Improve Your Charting / Documentation and Medical Imaging Images

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Objectives: Upon the completion of this CME article, the reader will be able to:

1. Explain why poor documentation can be harmful in the setting of a malpractice lawsuit and define some of the issues to avoid when charting.
2. List many of the ways a healthcare provider can improve their documentation or charting skills.
3. Describe how medical images are generated for patient evaluation and stored for future use in the care of a patient.
4. Define the policies and procedures that facilities should have in place regarding issues related to medical images and list the guidelines issued by The American College of Radiology regarding ownership and management of medical images.

Paperwork…Paperwork!!!

Healthcare would be so much more enjoyable if we didn't have to do so much paperwork:

- We could provide for better patient care
- We would have more time to provide patients with the necessary teaching for them to better understand their disease processes and treatment
- We would have more time to fully explain things to family members
- Procedures would more often be performed on time
- "Please" and "Thank You" might roll off the lips of more patients, co-workers, supervisors, and physicians we came in contact with

Dream on! This is the new era of healthcare. Patients whiz through the hospital at lightning speed leaving barely enough time for covering the basics before they are sent home to "get well." Prioritization is a must. Yes, there is more work to be done in a shorter amount of time and with fewer pairs of helping hands. It is also unforeseeable that things will differ much in healthcare in the near future. So…how can you survive and still provide excellent care, which is extremely important, and produces written documentation, which

accurately reflects all of the fine care that was rendered and the critical thinking that was performed for your patients?

Documentation is one of the most important functions of healthcare. And yet, the task of committing thoughts and actions to paper is often difficult for the professional to complete. Handwriting (if it can be comprehended at all) is often sloppy and frequently contains spelling errors and poor grammar that even the sweetest teacher would punish.

It cannot be overemphasized – **The patient's Medical Record, Chart, or Medical Images remains as the only "objective evidence" of the healthcare that was rendered!** Think about it – in a malpractice trial as a radiographer, for example, will the jury be interested that you always use the same technique for all your patients regardless of shape, size or weight and that the injection rate and materials are always the same, so there is no reason to chart it? Not really. But forget to document that you asked the patient if there is a possibility of pregnancy (despite the fact that you always shield your patients) and there you have it – the written (or actually unwritten) proof that you did not deliver adequate patient care. In addition, "you don't follow policy and procedure."

Nothing can be more humiliating than viewing your own medical images and any associated documents in a courtroom – blown up in poster size or projected on a big screen for all to see. Nothing except the fact that even you, the provider, may not be able to read your own documentation, visualize the anatomy on the image, or remember what had occurred during the procedure years prior. The lawyers will ask you, "do you have any independent recollection of my client or the care you delivered to him or her on such and such date?" (An event that occurred several years back.) The response is usually "no." So now, without your own recollection and no clear documentation to present as good evidence on your behalf, the jury is left to comprehend the patient's or family member's recollection of the event in question. Guaranteed – **They** will have total recall of their perception of the event in question. Worse yet, if you explain the care you delivered, the jury may have already formed a very negative opinion of you as a healthcare provider (sloppy or incomplete work must mean that sloppy care was given).

So what can be done to prevent embarrassment over the medical documentation you produce? For one thing, hospital and department specific computer automation support the way data stored and retrieved. If you have access to this revolutionary method, consistently utilizing it to its capacity will provide for better documentation.

Oh sure! – I don't have any time as it currently stands and now you want me to do computer data entry, complete a patient assessment form, an occurrence report and / or document in the patient's chart! In most healthcare organizations, measures have been taken to minimize the time that is needed to document "routine data." Computer systems have been programmed with prompts (questions or statements) that require simple answers such as "yes" or "no." Patient assessment forms have been streamlined into flow charts, pre-printed forms, check sheets and procedural worksheets with a narrative column. Forms help to assure that at least the "minimum data" is always included.

