PIQUE INSIGHTS / INDEPENDENT NEURO CX STUDY

# The Neuro CX of Medical Bill Entry

## Independent Behavioral Journey Audit of Cedar's Public Patient Experience

OBSERVED LIVE DOCUMENTED ILLUSTRATED / HISTORICAL

Evidence boundary: public bill entry, unauthenticated recovery, support content, current product descriptions, and clearly labeled Cedar-owned imagery. No private bill or authenticated payment state was accessed.

**CORE QUESTION**

How effectively does Cedar establish enough clarity, legitimacy, and control for a patient to confidently move from a medical bill into the digital payment journey?

INDEPENDENT ANALYSIS / NO END-USER RESEARCH / DIRECTIONAL HYPOTHESES

EXECUTIVE READ

# Low task effort. Incomplete trust transfer.

CENTRAL BEHAVIORAL THEME

The public entry experience minimizes task effort, but some of the strongest legitimacy, relationship and support information sits outside the moment when a patient decides whether to enter identifying information.

### 01 Trust relationship

Simple entry; processor relationship is under-explained.

### 02 Identifier drift

Bill ID, Account ID, and Account number compete.

### 03 Recovery expectations

Multiple routes create control; the handoff stays uncertain.

### 04 Support ownership

Legitimacy questions are anticipated; ownership is split.

DOCUMENTED

**Payment flexibility appears designed to preserve agency**

Partial payments, plans, methods, discounts, and benefit information are publicly described. The live authenticated decision architecture remains unverified.

# A public-entry audit, not a payment verdict

This independent heuristic and behavioral review separates direct observation from Cedar-authored descriptions and older illustrative material. It generates working hypotheses, not causal findings.

| OBSERVED LIVE | DOCUMENTED | ILLUSTRATED / HISTORICAL |
|---|---|---|
| **MEANING** | **MEANING** | **MEANING** |
| Current unauthenticated states traversed directly. | Current Cedar-owned descriptions of authenticated functionality. | Cedar-owned screenshots or older evidence not traversed. |
| **PERMITTED CLAIM** | **PERMITTED CLAIM** | **PERMITTED CLAIM** |
| We can state what the public interface displayed or allowed. | We can state what Cedar publicly documents - not how it performs. | We can describe the depiction and its date/status only. |

| OBSERVED STATES | EVIDENCE RECORDS | END-USER SESSIONS | AUTHENTICATED BILLS |
|---|---|---|---|
| 5 | 12 | 0 | 0 |

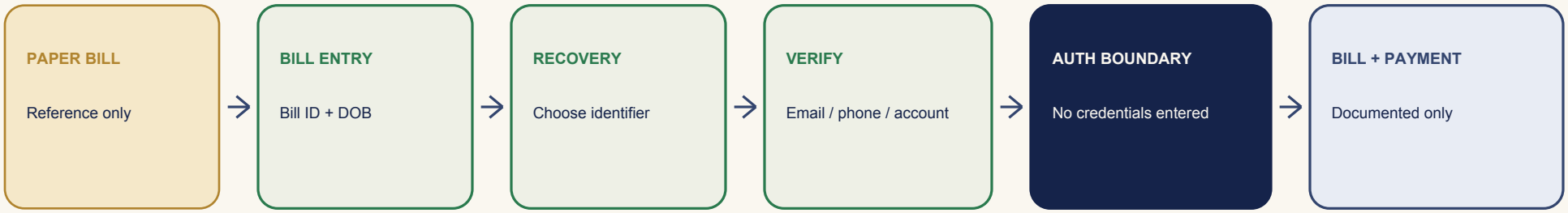
Stop condition: no Bill ID, account number, date of birth, email, phone, ZIP code, or payment data was entered. No authenticated bill, bill detail, plan enrollment, payment, or receipt was traversed.

