care. Lighting, sound, and space around the bedside shape whether remote participation is useful.

05

Education and communication workloads are heavy

Family teaching, care-plan updates, and discharge preparation are intensive in pediatrics, and they compete with direct care for the same bedside time.

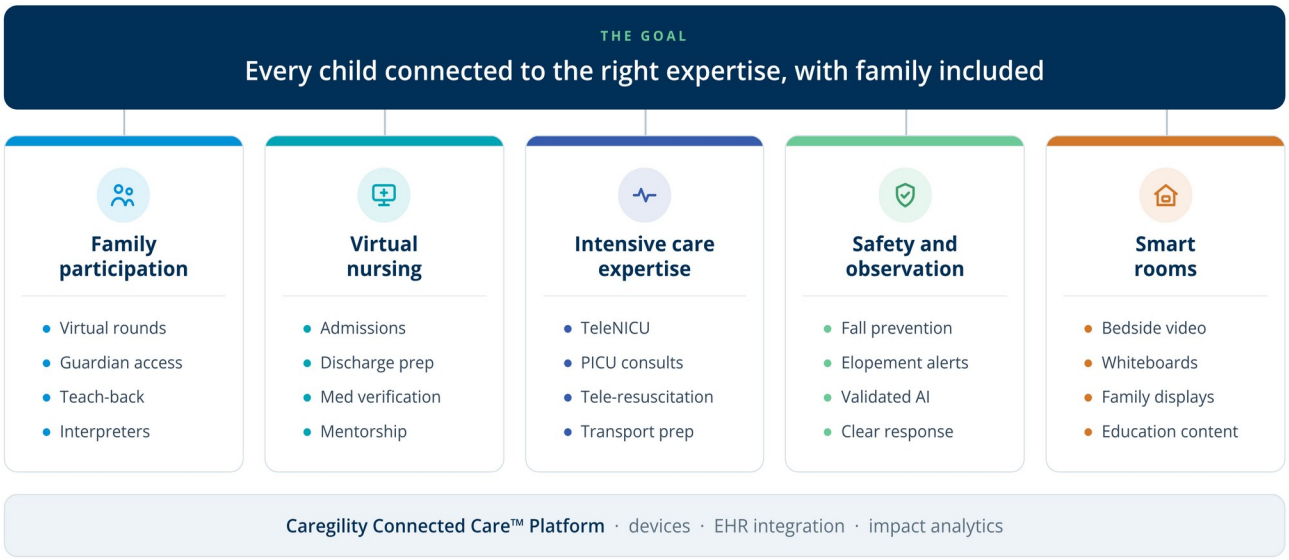
Connected pediatric care addresses these realities by adding dependable ways for families, remote clinicians, and specialists to take part in care, while the bedside team stays responsible for the child's immediate needs.

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02 | THE MODEL

Five pillars of connected pediatric care

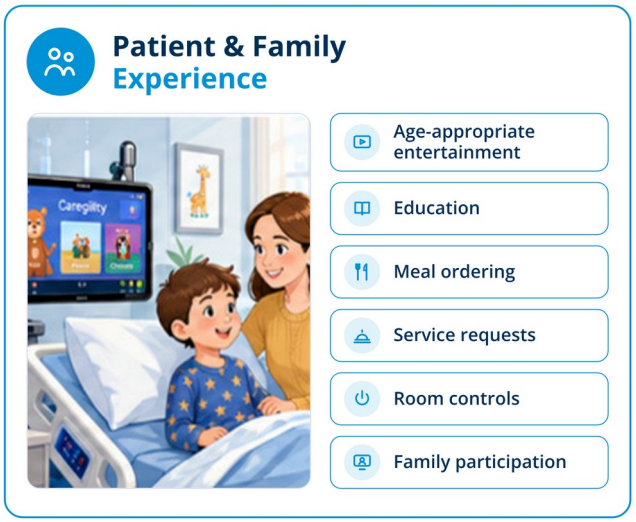
Connected pediatric care is a hybrid model: bedside teams deliver hands-on care, while families, virtual nurses, and remote specialists join through secure audio and video.

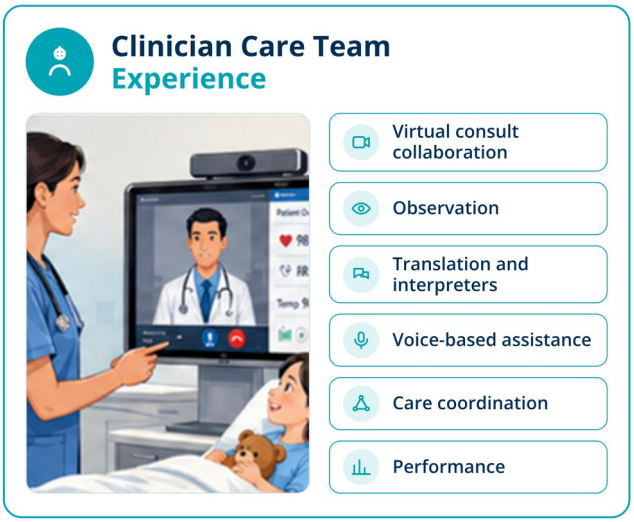


Five pillars, one shared foundation for devices, integration, and measurement.

