ORGANIZING MEDICAL RECORDS

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Organizing Medical Records by Pat Iyer

Organizing medical records involves a skill that improves with time. We have a tremendous advantage over paralegals in our ability as legal nurse consultants to organize medical records. This bonus material provides tips for making handling medical records easier and more efficient. Your ability to coherently and consistently organize medical records will be an invaluable skill. In this material I cover how to organize paper and electronic medical records and scanned copies of medical records.

Consistent Format

One of the biggest tips is to use a consistent format. When you develop a pattern of placing the same sections of the medical record in the same order every time, it is easier to locate information. Every medical record has certain predictable sections. If you get a set of medical records from an attorney and it's missing documents, contact the attorney's office and notify the paralegal, if there is one, so that those pieces can be obtained.

You will save yourself a lot of tedious time if you purchase preprinted index tabs. Hospital and nursing home index tabs that are marketed to attorneys tend to be more expensive than those sold to hospitals. Do some online searching for the best prices.

Track Details

Exquisite attention to detail helps the LNC pick up key pieces of information.This is essential because we can handle records that look the same but are not the same. The patient may be admitted to a hospital more than once, and even a year apart to the day. The LNC has to be able to pick up subtle differences. I have had experiences with LNCs who struggled with an inability to recognize the differences. It's very difficult to be a legal nurse consultant if you're not detail oriented.

Certified Chart

Personal injury attorneys might be used to getting records that are abstracts. They don't always understand that if it's a medical malpractice case, for example, that you need the full certified chart. *Certified* means that somebody in the medical records department has gone through the original and the photocopy and verified that every page has been copied. Lest you rely on that being accurate, remember that somebody is supposed to go through and check all those details. It may happen that person doesn't notice that the back of the page has not been copied, for example, and yet will certify that it's a full chart.

Always take those certifications with a little grain of salt and make sure that as you're analyzing the material that you're looking to see if there's anything missing. Sometimes a three-page consult might be missing one of the pages, for example, or a two-page operative report might be missing one of the pages. It's your responsibility when you see that to inform the attorney about it.

Tips for Organizing

- Medical records might come off the copier in reverse order, so the last physician order that was written might be on the top of the stack of pages instead of on the bottom. As medical professionals, we prefer to start at the beginning of the story and go through to the end. Therefore, put the pages in the correct chronological order.

- If the records are full size as opposed to duplicated at 95%, sometimes you can lose information if you punch holes in those paper documents when you are putting them in binders. It can be useful to request the attorney to duplicate the records for you at a 95% rate. That way the page will shrink it just slightly so that you won't lose information on the margins of the page.

- Keep a stack of hole punched colored papers at hand when you organize medical records. Use those to divide major sections of the chart into subsections. For example, you may separate the critical care flow sheets into 24-hour periods. You may separate the nursing section into admission assessment, plan of care, flow sheets, patient education records, narrative notes, and so on.

Physician Office Records

Physician office records also have predictable sections. These are some of the components that you will often see in physician office records.

- Intake record
- Office notes
- Correspondance
- Diagnostic tests
- Hospital records
- Other providers' records
- Phone call messages
- Billing records
- Miscellaneous – work return, insurance cards, prescriptions

When I taught a program attorneys on medical records in 2012, I went through some of these pieces. One of the attorneys on the speaker panel with me said, "I didn't realize that I should be getting billing records from physicians' offices. I'm going to be requesting those from now on."

In addition to the phone call messages, you may also find emails that have been printed out and are saved with the physician's office records.

They are considered a part of the medical record; they're supposed to be saved. Increasingly, I'm finding physicians are giving their email addresses to their patients. As long as patients have immediate questions, they can reach the physician sometimes much quicker than they can by picking up the phone.

Learn more about the types of medical records found in various settings by reading Patricia Iyer and Barbara Levin, Editors, *Medical Legal Aspects of Medical Records*, *Second Edition*, Lawyers and Judges Publishing Company, 2010, available at www.patiyer.com.

Duplicate Records

Duplicate records are a big challenge. As I am defining it, a duplicate record is identical in all ways to the original record and is found within the same set of records. If one word or something else has been changed on that record, which you find in your analysis, that's not a duplicate record. You may find records from Dr. King in Dr. Queen's records; I do not define those as duplicate records.

