

Restoring Clinical-System Access During an Emergent IR Procedure

Clinical Informatics | EHR Incident Response | Workflow Recovery | Technical Escalation

Dave Culp, RN, BSN | Professional Portfolio Case Study, De-identified

CASE SUMMARY

During a weekend on-call Interventional Radiology procedure, an unplanned, department-wide clinical-system access failure disrupted the team's normal route to patient information required for care. With hospital technology staff temporarily unavailable, I stepped into the adjacent clinical-technical work the team needed, serving as the on-site liaison with Epic support while keeping clinical and enterprise decision ownership clear. Under direct vendor guidance, I helped isolate the problem from general network connectivity, personally reconfigured two IR workstations from an inaccessible primary server to a functioning backup server, and helped validate the restored clinical workflow. The response focused on restoring bounded, dependable clinical capability rather than attempting an improvised enterprise repair. The interventional radiologist retained full authority for the clinical go/no-go decision. The team proceeded with the procedure. Transfer to another health system was not required, and the broader departmental remediation was handed to hospital technology after patient care was complete.

At a Glance

Element	Details
Problem	Department-wide loss of normal clinical-system access in Interventional Radiology during an emergent procedure.
Constraint	Time-sensitive patient care, technology resources temporarily committed elsewhere, and a potential transfer if we couldn't restore dependable access.
Intervention	Worked directly with Epic support and personally redirected two IR workstations from the inaccessible primary server to a backup server, creating a controlled temporary recovery path.
Result	The team validated required ED information and IR imaging integration, the physician cleared the team to proceed, the procedure was completed, and hospital technology later assumed department-wide remediation.
Informatics lens	Sociotechnical workflow continuity, information availability and patient-context integrity, bounded recovery, end-to-end validation, and clear clinical/technical governance.

Clinical and Operational Context

The incident occurred during a weekend on-call Interventional Radiology assignment. The team had been called in for an emergent procedure, so the clinical environment was already under time pressure when the technology problem became apparent.

When the procedural team arrived in IR, the department could not access the clinical system using its normal workstation workflow. This was not an isolated workstation issue. The access failure affected the department broadly and interfered with the team's ability to obtain the patient information required to support the procedure.

Hospital technology services were contacted immediately, but the available technical staff were already engaged with another active case and could not respond in person right away. The response therefore combined existing fallback processes with real-time problem-solving. Because I was a registered nurse working in Interventional Radiology, an Epic super-user, and someone with a substantial systems and technology background, I became the hospital-side clinical and technical liaison with Epic support.

Viewed retrospectively through a clinical informatics lens, this was a sociotechnical disruption rather than a simple workstation defect: people, workflow, information, and technology were all affected by the loss of the normal access path. The immediate safety question was therefore whether the team could regain reliable access to the correct patient information within the procedural time window.

The Failure

The first challenge was distinguishing a general connectivity issue from a more specific application- or server-access issue. Working directly with Epic support, we confirmed that the department had network connectivity. The failure was more narrowly confined: the primary server was reported as available, but IR could not access it using the department's normal configuration.

This case describes operational recovery rather than a formal enterprise root-cause analysis. That distinction matters in informatics incident response: characterize observed system behavior before intervention, and do not mistake a temporary recovery path for a proven underlying cause. The key operational fact was clear: the normal route to the primary server was unusable from IR when the clinical team needed it.

My Role and Boundaries

I did not independently administer the enterprise EHR, make the medical go/no-go decision, or own the department-wide permanent repair. My contribution lay at the boundary between clinical operations and technology: I understood what the procedural team needed, translated those clinical requirements into observable system behavior for Epic support, executed the vendor-directed temporary configuration changes on site, and validated whether the restored pathway was clinically usable. That boundary work reflects a core clinical informatics function: translating between clinical workflow and technical capability while preserving scope, accountability, and decision authority.

Role	Responsibility in incident
Epic support	Provided diagnostic guidance and direct instructions for the temporary workstation configuration changes.
My role	Served as the on-site clinical and technical translator, personally executed the directed changes on two IR workstations, and participated in end-to-end workflow validation.
Interventional radiologist	Retained full authority for the clinical decision to proceed or transfer the patient.
IR procedural team	Used the restored access to review the information required for the procedure and continue patient care.
Hospital technology	Received the technical handoff after patient care and assumed responsibility for broader department-wide remediation.

