HEALTHCARE DOCUMENTATION
QUALITY ASSESSMENT AND MANAGEMENT
BEST PRACTICES

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The Association for Healthcare Documentation Integrity (AHDI), formerly AAMT, has been the professional organization representing medical transcriptionists since 1978. AHDI sets standards of practice and education for medical transcriptionists, administers a credentialing program, has established a code of ethics, and advocates on behalf of the profession. There are over 60 component associations of AHDI, each of which holds regular educational meetings and symposia. For more information, visit www.ahdionline.org.

The Medical Transcription Industry Association (MTIA) is the world’s largest trade association serving medical transcription service operators. Its mission is to create an environment in which medical transcription companies can prosper, grow, and deliver the highest level of healthcare documentation services. For more information, visit www.mtia.com.

The American Health Information Management Association (AHIMA) is the premier association of health information management (HIM) professionals. AHIMA’s 59,000 members are dedicated to the effective management of personnel health information needed to deliver quality health care to the public. Founded in 1928 to improve the quality of medical records, AHIMA is committed to advancing the HIM profession in an increasingly electronic and global environment through leadership in advocacy, education, certification, and lifelong learning. For more information about the Association, go to www.ahima.org.
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Technological advances combined with a national agenda for healthcare reform are shifting health information processes and practices from paper-based records to the electronic health record as the dominant medium by 2014. As this transformation takes place, the quality of patient records becomes a critical focus for patient safety and improved patient outcomes. Quality practices of both service providers as well as inhouse medical transcription departments benefit from a more standardized approach to measuring, reporting, and improving the quality of healthcare documentation in order to achieve consistent patient safety outcomes.

Due to the heightened pace of transition to electronic health records, the boards of directors of the American Health Information Management Association (AHIMA), the Association for Healthcare Documentation Integrity (AHDI), and the Medical Transcription Industry Association (MTIA) felt it was urgent to reassess the process of quality measurement in healthcare documentation. All three boards agreed to initiate a call to action to deliver on an updated best practices document for quality assessment in healthcare documentation. In April 2009, the directors called upon a workgroup of nationally recognized experts in health information, medical transcription, health information technology, and academia to convene a Quality Summit to develop best practices in quality assessment for healthcare documentation that would impact quality processes for the foreseeable future.

To achieve this task, the group first established the fundamental principles of quality. The workgroup then focused on factors that affect quality as well as strategies to minimize these factors. An in-depth analysis of blanks was also performed, as blanks are a critical factor in providing accurate patient reports. This Best Practices document applies the Plan, Do, Check, Act (PDCA) method of continuous quality improvement. The PDCA approach to planning, decision-making, and problem solving is described in detail in Appendix C. The results of this committee’s work is described herein and provides a blueprint for the application of a leading-edge quality program that is compatible with paper-based medical records, hybrid EHR record systems, as well as fully implemented electronic health record systems.
INTRODUCTION

Quality can best be achieved through a planned set of actions designed to provide the end-user with the product they expect to receive. The goal of a quality assessment program for healthcare documentation is to ensure that patient care documentation is clear, consistent, accurate, complete, and timely, and that it satisfies stated or implied requirements for documentation of patient care. This best practices document provides a blueprint for the implementation of a leading-edge quality program that is compatible with paper-based medical records, hybrid EHR record systems, and fully implemented electronic health record systems.

The intended audience for this document includes directors of health information management, transcription supervisors, and managers of both inhouse and outsourced transcription departments/services. This document addresses the quality of healthcare data captured through voice recognition technology as well as traditional transcription methods. Due to the range of documentation capture methods, the industry refers to the originator of the information using a variety of terms including provider, originator, dictator, and author. For consistency, the term author will be used throughout this document. The term author best describes the individual dictating or inputting the data, whether by voice-to-text methods or direct keyboard input. It is important to note that the dictator or originator may not be the same as the authenticator, as ancillary personal may be employed to assist in dictation and information capture.

Likewise, many terms are used to describe the individual transcribing or editing the text, such as transcriptionist, medical transcriptionist (MT), medical transcription editor (MTE), speech recognition editor, medical language specialist, and documentation specialist. The term medical transcriptionist or MT will be used throughout this document to include all transcription and editing roles. Although this term is not descriptive of all current roles, it is the most widely recognized.