This is a box of duplicate records that we removed from a set of medical records. That upright piece of plastic is my ruler. This is a box which is a foot high of duplicate records. We took these pages out of medical records of one case that were sent to us by an attorney. This is a huge waste of resources in many ways. There's really no point in putting together a

record and including five copies of the same page.

Page Numbering

Numbering pages is a service or function that some LNCs offer. Sometimes attorneys want everything Bates stamped, which comes from the term, “Bates-stamper machine”. It is probably still being sold today as a little device with wheels on it. It can be set with numbers so that every page can be assigned its own unique number. Today it’s more common to scan those documents and run them through the page numbering system so that they are assigned a number at the bottom of every page.

Some attorneys want legal nurse consultants to do that. Others don’t want to pay for that service to be done. Ask the attorney ahead of time if the pages should be numbered. Always organize the records first before numbering them. If you don’t, the numbers will not remain in sequence when you organize the pages.

Maintain a master list of the numbered documents. You and others will know where the numbering starts and ends. For example:

- St. Williams Medical Center Admission 7/2/12-7/8/12 pages 1-200
- Dr. Ben Waller Office Records 7/9/12-10/31/12 pages 201-219

Don't number the pages until you are sure they are complete. Another numbering alternative is to add prefixes to page numbers, such as SW001 for St. Williams and BW01 for Dr. Ben Waller.

Electronic Medical Records

Before I give you some suggestions on how to organize electronic medical records, first consider how much our charting has changed in the last decade. Electronic medical records are becoming increasingly common. In my state, they were directly responsible for stopping a 16-year killing spree by Charles Cullen RN. He was sentenced to 7 life sentences. I was involved in the investigation for one of the prosecutors and looked at medical records of patients who died while they were under his care.

The reason that the computer caught Charles Cullen was that the hospital where he was last employed was using a computerized drug cart system. Charles was leaving a trail. He was accessing the records of patients he was not assigned to. Coworkers saw him going into patients rooms; then the drug cart showed that he was requesting medications that the patients had not been prescribed. One of them was Digoxin.

The executive director of a poison control center warned the hospital in July 2003 that at least four of suspicious overdoses indicated that they had a possible killer on their staff. But the hospital put off contacting authorities until October 2003. By then, Charles had killed another five patients and attempted to kill a sixth. The hospital got penalized because of a nonfatal incident overdose. His final victim died in October of a low blood sugar episode and then the medical center at that point alerted the state authorities. Charles was fired. An investigation led to him being charged in several patients' deaths.

Forces Affecting Electronic Medical Records

Electronic medical records really reflect The Wild West. The lack of standardization is a big issue. When software companies began developing software programs for healthcare providers they focused on

being individualistic, and proprietary; they didn't want to be standardized.

Right now the field of electronic medical records has few mandated guidelines on how the product should function, how it should communicate with other products, or how it should secure its data. There are some minimal standards that are emerging.

In 2009, the American Reinvestment and Recovery Act included the Health Information Technology For Economic and Clinical Health Act (HITECH Act) appropriated nearly 20 billion to encourage hospitals, doctors and other healthcare professionals to develop and implement electronic health records. If you think about the cost associated with implementing the software and the hardware and the training, that $20 billion divided out among hospitals and doctors and other healthcare professionals, isn't nearly enough to be able to fully implement this system.

Start-up costs for transition to electronic medical records represent a large financial burden for facilities. Hardware, software, and training costs can range from $3 million to $10 million per hospital. Fewer errors and higher productivity may more than offset the expense, but those savings are initially obtained by health insurance carriers, not hospitals since fewer complications and improved efficiency add up to shorter hospital stays.

If individuals do not take the initiative and move their institutions towards implementing computerized medical records there are fines ahead of them in 2015 and those fines are going to be severe. The fact that there will be fines for not *meaningfully using* electronic medical records is something that is pushing people to the implementation phase. You might ask what is meaningful use; that's not entirely clear. There are some objectives that define meaningful use that are being worked out by the Centers for Medicare and Medicaid Services. They include things like

computer provider order entry, drug allergy checks, and e-prescribing, but it's not entirely worked out what meaningful use signifies.