Each pillar can launch on its own, but they share devices, integration, and measurement, so a hospital can start with one and add the next without a new system.

Inside the connected pediatric room





03 | USE CASES

Priority use cases across the pediatric stay

The strongest starting workflows have clear ownership, predictable handoffs, and work that can be done well through audio and video.

Family-centered rounds and multi-party conversations



Virtual participation brings authorized parents and guardians into rounds and specialist discussions from their own devices through a secure link sent by text or email with no app to download.

Define who invites the caregiver, how identity and authorization are checked, when an interpreter joins, and what happens if the caregiver cannot connect. Offer participation consistently, not only when a clinician remembers.

> *"We deployed iPads with the Caregility iConsult mobile app to be the NICU cameras for moms and dads to connect to their babies. One mother with a fever immediately after delivery had been restricted from visitation since giving birth. With the iConsult mobile app, we were able to instantaneously bring them together via a secure text message."*
>
> **Jonathan Witenko, System Director of Virtual Health and Telemedicine, Lee Health [1]**

Family education and discharge readiness

Virtual nurses can reinforce approved teaching, help caregivers prepare questions, and coordinate follow-up education with the bedside team. Topics include the care plan, medication instructions, and preparation for care at home. Define which teaching suits remote delivery and which requires hands-on demonstration.

Use teach-back and document remaining questions. A caregiver joining a video call is an access measure; demonstrated understanding is a separate goal.

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Pediatric virtual nursing

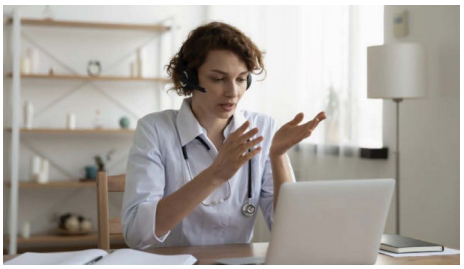
Virtual nursing adds a defined layer of clinical support across a child's stay. Each hospital should set competencies, staffing, and escalation rules for its own population.

Workflow	Virtual contribution	Bedside connection
Admissions	Collect appropriate history and orient families	Verify findings and complete physical assessment
Education and discharge	Reinforce approved teaching and use teach-back	Confirm readiness and hands-on skills
Medication verification	Support eligible independent double checks	Follow local policy and resolve discrepancies
Mentorship	Connect newer staff with an experienced nurse	Escalate urgent needs to available clinical support
Documentation review	Identify gaps and route follow-up tasks	Validate clinical context and complete actions
Care coordination	Join multidisciplinary rounds and track discharge barriers	Act on the plan at the bedside

Define when virtual nurses are available, which requests they accept, and how bedside staff know a task is complete. Avoid creating a second queue that staff must monitor without a clear owner.

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Specialist access across the regional network



Remote neonatologists, intensivists, and pediatric subspecialists, such as cardiology and neurology, can collaborate with local clinicians on assessments and care planning. [2]

In NICU and PICU programs, define the examination, image access, communication, and response requirements for each service rather than assuming one video setup meets every specialty's needs.

Regional programs also need clear referral and transfer pathways. Virtual consultation can support local decision-making, tele-resuscitation, and preparation for transport. Responsibility for hands-on assessment and treatment must stay explicit throughout the encounter.

Virtual observation and safety



Virtual observation can support fall prevention, bed-exit and elopement monitoring, and other safety programs. It requires an assigned observer, clear patient selection criteria, a manageable workload, and a reliable response pathway.

Pediatric safety workflows must account for age, mobility, developmental stage, and the presence of family or staff. Before using AI-assisted alerts, validate performance in the intended population and room conditions.

Beyond the inpatient unit



The same platform can extend pediatric expertise to the emergency department, school-based behavioral health, and outpatient and home follow-up.

These are natural second-phase programs once inpatient workflows are stable.

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04 | CUSTOMER EXAMPLE

Arkansas Children's extends neonatal expertise statewide

Arkansas Children's Hospital (ACH), home to the state's only Level IV NICU, uses Caregility technology to bring its neonatologists to the bedside at community nurseries and lower-level NICUs across Arkansas. [3]



A bedside NICU team at Arkansas Children's works with a remote neonatologist by video.

5	20+	1–2	~1/3
TeleNICU carts deployed statewide	ACH neonatologists available to consult	TeleNICU sessions per week	of evaluated infants safely stayed local (early pilot)

How the program works

Starting in 2022, ACH deployed TeleNICU carts to UAMS and four ACH Nursery Alliance hospitals: Conway Regional, Jefferson Regional, Saint Mary's Regional, and Saline Memorial. When a referring physician calls about an infant in distress, an ACH neonatologist can join a live video session, assess the infant on camera, review vitals and imaging, guide the local team, and speak with the family, with interpreter options available. [3]

A streamlined Epic documentation workflow means the receiving team can see evaluations quickly if transport is needed. The program is expanding into pediatric neurology consults and remote simulation.