When completing documentation whether by computer or form, use your assigned and individualized security code and make sure your signature, initials, or both are included as required. Sounds almost insulting to remind healthcare professionals to sign their work. However, in surveys that review medical images and the chart, one in three patient files did not include either a pregnancy query or patient assessment form for contrast procedures, and / or the consent for the procedure. A large percentage of files did not have technologist's signature, witness signature, or physician / radiologist signature. The computer data survey revealed that greater than 60% of the prompts were unanswered.

Time management must be re-evaluated. The end of the shift is the worst time in which to sit down and document because fatigue has often set in. Your memory of important details is not as clear at the end of the shift. Writing and data entry often becomes sloppier. The best time to chart and document is either while you are performing the procedure or right after it is completed. Without recognizing it, there is actually time during the procedure or right after in which you can document! It requires taking on new organizational skills – multi-tasking and performance preparedness. For medical imaging professionals you can:

- Make sure you have all the required and necessary forms prior to starting a procedure.
- Complete your data entry while films (images) are processing.
- Complete the forms and verify the placement of signatures while images are being reviewed.

Let's take a look at some tips and strategies to improve the quality of the documentation you produce, the usefulness of your charting to others who provide care to the patient, and the components of a sound medical record and their significance.

Patient Assessment in Imaging

Patient assessment must be clear, comprehensive and reflect a sound understanding of the healthcare process to be delivered at that particular moment. Include details and comparisons if applicable. Clearly identify the location of IV sites, the contrast agents utilized, and the pre and post instructions. Document why (usually best done in the patient's own words) the refusal of treatment or the use of medication occurred. Document calls made to the patient's physician, radiologist, or nurse caregiver. Simply put – In the Imaging setting, assessing a patient's readiness for a procedure is a fact-finding and reporting mission. A complete assessment that is part of the medical record contains the following:

- Identification of whom the data is about (preferably stamped with the registration key plate)
- Date and time of the assessment or interview
- Listing the contraindications of the procedure with the patient's response (if any)
- Statement of prior adverse effects
- Interventions for adverse effects
- Your identification as the creator of the entry (signature, initials, or security code as required by the form, note, or data entry) including professional title.
- Use judgment when additional patient information should be included in a narrative fashion in addition to the form or check sheets. Narratives should include objective statements. The narrative should not include your interpretation or opinion, just the facts of what occurred and direct quotes from the patient.

The Medical Record

Remember, the medical record serves as the most important witness in a medical malpractice or negligence case. The worn-out phrases of "not charted" or "not documented" or "not done" rings a more somber tone when a stranger hands you a subpoena in which you are being sued for malpractice. Most lawsuits revolve around simple acts and basic care rather than complex procedures. Common reasons for lawsuits involving care include:

- Failure to question physician orders that seem to be inappropriate
- Failure to adequately monitor the patient
- Failure to protect the patient from avoidable injury
- Failure to document care that was given in an adequate manner
- Failure to properly administer medications (i.e., contrast agents)
- Failure to take a complete and appropriate patient assessment
- Failure to follow orders correctly and timely
- Failure to perform procedures properly
- Failure to protect patient confidentiality
- Failure to assess an emergency situation properly and initiate appropriate resuscitative measures
- Performing a function that is outside the professional scope of practice
- Failure to notify any procedural change (i.e., the patient refused care, the procedure was canceled, a different procedure was performed, etc.)

Incident / Occurrence Reports

Incident / Occurrence Reports serve as official internal forms in which to document negative patient outcomes. These forms are **not** part of the patient's chart or medical record but are used as an intervention tool to improve the process of educating the staff or patient and to help with legal documentation. They should:

- Be completed objectively, do not include speculations
- Use patient quotes when pertinent
- Include first-hand observations only – Reporting what you saw, not what you think happened.
- Not admit liability or cast blame
- Not speculate on how to change the problem or avoid it in the future
- Not indicate that the incident is not the first time this problem has occurred

Some Charting or Documentation "No-Nos"