Right now the most current statistics that I can find show that roughly a third of hospitals were using electronic health records by the end of 2011 and 85% plan to have them in place by 2015.

We can argue from the liability perspective that once the 2015 deadline has come and gone, that individual organizations that have not used the available technology, will have deviated from the standard of care for clinical documentation. The organization that persists in having entirely handwritten records will be way off base in terms of what the other people in the industry are doing.

One thing that is identified as a failure of the HITECH ACT is that they did not put in a standard that required compatibility. A hospital that is next to another hospital could have an entirely different system. That means that all of the manufacturers of software are going to continue to charge ahead and spend millions if not billions of dollars towards maintaining that lack of standardization or proprietary software.

From a patient safety and medical error prevention concept this is not good news for patients and it's certainly not good news for those healthcare providers who want to communicate with another healthcare provider about a patient's medical records. It is also not good news for LNCs who organize medical records.

Pros and Cons of Electronic Medical Records

Efficiency

Put aside the fact that I've stressed the lack of compatibility of current software systems. If we just look at a single system and look at the use of data within a hospital system or a complex or a physician office, the providers can pool together data and have a way of efficiently organizing and sorting that information.

A medical system can control costs. For example, the hospital medical staff can modify their order sets to take off the more expensive treatment options out of that set. They can force a physician to sign off on treatment orders that are more expensive.

One hospital system announced that it planned to track how quickly a nurse finishes his or her initial assessment of a new patient coming to the facility. This will enable the administration to track by nurse shift or unit where they're not meeting targets for the amount of time that they think is appropriate to do an admission assessment. I laughed when I read that in one of my journals because I thought about all of the factors that affect an admission assessment, some of which are well out of the control of the individual nurse.

There are some software systems that place barcodes on medical records to scan in a handwritten form. You can store and organize an enormous amount of data if you're doing it electronically.

It is also efficient to think in terms of people who are within a healthcare system being able to access information from a remote site. For example, a physician could enter the computer system of a hospital from home and check on lab results or readings of x-rays or other diagnostic tests of a patient.

It is also possible to reduce redundant charting through a computerized medical record. The healthcare provider may enter data in one place at one point, such as allergies. It would populate the data throughout the medical record to those places where that information needed to be reviewed.

It is also possible in some systems to take information from monitors that are associated with hospital bedside monitors or lab equipment or other medical devices and collect that data. It is incorporated into the patient's medical record, and that can be a real time saving as well.

Quality of Information

It is possible to use a computer to easily pull up information about prior visits to an office setting, hospital admission or urgent care setting. Last June I went to an urgent care setting in Florida. I returned to that same urgent care setting on December 31st. They were able to pull up the record from June and refer to the information that had been entered and asked me about updated data since the last time I had been there.

Another way to look at the quality of information is to consider what a cancer center is doing in New Jersey. It's tracking the outcomes, the diagnosis, the prognosis, and the data about the effectiveness of various cancer treatments. By looking at how well people do they can determine which treatments are going to be most effective for particular types of cancers.

Something simple like putting in a reminder that a Foley catheter needs to be removed led one facility to an 80% reduction in excessive days due to infections. They put the reminder in 48 hours after the catheter was inserted to remind the staff to get it removed. It's estimated that we have as much as 20% to 50% of waste in the healthcare system. If we use electronic medical records efficiently we can help remove some of that waste.

We know as LNCs that when we're analyzing handwritten records we can struggle to interpret some words. Typed records help to get rid of some of this very aggravating and risky analysis of handwritten orders or documentation. Programmers can also eliminate non-standardized and dangerous abbreviations from the computer system because the software simply won't accept that.

Medical Errors

Avoidance of medical errors is another potential benefit of computer medical systems and computerized medical records. There's the opportunity to include data from laboratory systems, for example, that

would pop up a clinical prompt when a physician was prescribing a medication that's contraindicated because of declining kidney or liver function.