The one-third finding is an early, program-specific result, not a comparative outcome or a forecast for other hospitals. Its significance is human as well as operational: "A baby can still be fully assessed, but then they can,

sometimes, stay at the delivery hospital with their parents instead of separating them," said Matthew Merves, MD, ACH neonatologist and TeleNICU director. [3]

> *"I could move the camera and focus in. I was able to see everything that I needed to see. It made me almost forget that I wasn't physically in the room. I felt like I had the tools that I needed to help them make decisions."*
>
> **Ashley Lynch, MD, Pediatric Neonatologist and Assistant Professor of Pediatrics, UAMS [3]**

Co-designing the next device



Building on the program, Caregility and ACH clinical leadership co-developed a purpose-built NICU cart, announced in June 2025. It supports remote specialist consultations, tele-resuscitation, and tele-simulation. [4]

> *"Caring for premature and critically ill infants requires timely assessment and intervention. We're excited to partner with Caregility on a solution that brings enhanced visibility to our most vulnerable patients while supporting collaboration among clinicians and specialists at the bedside and beyond."*
>
> **Matthew Merves, MD, Neonatologist, Arkansas Children's Hospital [4]**

The lesson for other children's hospitals. Start with a defined clinical need, involve bedside users in design, and establish how remote input changes the next action. The Arkansas experience supports a specific neonatal use case; broader pediatric applications should be assessed on their own merits.

05 | TECHNOLOGY

Technology built for pediatric environments

Virtual care in a children's hospital has to fit the clinical environment without adding avoidable steps.

A NICU Cart designed around the bassinet



The Caregility NICU Cart was shaped by the clinical teams who use it. Its design reflects the physical realities of neonatal care: [4] [5]

- **Low-profile base** that rolls under bassinets for close positioning
- **Adjustable camera mount** with manual lift and horizontal slide for a precise view of the infant
- **40x power-zoom PTZ camera,** controlled remotely
- **Night vision** with an infrared light bar for low-light rooms
- **Multiple audio and video streams,** so virtual engagement and ambient AI services can run at the same time
- **Multi-party sessions** that bring in interpreters and family members

Supported workflows: Tele-NICU, tele-resuscitation, virtual nursing, virtual observation, and virtual consultations.

One platform across units and acuity levels



The Caregility Connected Care™ Platform supports carts, wall-mounted and room-integrated devices, and mobile access on one foundation, so NICU, PICU, and pediatric acute care units can run different workflows without separate systems.

Integration with Epic and other clinical systems keeps requests, documentation, and task completion in the workflow staff already use.

Evaluate the room and the operating model together

A device that performs well in a demonstration still has to fit the room and the team's work. Test equipment where care actually happens, and tell children and families who can see or hear them and how to ask for help.

Design area	Questions for the implementation team
Clinical visibility	Can staff see the relevant clinical detail in a crib, bassinet, or bed without obstructing care?
Privacy and participation	Are camera status, guardian access, interpreter access, and private conversations clearly managed?
Clinical integration	Where do requests, encounter documentation, and task completion appear in the workflow?
Reliability	Who responds to a failed connection, device problem, or network interruption?
Human response	Who receives alerts, how quickly must they respond, and how is escalation confirmed?

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06 | IMPLEMENTATION AND VALUE

Getting started: a measurable first program

The most successful programs start small, with a clear clinical sponsor, and expand as evidence builds.

1. **Choose one unit and two or three workflows.** Name a clinical sponsor and define the eligible population.
2. **Design the operating model.** Set service hours, staffing, task ownership, escalation, and a backup for failed connections.
3. **Involve the people who will use it.** Include bedside nurses, physicians, virtual clinicians, child life, patient experience, interpreters, IT, and family advisors.
4. **Test in the real room.** Validate camera position, audio, lighting, and bedside access before go-live, and rehearse failure scenarios.
5. **Explain the service to families.** Use plain language about when it is available and how it works alongside bedside care.
6. **Baseline, measure, and expand.** Use the same definitions before and after launch, then scale to the next workflow or unit.

What to measure

Value area	Suggested measures
Family participation	Eligible rounds offered virtually; successful joins; interpreter access; family-reported understanding
Workforce support	Tasks completed remotely; bedside time released; workload and staff experience
Access to expertise	Time to specialist connection; consult completion; transfers and reasons for transfer
Safety and reliability	Alert response; missed events and false alerts; connection failures; downtime
Operational value	Discharge teaching completion; program cost; cost per completed encounter

Time released is a capacity measure and should not automatically be counted as cash savings. A financial assessment should include staffing, technology, integration, training, and ongoing support. Caregility LOOP™ impact analytics can help teams track program performance against these measures over time.

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5. Caregility. APS452C NICU Cart Overview, 2025.

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NEXT STEP

Plan your connected pediatric care program

Map one priority pediatric workflow, evaluate the room and integration requirements, and agree on how success will be measured. Caregility pairs purpose-built technology with clinical and technical expertise to help children's hospitals design, launch, and scale programs that support families and care teams.

Schedule a discovery conversation

caregility.com/schedule-a-demo

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