Plan B: A Practical Approach to Downtime Planning in Medical Practices

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What goes up must come down. All health IT systems will experience downtimes, whether planned or unplanned. Well-vetted and communicated policies and procedures keep practices running and their patient information intact.

It has been a typically busy Monday morning at the medical practice. The patient schedule is packed, the phone is ringing off the hook, and staff have been using every functionality of the electronic health record (EHR). Then in a single moment, the screens go blank. No one expected the system to go down. No one knows why it went down. No one knows when it will come back up.

The practice staff need a plan B—instructions that detail how they will operate until systems are available again. How well they get through the next hours or days will depend on whether they have clear instructions on what to do and whether they have ever done it before.

System downtime may be planned or unplanned, but both types require policies and procedures that address the same considerations: how the downtime and alternate processes are communicated; how physicians and staff document patient care; how charges are captured; how systems are brought back up; and how downtime documentation is transferred to the EHR once systems are live again.

Three Plans

Downtime in essence is the time during which a functional machine or system is not functioning properly or is otherwise unavailable to users. Scheduled downtime is planned in advance for reasons including scheduled maintenance, system updates and patches, and upgrades.

Unscheduled downtime is due to system or environmental failures (e.g., power outages). Semi-planned downtime includes software or hardware upgrades that the practice does not schedule itself, such as those scheduled by the vendor. This may include patches that need to be applied quickly to avoid security vulnerability.

Unless there are redundant systems in place, all practices with software applications and systems will most likely experience downtime; for instance, during routine maintenance or back-ups that are performed at established intervals, often on a daily, monthly, or quarterly basis.

Downtime may affect a single application or be systemwide. But no matter how many departments are involved, each area affected by the downtime will need to be familiar with the policies affecting their area to keep patient care and operations running smoothly and information complete and intact. All system users should have regular training on downtime procedures. The first session should occur when the system is being installed. New employees should be trained on downtime procedures as part of their system training. All users should receive refresher training on a regular basis.

Downtime Communication Template

Providing staff with answers to the following questions offers a template for announcing planned downtimes. With modification, the same template can form the basis for communicating unplanned downtimes.

- What system will be down?
- When will the downtime begin?
- How long will the system be unavailable?
- Why will the system be down?
- What changes are being made to the system, and what can the end user expect?

Communication

Communication plans are a part of downtime policies and procedures. Communicating planned and semi-planned downtime to staff in advance will minimize frustration and confusion as to why the system is unavailable.

As soon as an unplanned downtime is discovered, notifications are sent immediately to physicians, staff, and leadership. Every organization needs to identify the individual responsible for sending out the notification. Notifications will often originate in the IT department or with the IT vendor.

Developing a communication template will ensure quick and effective communication (see sample). Scheduled maintenance dates and times may be posted.

Planned downtime communication begins when or near the time dates for downtime are established. The change control approval is generally the first notification distributed to key staff in IT and operations. Scheduling planned or semi-planned downtimes for times of the day when the medical practice is closed or has low patient volumes reduces the impact on operations. Reviewing application utilization reports helps determine the best time. Short downtimes may need just one notification a day or two prior to the downtime. This may include maintenance, updates, or patches.

Multiple notifications are needed for large upgrades or other modifications that will affect staff access to applications for an extensive period of time. Notifying staff of the impending downtime will allow them to make necessary adjustments and preparations. Depending on the expected length of the downtime, communication may be necessary one to two months in advance.

Tailoring communication to staff based on their roles and the impact they can expect will provide information to the staff as to what they need during the downtime. Notifications include what, when, details, and impact. Communicate to staff in multiple formats for extended downtime, such as upgrades to the system. Forms of communication include e-mails, newsletters, intranet sites, flyers posted at computer stations, online calendars, and a notification when the staff logs into the system. For those practices with a help desk, a notification on the help desk line when the system is down may also be used.

Staff also require notification if planned downtimes are postponed. It is helpful if the notification includes the date and time of the rescheduled downtime, if known, or at least indicates that more information will follow.