The software system can build in standards of care that will remind the provider about those essential elements that must be documented. If you've reviewed nursing malpractice cases involving patients who are at risk for falls you know that in a handwritten system there may be a risk assessment built into the admission assessment. That same risk assessment can be built into the software and require the nurses doing the admission to complete that section before being able to move on to the next section. Or a skin breakdown risk assessment can be a mandated part of that nursing assessment.

The Institute of Medicine published a study in November 2011 called *Health IT and Patient Safety: Building Safer Systems for Better Care*. It concluded EMRs have the potential to improve patient safety, but there were also some dangers for patients if the systems are not properly designed or used.

Forensic Issues

Legal nurse consultants encounter medical records that have been altered or tampered with. It is sometimes difficult to detect alterations in handwritten records. Legal nurse consultants and attorneys may detect suspicious entries. It is possible to tamper with electronic records, but it is harder to do so without leaving a trail.

I was asked by an employment attorney who was representing a nurse in front of the Board of Nursing to provide some education to this nurse. When she was hired by a facility, she did not go through the proper steps to get a password and a username. She claimed that whenever she tried to get this information from the nursing office that somebody was too busy to give it to her, so she asked a coworker for that person's username and password. The coworker actually gave it to her.

For six months this nurse charted on the other nurse's username and password. When this came to light the person who had given our nurse this information denied any knowledge of it and said she never did it. Our nurse was reported to the Board of Nursing for a serious documentation error. Think about those charts that for six months had information in it that was not accurate regarding who put the information in. I provided the nurse with a course on documentation. It was the second time I had worked with her. The previous time I had encountered her was for a transcription error. At the end of our second time together, she told me she wanted to be a legal nurse consultant, and wondered if her Driving While Under the Influence conviction would be used against her!

Here is a second way an electronic medical record can be changed. A record that is not authenticated (saved) can be altered any time up to the point that it's authenticated. If a nurse enters information over the course of the shift and does not authenticate that at the time that it's being entered, the information can be subsequently changed. However, once the information is authenticated and saved, a timestamp clock that's embedded in the software program indicates when the information was put in. It's impossible to go back and back date that.

Here is a third factor in the analysis of electronic health records. Misinformation may be entered and will be automatically auto-populated throughout the record. For example, an inaccurate birthdate becomes embedded in the record. A physician documents something inaccurate in the history and physical. A consultant echoes what's in the history and physical and the information gets perpetuated. I recall seeing this problem in a record of a young girl who was pushed off a New York City rooftop. The medical record stated she tried to commit suicide. Other treating physician repeated the misinformation. Misinformation may be repeated in a paper record, but the same thing can happen much more efficiently in the computer system.

Another forensic issue that we all have to be aware of is the possibility that there could be a computer crash. There could be down time and data can be lost at tremendous cost to the organization that is trying to reconstruct it. There is great potential for medical errors.

Some of the benefits associated with computerized medical records for litigation is that first of all, you can read them and second of all you can tell who wrote them. We can look at initials and codes and determine the name of a nurse and the status of that person. So that's a real advantage when it comes to interpreting medical records.

Privacy, Security and Confidentiality

A lot of people have grave concerns about privacy and security issues related to EMRs. A few months ago I read last night about a physician in Washington DC who was keeping patient records on CDs in his office and they were stolen. A medical resident in Boston left his computer laptop on the subway. It was stolen, not surprisingly. Massachusetts General, which was his institution, was fined a million dollars for that data breach. This incident stimulated strict rules about handling medical records and encryption of data.

There are new challenges associated with keeping information confidential to comply with the provisions of HIPAA (Health Information Portability and Accessibility Act) because of these issues. People who are really dedicated hackers work hard to figure out how they can breach the security of health records. They might gain access to some potentially very embarrassing information about a person.

