

Electronic progress notes – Avoiding note bloat and other pitfalls
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Electronic progress notes now available on ICIS

As you probably know, documentation of admission history and physicals, progress notes, consultations, and most procedures is now available on ICIS. For over a year, physicians and other members of the healthcare team have been encouraged to enter progress notes in ICIS rather than using the paper chart. Up until now, the “official” medical record remained the paper chart, and computerized notes needed to be printed out and placed within the paper chart to assure an intact chronological medical record.

NYULMC, like an increasing number of leading institutions, has targeted a complete electronic medical record. The benefits are clear – illegible handwritten notes are gone, notes are automatically dated, timed, and signed (absolute requirements by Joint Commission (JC)), and the record can be accessed (and contributed to) remotely at any time, without looking for the often-disappearing chart binder. Furthermore, computer entry of notes enables computerized decision-support tools such as facile lookup of patient data, auto-population of vital signs, and easy access to drug interactions and other resources. However, although NYULMC is targeting the deployment of a fully electronic inpatient medical record this winter, we must address a vexing problem of deteriorating note quality.

Problems with electronic progress notes

Despite the advantages of computerized progress note entry, we have observed (as have many other organizations) a new set of problems associated with electronic documentation. The progress notes have gotten progressively longer, less informative, and even in some cases, laden with misinformation due to propagation of obsolete clinical data in the process of copying-forward. In fact, the indiscriminate use of copy-forward has led to several patient-safety issues and assails the credibility of the entire note. As an example, there have been several notes that state that a patient will undergo surgery at some future time, even though the referenced surgery was performed days before. Imagine how that will reflect on the physician’s care and attention to the patient should the note be introduced in a malpractice lawsuit.

There are several causes for the deterioration of documentation quality with electronic notes. With electronic documentation, it is easy to copy forward (or cut-and-paste) reams of data from prior notes in an effort to be comprehensive while completing the note in a minimum amount of time. This leads to a polymerization of notes over time, rendering it increasingly difficult to extract essential information in a haystack of irrelevant and obsolete narrative. There is also a misconception that inclusion of all data (which has led to the relentless inclusion of lab data within the note body) improves substantiation of higher E/M codes for physician billing purposes. Finally, since the terse economy of words that handwritten notes imposes no longer applies, the electronic note is free to

ramble without accomplishing its most important clinical mission –to inform other members of the healthcare team of the patient’s clinical course and status.

Progress note “best practices”

Of course, it is impossible to define a perfect note, but conceptually, the note should meet the following characteristics:

1. Factually correct
2. Temporally relevant (no future tense references to procedures already done)
3. Concise (no fluff; just a concise statement of the facts)
4. Devoid of plagiarism
5. Analytic – (reflects thoughtful analysis of patient’s diagnosis, status, and treatment options)
6. Reflective of collaboration (acknowledges collaboration with house staff, nursing, and other consultants)

Factually correct - The issue of factual correctness cannot be overstated – the copy-and-paste phenomenon has the greatest potential of incorrect data metastasizing throughout the chart, with patient safety thereby imperiled. A VA study that examined electronic notes found that about one in 10 cases had at least one note with copy-pasted text that was considered a high-risk patient safety issue.

Temporally relevant – In part due to the same copying behavior, procedure dates and other clinical milestones are commonly (and incorrectly) included in copied text, with the resulting misinformation likely to lead to incorrect management decisions. Again, copying a physical examination from 3 days ago is likely to mislead the next clinician relying on that information to make clinical decisions.

Concise – The easy inclusion of all labs, radiology results, and the aforementioned wholesale copying of text from prior notes has led to an explosive increase in note size (note bloat), making it nearly impossible to glean important actionable data in a forest of narrative padding. Commenting “hyponatremia resolved” is more useful than verbatim copying of two metabolic panels in the lab section of a note.

Devoid of Plagiarism – There have been several instances of outright plagiarism, where the entire contents of a note have been appropriated *in toto*, and signed by the plagiarizing author. In addition to the ethical problems inherent in assuming credit for the intellectual work of others, this leads to evident regulatory and liability issues. **It is, however, completely appropriate to assume “credit” from a billing perspective for a resident note by signing (with any amendments as applicable) an attending attestation.** As long as the attending has personally visited the patient and performed an examination, such attestations are sufficient documentary evidence of the visit, and can save considerable time while avoiding duplication in the chart.

Analytic – The note must reflect a consideration of the patient’s diagnoses, discuss a differential diagnosis as appropriate, and document a consideration of therapeutic alternatives and plan. Oftentimes, **notes are lacking in diagnoses**, leading both to an underestimation of patient acuity (which impacts both on physician professional as well as hospital reimbursement), as well as impairing quality control and clinical decision support efforts. It is preferable to list diagnoses (even if presumptive) rather than our current habit of entering organ systems (e.g. “*Interstitial pneumonitis*” rather than “*pulm*”).

Reflective of Collaboration – From a quality standpoint as well as for substantiation of patient complexity and resident supervision, it is important to specify that the management was discussed with residents (ideally specifying the resident by name), nursing, and/ or other consultants.

