Why the Future of Patient Safety Starts with Staff Safety Webinar Toolkit

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Learn more by visiting CenTrak.com.

Links to Resources:
- **Staff Duress Information:**
  https://content.centrak.com/hubfs/Security%20Solutions%20Brochures/Staff%20Duress_031921.pdf

- **DuressRT Information:**
  https://content.centrak.com/hubfs/RTLS%20Brochures/DuressRT_040725.pdf

- **DuressRT Interactive Tour:**
  https://tours.centrak.com/pages/Intro-DuressRT

Why the Future of Patient Safety Starts with Staff Safety

February 24, 2026

Today's Panelists

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Objectives

Understand how workplace violence, burnout, and mental fatigue are undermining both staff well-being and patient safety

Recognize why staff safety is now a critical component of patient safety, transparency, and healthcare quality measures

Learn how RTLS-enabled staff duress solutions support faster response and improved frontline protection

Identify practical steps hospitals can take today to strengthen staff safety and improve patient outcomes

Providing Full Solutions to Maximize Value

A single system to address extensive healthcare needs

CENTRAK
asset
- Asset Tracking
- PAR Level Management
- Medical Scope Management
- Equipment Distribution

CENTRAK
infection control
- Hand Hygiene Compliance
- Contact Tracing

CENTRAK
workflow
- Nurse Call Automation
- Staff/Patient Workflow

CENTRAK
experience
- Digital Mapping
- Real-Time Wayfinding
- Edutainment Integrations

CENTRAK
safety
- Infant Protection
- Staff Duress
- Wander Management

CENTRAK
environment
- Temperature Monitoring
- Environmental Monitoring

Staff Safety - A Critical Priority

Healthcare Workers-The Risk

6X
more likely to be a victim of workplace violence than all other private sector workers (Bureau of Labor Statistics, 2018)

80%
of incidents never reported (ANA)

56%
of emergency nurses report experiencing violence in the last 30 days (ENA)

55%
of healthcare workers feel violence prevention plans at workplace are ineffective (Crisis Prevention Institute)

73%
of all workplace violence-related injuries that resulted in missed days from work (Bureau of Labor Statistics, 2018)

On average, emergency nurses experience **1 violent event every 2 months**

1 in 5
healthcare workers feel unsafe at work (Crisis Prevention Institute)

33%
have considered leaving the profession due to violence (ENA)

Escalating Environment

- **Bureau of Labor Statistics** - rate of injuries from violent attacks against medical professionals grew by 63% from 2011 to 2018, and hospital safety directors say that aggression against staff escalated as the COVID-19 pandemic intensified in 2020.

- **National Nurses United** - nation's largest union of registered nurses, 48% of the 2,000+ responding nurses reported an increase in workplace violence - **more than double the percentage** from a year earlier.

- **Press Ganey** (Sept 2022) - "more than 2 nursing personnel were assaulted every hour in Q2 2022".
  - This means that there are approximately 57 assaults per day, 1,739 assaults per month and 5,217 assaults per quarter.
  - Highest number of assaults occurred in psychiatric units, emergency departments and pediatric units.

2+	57	1,739	5,217
assaults per hour	assaults per day	assaults per month	assaults per quarter
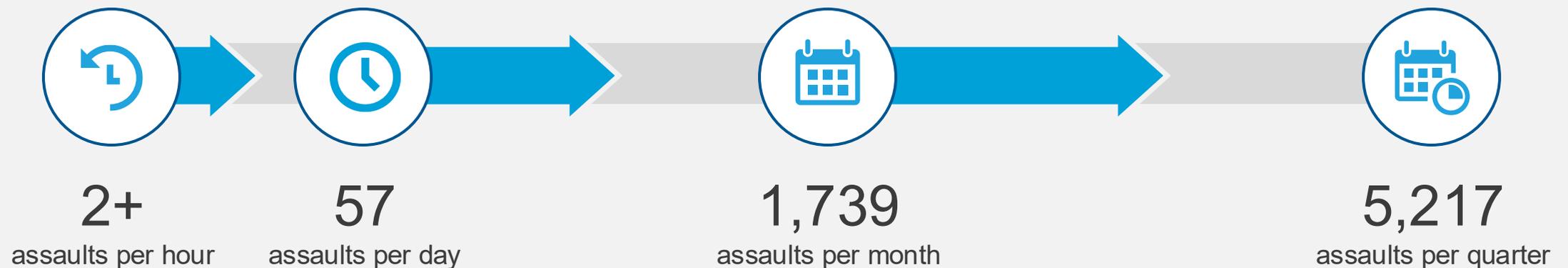
Staff Safety Is a Good Investment