During unplanned downtime, it is important that staff receive timely and effective information. The practice's communications plan should identify multiple ways to communicate with staff in the event that networks or phones are down. Practices may use a paging system to get out communications or access e-mail off-site to send messages or text pagers. The communications plan itself requires contingency planning—it should be maintained in both electronic and paper form to increase its accessibility.

The communication should be sent to all physicians, providers, and staff, as well as senior leadership, management, and IT. If possible, one mass communication may be sent to everyone. Senior leadership and IT may have additional notices as determined by the situation.

Updates are recommended at defined intervals. This frequency will be determined by the practice and the situation. It may be helpful to indicate when the next communication will be sent. This will minimize staff constantly calling in for updates. The communication may also include the estimated time the system will be back up and running. If that is not known, that, too, should be communicated.

Procedures for Planned and Unplanned Downtime

Planned Downtime

There will be times when [insert software name] will have a planned downtime. In the event that the [insert software name] system is going to be down and your staff has advanced notice, there are several steps that can be observed before the system goes down and again once the system becomes available for use.

[Insert name of IT department or software vendor]

- Notification of scheduled downtimes will be communicated from the IT department or vendor via e-mail or direct phone calls if e-mail is not available. Be sure to read your e-mail.
- The IT department or vendor will notify the practice via e-mail or phone call when the situation has been addressed and the system is back online.

Scheduling Staff

- Upon notification, the scheduling department should print out schedules for those hours (or days) that the system will be down.
- Blank encounter forms and charge slips should be made available. Patient information will either be written by hand or pre-printed labels applied, if applicable.
- For new patients without a pre-scheduled appointment, assign a temporary medical record number or other identification number from [specify the name of the log].
- Upon notification that the system is back up, a designated person will:
    - Schedule and check-in those patients who entered the practice during downtime (in chronological order).
    - Send encounter forms or charge slips to billing staff.

Clinical Staff

- A paper version of the schedule will be used during the downtime, making edits as needed.
- Forms should be made available for the patient and healthcare providers [insert name of forms].
- Forms are in packets called [insert packet name] and are located in [insert clinic area].
- Upon notification that the system is back up, a designated person will enter the clinical information for each patient as soon as possible once the system is stable. [Practices should predetermine the amount of time that will transpire before documentation will be entered manually versus scanned.]

Billing Staff

- Initiate a manual process for patient phone calls. Phone calls can be returned once the system is back up.
- Print an aging report or other appropriate reports in advance to utilize during downtime as needed.
- Complete other business applications that do not require the system to be up and running.
- Once the system is brought back online:
    - Retrieve encounter forms or charge sheets.
    - Enter charges into the system in a batch day-by-day process.

Unplanned Downtime

In the event of an unplanned, unscheduled downtime, staff will need to be prepared to handle working without computerized technology and be able to transition to a paper process until the system is online.

[Insert name of IT department or software vendor]

- Notification of unplanned downtime will be communicated by the IT department or vendor via direct phone call.
- If the practice has not been notified by the IT department or vendor, it should contact a representative during regular operating hours or contact the afterhours help desk at [insert phone number] to report the downtime.
- The IT department or vendor will notify the clinic via e-mail or phone call when the system is back online.

Scheduling Staff

- Upon notification from the IT department or vendor or upon realization the system is down, schedulers will adopt the downtime procedure process.
- Use a blank paper schedule and handwrite patient information into the schedule.
- Blank encounter forms and charge slips should be made available. Patient information will need to either be written by hand or pre-printed labels applied, if applicable.
- For patients without a pre-scheduled appointment, assign a temporary medical record number or other identification number from [specify the name of the log].
- Upon notification that the system is back up, a designated person will:
    - Schedule and check-in those patients who entered the practice during downtime (in chronological order).
    - Send encounter forms or charge slips to billing staff.

Clinical Staff

- Healthcare providers and staff will need to work with the schedulers on the best method for determining which patient is to be seen next. [Each practice will devise a form and place it in the procedure.]
- Forms should be made available for the patient and healthcare providers [insert name of forms].
- Forms are in packets called [insert name of packet] and are located in [insert area where forms are located].
- Upon notification that the system is back up, a designated person will enter the clinical information for each patient as soon as the system is stable. [Practices should predetermine the amount of time that will transpire before documentation will be entered manually versus scanned.]