The expected result of this program is to ensure quality and consistency of records for various purposes to include automated decision support, research, and core measure outcomes. Technological advances combined with a national push in healthcare reform are shifting health information processes and practices from paper-based records to the electronic health record as the dominant medium by 2014. As this transformation takes place, the quality of patient records becomes a critical focus for improved patient safety and patient outcomes nationally.

In addition to supplying healthcare providers with accurate and timely documentation for their patients' conditions, medical records are the foundation of the coding and billing functions of the healthcare business and serve as the definitive evidential resource to defend against malpractice or fraudulent billing claims. Consequently, practitioners and other end users depend on healthcare documentation quality for patient care as well as the business aspects of the healthcare service organization.

Additional end-users include the actual patients, who at a rapidly increasing rate are becoming actively involved in their own healthcare decision-making processes through independent research, family interaction, health-related support groups, and online social resources. Such patients rely heavily on the accuracy and comprehensibility of their own medical records to
understand their own condition and to compare and contrast their situation to other patients or treatment strategies.

Healthcare researchers also rely on the quality of documentation for aggregation of data to assess treatment effectiveness, evaluate core measures, and provide information to the National Cancer Registry and other outcomes-related studies. Clinical documentation improvement initiatives can be enhanced by ensuring the completeness, thoroughness, and accuracy of the record of each patient encounter. Consequently, the quality of these measures, including research data, is directly dependent on the quality of the documents being mined for specific words or phrases.

These quality best practices have been aligned with the well-known and proven method: Plan → Do → Check → Act (PDCA). By utilizing this process, the quality of healthcare documentation goes into a continual improvement cycle that provides education for all medical transcriptionists as well as recommendations for corrective processes to help minimize errors going forward.

**The Plan, Do, Check, Act Cycle for Quality Assurance**

PDCA consists of four steps:

**PLAN:** An analysis that establishes the objectives or the expected results and creates a plan of action. By starting from the end result and working backward, each step of the process can be included in the analysis and in the solution.

**DO:** Implementation of the plan.

**CHECK:** Measurement of the objectives to see how closely they meet expectations. This is an important step, as it allows for the adjustment of the plan where necessary. It also allows for incremental changes instead of a one-shot approach to attaining perfection and the analysis-paralysis that can ensue with that approach.

**ACT:** Implementation of changes identified in the CHECK phase.
PRINCIPLES OF QUALITY

The principles of quality as they relate to healthcare documentation can be defined as comprehensive codes of conduct that ensure the accuracy, accessibility, and overall value of the medical record for understanding patients’ symptoms, treatments, and progress. To serve the needs of all end-users and to ensure quality through the assessment of medical records during the healthcare documentation process, the following principles apply:

**Verifiability**

Quality procedures are documented and communicated throughout the organization, and quality-check schedules and results are made available to a client should the need arise. The results of a quality check are verifiable. This is important whether the reports are transcribed by a healthcare provider’s onsite staff or a medical transcription service organization (MTSO). The results of quality checks must be clearly understood, with no areas of ambiguity. Customers who have quality standards as a part of the contractual agreement must be able to verify the results of quality checks performed. The key to verifiability lies with clearly defined error definitions.

**Definability**

Error definitions provide a clear understanding of the nature of an error and in turn facilitate the production of quality medical records that meet with recommended industry standards.

**Measurability**

A healthcare documentation quality-assessment program allows for complete understanding of the methodology and formulas used in its calculation. It is transparent and verifiable by all parties and results in a clear and concise quality rating that is statistically valid.

**Consistency**

A healthcare documentation quality assessment program produces consistent and reproducible results. Consistency in quality is achieved by standardizing variables, including the definitions of errors and their point values, and then applying a standardized method of error determination. This ensures that if a document goes through several quality assessment processes it will always be measured the same way. Organizations providing feedback should ensure consistency in the application of the program among all quality-assurance staff members. Stakeholder collaboration and training are also critical elements to achieving and maintaining consistency.

**Integrity**

Integrity is achieved in healthcare documentation through a partnership between the author and the transcriptionist who transcribes and edits the report. The author is
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responsible for clear, unambiguous, and complete dictation. The MT is responsible for preserving the author’s style and intended meaning with reports transcribed or edited in their entirety, including accurate demographics and appropriate distribution notations. Additionally, the MT brings integrity to the process through continuing education and commitment to the documentation process. Reporting errors as well as problematic practices that could potentially cause errors bring further integrity to the process.