Operational Issues

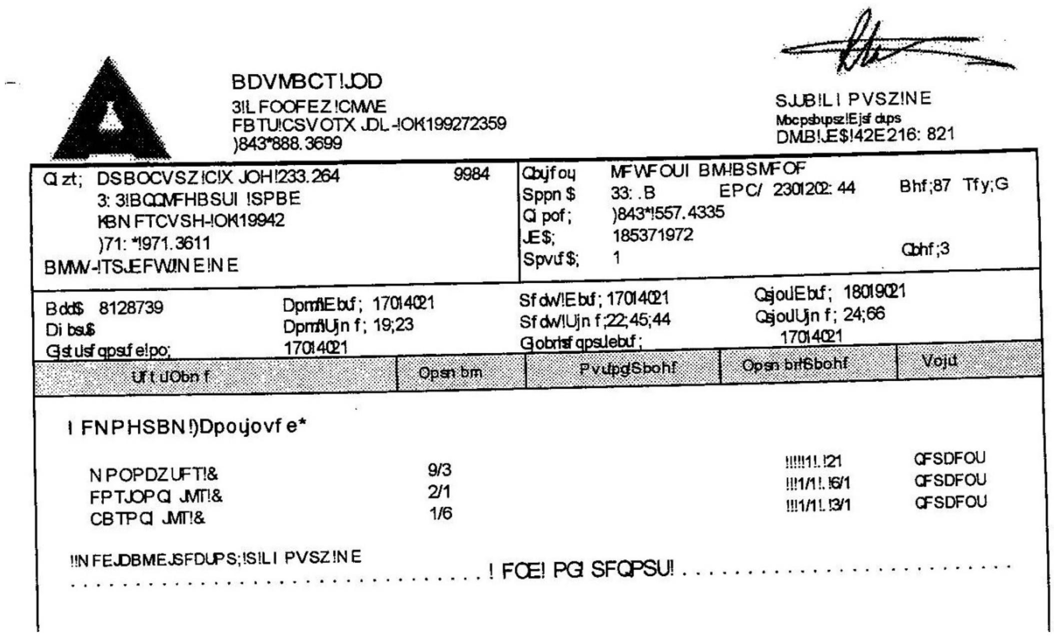
The operational issues that affect the development and the implementation of computerized medical records can alter roles. For example, a physician may be required to do a medication reconciliation. It was always the responsibility of the physician, but nurses and pharmacists have been basically making up for the physicians not

addressing this issue and now physicians are being asked to complete that as part of their work.

There can be physician resistance to the use of computers. That complicates implementation. I'm aware of one system in the cancer center that had to maintain two parallel systems for ordering and recording data. This required the nurses to know which physicians used electronic medical records and which did not. This increased the burden on nurses checking chemotherapy and other orders.

Another issue is this adage of “garbage in garbage out.” We have a tendency to think that just because it's in the computer it's going to be accurate. Legal nurse consultants and attorneys know that's not the case. But we know of situations where people have unquestioningly followed misinformation in the medical record and turned off the critical thinking part of their brain. They did not question information that they should've questioned.

I saw a note in the chart of an 82-year-old woman who had a total hip replacement. A student nurse wrote that she had discussed the patient’s heroin addiction. The nursing instructor cosigned the note. I thought it was unlikely to be an accurate note, particularly when the note referred to the patient as “he”. Here is a great example of garbage in, garbage out.


BDVMBCT!JOD
3!L FOOFEZ!CMWE
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Qbujfou MFWFOUI BM-BSMFOF
Sppn $ 33: .B EPC/ 2301202: 44 Bhf;87 Tfy;G
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Bdd$ 8128739 DpmmEbuf; 1701 4021 Sfdw!Ebuf; 1701 4021 QsjouEbuf; 1801 9021
Di bsu$ DpmmUjn f; 19;23 Sfdw!Ujn f;22;45;44 QsjouUjn f; 24;66
Gstusf qpsuf e!po; 1701 4021 Gobrisf qpsuebuf; 1701 4021

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CBTPQ JMT!&	1/6		!!!1/1!.!3/1	QFSDFOU

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Risks

We're not sure that we understand completely all the risks of electronic medical records. Some of them relate to

- poor design and use,
- improper training,
- a lack of proper support, and
- cumbersome systems.

Nurses use strategies, called workarounds, to bypass some of the safety features of the system. You may have heard about the Wisconsin nurse who was brought up on criminal charges because she was involved in the death of a 16-year-old pregnant mother. The patient received an infusion that was intended for the epidural route but instead the nurse gave it to her IV. The reason that this happened was tied back to the computer system, because there was a barcoding system the nurse bypassed. The nurse did not place an identification band on the patient, which was

required to use the bar coding system to match the drugs with the selected drug.

