Addressing the risk of copy-paste documentation errors
Executive summary

For as long as medical records have existed, physicians have been copying information from prior patient notes and using that information to create new notes. Whether this was done in a paper chart by reading and re-writing content from other written notes or by dictating directly from a prior transcription, documenting providers have routinely used older information to create new notes for patients.

With healthcare organizations increasing their adoption of electronic health records (EHRs), physicians are now creating more of their notes in an EHR with electronic documentation tools. Creating more electronic notes makes it easier to electronically duplicate text from prior documents; providers can easily copy electronic text and patient information from a previous electronic note and copy-paste or copy-forward that information into a new note. This duplication of existing patient information into a new note in an EHR is variously referred to as:

- Copy-paste *(this paper uses this term)*
- Copy-forward
- Cloning
- Content importing technology (CIT)*

With providers increasing their use of copy-paste in EHRs, numerous research studies and surveys have evaluated copy-paste usage rates, analyzed the resulting documentation and assessed the documentation errors resulting from this practice. This paper will review several of these studies to provide an overview of how copy-paste is used, including both its benefits and the potential risks and errors that can result. This review will also suggest ways to manage the risks of copy-paste in an EHR while still maintaining its benefits for healthcare providers tasked with documenting patient care.

“A patient’s care information must be verified individually to ensure accuracy: It cannot be cut and pasted from a different record of the patient, which risks medical errors as well as overpayments.”

— Former U.S. Department of Health and Human Services Secretary Kathleen Sebelius and former U.S. Attorney General Eric Holder, excerpt from letter to the CEOs of five major hospital trade associations, September 24, 2012*
The benefits of copy-paste

Allowing physicians to copy-and-paste data and sections from prior documentation can help them create more complete documentation and notes more quickly.

Ideally, this practice should result in time-savings for physicians and more complete patient information capture for communication with other providers as well as for use in reporting, coding and billing purposes.

If only we lived in an ideal world.

Copy-paste risks and challenges

The AHIMA position paper entitled “Appropriate Use of the Copy and Paste Functionality in Electronic Health Records” outlines the risks and challenges associated with the use of copy-paste in an EHR, including:

- Inaccurate or outdated information
- Redundant information, which makes it difficult to identify the current information
- Inability to identify the author or intent of the documentation
- Inability to identify when the documentation was first created
- Propagation of false information
- Internally inconsistent progress notes
- Unnecessarily lengthy progress notes

The CMIO perspective: Issues and concerns with copy-paste

- Errol Soskolne, MD, Acute Care Chief Medical Information Officer, Trinity Health, Livonia, Michigan

Documentation-assist features in the EHR—such as the copy-paste function—do provide improved efficiencies of data capture, timeliness, legibility, consistency and completeness. These benefits can improve the documentation creation process for physicians in many ways.

However, there are also risks in using the copy-paste functionality, including:

- Inaccurate, outdated, redundant, incomprehensible or erroneous information
- Inability to identify the author or when the documentation was first created
- Inconsistent or unnecessarily lengthy documentation
- Propagation of inaccurate information

Copy-and-pasted notes may interfere with communication between members of the patient care team, jeopardize the quality and safety of patient care, cause medical errors, create fraudulent claims, and increase data integrity and compliance risks.
Addressing the risk of copy-paste documentation errors

Physician usage and perception

Physicians have noticed the negative impact of using copy-paste on EHR notes, as evidenced in the results from a Journal of General Internal Medicine survey where over 300 physicians reported the following perceptions about documentation created using copy-paste:

<table>
<thead>
<tr>
<th>Percentage of physicians who felt that using copy-paste:</th>
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<tbody>
<tr>
<td>Made it more difficult to find new information in a note</td>
</tr>
<tr>
<td>Resulted in notes that contained outdated patient information</td>
</tr>
<tr>
<td>Resulted in notes that contained inconsistent information</td>
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</table>

The risks and challenges associated with copy-paste are magnified when viewed through the lens of how prevalent usage has become amongst physicians and the large amount of text being copied. The same Journal of General Internal Medicine survey asked physicians about their own use of and attitude toward copy-paste.