- Never leave blank spaces for others to ponder.
- Never leave blank spaces on forms, either use N/A or cross through the space when appropriate (but have all spaces addressed)

- Never destroy or change any part of the medical record after it has been created. Whiteout is an obvious forbidden item. Cross through with a single line any data that was entered in error and initial it.
- Never chart for others. Only chart or document the care you provide or supervise directly.
- Never chart observations of someone else unless stated in a quote and identify the speaker.
- Never chart or document in a fashion that could be determined as a negative assault on the patient's character. For example, you should not chart that the "patient is drunk and obnoxious." What can be charted is that "the patient refused care and was observed to have a very unsteady gait with slurred speech, or if the patient is verbally abusing, it is appropriate to chart exactly what was said as a quote.

Why So Much Fuss About Charting

Many different individuals besides nurses, doctors, and ancillary healthcare professionals can review the medical record. Charting is a professional responsibility that serves to evaluate the effectiveness of care and treatment. The Insurance Companies, Medicare, or Medicaid often evaluate records for errors in billing or to identify fraud and thus scrutinize the record for the service rendered and the use of supplies. Again, "not documented" or "not done" is not good. Quality of care assessment for hospitals or for performance improvement is made through chart review by accreditation organizations. Risk management reviews charting to evaluate safety concerns in order to make changes and improvements in policy and procedures. Timely, accurate, and concise charting serves to protect facilities and medical professionals in the event of a lawsuit. Therefore, in summary:

- Chart as you go and chart the facts
- Include quotations when they are appropriate
- Leave opinions, biases, and finger-pointing out of the medical record
- Chart neatly and use approved abbreviations

- Negative patient outcomes are inevitable. Clear, concise, thorough charting serves as evidence that you provided all the care that was possible in order to potentially prevent the negative outcome
- Chart all interventions and patient or family education
- Patient assessment is probably one of the most important items to document
- Make sure that your documentation is in compliance with hospital policy and procedure, with physician orders and with appropriate use of the chain-of-command when required

In today's world, lawsuits are frequent and will still transpire, especially if a bad outcome occurs, but better documentation can help in determining the medical care that was provided.

Introduction to Medical Imaging Images:

Medical Imaging images are the end product from procedures performed by the Diagnostic Imaging Department. Today, diagnostic medical imaging includes X-Ray, Computerized Tomography (CT), Ultrasound (US), Mammography (MAMMO), Magnetic Resonance Imaging (MRI), Nuclear Medicine (NM), Cardiac Catheterization (Cath Lab) and Interventional Radiography (Angio/Special Procedures). All of these areas, film, paper, tape or digital images are produced to document findings or results. These recordings are considered an integral part of the patient's medical record. Although the patient pays for the procedure (either as self-pay or through insurance coverage), the images do not belong to them. The images produced are the property of the facility. Imaging systems do not have the capacity to produce stored or duplicate copies unless they have computer-driven digital systems with archive-retrieval memory. Patients are entitled by law to receive duplicate "copies" of images for physician consultation.

Stored Images:

Energy may be defined as the ability to perform work. According to the *Law of the Conservation of Energy*, the total energy of a system isolated from its surroundings remains constant, but the energy can be changed from one form to another. Medical Imaging equipment has the potential to move objects, generate heat, cause chemical reactions, and emit energy in the form of light, radiation, magnetism, radiofrequency (RF) waves or sound

waves. When energy is transported through Medical Imaging equipment to an image receptor, it is referred to as electromagnetic radiation. The electromagnetic spectrum includes cosmic rays, gamma rays, x-rays, ultraviolet rays, visible light rays, infrared rays, radio waves, and electrical field (magnetic) waves. The interaction of these energies in Medical Imaging can:

- Cause certain substances to fluoresce (illuminate)
- Be used to expose photographic or radiographic film
- Have an extended diagnostic or medical usefulness
- Be converted to heat when passing through matter
- Ionize gases and remove orbital electrons from atoms (and)
- Produce biologic changes by means of induced molecular alterations (emitted gamma rays)