Quality Guidelines
A comprehensive and effective quality assurance program is based on the following guidelines:

- Medical records must accurately document the complete details of the patient encounter.
- Documents must be distributed and accessible to the intended users in a timely manner.
- A statistically valid random sampling of documents must be routinely audited using a full audio review to ensure the accuracy of the transcribed or edited document.
- Auditing processes must be applied to transcribed reports, edited documents created through speech recognition, and electronically generated data.
- Documents must be reviewed and scored by qualified reviewers in a consistent and unbiased manner.
- Error values must accurately reflect the definitions provided herein.
- Identified errors must be consistently communicated to the transcriptionist, editor, and/or author who generated the data for continuing quality improvement and continuing education.
- Up-to-date reference materials and the required account specifications must be available to all transcriptionists and quality editors.

A comprehensive quality assurance program is:

- **Proactive.** An effective program seeks to resolve problems before they occur. A proactive approach benefits all users, improves efficiencies, and ultimately contributes to improved patient care.
- **Educational.** An effective program provides constructive feedback. An educational culture encourages quality improvement, consistent and beneficial feedback, and positive information exchange.
- **Realistic, scalable, and financially feasible.** The process must be easily duplicated on all scales, from small facilities to large MTSOs, and expectations should be realistically attainable, both financially and procedurally.
- **Simple and easy to implement.** The process must be simple and easily understood by all participating parties.
- **Secure and confidential.** Feedback and processes must be compliant with HIPAA privacy and security guidelines, applicable state laws, as well as those requirements established within the department or facility.
- **Inclusive of all aspects of the author-to-text process.** A complete quality assessment program includes all stages of the documentation process, including
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manual and automated processes. This includes authors, medical transcriptionists, quality personnel, software, equipment, and workflow processes.

- **Reportable for tracking and trending purposes.** A complete quality process includes methods of tracking and reporting trends to detect areas needing improvement.
- **Timely.** Quality assessments should be scheduled within day-to-day processes in order to provide timely feedback and consistently enhance quality.

**FACTORS AFFECTING QUALITY**

Each of the following factors influence quality and should be considered in a comprehensive quality assessment program:

- **The Author:** The author’s verbal communication skills have the most significant impact on the quality of the transcribed or speech-recognized edited data. Dictation skills are impacted by the author’s natural ability to organize and articulate his or her thoughts. In addition, background noise, rapid speech, heavy accents, poor articulation, low volume, and audio quality can have an impact on document quality. (See also Dictation Best Practices Toolkit

- **Experience:** The depth and breadth of experience of the medical transcription staff within an organization relative to the complexity of the dictation can have an impact on the overall quality of the work produced.

- **Audio equipment:** Technical issues with the voice file can affect the quality of the final document. Equipment must be tested regularly, maintained adequately, and used properly in order to generate a high-quality report.

- **Patient Demographics:** Omitted, incomplete, or erroneous demographics can result in unnecessary delays and incomplete or misidentified reports.

- **Account Specifications:** The availability of up to date and complete account specification sheets impacts the formatting of all reports, and expectations of quality delivery are dependent on the accuracy and availability of the most current requirements.

- **Resources:** Transcriptionists and quality editors must have current resource materials of the highest professional caliber, including hard copy and Web-based sources. Every medical transcriptionist (MT) should have access to dictionaries (medical and English), current drug references, specialty word lists, and appropriate reference texts in anatomy, physiology, and disease processes. It is highly recommended that the required resource list include the current version of *The Book of Style for Medical Transcription* to address issues of style and format. (See Benchmark Knowledge Base at [www.interfix.biz](http://www.interfix.biz) as a good example of a subscription Web-based tool that provides reliable up-to-date medical reference information.)

- **Quality Enhancing Software:** Electronic spell checkers should be installed on each transcription workstation. Text expansion software can also enhance accuracy by consistently inserting correctly spelled words and phrases into a document with minimal keystrokes.
Blanks
A blank is a marker of missing, incorrect, or questionable information within the body of a document. The presence of blanks within the text is a persistent concern in medical records that has the potential to affect patient care. There are valid reasons for blanks in healthcare documentation, but it is important to evaluate the factors that contribute to blanks and the roles and responsibilities of each stakeholder to minimize blanks.