The other nurses in her department collectively deviated from the protocols. The department training on the software had been suboptimal. All of the nurses agreed that it wasn't urgent to follow the barcoding system because they felt it was cumbersome. The end result was that the patient ended up dying.

In another example, nurses at Brigham and Women's Hospital had a software system for medication administration. A blue pill icon that became red if the medication was not given, even if there was a reason for it to be held, like they were awaiting lab results. The nurses didn't like seeing that icon showing up on their screen because they felt it reflected poorly on their practice, so they noted that the pill had been given in order to make the icon disappear. The end result was some of those medications that were being held were not given at all.

Another workaround that is common is that nurses may scan barcodes of medications at the nurses station instead of doing it at the bedside with the patient’s identification band bar code. They missed that check which is supposed to be in place of matching up the drug at the bedside with the patients ID band. Nurses at Kaiser Permanente Hospital frequently overrode a new barcode system because the scanner couldn't pick up the codes on certain medications. Once the computer system was able to correct those problems they improved the situation.

There are also some dangers in using templates. Some healthcare providers use copy and paste as a workaround. The copy and paste maneuver creates erroneous information. You look, for example, at a physician progress note that has been printed off a computer and you see that portions of it have not been updated. One said, "The patient is getting ready for surgery," and that note appeared in the physician progress note day after day, well after the surgery took place. It might

have seemed like a time saver but that physician was perpetuating information that was inaccurate and not up to date.

Nurses can do the same thing. They can copy and paste from the shift before them. They can copy and paste their previous note. They can get caught up in rote charting (which also happens when they handwrite information). But they can do it faster on the computer by just clicking the boxes and not paying close attention.

Computer Provider Order Entry (CPOE)

Computer provider order entry may result in legible orders that are filtered through a system to detect errors. Those advantages provide an edge over handwritten orders. CPOE is associated with some challenges such as inaccurate or incomplete order sets. Some providers require a lot of education to get used to the software. It's not necessarily faster or easier for providers to go through several screens than it is for them to pick up a pen and write an order or turn to a nurse and say, “I'm giving you a verbal order”.

There was a recent study done by the Leapfrog Group (which evaluates healthcare institutions). They used a web based simulator and asked 214 hospitals to test their systems to see if they could catch common medication errors, including potentially fatal errors. The systems on average missed half of the routine medication orders and a third of the potentially fatal orders. We have to remember that we can't believe that simply building and installing technology is going to automatically lead to better or safer care. We still need that brain of that healthcare provider to question and to use critical thinking.

Healthcare providers may turn off alerts that are built into the system. An alert may flash if the patient's liver or kidney functioning is not compatible with a particular drug. If there are a lot of alerts built into the system, the providers have a tendency to click through them or tune them out without paying attention. This can also lead to medical errors.

Discovery Tips

Legal nurse consultants may assist an attorney in suggesting ways to analyze electronic medical records. You'll need to know some terms.

The *metadata* is the data about the data and it shows how the computer was used and by which person. I'll give you an example of this. In a lawsuit that was recently tried to verdict, a patient developed post-op bleeding and hemorrhaged. The physician was named as a defendant as were the nurses. The physician said, "The nurses never told me. I didn't know. Nobody notified me. I had no idea she was bleeding. Nobody told me about the hemoglobin and hematocrit results." When the metadata was analyzed it was determined that this doctor, who was a female, signed onto the computer in the operating room and pulled up the laboratory results and that screen was open for a minute before it got closed. And on that screen were the laboratory results that she swore up and down she had no knowledge about. The physician was found negligent at trial. I might add the nurses were exonerated.

The *audit trail, query audit trail or medical record review inquiry* are terms for data that provides even more information. The query audit trail or medical record review inquiry details who looked at the medical record, when and for how long and whether the hard copy of the medical record left the medical records department. The audit trail includes the additions, deletions, and edits for the time frame at issue. It identifies which people documented when.

Obtaining a copy of an electronic medical record has proved to be a significant challenge. Unlike paper records, which are usually organized in a specific fashion, electronic records often make little sense when simply printed out. Frequently, a printed out record uses excessive amounts of paper to record a limited amount of information; and that information is not presented in a logical format. This causes legal nurse consultants a lot of frustration in trying to understand the chronology of the patient's care or symptoms.