PUBLIC JOURNEY ANATOMY

# Five observed states, then a hard evidence boundary

OBSERVED LIVE

DOCUMENTED




## THE QUESTIONS A PATIENT MUST RESOLVE

**LEGITIMACY**
Is Cedar authorized to handle this bill?

**COMPREHENSION**
Which number on the statement do I need?

**SECURITY**
Why is date of birth required?

**PREDICTABILITY**
What happens after I send the link?

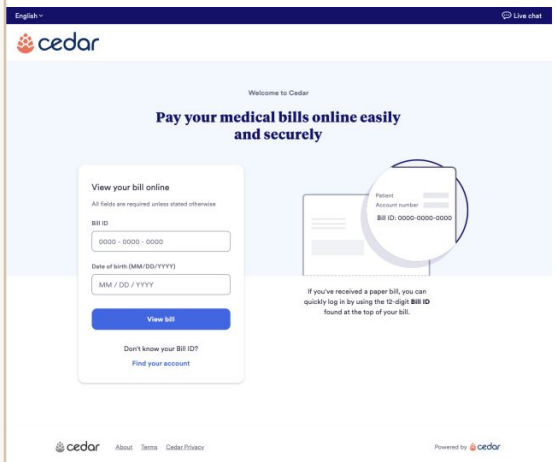
**OWNERSHIP**
Who can answer my question?

**AGENCY**
What payment choices will I have?

FINDING 1

# Simple entry, incomplete relationship clarity

OBSERVED LIVE




## THE DECISION MOMENT

The page promises an easy, secure route and asks for a 12-digit Bill ID plus date of birth. The provider relationship and DOB purpose are not explained beside the form.

### TARGETED INTERVENTION

Cedar securely processes bills for your healthcare provider. You are paying your provider - not Cedar. We use date of birth to protect access to your bill.

Source: Cedar public bill-entry flow, accessed 14 Sep 2026
https://prod.cedar.com/

### OBJECTIVE EVIDENCE

Short form, paper-bill cue, and general security claim. Relationship detail sits elsewhere.

### BEHAVIORAL INTERPRETATION

Task fluency is high; source credibility and purpose clarity are thinner.

### POTENTIAL RISK

An unfamiliar patient may pause, verify elsewhere, or abandon before entry.

### DIRECTIONAL HYPOTHESIS

Relationship and DOB-purpose copy may increase confidence to continue.

FINDING 2

# Identifier drift adds avoidable translation work

OBSERVED LIVE

**BILL ID**
Primary entry label

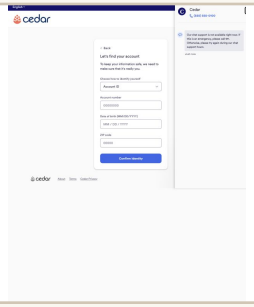
>

**ACCOUNT ID**
Recovery selector

>

**ACCOUNT NUMBER**
Recovery field + bill image

Interpretive burden: are these synonyms, or three different numbers? The interface requires the patient to translate product language back onto a dense paper statement.




**PROPOSED IDENTIFIER SYSTEM**

Bill ID - the 12-digit Cedar identifier at the top of the bill.
Provider account number - a separate number printed on the provider statement.

Pair each with its own annotated bill illustration.

Source: Entry and account-recovery states, accessed 14 Sep 2026
https://prod.cedar.com/ | https://prod.cedar.com/find-account/

**OBJECTIVE EVIDENCE**

Bill ID, Account ID, and Account number appear across adjacent states.

**BEHAVIORAL INTERPRETATION**

Terminology drift raises recognition and working-memory demands.

**POTENTIAL RISK**

Wrong-number search, entry errors, route switching, or support contact.