Information technology plays a very important role in imaging. Images which are formed digitally must have a receptor to store energy that can be converted. The manufactured energy begins as an analog signal then converted into electrical signals and then digitized. The most common receptors for digital image acquisition are photostimulable phosphor (PSP) image receptor, Thin-Film-Transistors (TFT) flat-panel array receptors and charge-couple-device (CCD)/complementary metal oxide semiconductor systems (CMOS) capture. The PSP image receptor is also referred to as the image-plate (IP). This receptor is used primarily for computed radiography. Barium fluorohalide crystals are stored in the conductive layer and release light energy in an imaging plate reader. The reader scans the IP using lasers that release the energy as blue light. Photodetectors inside the reader send the collected energy to a signal digitizer known as the analog-to-digital converter (ADC).

Thin-film transistor (TFT) flat-panel amorphous silicon and amorphous selenium detectors are embedded in the imaging table or upright unit. There are currently two types of the flat-panel array; photoconductors (absorbs energy and convert to electrical energy immediately) and scintillators (produce light after absorption of energy then converts into an electrical charge). CCDs are the oldest indirect-conversion digital systems. CCD use fiberoptics and silicone chip embedded with photosensitive receptors. The fiberoptics or lenses focus light onto the CCD chip. More light equates to better the image quality. The CCD replaced TV tubes in digital fluoroscopy. CMOS is more efficient and utilizes less

space than CCDs. CMOS was developed by NASA. Scintillators are used to convert ionizing radiation and the light photons and then store them in capacitors inside each pixel element. Both of these technologies are excellent in capturing images capabilities.

Digital images are stored in a digital system with archive-retrieval of medical imaging capability. Picture-archiving-communication system (PACS) is utilized in imaging departments. Other imaging storage receptors include Video Tapes, Optical Discs, Magnetic Tapes, and Computerized Disc (CD)s.

Maintenance of Stored Images:

As expressed previously, medical images are the property of the facility from where they were produced. Facilities should have specific policies and procedures regarding:

- Access to images and how images are to be stored
- Where images are stored and the length of time for storing images
- The retrieval of images and the release of original films (if allowed)
- The release of duplicated images to patients or requests from individuals other than the patient

The medical image and report document what occurred during a diagnostic procedure in Imaging. The images, and subsequently the diagnostic report, serve as a source of accurate communication to the referring physician or healthcare provider of the patient. The medical images and report are official confidential documents that are protected under the law. In most states, medical images for adults should be kept for a minimum of seven years. Medical Images for minors (in many states) need to be kept until the minor reaches adult age plus one to three years (an extreme example is that an image on a one-year-old may need to be kept for 20 years). The Images serve in planning the care for the patient and as a clinical data resource. They also serve as an "objective" witness as to the health care that was delivered.

The *American College of Radiology (ACR)* has adopted the following statement regarding ownership of medical images to assist health care facilities and physicians.

1. Medical images should be used for the best interest of the patient.
2. Medical images are the legal property of the radiologist, physician, or hospital in which they were made.

3. It should be the policy of the radiologist to make the images available to the attending physician with a copy of the report.
4. If the referring physician, or the patient on behalf of the referring physician, wishes to take the "original" images away from the office or hospital, it should be clearly understood that the films are "on loan" and must be returned.
5. If the patient dismisses the referring physician and goes to another physician, the images and reports should be made available to the new physician.
6. If the referring physician (on being dismissed from the patient) objects to the radiographs being sent to the second physician, the radiologist or physician must send the images and report in spite of the objection.
7. All films should be diagnostic and permanently marked, identified, and dated.
8. When medical-legal situations exist, the radiologist has the right to refuse the release of the images, except when the Court subpoenas the images and / or report.