<table>
<thead>
<tr>
<th>Percentage of physicians who:</th>
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<tbody>
<tr>
<td>Wrote electronic notes using copy-paste</td>
</tr>
<tr>
<td>Used copy-paste almost always or most of the time for daily progress notes</td>
</tr>
<tr>
<td>Copied information from notes written by other physicians</td>
</tr>
<tr>
<td>Copied notes written during past visits or admissions</td>
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</tbody>
</table>

Backing up these findings is a study presented in the Journal of the American Medical Informatics Association that looks at the percentage of different types of notes that were duplicated text from previous documents:

<table>
<thead>
<tr>
<th>Percentage of text in each note type copied from previous notes:</th>
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<tbody>
<tr>
<td>Text in EHR sign-out notes that was copied from previous notes</td>
</tr>
<tr>
<td>Text in progress notes information copied from previous documents</td>
</tr>
<tr>
<td>Text in discharge summary notes that was copied from the admission note</td>
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</table>

A fairly healthy majority of physicians are using copy-paste in their EHRs, and a high percentage of actual text in documents is duplicate text. For progress notes, typically the most common document created during an inpatient admission, copy-paste is used routinely and can make up half of the text of the note. Now if only appropriate historical patient information was copied-and-pasted into a new document, then on its own this practice wouldn’t necessarily be negative or positive. Regardless, copy-paste is clearly a tool that physicians like using.

Finally, copy-paste is also becoming a legal issue that physicians need to recognize.

There are some eye-opening statistics from a study done by The Doctors Company, a large, physician-owned medical malpractice insurer, including:

- In analyzing EHR-related closed claims from 2007 to 2013, incorrect information is the most common user-related contributing factor in malpractice cases involving EHRs
- 15 percent of malpractice cases involved pre-populating/copy-and-paste as a contributing factor

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**Physicians use copy-paste to create more complete documentation more efficiently**

70-90% are using copy-paste

30-70% of notes duplicated from prior documents

$11B

Hospital “up-coding” results in $11B payment abuse annually
The risks and potential impact of copy-paste

From an organizational perspective, an organization could (and probably should) regard the practice of copy-paste as a high-risk activity.

With 70-90 percent of physicians using copy-paste on a regular basis, and 30-70 percent of the content of electronic notes being duplicated text from prior documents, the risk of a documentation error occurring because of copy-paste usage quickly becomes more a matter of “when” errors will occur and not “if” they will occur.

In short, if we assume that in using copy-paste the possibility exists that some copied-forward patient data from prior documents is either inaccurate or outdated for the current patient encounter, and that a physician could overlook this data and not remove it from the new note, then the possibility exists that the use of copy-paste will result in documentation errors.

Using copy-paste enough times with enough physicians, eventually in a large enough sample, you are going to see errors in documentation.

The question then becomes, what will be the ultimate effect or impact of that documentation error?

Using copy-paste enough times with enough physicians, eventually in a large enough sample, you are going to see errors in documentation.
Addressing the risk of copy-paste documentation errors

The CMIO perspective: The risks of copy-paste

– Errol Soskolne, MD, Acute Care Chief Medical Information Officer, Trinity Health

There are essentially three modes of copy-paste functionality that all have the potential to cause significant medical errors and lead to fraudulent billing practices:

1. **Inappropriate use of copy-paste functionality.** Examples include copying a previous note without updating the information, or copying a note from a healthcare practitioner into an encounter without attribution to the originating practitioner.

2. **Cloned documentation.** A “cloned document” is identical or “unreasonably similar” to previous entries in the record:
   
   a. **Identical entries:** Entries that are identical between encounters or between providers (exactly word-for-word). Examples:
      
      i. Same patient – Encounter notes with no change in documentation between each date of service or provider from one encounter to the next
      
      ii. Different patients – Progress notes with identical entries regardless of the patient, provider or date of service
      
      iii. Care team notes are the same, making it difficult to determine who provided the service (e.g., teaching physician’s note is identical to the medical resident’s note; attending physician’s note is identical to the mid-level provider’s note)
   
   b. **Unreasonably similar entries:** Entries that are almost identical to previous entries within a patient’s record or from another patient’s record. Examples:
      
      i. Only one sentence differs between entries
      
      ii. Cloning the encounter-specific note for Patient A into the encounter with Patient B without updating clinical information reflecting the encounter with Patient B

3. **Using a pre-completed template for all patients.** This situation involves the use of a template with the same review of systems (ROS) and physical examination pre-documented and no update with information specific to the patient and date of encounter.
What’s at stake? Three examples of copy-paste risk