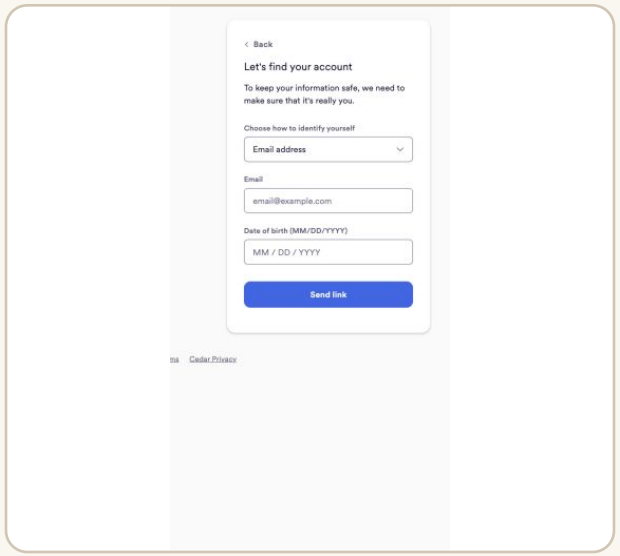
**DIRECTIONAL HYPOTHESIS**

One taxonomy plus source-specific illustrations may reduce failed entry.

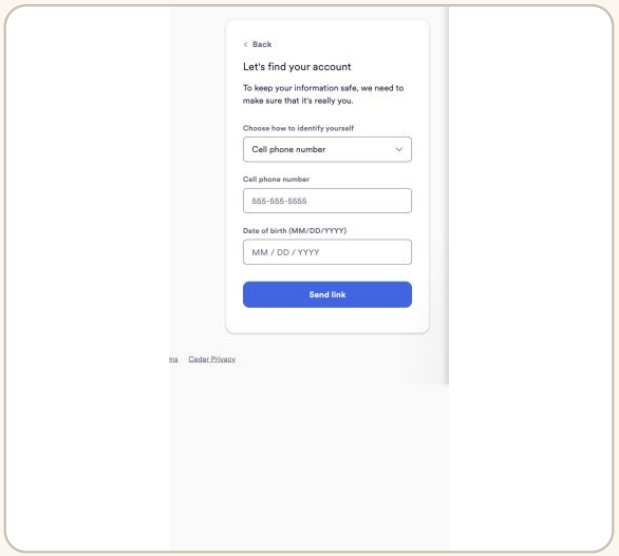
FINDING 3

# Recovery creates control, but not predictability

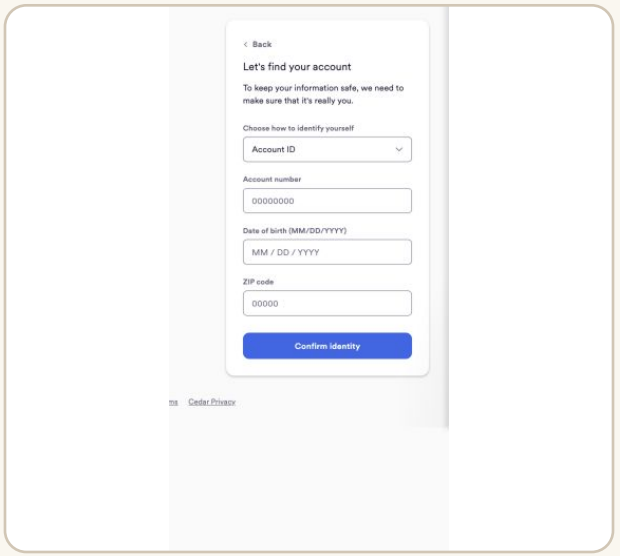
OBSERVED LIVE




EMAIL ADDRESS




CELL PHONE NUMBER




ACCOUNT ID

**PRE-SEND EXPECTATION CONTRACT**

We will email a secure account-access link to the address associated with your provider account. It should arrive within a few minutes and will expire for your protection.

Source: Cedar account-recovery variants, accessed 14 Sep 2026

**OBJECTIVE EVIDENCE**

Email, phone, and account routes are offered; the page explains identity protection.