Though blanks are not necessarily desirable, they are inevitable. Valid blanks are evidence of due diligence on the part of the MT or quality assurance editor. It is in the best interest of the patient, physician, and healthcare organization to identify points of uncertainty so they can be appropriately rectified. Most often, blanks require a query of the author for resolution. When properly applied, blanks are a necessary component of accurate transcription.

Valid Blanks
A valid blank occurs when an MT or quality assurance editor makes a professional judgment that some set of factors prohibits the clear understanding of what was dictated, resulting in an inability to transcribe with certainty. It is important to note that the insertion of a blank, represented by some type of notation such as consecutive underscore characters, is a conscious decision by the MT. If the MT is not confident in what they heard, it is safer to leave a blank rather than to guess. This approach reduces the potential for an error. While a “best guess” might be appropriate in other settings, information in medical records cannot be “close” to being right; it must be exactly right. Even though transcriptionists strive to provide a complete report, providing an accurate report is more important.

Causes for valid blanks include:
- Audio file distortion
- Clipped, cut off, incomplete, or omitted dictation
- Suboptimal dictation practices
- Discrepancy in dictated details
- Author-requested blanks (information to be filled in after transcription)
- Inability to verify terminology
- Unknown person or place
- Preexisting blank within text that has been copied forward

Invalid Blanks
An invalid blank is one that perhaps could have been resolved by the MT had they employed best resolution practices.

Roles and Responsibilities
The creation of medical records is frequently a collective activity, requiring all of those involved to properly carry out their role to ensure the creation of documentation that is accurate and complete. Any disruption in this chain can result in incomplete and inaccurate information being disseminated through the healthcare record, having potentially negative impacts (eg, patient care, billing) and even unanticipated consequences (eg, future patient eligibility for
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...insurance). It is essential that all involved be conscientious in performing their role and recognizing the roles of others.

Author

- Speak at conversational rates
- Clearly pronounce sound-alikes
- Clearly enunciate or spell new terminology, drugs, and equipment
- Clearly enunciate or spell names and places
- Dictate in a quiet, HIPAA-compliant environment
- Refrain from using a cell phone on a call-in dictation system

Facility Staff

- Investigate faulty equipment
- Provide training in dictation best practices to all authors including new residents
- Collaborate with author for resolution of discrepancies and missing information
- Review chart for resolution of discrepancies and provide feedback to MTSO/MT
- Provide the most current reference materials, including a frequently updated list of active physicians and other healthcare staff members
- Ensure accuracy and timeliness of admission, discharge and transfer (ADT) reports and other references for patient demographics
- Provide feedback on recurring blanks to MTSO/MT
- Provide sample reports to MTSO/MT
- Provide reliable document upload and transfer mechanisms

Medical Transcriptionist

- Adjust speed of dictation to optimize clarity
- Utilize reference materials including approved online reference sites
- Request review of blanks or questionable areas of dictation
- Review other documents or records if available to resolve any discrepancies within the report
- Apply feedback received for continual quality improvement
- Follow appropriate procedures to escalate problem to the next level

MTSO

- Implement procedures for identifying and reporting problems and discrepancies to HIM staff
- Report faulty equipment to provider or HIM staff
- Provide feedback to provider or HIM regarding dictation best practices and training for all authors including new residents
- Maintain a complete and up-to-date list of macros and templates for all providers, distribute to transcription and editing staff, and notify provider or HIM staff of missing macros and templates
- Coordinate with HIM staff or Information Services to obtain accurate and timely ADT feeds
- Provide continuous education and support for MTs with regard to questions, errors, and blanks
Enable MTs to utilize a full range of reference materials and resources to minimize blanks

Authenticator
- Review report content for accuracy, making edits as necessary
- Provide feedback on recurring blanks to HIM department
- Resolve all blanks before final authentication

Resolving Blanks
A stepwise approach to resolving blanks should be followed:
- Adjust speed of dictation to optimize clarity, look for repetitive or collaborative information elsewhere within document, use reference materials including approved online reference sites, and review chart or other documents if available
- Request a review by QA/supervisor/medical editing staff
- Follow appropriate account-specific instructions to escalate problem to the next level
- Make note of any feedback received to avoid a repeat of the blank or problem