Scenario 1: Patient care safety issues and avoidable costs

<table>
<thead>
<tr>
<th>Patient scenario</th>
<th>Copy-paste issue and impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 62-year-old woman with congestive heart failure (CHF) is admitted to the hospital in the morning by the hospitalist on shift.</td>
<td>Administering potassium supplements to a patient who has a normal potassium level could have devastating consequences to the condition of the patient.</td>
</tr>
<tr>
<td>Initial tests done upon admission showed:</td>
<td>Ordering the recheck of the level is also an additional cost that could have been avoided since the potassium level was within normal limits.</td>
</tr>
<tr>
<td>- Potassium level: 5.1</td>
<td></td>
</tr>
<tr>
<td>- Remaining chemistry panel is all within normal limits</td>
<td></td>
</tr>
<tr>
<td>- BNP was elevated at 2000</td>
<td></td>
</tr>
<tr>
<td>While creating the history and physical note (H&amp;P) for this patient, the admitting hospitalist copied forward content from the H&amp;P from an admission that occurred in the prior year.</td>
<td></td>
</tr>
<tr>
<td>In the earlier H&amp;P, the assessment section had documented a <strong>potassium level of 2.9 mEq/L</strong> (normal potassium range is 3.7 to 5.2 mEq/L)</td>
<td></td>
</tr>
<tr>
<td>This <strong>potassium level of 2.9 mEq/L</strong> was copied from the previous note into the current note as if this data were from the current admission, even though the patient’s actual potassium levels were within normal limits.</td>
<td></td>
</tr>
<tr>
<td>The hospitalist covering this patient on the evening shift reads the H&amp;P and based on the potassium level of 2.9 orders potassium supplements since the potassium is low and orders a recheck of the potassium level for the next day.</td>
<td></td>
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</tbody>
</table>

Scenario 2: Inappropriate coding and Medicare overpayment

<table>
<thead>
<tr>
<th>Patient scenario</th>
<th>Copy-paste issue and impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 76-year-old male is admitted to the hospital due to pneumonia.</td>
<td>The issue is that the chronic problems were copied from an admission from six months ago, and the UTI is not a current problem for this admission.</td>
</tr>
<tr>
<td>History and physical reveals chronic problems of HTN, diabetes and a UTI</td>
<td>The copy-paste error causes a DRG change resulting in an overpayment.</td>
</tr>
<tr>
<td>At discharge, upon reviewing the H&amp;P note, the coder codes for:</td>
<td></td>
</tr>
<tr>
<td>- Pneumonia</td>
<td></td>
</tr>
<tr>
<td>- HTN</td>
<td></td>
</tr>
<tr>
<td>- Diabetes</td>
<td></td>
</tr>
<tr>
<td>- UTI</td>
<td></td>
</tr>
<tr>
<td>These diagnoses group to <strong>DRG 194 Simple Pneumonia &amp; Pleurisy with CC</strong></td>
<td></td>
</tr>
<tr>
<td>This DRG is reimbursed at $4,069</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td>The DRG without the UTI should be <strong>DRG 195 Simple Pneumonia &amp; Pleurisy without CC/MCC</strong></td>
</tr>
<tr>
<td></td>
<td>Reimbursement should be $2,959</td>
</tr>
<tr>
<td></td>
<td>This means that the hospital was overpaid $1,110 by coding for a UTI that was not present for this admission.</td>
</tr>
</tbody>
</table>
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Scenario 3: Patient insurance issues
This example comes from Diana Warner, director at AHIMA, speaking at the October 2013 MGMA conference in San Diego about an experience she had while working for a group medical practice.7

<table>
<thead>
<tr>
<th>Patient scenario</th>
<th>Copy-paste issue and impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>During an office visit, a physician creating a note on a female patient copied <strong>history of breast cancer</strong> from the Family Medical History section of a note from a prior visit into the note for this visit, but mistakenly put this into the patient’s current note as Past Medical History.</td>
<td>Diana Warner describes the fall-out from this single error:</td>
</tr>
<tr>
<td>This information was then submitted to the insurance company, who noticed this new information about the patient.</td>
<td>“We had to work for months to get that cleared up with the insurance company so that her coverage would not be dropped. We had to then find all the records that it got copy and pasted into incorrectly. It goes through your system. It goes through other systems. It gets sent to other care providers; it gets sent to insurance companies.”7</td>
</tr>
<tr>
<td>The insurance company was going to cancel the patient’s coverage, because they thought that she had misrepresented her medical history in signing up for the coverage.</td>
<td></td>
</tr>
</tbody>
</table>

How many times does a documentation error have to occur before it results in one of these serious issues?

- Inaccurate coding of the record based on outdated information, which then triggers or is detected during an audit
- A patient care decision is made based on inaccurate patient information and results in an adverse patient care event

As these scenarios clearly indicate, copy-paste has become a standard tool that physicians use while creating electronic notes in the EHR, because it saves them time and can help create more complete documentation—but it doesn’t come without serious risks.

