THE HIDDEN VALUE OF CLINICAL ENGINEERING

How can we demonstrate our real value beyond equipment maintenance?



Photo: Laurence Chaperon · femMit magazine #04 (source provided by speaker)

We are measured by what is easy to count.

But that is not the complete picture of value.

WORK ORDERS

Number of repairs completed

RESPONSE TIME

How quickly a fault was addressed

EQUIPMENT UPTIME

Whether devices were operational

Necessary indicators ≠ complete picture of value

The better question: what improved?

For patients, clinical teams and the healthcare organization.

PATIENT SAFETY

Risks identified and reduced

CARE DELIVERY

Clinical interruptions avoided

DECISIONS

Better technology choices

RESOURCES

Costs and waste prevented

An example: replacing ageing equipment

Illustrative scenario – not a claim about a specific hospital project.

01 / REACTIVE

A device fails → repair or replacement request

02 / ENGINEERING-LED

Assess failures, clinical use, risk and total cost

03 / SHARED DECISION

Prioritize options and coordinate implementation

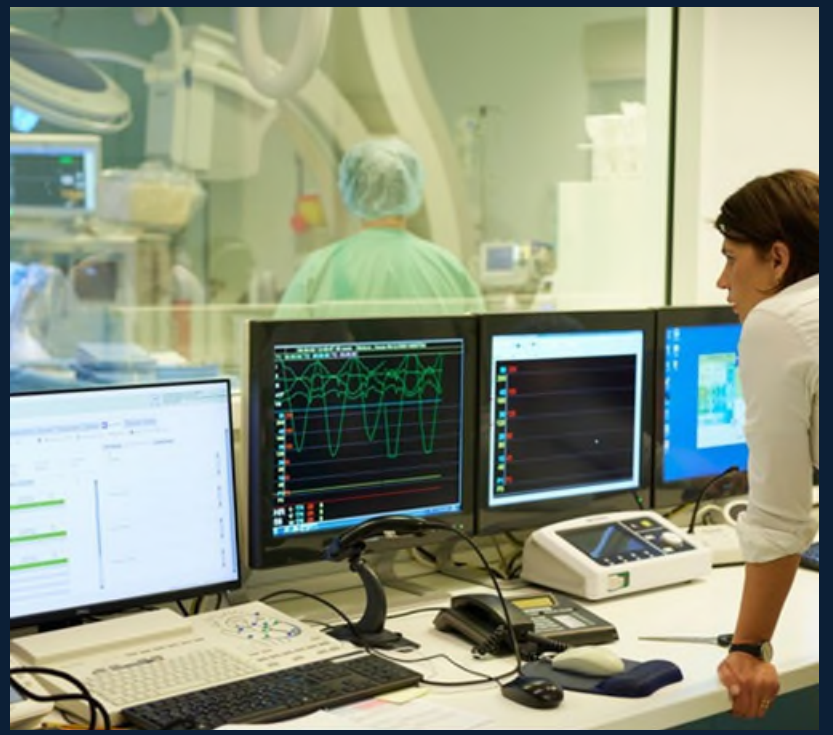


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Value is created in the decision process.

Clinical Engineering connects technical evidence with clinical priorities.

DATA

Failure patterns, condition, utilization

CLINICAL CONTEXT

Workflows, criticality, user needs

ENGINEERING JUDGMENT

Risk, options, lifecycle cost

SHARED DECISION

Purchase, upgrade, redesign or retain

Value is created before the next repair is needed.

Three lessons from a value-driven approach

Practical principles any Clinical Engineering team can adapt.

1 · START WITH THE CLINICAL PROBLEM

Explain care-related consequences, not only technical faults.

2 · COLLABORATE EARLY

Involve clinicians, procurement, IT and leadership.

3 · DOCUMENT OUTCOMES

Record baselines, decisions, results and uncertainty.

Show value with an outcome-based scorecard.

Choose indicators your organization can define and verify.

PATIENT SAFETY

High-risk device issues identified / mitigated

CLINICAL CONTINUITY

Documented device-related workflow disruption

DECISION QUALITY

Evidence-based replacement or procurement

RESOURCE STEWARDSHIP

Lifecycle cost, useful life, avoidable waste

Measure baselines and results. Avoid unsupported impact claims.

How we make our contribution visible

Turn engineering work into a clear, evidence-based value story.

01 Identify a consequential problem

02 Explain the engineering contribution

03 Connect it to a meaningful outcome

04 Share evidence and lessons learned



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CLINICAL ENGINEERING IS MORE THAN MAINTENANCE.

Safer technology. Smarter decisions. More sustainable healthcare.

Make the value visible. Make the impact measurable.