**BEHAVIORAL INTERPRETATION**

Choice supports agency, while the channel handoff stays underspecified.

**POTENTIAL RISK**

Repeated requests, wrong-channel checking, or abandonment after Send link.

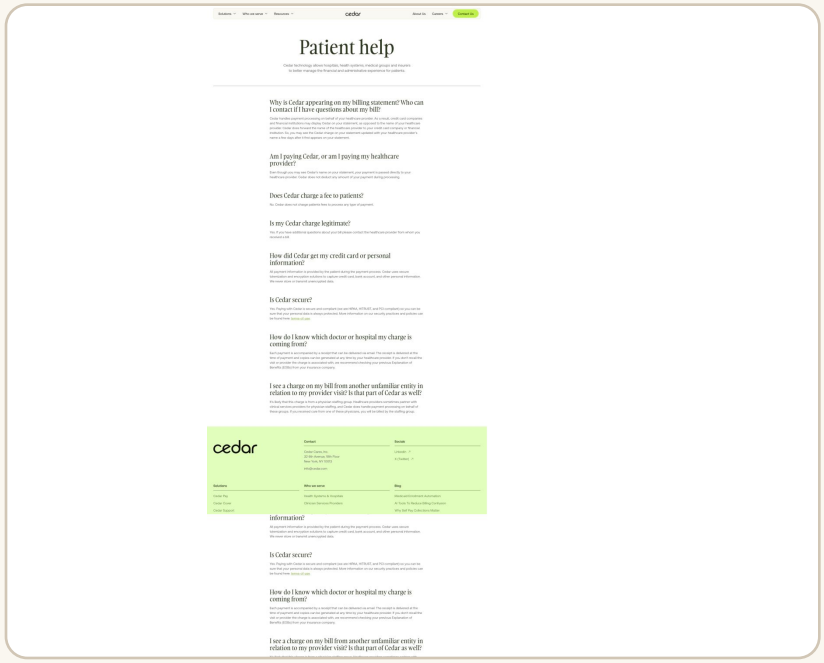
**DIRECTIONAL HYPOTHESIS**

Timing, sender, expiry, and next-step copy may improve recovery confidence.

FINDING 4

# Legitimacy is anticipated; ownership stays divided

DOCUMENTED




### QUESTIONS CEDAR ALREADY ANTICIPATES

- Why is Cedar on my billing statement?
- Am I paying Cedar or my provider?
- Does Cedar charge a patient fee?
- Is the Cedar charge legitimate?

Routing concept: Cedar handles access, online payment, receipts, role, and security. Your provider handles charge accuracy, services, and insurance processing.

Source: Cedar Patient Help, accessed 14 Sep 2026
https://www.cedar.com/patient-help

### OBJECTIVE EVIDENCE

Help content explains processor legitimacy but directs bill-specific questions to the provider.

### BEHAVIORAL INTERPRETATION

Patients must infer who owns each issue and where resolution begins.

### POTENTIAL RISK

Misdirected contacts, repeated explanation, delayed resolution, or payment delay.

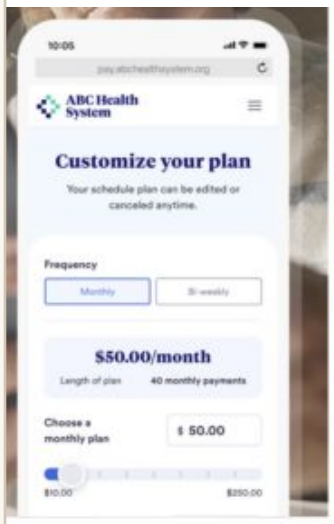
### DIRECTIONAL HYPOTHESIS

Issue-based Cedar/provider routing may increase resolution confidence.

DOCUMENTED STRENGTH

# Payment flexibility appears designed to preserve agency

DOCUMENTED




**PARTIAL PAYMENTS**

Avoids an all-or-nothing payment demand.