Getting paid

For the purposes of professional billing, the progress note needs to establish the complexity of medical decision-making, document the interval history (change in patient’s condition since prior visit – a “delta” analysis), and document the physical examination. The assignment of follow-up hospital visit code level (99231, 99232, or 99233) is based on these factors and NOT the note length, the inclusion of laboratory data or radiology data, or the background narrative explaining why the patient is hospitalized. The most commonly omitted element in our notes is an analytic discussion of the patient’s status, differential diagnosis, and therapeutic options and plans. This analysis is crucial to establish medical complexity. The E/M coding of notes is more fully described (along with Medicare reimbursement rates) at https://catalog.ama-assn.org/Catalog/cpt/cpt_search.jsp.

Enter the structured note

The structured note, created using a template-based note entry screen, is a powerful tool to allow rapid note entry while avoiding many of the pitfalls described above. The note is segmented into Interval history, exam, laboratory and diagnostic results, problem list with assessment and plan, and collaboration statements. Parts of the note, such as a 1-2 line description for the reason for hospitalization, will *automatically* carry-forward, while other sections will not allow this. The physical exam is broken into organ systems, which can carry-forward if specified by the note author, and will have a problem list, which also carry-forwards. Templates have been created for Medicine, Critical Care, General Surgery, and Pediatrics, and Rehabilitation Medicine, and several other services are in the pipeline for deployment and development.

A screenshot of part of the Medicine Attending Progress note is shown below:

Structured Notes Entry - WITKO, MARGARET - Progress Note Attending Medicine

Create | Preview

Copy Forward | Refer To Note | Preview | Modify Template | Acronym Expansion

Document Info

Summary Statement

NOTE: Optional very brief summary statement (will copy forward to your subsequent notes)

94 yo female with PMHx CVA with residual vocal cord paralysis 2002, AFib, HTN, dementia admitted with dect po intake & difficulty swallowing 2 days prior to admit

Sections

Interval History

NOTE: Specify essential interval developments in the patient's course.

Orders

Show All Available Show Selected Only 0/0

Chart Scope: This Chart

Order Name	Order Summary Line	Date	Status

Intake & Output

Vital Signs and Measurements

Blood Pressure

Systolic	Diastolic

Temperature

Temperature (F)	Temperature (C)	T max

Pulse Respiration O2 Saturation

Pulse Rate	Rhythm	Respiratory Rate	O2 Sat

[Need Help?](#) Mark Note As: Results Pending Priority Incomplete Calculate After Save Save Cancel

The ability of the note to allow copy-forward of the problem list will make it easier to maintain the list, and comment on the plan for each problem. This will facilitate documentation of the complexity of the patient's status, as well as the cognitive effort involved in management – important to both hospital reimbursement and physician professional billing. In addition the auto-population of the vital signs will eliminate the need for a separate lookup to document them.

Other advantages of using structured notes include easier entry of notes conforming to “best practices” as outlined above, timesaving in entry of the physical examination, and automatic copy-forward of a brief descriptor of the patient's reason for hospitalization to set context for a clinician naive to the patient, and the ability to customize the note to meet the style and needs of each physician.

Resident notes and attestation

Most patients at Tisch Hospital have residents on their team, whose responsibilities include writing progress notes. It is imperative from residency education, regulatory, and care quality perspectives that adequate oversight of residents is documented. **The new structured notes for residents and NPs now include a physician attestation section. This will allow attending physicians to attest that the case was discussed with the resident or NP, and that the physician agrees with the history, physical exam and assessment.** As appropriate, the physician can comment on points of divergent history, physical exam or assessment/plan within the attestation.

An important benefit of attending physicians using the attestation section of the resident note in lieu of creating a separate note is that from a billing perspective, such a note will qualify as if the entire note were separately authored by the attending.

Making life easier – acronym expansion

In addition to utilizing the attending attestation to reduce the time spent in documentation, there is an additional feature that can be a very worthwhile timesaver. You have probably been instructed about the use of *acronym expansion* to assist in documentation. By assigning blocks of text to short unique phrases, acronym expansion can greatly assist documentation completion by expanding short keystrokes. An example would be “.nchest” expanding to “No respiratory distress or accessory muscle use. Lung fields clear to percussion and auscultation”. You can even assign an entire normal physical exam including line breaks into a symbol. To create acronyms for your personal use (as well as see instructions regarding other timesaving customization shortcuts, see: http://www.med.nyu.edu/icis_assets/customizing_icis/index.html). Please make sure that your acronyms do not expand to any of the do-not-use phrases.

Conclusions

The primary purpose of the progress note is to improve the situational awareness of all clinicians caring for a patient. As we transition to a completely electronic record, it is vital that the issues of note bloat, inaccuracy, and note quality be addressed. The most important elements of good note-writing are accuracy, temporal relevance, concision, authorship by the writer, documentation of the patient’s problems, status, and management in a thoughtful analytic fashion, and documentation of collaboration among peers and residents. In this way, both the clinical needs of the patient as well as the regulatory and billing requirements of both physician and hospital can be best supported.