Although the risk may be small that one copy-paste error could result in an audit or inappropriate care being delivered to a patient and causing an adverse event, the potential results warrant taking every precaution possible to reduce the risk.8

So the next question becomes: What can be done to reduce this risk? Taking away copy-paste is a drastic move and not likely to be embraced or welcomed by physicians. The goal should be to identify and notify physicians when duplicate data from one document copied to another is found to be high-risk.
Managing copy-paste: The EHR

There are ways to minimize the risk of copy-paste errors through appropriate settings and tools in the EHR. For example:

- Limit the type of content that can be copied from one record to another
- Set the EHR to auto-populate lab results, test results and vitals from the most recent versions of these in the EHR, instead of having physicians copy-paste them

Interestingly, as part of its December 2013 report on EHR safeguards, the U.S. Department of Health and Human Services Office of Inspector General (OIG) spoke to several EHR vendors who stated that the copy-paste function could not be turned off or modified in any way in their products.

Managing copy-paste: Hospital policies

Another approach to managing the use and risk of copy-paste in the EHR is through hospital policies.

In the same report cited above, the OIG included survey results showing that, as of March 2012, the 864 hospitals receiving Medicare incentive payments were lagging in establishing copy-paste policies. According to the report:

- 24 percent of hospitals had policies in place regarding use of copy-paste
- 44 percent of hospital audit logs recorded the method of data entry (e.g., copy-paste, direct text entry, speech recognition) when data are entered into the EHR

The report further evaluated the policies in place covering copy-paste and found that 61 percent of these policies put the responsibility on the EHR user—i.e., the documenting physician—as the one to confirm that the data being pasted was accurate. In addition:

- 22 percent of hospital policies advised EHR users to avoid “indiscriminately copy-pasting”
- 21 percent of hospital policies required the user to cite the original source of the copied text
- 51 percent of hospitals reported being unable to customize or restrict the usage of copy-paste in their EHRs

Given the findings of the OIG report and the heavy usage of copy-paste by EHR users, hospital policies alone may point toward correct usage of copy-paste, but they may not adequately manage the risk that copy-paste errors can present.

The CMIO perspective: Who is responsible for copy-paste?

− Errol Soskolne, MD, Acute Care Chief Medical Information Officer, Trinity Health

As a practicing physician and CMIO, I see healthcare practitioners as the ones responsible for confirming and updating all information brought into the medical record while they are documenting, including information copied-forward either automatically by the EHR system or by the healthcare practitioner.

A healthcare practitioner should:

- Review the information for every note to ensure that it accurately reflects the care provided during the current encounter
- Remove information that is no longer applicable or clinically relevant
- Remove information that has been ruled out during the current encounter

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Addressing the risk of copy-paste documentation errors

When used correctly and properly, copy-paste can be a valuable, time-saving tool for physicians and other providers. Its popularity points to the fact that it is benefitting documenting providers and becoming a favored means of creating documentation. However, given the heavy usage of this tool and the harried daily workflows of providers, shifting responsibility to the user of copy-paste to ensure that every bit of text and patient data is accurate would seem to invite errors to occur.

Conclusion: Reduce risk and meet physician needs with new technology

The goal of a healthcare organization should be to take advantage of the benefits of copy-paste for providers, while adequately managing the risk presented by potential copy-paste errors. One way to accomplish this is through the use of technology and text analysis to review documentation, identify high-risk copy-paste errors and notify providers of these errors so they can address the errors before they are propagated.

Just as natural language processing (NLP) technology is used for computer-assisted coding (CAC), a similar analysis process can be applied to a copy-paste analysis system. Documentation analysis using NLP and CAC technology can be combined with a text-matching system to create a copy-paste analysis system. Combined with access to historical patient documentation created in the EHR, such a system could identify high-risk duplicate patient data and prompt a physician to review and confirm that the data is accurate.

Naturally, given that up to 50 percent of progress notes can be duplicate text, if this type of system were to prompt a physician every time it found duplicate text, then physicians would be getting “dinged” for just about every note they created. A system with such a high alert rate would be counter-productive and likely be quickly turned off.

A more intelligent copy-paste analysis system would need to be “fine-tunable,” so that it could adequately differentiate between appropriately copied content from prior notes and content that is high-risk and should be reviewed and potentially edited by the authoring physician.

This approach to copy-paste can help meet the needs of physicians and prevent unnecessary disruptions to their workflows. Healthcare organizations with this type of copy-paste analysis technology in place can be ahead of the curve not only in helping physicians provide better, more accurate documentation, but also in avoiding the risk and pain of audit nightmares, patient safety repercussions and unfairly cancelled insurance as a consequence of copy-paste errors.
Errol Soskolne, MD,  
Acute Care CMIO, Trinity Health

Trinity Health is one of the largest multi-institutional Catholic healthcare delivery systems in the U.S., serving communities in 21 states, with revenues of about $13.6B and more than 89,000 full-time employees.

As Acute Care CMIO, Dr. Soskolne is responsible for supporting all clinical informatics at Trinity Health’s 85 hospitals. He also continues to work as a pediatric hospitalist covering both inpatient pediatrics and the neonatal intensive care unit.

Sources


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