PERSONNEL
The training and experience of the transcriptionist/editor has a direct impact on the quality and turnaround time of the transcribed report. Because the experience of medical transcriptionists varies widely, it is important to be familiar with the capabilities of the staff and assign the workload accordingly. Even after careful screening and selection, it is important to identify the actual competency level, critical-thinking skills, strengths and weaknesses of each member of the transcription/editing team. The transcription/editing staff may include a variety of positions with varying levels of experience, competency, and responsibility.

The Transcriptionist
- **New hire**: This category includes trainees (interns, apprentices, postgraduates), entry-level practitioners, or Level 1, 2 or 3 transcriptionists. Even an experienced practitioner may temporarily fall into this category, as every MT needs time to acclimate to new software, new facility specifications, and new authors.
- **New MT**: This category includes interns, apprentices, entry-level MTs, postgraduates, and minimally experienced transcriptionists. This may also include an experienced transcriptionist who has never worked in the assigned medical specialty. For example, an MT who has worked ten years in an orthopedic clinic would be considered a "new MT" in an acute care setting.
- **Experienced MT**: This category includes MTs with experience in the given specialty or experience in a broad range of specialties. Generally speaking, this category would include Level 2 and 3 transcriptionists.
The Quality Editor
This individual reviews work performed by MTs. Different facilities use different titles, such as editors, proofers, and proofreaders. The ideal quality editor is both a competent medical transcriptionist and an educator. The quality editor must be a Level 2 or 3 medical transcriptionist with proven skills in the applicable work types, medical specialties, accents, and dialects. The editor must be proficient in referencing and researching, and have excellent communication skills to give constructive feedback to the transcriptionists.

The Quality Manager
The quality assurance manager must be a highly skilled quality editor with proven experience in the medical transcription profession. He or she must demonstrate the ability to coordinate and oversee a fair and unbiased review process. This includes monitoring, measuring, and reporting quality reviews performed by the quality assurance staff.

Support Staff
Some portions of the quality assurance process can be handled by those with lesser levels of transcription experience. For example, document format and demographic data may be reviewed and corrected by an individual with minimal transcription experience yet with knowledge of the word processing software, transcription platform or medical records software, and facility specifications.

ASSESSMENT POLICIES AND PROCEDURES
A quality assessment program for healthcare documentation emphasizes assessment and improvement throughout the documentation process and should not be viewed exclusively as an exercise in “filling in blanks,” flagging, or tabulating errors. For a quality assessment program to be effective, it must be comprehensive, involve every step of the author-to-text process, and incorporate quality checkpoints at effective stages in the workflow process. A quality review process should involve comparison of the transcript with the original input (such as voice), and always presumes review for meaning of content. Using established style guides (such as the current Book of Style for Medical Transcription) and supplementing with a style guide that addresses issues unique to the facility, reduces subjectivity of the quality review process. Citing references for all corrections will help maintain objectivity. Automation and technology can and will standardize some components; however, in any arena where we have human interface, clear and consistent communication will be a key ingredient to implementation and adoption of a standardized approach to resolving inconsistencies.

Routine quality assessments include both author and transcription flaws with the goal to promote improvement through evaluation of error patterns and instructive feedback. Optimal workflow models support the swift delivery of an accurate document as well as prompt and specific feedback to the author and MT. Checkpoints for quality assessment should be set within the workflow process including audio creation, transcription, editing, and review. A
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higher-quality first draft is more likely in environments where both the provider and the MT have access to data, information, and resources that will ensure accurate capture and document creation.

**Concurrent Review**

To fully assess the abilities of a newly hired or inexperienced transcriptionist, 100% of their work should be reviewed before delivery to the medical record (concurrent review). This level of review should be considered a transitional stage, with the expectation that the MT will apply the feedback given and gain experiential knowledge leading to a consistently high accuracy score. As they meet departmental quality goals, it may be appropriate to reduce the 100% review incrementally or to limit reviews to only certain work types. Those who are cross training on new specialties or work types may also require 100% concurrent review. Once an MT has proven their ability to perform at the quality level required, sampling rates can be reduced to coincide with general departmental guidelines. Concurrent review is also frequently performed when MTSOs begin transcribing a new account or a new dictator to ensure that quality standards required for that account or dictator are fully understood and applied.