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Clinical Documentation

Knowing when to begin downtime procedures can be difficult. Guidelines for unplanned downtimes will detail to staff what is expected of them and consequently reduce errors in documentation. Staff will know what is expected of them. Guidelines should be implemented when downtimes exceed one hour. Many patients may be seen during this time and it is important to capture this information. Practices may consider different timing intervals for different systems. For example, the downtime procedures for the transcription may begin within a different hour lapse than the downtime procedures for the laboratory or radiology systems.

For practices with busy registration areas, it is imperative to keep the processes of checking patients in and scheduling appointments flowing as smoothly as possible during system downtime. In anticipation of a planned downtime, patient schedules must be printed in advance to ensure that this critical information is available when patients arrive for their

appointments. Advance printing of patient schedules should be performed closely to the scheduled downtime, such as one day prior to the scheduled downtime. For the appointment scheduling function, appointments may be made on paper to be entered into the system when the system is back up. The scheduling and registering staff who take the call from the patient will write down the patient's name, telephone number, and the desired appointment. This person will then call the patient back when the system is back up with time availabilities.

For other areas that need to report testing results such as laboratory or radiology, many practice policies require printing out results prior to a planned downtime. This allows distribution of results before the system is down. How and when these results are communicated may differ between facilities. For example, results may be faxed to a satellite practice or communicated by phone for urgent matters. Otherwise, all results will be printed and placed on a temporary downtime patient record.

Orders will also be handled on a case-by-case basis. For stat orders and tests (e.g., labs and radiology), orders may be faxed from the requesting provider to the appropriate location. The practice may choose to place limits on this, such as only one blood draw can be done for lab tests during downtime. For nonurgent tests, these tests may be ordered, performed, and documented on paper-based forms during downtime.

Paper-based forms identified for use during downtimes should be kept in the patient care areas where documentation takes place. The policy should specify where the forms are kept both during and after the downtime.

One type of form used during downtime is for medications. Allergy information must be included on these paper-based forms to ensure that this vital health information is not lost during downtime. All medications given or ordered during downtime would be documented on the form specified in the policy.

Practices that use e-prescribing will need to write out prescriptions on paper pads to give to the patient, or when permitted, these prescriptions may be telephoned into the appropriate pharmacy. Some prescriptions may require tamper-proof prescription pads. Again, practices should ensure there is a supply of prescription pads for downtime.

Providers using dictation systems require alternatives during downtime. Some dictation platforms use handheld dictation equipment that is interfaced with the EHR as well as phones. Because phone systems often continue to work during downtimes, phone dictation may be an alternative. Handheld tape recorders may also be used as long as the transcriptionists have a way to transcribe the tapes. If these alternatives are not available, providers will have to use paper-based documentation.

It should be mentioned that many of these policies are created for only one particular information system. This assumes that other systems, such as the radiology information system, are still running when other systems, such as a clinical information system, are down.

Special Consideration: Special Projects

When developing its policy and procedure for documenting into the EHR after a downtime, the practice must remember the documentation and reporting requirements of special programs or projects that rely on data mining. Examples include the Physician Quality Reporting Initiative, patient-centered medical home pilots, health district requirements (such as immunizations and vaccinations), and federal or state registries.

In many cases, the customary and preferred method of entering documentation into the system after a downtime is to scan the paper-based documentation, as this is fast and easy. However, this will not be appropriate for data that must be reported to outside agencies or registries.

Each practice should develop a list of the programs and projects in which it participates. This inventory should include the required queries and responses that meet the program requirements.

Charge Capture and Coding

Just as important as a clinical documentation plan and communication plan is the assurance of accurate and complete charge capture during downtimes. This is often a forgotten necessity.

For many practices, the downtime procedure will be to fall back on EHR screen prints of the eligible charges from the chargemaster. Other practices may use a paper-based charge slip; however, the practice must be certain that all of the listed services are correctly coded with the current codes. It is not acceptable to use an old version of the paper-based charge slip, such as one from the box left over when the practice went live with its EHR.