**PAYMENT PLANS**

Monthly or biweekly structures are publicly depicted.

**MULTIPLE METHODS**

Cards, ACH, Apple Pay, and Stripe Link are described.

**DISCOUNTS**

Cedar documents personalized discount options.

**BENEFIT INFORMATION**

Payer, EOB, HSA, and FSA context is described.

Source: Cedar Pay product page, accessed 14 Sep 2026
https://www.cedar.com/solutions/cedar-pay

**EVIDENCE BOUNDARY**

No authenticated bill was accessed. We cannot evaluate actual comprehension, choice overload, plan terms, affordability, or payment confidence.

BEHAVIORAL SYNTHESIS

# Procedural effort is low; interpretive effort remains

LEGITIMACY

### Is this real and authorized?

Relationship proof is displaced from entry.

COMPREHENSION

### Which information do I need?

Identifier labels require translation.

CONTROL

### What if the primary path fails?

Three recovery routes preserve agency.

RESOLUTION

### What happens next, and who helps?

Handoff and ownership are less explicit.

SECOND PROOF OF A REPEATABLE METHOD

**NOOM** Commitment, disclosure, and the trust contract across a long funnel.

**CEDAR** Legitimacy, comprehension, uncertainty, and control at a consequential entry point.

DECISION PRIORITY MATRIX

# Sequence confidence work before downstream optimization

| PRIORITY | DECISION | EVIDENCE | POTENTIAL RISK | CONFIDENCE | EFFORT |
|---|---|---|---|---|---|
| P1 | **Explain Cedar-provider relationship at entry** | Observed + documented | Legitimacy hesitation before entry | High | Low |
| P1 | **Standardize identifier terminology** | Observed live | Search errors and failed entry | High | Low-Med |
| P2 | **Set recovery expectations before Send link** | Observed live | Handoff uncertainty and repeats | High | Low |
| P2 | **Clarify Cedar-vs-provider support ownership** | Documented | Misdirected support and delay | Med-High | Medium |

Leadership recommendation: prioritize confidence-building information at the entry boundary before changing downstream payment choice architecture. No numerical business impact is assigned without behavioral or operational evidence.

# Four targeted interventions - not a product redesign

## 01 ENTRY RELATIONSHIP CONTRACT

Cedar securely processes bills for your healthcare provider.
You are paying your provider - not Cedar. We use DOB to protect access.

WORKING HYPOTHESIS - VALIDATE BEFORE SCALE

## 02 ONE IDENTIFIER SYSTEM

Bill ID: 12-digit Cedar identifier.
Provider account number: separate statement identifier.
Use a dedicated illustration for each.

WORKING HYPOTHESIS - VALIDATE BEFORE SCALE

## 03 RECOVERY EXPECTATION

Name the delivery channel, expected arrival, sender, expiry, next step, resend option, and failure path before Send link.

WORKING HYPOTHESIS - VALIDATE BEFORE SCALE

## 04 SUPPORT OWNERSHIP ROUTING

Cedar: access, payment, receipt, role, security.
Provider: charge accuracy, services, insurance.
Show the correct contact.

WORKING HYPOTHESIS - VALIDATE BEFORE SCALE

OPPORTUNITY SYSTEM

# From public evidence to an owned decision


| OPPORTUNITY | BEHAVIORAL MECHANISM | INTENDED DECISION EFFECT |
|---|---|---|
| **Relationship clarity** | Source credibility + uncertainty reduction | Confidence to enter identifying information |
| **Identifier consistency** | Recognition + cognitive fluency | Successful bill/account identification |
| **Recovery expectations** | Predictability + feedback | Confidence across channel handoff |
| **Support routing** | Agency + responsibility clarity | Faster movement toward resolution |