**Retrospective Review**

Although random quality reviews would ideally be performed in a concurrent timeframe, this is often not feasible due to turnaround-time constraints. When such constraints require that quality reviews be performed retrospectively, that is, after the completed documents have been authenticated, procedures should be established for retrospective review before the audio files have been purged.

**Flagged Documents**

The workflow process should include the ability to force a document (by flagging) for review by a member of the quality assessment staff before the file is processed for authentication, thereby allowing the quality assessment staff to resolve the flag/blank. If flagging is part of the normal workflow for delivered documents, then flagged reports should be included in the QA audit pool and subject to random selection (see Sampling Guidelines below).

**Feedback**

Editors should adopt an educational approach through a sharing of their expertise. If the position is viewed as an opportunity for ongoing training, rather than as a “grading” task, there will be a thorough and welcomed opportunity for continuous improvement throughout the organization. The outcome of the quality review should be presented to the author or MT in an organized way. For the transcriptionist, the feedback should include corrected and/or inserted text with references to support the edits made. As noted in ASTM standards, an opportunity to challenge the review should be offered, reflecting a true commitment to process improvement and professional development. All feedback procedures, including email and email attachments, should be compliant with HIPAA privacy and security guidelines as well as those established within the department or facility.
Author Assessment
It is important to recognize the impact of the author on the quality of the final document. Serious difficulties in the transcript that result directly from the author should not redound upon the transcriptionist in a quality review. Recognizing and documenting author problems, and following through with effective feedback, assists in the quest for patient safety and document integrity. Authors of alternative documentation methods can be evaluated on content errors, missing information, format compliance, and style issues.

SAMPLING GUIDELINES
A statistically valid sampling methodology must be scalable and indicative of the overall quality of the MT and the department or service. It would be impractical, cost-prohibitive, and too time-consuming to audit every report. A sample size of 1% per month is recommended for routine assessment. Larger sample sizes are not always practical, and the precision or confidence level will reach a point of diminishing returns as the sample size grows. A 1% sample size allows for a 95% confidence level with a 0.851 margin of error. See Appendix B for further details.

Sample Selection
For scores to be valid, the samples must be representative and selected at random. Random sampling allows all reports to have an equal chance of being selected as part of the sample. To pick a valid sample, it is necessary to include all reports available and create an algorithm that will randomly select reports. If no algorithm is available, then a mutually agreed upon method may be used. A common selection technique used in health care is the 5/3 method. Documents with account numbers, dates, medical record numbers or other data elements that end in 5 or 3 are selected until the desired sample size is reached.

ERROR CATEGORIES, DEFINITIONS, AND SCORING
Medical documentation errors can be divided into two categories: critical and noncritical.

Critical errors have the potential to affect patient safety, care, or treatment. Examples of critical errors include, but are not limited to, the use of incorrect terminology, omission of dictated information, insertion of nondictated information, or incorrect patient identification.

Noncritical errors have an impact on the integrity of a document but do not change the meaning of the dictation or have the potential to affect patient care or patient safety. Examples of noncritical errors include, but are not limited to, incorrect verbiage, misspellings, protocol errors, and typographical errors.
Error Values
Errors are assigned a category (critical or noncritical) and are also given a point value relative
to the error’s potential negative consequences. Error types and values are described below.

Critical Errors (-3)
A critical error carries the highest negative point value because of the seriousness of the
consequences. A critical error in any report will fail that report. The following outlines various
types of critical errors:

Terminology Misuse
An incorrect word can potentially lead to an inaccurate diagnosis, incorrect medical
decision-making as well as inaccurate billing of the patient’s account. If a word is
misused repeatedly throughout a report, it is counted as only one error in that report.

Omissions/Insertions
This category addresses omitted or added words that change content and have the
potential to compromise patient safety.

Incorrect Patient Demographics or Author Identification
This category includes patient-encounter information such as a medical record number,
date of service, date of consultation or date of operation, and author identification
number. The error must have the potential to directly compromise patient safety in order
to be assessed this error weight.