The requesting attorney may wish to use a forensic data retrieval firm. Ask for all of the data, including older, paper records kept in storage. You want all of the relevant data in all core data sources, not just the ones that are easiest to print. Medical devices such as vacuums in the labor and delivery units may contain chips that store data, such as when the device was turned off and on. All of these forms of electronic data can provide critical information about the timing of events.

The attorney can get the PHI disclosure log - the protected health information disclosure log for example. That will give you the trail of where that record has gone. You may find other copies of the patient's medical records for comparison.

Ask the provider of the electronic record for the physician's orders as they originally appeared on the computer screen. They may tell you that they can't produce this information. Getting copies of the orders as the way they appeared on the screen will require the healthcare facility to print each screen. But attorneys have walked into the facility, after the appropriate negotiations have taken place with the opposing counsel and Risk Management and looked at the screens to determine which orders were relevant to the case. Another alternative is for the facility to supply read only versions of the medical record burned onto a CD so that the attorneys can see what images the provider saw. These documents are discoverable and they are not protected by peer privilege; they are medical records.

The *data dictionary* is the way that the software defines terms. The nursing data dictionary might use a number such as 50 to be a shorthand for breathing normally or they might have descriptors such as clear or labored or even. The data dictionary can provide some interesting information that helps with the analysis of the computer record.

Organizing a Printed Electronic Medical Record

I started this chapter by discussing how to organize printed records.

When it comes to computerized medical records, they can be a challenge to organize because of the way that they are printed out. In some cases you can divide them into sections; in some cases it's very difficult. The Veterans Administration, for example, combines all of their progress notes – they may be assembled for printing in pure chronological order. A radiology report may follow an operative report, a recovery room report, and then back to a progress note. They can be very difficult if not impossible to divide out with hospital sections.

Sometimes electronic medical records are printed in sections. If a new section starts on a new page, it is easy to assemble the records in sections. Sometimes we photocopy a page that contains notes from two sections of the chart. The top half may be the last physician order, and the bottom half contains a radiology result. The duplicate copy of the page is placed with the correct section of the chart.

The nursing notes that are printed out through computerized medical records tend to be much more voluminous. Sometimes the programs are set up that the same information is printed out shift, after shift. Very little may change from shift to shift. It paradoxically may take longer to organize a computerized medical record than if it was handwritten or, what we see most commonly now, is a combination of handwritten and computerized records.

Some software aggregates all of the notes that relate to a specific aspect of the patient's care. All neurological, gastroenterological or skin integrity assessments, for example, are printed out one section after another. If you are working with printed records, one of the ways that it's possible to create some order is to take some color papers and separate the sections as I described earlier in the chapter. That way you can break down some of those subsections based on how the record has been printed out.

It also can be difficult to analyze electronic medical records. If you want to determine how the patient was at any point in time it's very

cumbersome to go into seven or eight different sections to piece together that particular information.

Organizing PDF (Portable Document Format) Files

Increasingly, attorneys supply legal nurse consultants with medical records in PDF form, either on a pen drive, CD, through email or loaded onto a site like dropbox.com or box.com where the LNC can download the records.You may be asked to review records that are loaded onto a secure site where you can view but not download them. Some LNCs review scanned medical records without printing them out.

Consider the costs of paper records:

- copier
- paper
- toner
- postage
- indexes
- binders
- storage

Electronic medical records are much easier to store; they're also much more portable. It’s easier to search in a PDF file. You're able to search all of the bookmarks that you put into it. You don't have all of these little sticky tabs sticking out the side of it that are color coded, but you can just go directly to what you want. It doesn't matter if it's a 10 page document or if it has 1,500 pages. You can open up the index of it and go straight to that page.

It is easier to organize and review these records with the proper tools: multiple monitors and Adobe Acrobat.

Multiple Monitors

The objective of having more than one monitor is to be able to have the medical records open on one monitor and your word processing program open on another. You may have as many as four monitors attached to your computer.