2.1%
of nurses experiencing workplace violence will be injured

$94,156
Annual workplace violence costs for those reporting injuries

($78,894 treatment + $15,232 indemnity)

$60-100k
Cost to replace a nurse who leaves their position

Financial Impact of Workplace Violence in Healthcare

- Violence is a significant public health issue affecting the U.S. health system

- Incidence of violence has significantly increased in the U.S. over the past decade, with rising rates of assault, homicide, suicide, and firearm violence, which were further exacerbated during the COVID-19 pandemic.

- Hospitals experience substantial financial impacts from violence.
  - Annual financial cost of violence to hospitals in 2023 is estimated at $18.27 billion.
  - Pre-event costs associated with violence estimated at $3.62 billion, primarily for prevention measures.
  - Post-event costs for health care, work loss costs, case management, staffing, and infrastructure repair are estimated at $14.65 billion.
  - The largest contributor to total annual costs came from post-event health care expenses to treat violent injuries.

- Additional impacts include: public perception, staff recruitment and retention, legal concerns, job satisfaction, and psychological harm to health care workers.

Research Report

HARBORVIEW
INJURY PREVENTION
& RESEARCH CENTER
UNIVERSITY of WASHINGTON

The Burden of Violence to U.S. Hospitals:
A Comprehensive Assessment of Financial Costs and Other Impacts of Workplace and Community Violence

KEY FINDINGS:
- Violence, including workplace (in-facility) and community violence, abuse, and threatening behavior, is a significant public health issue affecting the U.S. health system and communities.
- This incidence of violence has significantly increased in the U.S. over the past decade, with rising rates of assault, homicide, suicide, and firearm violence, which were further exacerbated during the COVID-19 pandemic.
- This study sought to estimate the financial costs and other impacts associated with workplace and community violence.
- Hospitals experience substantial financial impacts from violence.
  - The total annual financial cost of violence to hospitals in 2023 is estimated at $18.27 billion U.S. dollars (USD).
  - Pre-event costs associated with violence in the community and within facilities are estimated at $3.62 billion (USD), primarily for prevention measures.
  - Post-event costs for health care, work loss costs, case management, staffing, and infrastructure repair are estimated at $14.65 billion (USD).
  - The largest contributor to total annual costs came from post-event health care expenses to treat violent injuries.
- Additional impacts, like public perception, staff recruitment and retention, legal concerns, job satisfaction, and psychological harm to health care workers, are significant but difficult to quantify due to limited data.

Nurses Are Looking for an Environment Focused on Safety

- **Impact on career choices:** When seeking employment, nurses are evaluating potential employers' commitment to creating a safe and supportive work environment.

- **Desire for proactive measures:** Nurses want to work for organizations that prioritize their safety and have effective policies and training programs in place to prevent and respond to workplace violence incidents.

Impact on Patient Care & Safety

Fatigue increases risk of preventable harm

Psychological safety better enables focused care
(Maslow's Hierarchy of Needs)

Increased stress and burnout can reduce engagement at the bedside

Unsafe environments increase turnover

Strong safety culture improves outcomes

Research shows that organizations with robust safety cultures reduce incidents of workplace violence, protect clinicians, and create the conditions for safer patient care.

Staff Safety Solution with Real-Time Location

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Scalable RTLS Infrastructure: Technology Overview

Clinical-Grade Locating
CGL system with dedicated backhaul network for best-in-class location

UHF + Infrared (IR):
Requires overlay network, Greatest accuracy, Utilize when exact location & latency matter
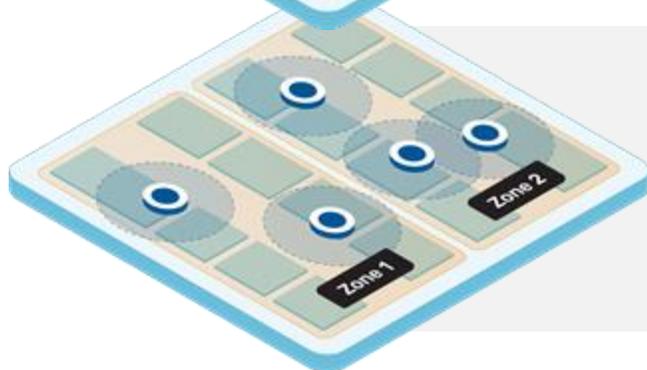
THREE