VALIDATION ROADMAP

# Test confidence, comprehension, and completion together

PHASE 1

## BEHAVIORAL ANALYTICS

Entry-to-submit rate

Bill ID validation failure

Movement into recovery

Repeated recovery requests

Support initiation before authentication

PHASE 2

## CONTROLLED EXPERIMENTS

Relationship copy

Standardized terminology

Recovery expectation copy

Issue-based support routing

Guardrails for downstream quality

PHASE 3

## QUALITATIVE VALIDATION

Comprehension interviews

Moderated bill-entry tasks

First-click testing

Terminology matching

Financial-anxiety-sensitive sessions

DECISION RULE

Advance an intervention only if it improves confidence or comprehension without degrading successful access. Completion alone is insufficient if identifier errors, support demand, or uncertainty increase.

No experiment, analytics review, or end-user study was conducted as part of this independent proof study.

WHAT THIS DEMONSTRATES ABOUT PIQUE NEURO CX

# Different journey. Same decision discipline.

Pique Neuro CX applies behavioral science, cognitive psychology, and decision-friction analysis to customer journeys. It does not imply biometric or clinical neuroscience measurement unless explicitly included.

NOOM

### Commitment + disclosure

A long funnel asks for trust before value becomes concrete.

CEDAR

### Legitimacy + comprehension

A short entry asks for identifying information before the relationship is fully concrete.

THE REPEATABLE CONSULTING OUTPUT

EVIDENCE BOUNDARY | BEHAVIORAL MECHANISM | BUSINESS/CUSTOMER RISK | PRIORITY DECISION | CONCRETE INTERVENTION | VALIDATION PLAN

**PIQUE NEURO CX DECISION AUDIT** One critical journey. Behavioral diagnosis. Prioritized decisions. Validation roadmap. **Starting at $12,500 · piqueinsights.com**

EVIDENCE APPENDIX

# Traceable sources and explicit claim limits

**CED-01** OBSERVED LIVE
**Public bill entry** prod.cedar.com/
Bill ID + DOB; paper-bill cue; general security claim.

**CED-02** OBSERVED LIVE
**Entry relationship** prod.cedar.com/
Provider/processor relationship not explicit beside form.

**CED-03** OBSERVED LIVE
**Identifier taxonomy** prod.cedar.com/find-account/
Bill ID, Account ID, and Account number appear.

**CED-04** OBSERVED LIVE
**Recovery choice** prod.cedar.com/find-account/
Email, phone, and account-number routes.

**CED-05** OBSERVED LIVE
**Recovery expectations** prod.cedar.com/find-account/
Security purpose shown; handoff details absent pre-send.

**CED-06** OBSERVED LIVE
**Global controls** prod.cedar.com/
English/Espanol and Live chat affordances present.

**CED-07** DOCUMENTED
**Support ownership** cedar.com/patient-help
Processor role, legitimacy, and provider redirection.

**CED-08** DOCUMENTED
**Security evidence** cedar.com/legal/terms-of-use
Security and compliance detail exists outside entry.

**CED-09** DOCUMENTED
**Payment agency** cedar.com/solutions/cedar-pay
Methods, plans, partial pay, discounts, benefits.

**CED-10** DOCUMENTED
**Bill comprehension** cedar.com/solutions/cedar-pay
Bill summaries, payer, EOB, HSA/FSA described.

**CED-11** ILLUSTRATED / HISTORICAL
**Historical UI** pages.cedar.com/...CrystalRun...
Older illustrative bill, plan, method, and chat states.

**CED-12** ILLUSTRATED / HISTORICAL
**Design rationale** blog.cedar.com/...patient-experience...
Older accessibility, empathy, and mobile-first intent.

Cannot responsibly claim: full authenticated bill comprehension; actual patient trust or anxiety effects; payment conversion; payment-plan clarity; collections outcomes; causal behavioral effects; or consistent implementation across Cedar clients.

Independent analysis by Pique Insights. Cedar did not commission, sponsor, endorse, or participate in this study.