One of the benefits of having a multiple monitor setup, is you have more work space. There's no more toggling in between screens if you only have one screen. There's the ability to view multiple documents at the same time which increases your speed, which therefore increases the amount of work product that you turn out, which therefore increases your revenue.

Tips for Multiple Monitor Purchase and Use

- Buy the largest monitor you can afford that is practical for the workspace that you have.
- Widescreen monitors are better for viewing in portrait modes.
- Buy monitors that are high definition capable. Everything is going to high definition with HDMI cables like we have on our TVs and our Blu-ray players. Computers have them now; it gives you the best resolution on your monitors. When you're using demonstrative evidence you want to be able to see things as clearly as you possibly can. If you're staring at a computer for 40 hours a week, it can really start to hurt your eyes if you're not looking at something that's very clear.
- If you're starting off from scratch buy all of your monitors in the same brand. All of the software that runs those monitors is going to be either identical or very similar. This will make your computer run a little bit better.

- Every monitor that you buy comes with a stand, but most of them only sit in landscape mode. If you have one in the middle, that should be in landscape position.

- Get a monitor stand that will enable you to rotate to a portrait mode. If the stand cannot be rotated, you might have to get a new mount or a wall mount. The benefit of having them in portrait mode is because if you have a landscape monitor and you're viewing a PDF, then most of the time you cannot either view the whole page and it makes it so small that you can't really see it. You may have to enlarge the page and scroll up and down all the time to read the entire page. But if you display the page on a portrait monitor, it is long enough to be able to capture the entire page at one time. It's visually large enough to be able to read without any alterations. And if it's a large file you can go through it page by page just hitting page down and it works just like flipping through a book. It makes reviewing a medical record a lot easier and a lot faster.

- If you have your desk up against a wall then you can also use wall mounted monitors. This set up frees up all the space on your desk.

- Setting up multiple monitors is easier if you are using a new computer that has the appropriate graphics card. Think this through when you purchase the machine and purchase the card that will work with multiple monitors. Ask the sales person for help if you are not sure what you need. I learned this the hard way that it is difficult and expensive to retrofit an older computer with the right graphics card. Our company spent a few thousand dollars on computer consulting time and hardware to try this with one machine in our network. The results were unsatisfactory. We abandoned the attempt. I bought a new laptop for my home, with the right graphics card and two monitors and it works like a charm.

- A three monitor set up lets you have three screens open at once, such as a database, a PDF document and a Word file. All you need to do is slide your cursor from one screen to the next.

Adobe Acrobat

Adobe created two software programs with two similar names: Adobe Reader and Adobe Acrobat.Adobe Reader can be downloaded for free from Adobe.com. It enables you to open, print and save PDF files. Adobe Acrobat, which is not free, allows you to manipulate the files:

- add comments and flags
- combine PDF files
- insert and delete pages
- insert images
- rearrange the order of pages
- add watermarks
- save the pages from the medical record into separate files, such as physicians

  orders, medication administration records and so on
- assemble the medical record sections into a logical order
- insert a section of the medical record, such as an x-ray report, into your Word file
- create a report in Word and export it as a PDF file
- create forms with files, among many other functions

PDF files can be easily integrated into Case Map. This enables you to assign numbers to pages. It is something you can offer as a service to your clients because a lot of them do not have the capability to do it.

Organizing Medical Records Using Adobe Acrobat

Adobe Acrobat allows you to reshuffle the order of the pages in a document. Extract the pages that you want. Let's say you want to extract all the nursing notes. First, resave the original file with a new name. Then extract the nursing notes into its own file. Then combine all of those nursing note files into one file and name it "Nursing Note Files". You may follow the same process with other sections of the medical records. Adobe Acrobat does not permit you to click on a page and drag it to a different location, like you can with a PowerPoint presentation.

Adobe Acrobat is an extensive piece of software that will make your life easier when you are reviewing records on screen. Lee Houston and I presented a four hour course on this topic. Watch the replays and learn how to effectively use Adobe Acrobat for your legal nurse consulting work. See the course description at this link: http://patiyer.com/webinars/courses/adobe-acrobat-for-legal-professionals-learn-how-to-harness-its-power-course/

Source: This material is from Honing Your Legal Nurse Consulting Skills available at www.patiyer.com