

Component 8 Installation and Maintenance of Health IT Systems Unit 8a

Troubleshooting; Maintenance and
Upgrades; Interaction with Vendors,
Developers, and Users

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What We'll Cover

- Troubleshooting
 - Reporting, evaluating, fixing, & following up problems
 - Help desk
 - Triage & prioritization
 - “Tiered” support strategy
- Maintenance & upgrades
 - Creating baseline for measuring system performance
- Interactions with vendors, developers, & users
 - Communicating system requirements & updates
 - Client-vendor relationship

Troubleshooting: Support Staff

- Dedicated staff for maintenance, upgrades, & troubleshooting of IT systems, e.g. EHRs.
- Smaller environments
 - May need to contract with IT consultant
 - Need go-to person assigned both to administer the system and to interface directly with IT consultants and vendor.

Troubleshooting: Support Staff (cont'd)

- Larger environments
 - More cost-effective to provide on-site staffing for most maintenance & troubleshooting of EHR.
- Dedicated production support team to focus on customer support issues.
 - Avoid temptation to share support responsibilities with development team.

Troubleshooting: Support Staff (cont'd)

- The Production Support Team should focus on:
 - Being highly available and usable.
 - Providing rapid response to service issues.
 - Handling customer problems.
 - Managing user access requests to the EHR.
 - Reviewing daily interface error logs.
 - Doing other day-to-day duties as needed.

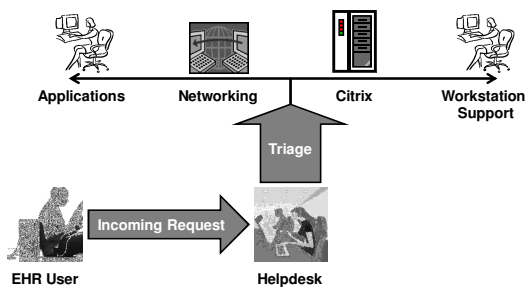
Troubleshooting: Support Staff (cont'd)

- Production support team
 - Customer-focused, excellent “soft skills”
 - Versatile, with specialists in help desk, application, hardware, & network support.
 - Thorough understanding of application & business processes

Troubleshooting: Help Desk

- First point of contact for most problems.
- Answers user inquiries & troubleshoots more common issues.
- Responsible for “tripling” issues beyond their scope to appropriate group.
- Responsible for assigning priority
 - E.g., Routine, Important, Urgent, Critical

EHR Troubleshooting Workflow



Troubleshooting: Prioritizing Requests

- Routine (Low)
 - Intermittent; needs to be addressed but no impact on workflow or patient care.
- Important (Medium)
 - Device nonfunctional but not impacting patient care.

Troubleshooting: Prioritizing Requests (cont'd)

- Urgent (High)
 - Severely impacting individual or department workflow.
- Critical
 - Critical device affected, with no other alternative for user; or directly affecting patient care.

Troubleshooting: Tiered Approach

1. Super users, help desk
2. Workstation & network specialists, technical analysts
3. Application support specialists, support consultants; often centrally located

Troubleshooting: Tiered Approach (cont'd)

- “Super users” (tier 1)
 - Usually clinical staff, well trained in EHR usage & workflow strategies
 - Located on-site for front-line support
 - Promote proper security & confidentiality
 - Teaching & communication skills
 - Liaison between EHR support team & clinic

Troubleshooting: Tiered Approach (cont'd)

- Help desk analysts (tier 1)
 - Phone & email support
 - Workstation & application troubleshooting
 - Documentation of issues & their resolution, for further analysis, in ticketing system
 - Customer relation skills

Troubleshooting: Tiered Approach (cont'd)

- Network specialists & workstation analysts (tier 2)
 - Dispersed throughout system
 - Troubleshoot intermediate-advanced network & application issues
 - Interface with various team members to expedite requests

Troubleshooting: Tiered Approach (cont'd)

- Application support specialists (tier 3)
 - Experts in EHR applications
 - Troubleshoot difficult issues
 - Research specific problems with vendor
- Production support consultants (tier 3)
 - Similar to application support specialists
 - Work effectively with clinicians & stakeholders
 - Recommend & implement EHR upgrades

Troubleshooting: Tiered Approach (cont'd)

- Communication is key.
 - Especially with separate IT teams for projects & support; critical need for written documentation.
 - Lines of communication between all facets of support infrastructure.
 - Periodic training for communicating enhancements & known issues, soliciting feedback.
 - Listening & communication skills; glean enhancement ideas from users.

Summary

- Support staff
 - Smaller healthcare settings might contract out IT services; larger institutions require in-house IT staff.
- Requests for support
 - Triage & prioritize upon receipt to avoid urgent issues being overlooked.
 - Forward requests to appropriate specialist.

Summary

- Tiered structure can help manage workloads & user requests in larger institutions.
- Specialists with wide variety of skills
 - Application support & development
 - Networking infrastructure & security
 - Hardware support

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