Controlled Operational Recovery

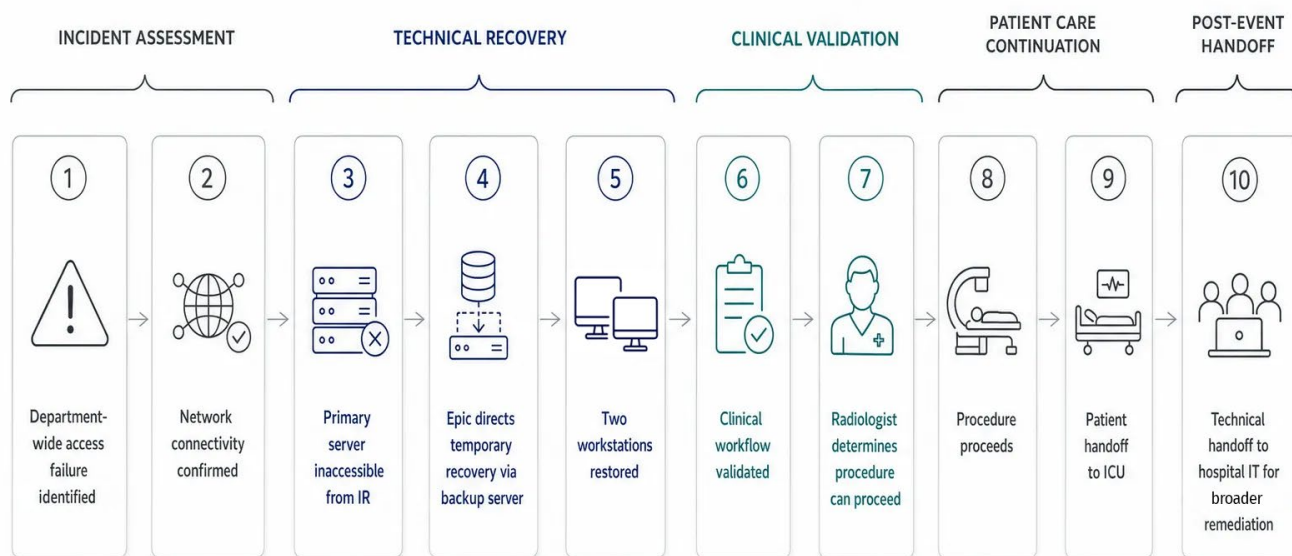
Epic support identified a practical, temporary recovery path: redirect selected IR workstations from the inaccessible primary server to a functioning backup server. The objective was not to repair every computer in the department while an emergent patient waited. It was to restore the minimum dependable clinical

capability that supported the clinicians who needed access for the procedure, consistent with a continuity-oriented informatics approach.

Under Epic support's direct instructions, I entered the required technical configuration area and changed the server-access settings on two IR workstations. Two functioning workstations were sufficient for the immediate clinical need. They allowed two clinicians at a time to access the system and the patient information needed to support the case while the broader departmental problem remained unresolved. Keeping the intervention bounded also limited unnecessary change during a time-sensitive event and preserved a clear handoff point for enterprise remediation.

Clinical Systems Incident-Response Flow

Restoring minimum dependable clinical capability during a department-wide access failure



RECOVERY PRINCIPLE

Restore the minimum dependable clinical capability required for patient care first, validate that capability in the real workflow, preserve decision authority and contingency options, then transfer the broader systemic problem to the team responsible for permanent remediation.

Clinical Workflow Validation

In clinical informatics, technical availability is not the same as clinical usefulness. A successful login or server connection was necessary but insufficient; the temporary recovery had to preserve information availability, patient-context integrity, downstream integration, and usability within the clinical workflow.

- **Clinical information availability:** We verified that the reconfigured workstations could access the patient's Emergency Department records, including the tests and treatments required by the IR team.
- **Patient-context integrity:** The required information was available within the appropriate patient context, allowing the team to review the relevant clinical record rather than merely confirming generic system access.
- **Integration integrity:** Scout scans performed in IR were linked correctly to the patient's EHR as expected.
- **Workflow usability:** The clinical information required for the procedure was integrated as expected and could be used by the procedural team through the restored workflow.

This end-to-end validation treated the care process, not the server connection, as the unit of success. The question was not merely whether a workstation could reach a server; it was whether clinicians could depend on the restored information environment to deliver the correct information in the correct patient context through a usable workflow.

Clinical Decision and Procedure

The interventional radiologist retained full authority over the clinical go/no-go decision. After the temporary system access was restored and the workflow was validated, the physician reviewed the available information and determined the team had what it needed to proceed safely and effectively. This separation is important in informatics governance: technical recovery restores capability and information access; it does not transfer clinical decision authority.

If dependable access had not been restored, transfer to another hospital in a different health system would have remained an available contingency. With the temporary recovery in place, transfer was not required, and the IR team proceeded with the planned procedure.

Once the procedure was underway, the technology problem was no longer the critical operational barrier. The team could focus on patient care, now that the controlled system access had been restored.

Patient Handoff and Technical Handoff

After the procedure, the patient was handed off to ICU staff for continued care. Patient care and the clinical handoff came first. Only after that responsibility was complete did I return to the broader systems issue. The sequence mattered: continuity of care took priority, followed by a technical handoff of the temporary system state and the unresolved enterprise problem.