Selective Certainty
Add IR to key areas for location certainty

BLE + Infrared (IR)
IR install in select locations, Approximate BLE elsewhere

TWO

Approximate Locating
BLE for basic location without additional infrastructure

BLE-Only
Lowest cost, Utilize BLE-enabled Aps, Leverage CenTrak BLE infrastructure if no BLE-APs

ONE

BLE Multi-Mode Badge

Send duress alerts on both CenTrak UHF networks and over BLE

Button on back of badge can be discreetly pressed to call for help

General location over BLE, CenTrak CGL for room-level certainty

2-year typical battery life; check battery health directly on tag LEDs

Visual and audible confirmation when a duress alert is received

Wearable designed to hold staff ID badge

Easy to use and setup, highly durable and waterproof IP67-rated

Buttons are designed to avoid accidental presses, limiting false alarms

Expanding the Impact of RTLS Technology

Same staff badge for Staff Duress also used for:

Automated Nurse Call Integration: Cancel calls when staff enter rooms

Infotainment Integrations: Automatically display staff presence, including name, role, photo for improved patient experience

Clinical Workflow: Trigger and automate workflow events based on staff location to streamline care delivery

Electronic Hand Hygiene Compliance Monitoring: Track hand hygiene opportunities and compliance in real time to support infection prevention

Contact Tracing: Identify staff movement and interactions to support rapid response during infection exposure events

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Alert Functionality

Computer workstations & display monitors

Email alerts

Security dispatcher

SMS alerts

VoIP phone messages

Configurable HL7 message

Duress^RT and Duress^RT Mobile

Map Views, Alerts, Event Logs, and Reporting

- Purpose-built for health systems to effectively locate, manage, respond to and report on workplace violence incidents

- Supports Joint Commission workplace violence prevention

- A comprehensive and configurable reporting system with dashboard views, drill-down options, alert analytics by time, location, staff, and duration, along with detailed alert logs.

Duress Event Page and Detail View

Program Implementation Best Practices

Holistic Approach to Reducing Workplace Violence

Enterprise-Wide Strategy & Steering Group

Risk Assessment

Assure event data is documented – regular review. Include injuries, costs for medical care, legal fees, loss of work time

Transition to long term mitigation & data review by steering group(s)

Report events at daily safety huddle to raise awareness

Diverse strategies: EHR options, weapons screening, technology, alerting, response teams

CENTRAK®

Steering/Workgroup

Recommend representation from:

Nursing

Security

IT

Learning Services

Communications

Risk Management

Steps for Successful Staff Duress Solution Implementation

Engagement
- Leadership
- Nursing/Clinical Team
- Security

Incorporate into System-Wide Culture of Safety

Readiness of RTLS solution, Organization and Staff

Alert communication & response processes

Training of all staff involved

Go-Live Support

Data review & analysis

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Safety Solutions Integrations

Standards-Based Integration Architecture

- Out-of-the-Box Integrations Across the Healthcare Ecosystem

- Built on modern, open protocols such as: HL7, FHIR, REST APIs, and HTTP POST.

- CenTrak supports prebuilt integrations with leading clinical and operational systems, including:
  - Epic Toolbox (push notifications via Epic)
  - Nurse Call (Baxter, Rauland-Borg, Ascom, Westcall, Jeron, etc.)
  - Mobile Devices (Vocera, Ascom, etc.)
  - Camera/Video Management Systems (Genetec, Salient)
  - Access Control (CCURE 9000, Genetec)
  - Active Directory (LDAP)
  - Middleware (Connexall, etc.)