Staff should code these paper-based charge slips completely with the appropriate CPT, HCPCS, and ICD-9-CM codes. They should complete links between the services performed (CPT and HCPCS codes) and the reasons the services were performed (ICD-9-CM codes). The proper units must also be noted, such as for injectables. Necessary modifiers should also be appended to the appropriate CPT or HCPCS codes. Although this process will be completed manually, it should be completed during the actual downtime. This will expedite the charge entry process once systems are operational.

If the practice uses a mobile system and the software was downloaded in a batch on the individual unit prior to a planned downtime, then the batched health record information and charge functionality may still be available on a handheld electronic unit during a downtime period. The documentation and charges could be uploaded once the system is operational again.

Bringing the System back Online

Part of planning for when the system is down includes planning for when it is available again. The practice can work with its key IT personnel to determine the sequence in which applications or areas of the system will be brought back online.

Registration and scheduling is the most logical starting point, as this function enters the patient encounter into the system, allowing other applications the ability to complete their portion of the downtime procedure. Clinical applications including clinical documentation, ordering, results, and any other areas of direct patient care would be brought back next. Financial applications round out the process.

Also note if systems have any type of integration; for example, the system producing the charges may be integrated or interfaced with the system that initiates the orders. In this scenario, both systems or modules of these systems may need to be brought up in conjunction with each other.

A recommendation would be to create a checklist using the expertise of the IT department or outsourced IT vendor, along with the day-to-day knowledge of the key players within the practice. This systems checklist may be used as a communication tool to keep everyone informed on the day of a downtime.

After the systems are up and running, the information gathered during the downtime needs to be entered. Patients who were seen during the downtime who were not scheduled (e.g., walk-ins) will need to be scheduled and “checked in” per protocol. Instances where scheduled patients did not arrive will have to be noted.

Once the appointment is in the system, staff can enter the clinical information. As a form of a quality audit, reports may be run to help identify patients that were scheduled during the downtime to ensure documentation is entered on all patients. Practices will require guidelines on what information needs to be back entered into the electronic health record.

Criteria for determining what information is back entered include dictionary-driven entries such as medications, allergies, immunizations, and problem lists. Practices that enter the visit note may want to appoint staff to help enter information or have guidelines when to have the information entered versus scanning the physician handwritten note. The guidelines for back entering visit notes may take into consideration the length of downtime and volume of patients seen.

In regards to the charges captured during a planned or unplanned downtime, the practice’s chosen paper-based method would be manually keyed into the EHR or billing system once the downtime has lapsed. These charge slips should be entered in the daily batch format. As a best practice, the coding is completed during the downtime. This will expedite charge entry once the system is up and running.

Downtime Drills

Drills are an effective way to prepare for system downtime and assess staff readiness. They offer a true reflection of the practice's knowledge of downtime procedures. LDS Hospital in Salt Lake City, UT, implemented this type of drill after discovering that planned downtime procedures were only minimally effective unless the staff had experience using them.[1] If the practice chooses to conduct a drill, it is important to include all areas of the medical practice that use computerized processes.

A drill consists of facility walkthroughs by designated emergency preparedness team members and individuals in the IS staff. In the same manner that emergency preparedness drills are conducted, the team will physically visit various areas for the purpose of assessing staff knowledge of downtime procedures. This is done by asking the staff to explain the plan and their roles in downtime procedures. Questions may include "Do you know how to order this test when the system is down?" or "How do you find lab values when the computer is down?"[2]

It is recommended that drills be scheduled on a regular basis. It is up to the practice to determine how frequently to conduct them, but regular drills will keep the procedures fresh in the minds of staff. Follow-up education and training should be included in drill procedures so staff members can learn from any gaps that may have been identified during the drill. Education can be refresher training, but it should address all areas in which staff members were unfamiliar with the proper process.

As with all policies and procedures, downtime policies and procedures are only as good as the degree to which they are followed. Both physicians and staff should adhere to them to accurately reflect the quality of services provided and reimbursed during downtime.

Notes

1. Nelson, Nancy C. "Downtime Procedures for a Clinical Information System: A Critical Issue." *Journal of Critical Care* 22, no. 1 (Jan. 2007): 45–50.
2. Ibid.

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