Hospital technology staff were then available. I walked them through the failure as we had observed it, the distinction between network connectivity and primary-server access, the Epic-directed configuration changes, the temporary redirection to the backup server, and the behavior we had validated after the workaround. This preserved change provenance and gave the team with enterprise ownership a clear starting point for broader remediation.

Hospital technology assumed responsibility for the department-wide reconfiguration and technical remediation. No additional IR cases were scheduled that day, so I did not independently validate the full department immediately after their work. On my next use of the IR systems, I did not encounter a recurrence of the access problem experienced during this incident.

What This Case Demonstrates

- **Clinical consequence recognition:** The systems failure was treated as a patient-care continuity and workflow issue, not merely a technical inconvenience.
- **Sociotechnical assessment and fault isolation:** The response considered the affected clinicians and workflow while distinguishing general network connectivity from a narrower primary-server access problem before making configuration changes.
- **Bounded technical recovery:** Under direct Epic support guidance, I personally performed the temporary server-access reconfiguration on the two workstations required for immediate clinical operations, rather than expanding the change beyond the time-sensitive requirement.
- **Workflow and information validation:** Success was defined by access to the correct patient information, appropriate patient context, proper integration of newly generated IR imaging, and practical usability, not by a simple connection test.

- **Team-oriented clinical-technical translation:** With the normal technical response temporarily constrained, I stepped into the liaison role the team needed, translating clinical needs into technical observations for Epic support and converting vendor guidance into operational steps the procedural team could use.
- **Scope, governance, and decision integrity:** The physician retained responsibility for the medical decision, Epic directed the vendor-specific technical changes, and hospital technology owned the broader permanent remediation.
- **Handoff and evidence discipline:** The temporary workaround, observed behavior, validation performed, and unresolved questions were handed to hospital technology without presenting the workaround as a proven root cause or a permanent fix.

Retrospective Clinical Informatics Analysis

The framework below is retrospective: it applies a clinical informatics lens to how I would formally document and analyze a comparable clinical-systems incident today. It is not a claim that these labels, artifacts, or formal methods were used during the original event.

1. Characterize the sociotechnical disruption

Define the affected users and workflow, clinical dependencies, system availability, expected versus observed behavior, and urgency. Separate what is known from what is suspected so operational decisions don't conflate facts with unverified root causes.

2. Isolate the failing dependency and preserve evidence

Differentiate workstation, network, authentication, application, server, interface, and data-availability failures. When practical, record the observed behavior and the relevant configuration state before the change. Here, network connectivity remained available, narrowing the problem without establishing a formal enterprise root cause.

3. Restore bounded clinical capability

If full remediation cannot fit within the clinical time window, use an approved contingency or a vendor-directed recovery path to restore the smallest dependable capability that supports the necessary clinicians while preserving escalation and alternate care options. In this case, two workstations using the backup server were sufficient.

4. Validate information integrity and workflow end to end

Validate patient context, source records, tests and treatments, newly generated clinical data, downstream integration, and clinician usability. A login test verifies connectivity; workflow validation confirms whether the restored information environment can support care.

5. Assess residual risk and preserve decision authority

Communicate what has been restored, what remains unresolved, and any limitations of the temporary state. Technical recovery supports clinical judgment; it does not replace it. The responsible clinician retains authority to proceed or to activate another contingency.

6. Hand off the temporary state with clear provenance

Document the changes, affected workstations, recovery path, validation performed, and unresolved questions, then hand off to the team with enterprise ownership to prevent a temporary workaround from becoming an unmanaged permanent state.

7. Close the loop through remediation and monitoring

Permanent correction belongs within enterprise technology and should include broader testing, restoration of the standard configuration, and appropriate monitoring to prevent recurrence. A subsequent review should compare actual behavior with the intended clinical workflow and feed lessons learned into downtime, contingency, training, and support processes.

Closing Reflection

Clinical systems matter only when clinicians can depend on them when care requires them. This incident reinforced a central clinical informatics principle: availability, information integrity, usability, and workflow fit are inseparable. Recovery is not returning to a login screen; it is restoring a trustworthy information environment that supports the intended clinical process.

The experience reflects the kind of work I value at the intersection of healthcare and technology: understand the clinical consequences, assess the sociotechnical context, investigate system behavior without overstating what is known, communicate across disciplines, intervene within appropriate boundaries, verify that the workflow works, preserve clinical decision authority, and stay with the problem through a clean operational handoff. That is the clinical informatics mindset I bring to systems work: see the whole problem, help the team move forward, and stay with the work through a clean, well-executed handoff.

De-identification note: Facility, physician, patient identifiers, exact dates, and other nonessential identifying details are intentionally omitted. The case describes the operational sequence and role boundaries without asserting a formal enterprise root cause.