Data Analysis to Support Prevention

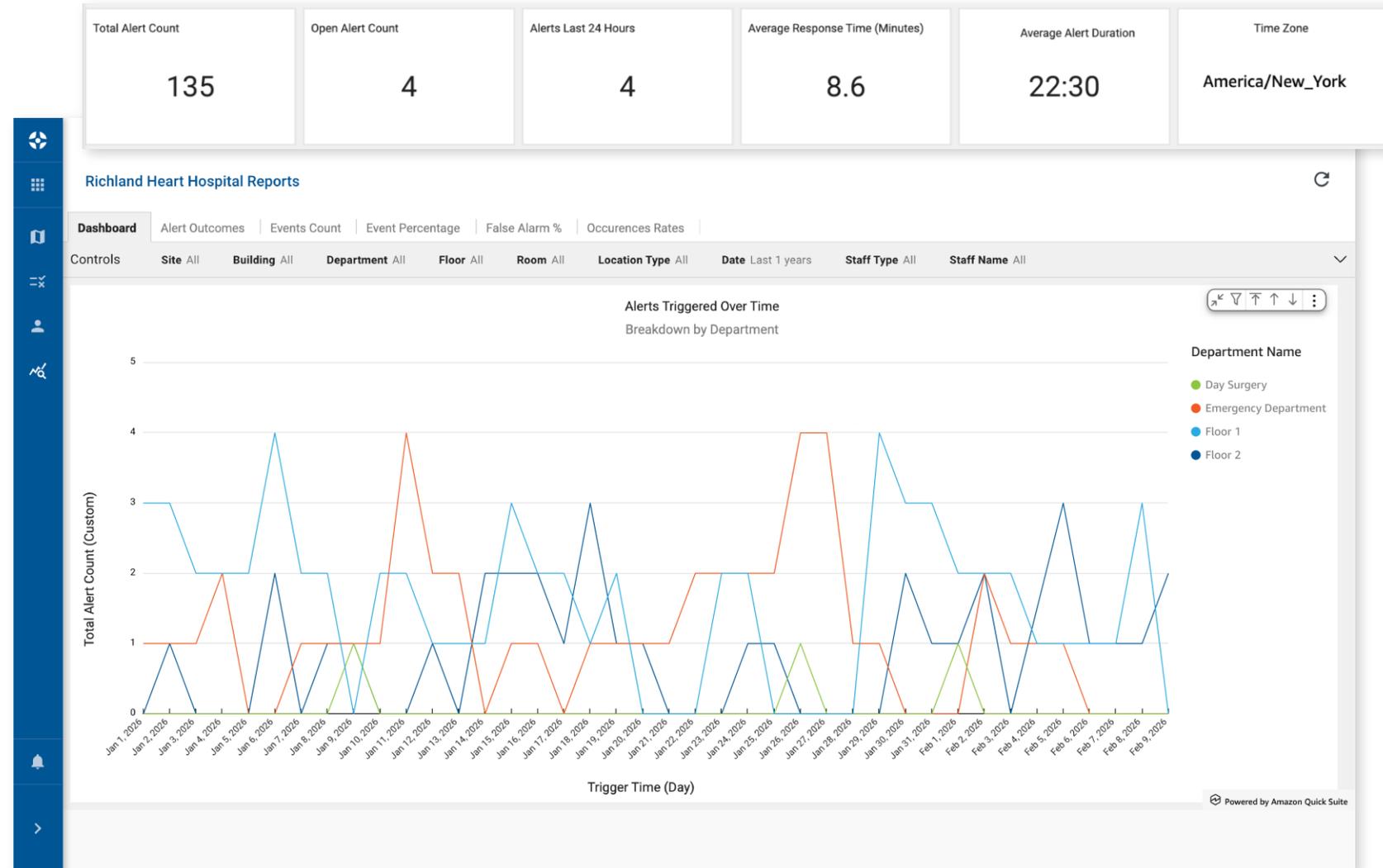**RTLS data enables you to quickly view trends and analyze:**

Specific locations

- Unit types –Where the tension is high, risk is greater (ED, ICU, Pediatrics)

Time of day/Day of Week

- Use data to staff security accordingly

Types of Incidents by Location

Data Analysis - Comparisons

Compare RTLS Button Press data with Incident Event Reports

- Do they align?
- Were there incident events reported in locations where there is not an RTLS staff duress solution? If yes, consider expansion

Look at how alerts are being communicated & response time? Is help coming quickly enough?

At one site we work with, we compared the # of respondents & response time for areas where local respondents received an alert & where local respondents did not receive an alert