Request for Originals:

In accordance with the law, generally, patients have the right to have access to their medical information. Each state has governmental departments, which direct state health care programs and oversee state laws protecting the patient's rights. For example, in the State of Florida, statue number 395.3025 states, "Any licensed facility shall, upon written request, and only after discharge, furnish, in a timely manner, without delay for legal review, to any person admitted therein for care and treatment, or to any such person's guardian, curator, or personal representative, or in the absence of one of those persons, to the next of kin of a decedent or the parent of a minor, or to anyone designated by such person in writing, a true and correct copy of all patient records, including x-rays". Sections 123100 et seq. of the California Health and Safety Code declares, among other things "that every person having ultimate responsibility for decisions respecting his or her health care also possesses a concomitant right of access to complete information respecting his or her condition and care provided." Medical information to which patients have a right of access includes all records "in any form or medium maintained by, or in the custody or control of, a health care provider relating to the patient's health history, diagnosis, conditions, and treatments."

On the other hand, the information contained in aggregate form, such as indices, registers, or logs; information is given in confidence to the physician or healthcare provider

by a person other than another healthcare provider or the patient; or information concerning people other than the patient is not accessible by the patient under this law.

State law specifically authorizes billing or charging for reasonable clerical costs that are incurred in the locating and copying of records. These charges can be applied to all records furnished, whether directly from the facility or from a copy service providing these services on behalf of the facility. The total charge for copies of patient records may include sales tax and actual postage and should not exceed a reasonable service fee as outlined in most states.

With the exception of Mammography images, The American College of Radiology (ACR) highly recommends the release of "copies" of the medical images and medical record rather than the "originals." It is generally advisable to send original images via certified mail and to enter into an agreement with the receiving physician or health care facility that they will be responsible for maintaining the records.

References or Suggested Reading For Charting:

1. Tan, M. (2016). The Handbook of Medical Charting. Amazon Digital Services LLC - Kdp Print Us.
2. Wong, D. S. (2010). Legal Issues for the Medical Practitioner. Hong Kong University Press.
3. Gurley, L. V. T., & Callaway, W. J. (2013). Introduction to Radiologic Technology - E-Book. Elsevier Health Sciences.
4. Gardner, D. K., Weissman, D. K., Howles, C. M., & Shoham, Z. (2008). Medicolegal Issues for Diagnostic Imaging Professionals. CRC Press.
5. McWay, D. C. (2015). Legal and Ethical Aspects of Health Information Management. Cengage Learning.
6. Brodnik, M. S. (2013). Fundamentals of Law for Health Informatics and Information Management. American Health Information Management Association. 7. Lipman, Michel (1994), *Medical: Law & Ethics*. Chapters 1, 2, 3 Regents Prentice Hall
8. Ehrlich, R. A., & Coakes, D. M. (2016). Patient Care in Radiography - E-Book: With an Introduction to Medical Imaging. Elsevier Health Sciences.
9. Gillespie, Greg (2001), *Medical Errors Reporting & Prevention: Weathering the Storm Ahead*. Health Data Management Volume 9/ Number 2 60-64

10. Berlin, L (1997). *Informed Consent.* AJN 169:15
11. Lacson, R., Laroya, R., Wang, A., Kapoor, N., Glazer, D. I., Shinagare, A., … Khorasani, R. (2018). Integrity of clinical information in computerized order requisitions for diagnostic imaging. Journal of the American Medical Informatics Association, 25(12), 1651–1656. https://doi.org/10.1093/jamia/ocy133

References or Suggested Reading for Medical Imaging Images:

1. Gurley, L. V. T., & Callaway, W. J. (2013). Introduction to Radiologic Technology - E-Book. Elsevier Health Sciences.
2. Beahan, S. (2015). Chapter 11 - Legal Issues in Medical Records/Health Information Management. In T. H. Payne (Ed.), Practical Guide to Clinical Computing Systems (Second Edition) (pp. 167–178). https://doi.org/10.1016/B978-0-12-420217-7.00011-0
3. RT(R) (QM), J. P., PhD. (2014). Quality Management in the Imaging Sciences. Elsevier Health Sciences.

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