Measure Staff Perception

- Staff Survey for input / staff perception
  - Do your teammates feel safe from violence at work?
  - How important do you feel staff safety is to the organization?
  - Is the safety of your teammates just as important as that of your patients?
- Incorporate staff perception of safety into exit interviews & compare with turnover rate (we have been able to correlate safety interventions, including RTLS, with a decrease in turnover.
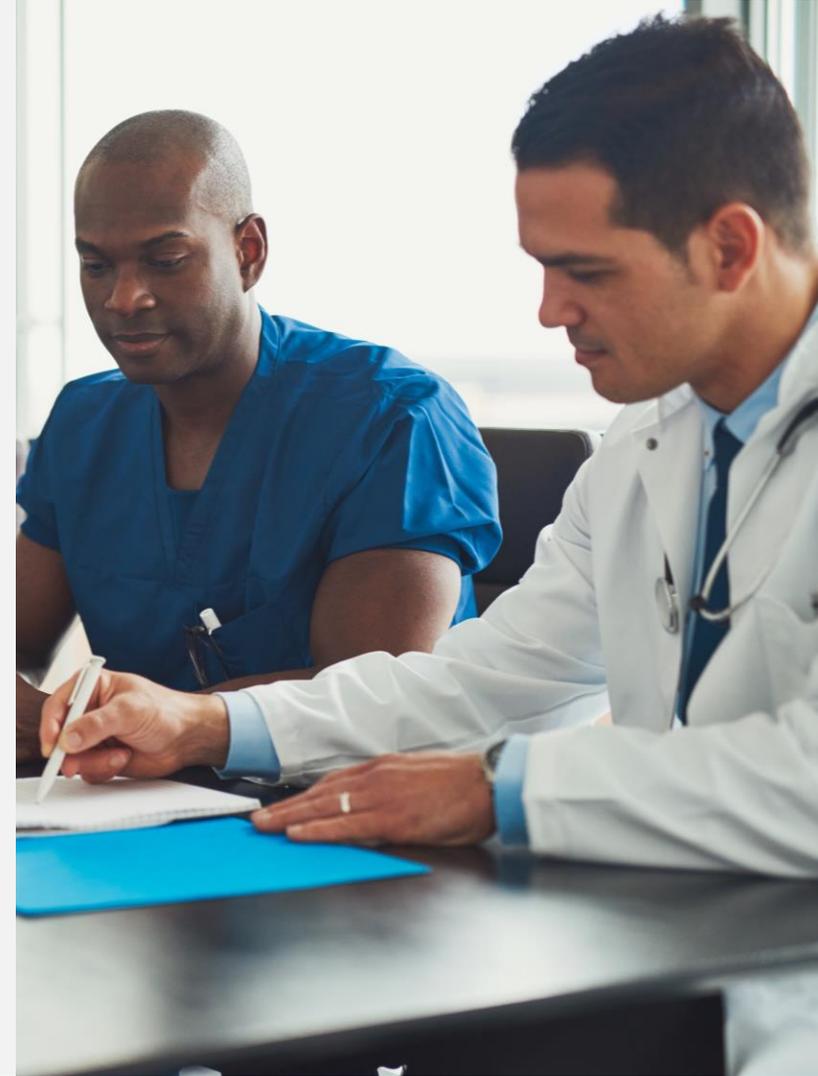
The Roll Out

Proper/consistent communications – "Your safety is really important to me" and Teammate safety is equal to patient safety

Privacy-first approach – strict approval process for any historical location access

Customizable visibility – staff current location information adjusted to organization comfort levels

Foster ongoing relationship between security and clinical teammates

All teammates engage in promoting a safe & healing environment

Wrap teammates in support - executive leadership empowers workplace violence prevention leaders who equip local champions

Change the culture to 0 tolerance and ensure accountability for teammates/leaders to engage when an unpreventable incident occurs

Review the data reporting structure for analyzing the impact on workplace violence prevention

Why the Future of Patient Safety Starts with Staff Safety

- **Staff safety is patient safety.** Protecting caregivers enables focus, faster response, and higher-quality care at the bedside.

- **Violence and burnout are clinical risks.** Fatigue, stress, and unsafe conditions increase errors, delays, and breakdowns in care delivery.

- **Real-time visibility enables faster intervention.** RTLS-enabled staff duress solutions improve coordination, reduce escalation, and support safer outcomes.

- **Safety technology must fit clinical workflows.** Intuitive, reliable solutions protect staff without adding burden or disrupting care.

- **Data and preparedness matter.** Real-time insights support compliance, transparency, continuous improvement, and evolving quality expectations.

- **Action today shapes future outcomes.** Investing in staff safety strengthens patient outcomes, trust, resilience, and long-term care quality.

Thank You!

RN in Room

Staff Duress Alert

Temperature Out of Range

Hand Washing Compliance Recorded

Infant Approaching Unauthorized Exit

You Are Here

Patient in Recovery

Asset Found

Room 6

Room 8

Med Room

Room 19

Room 10

2Nw-Zone

2w-Zone

2Sw-Zone

Take a Product Tour Today