Examples of Critical Errors

Dictated: This 92-year old female did well surgically and was sent to the ICU secondary to cardiomyopathy and age.
Transcribed: This 92-year old female did well surgically and was sent to the ICU secondary to cardiomyopathy and AIDS.

Dictated: The patient is on 40 mg of Lasix.
Transcribed: The patient is on 400 mg of Lasix.

Dictated: He had no episodes of unconsciousness en route.
Transcribed: He had episodes of unconsciousness en route. (omitted no)

Dictated: Amaryl 4 mg b.i.d.
Transcribed: Amaryl 4 mg t.i.d.
Noncritical Errors (-1)
Noncritical errors have an impact on the overall accuracy and integrity of a document. Errors in this category do not pose a risk to patient safety.

**Misspelling**
This category refers to misspelled words that compromise the integrity of the document. If a word is misspelled repeatedly throughout a report, it is counted as only one error in that report.

**Incorrect Verbiage**
This category refers to transcription with inappropriate or excessive editing, but without significant impact on the medical meaning. This does not pertain to changes made for the purpose of correcting grammar or word usage.

**Failure to Flag**
This category refers to situations when a MT fails to flag a report that needs clarification.

**Protocol Failure**
This error occurs when a MT fails to follow protocol. Protocol errors may include the incorrect referring physician information or other courtesy copy information that may result in an inappropriate disclosure.

**Formatting/Account Specifications**
This error occurs when the MT fails to follow account specifications related to formatting or document preparation that causes a failure to cross an interface or upload correctly into an electronic record system. For example, an account may require diagnoses to be in numbered list format to upload into the correct fields within the electronic record system. Typing the list in a paragraph would cause the diagnoses to upload incorrectly.

**Examples of Noncritical Errors**
Incorrect use of elicit/illicit, dissent/descent, affect/effect, apprise/appraise.

**Dictated:** erythema (pronounced ery them ia)
**Transcribed:** erythemia

**Dictated:** Involvement with secondary infection
**Transcribed:** Involvement. Impression of infection.

**Dictated:** The risks and complications were given aloud.
**Transcribed:** The risks and complications were given allowed.

Failure to flag the following dictation: “The patient has been suffering from [a type of blood disease] for the last 2 years.”

**Dictated:** (in female exam), prostate exam performed.
**Transcribed:** as dictated. This should be flagged.
Quality Assessment in Healthcare Documentation – Best Practices

Dictated: Temperature 98.7.
Transcribed: Temperature 98.6.

Dictated: Blood pressure 110/60.
Transcribed: Blood pressure 110/60.

Feedback and Educational Opportunities (0.0)
The following incidental findings warrant educational opportunities and should be provided as feedback with no point deductions. Regardless of the reason or type (eg, grammar, punctuation, etc), only those errors that do not change meaning or have the potential to affect patient care should fall into this category. These include but are not limited to:

- Grammar
- Punctuation
- Capitalization
- Plurals
- Run-on/fragment sentences
- Abbreviations
- Slang and inflammatory remarks
- Inconsequential typos and omissions
- Capitalization of drug names
- Incorrect word forms (femur/femoral)

Examples of Feedback and Educational Opportunity Errors

Dictated: Ace bandage
Transcribed: ACE bandage

Transcribed: Cranial nerves 2-12 intact (account-specific instructions specify Roman numerals.)

Dictated: I saw the patient yesterday.
Transcribed: I saw the patient the patient yesterday.

Dictated: Patient was seen at the Harrison Health Center.
Transcribed: Patient was seen at the Harrison Health Center

Dictated: The patient underwent surgery, had a revision of the ORIF.
Transcribed: The patient underwent surgery, had a revision of the open reduction and internal fixation (ORIF). (Unnecessary expansion of text in areas where expansion is not required per account specifics.)

Dictated: Neurological: Alert and oriented.
Transcribed: Neurological: The neurological examination revealed that the patient was alert and oriented. (Unnecessary addition of text not dictated.)
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**Scoring using Error Value From 100**
The “Error Value from 100” method subtracts error values from a per-document value of 100. Each error is subtracted from a total score of 100; the assumption being 100 is a perfect score. Each report, regardless of the length, contributes to patient care and therefore all reports must be accurate. Using a methodology that allows a document with a critical error to pass (ie, when there are more than 100 lines in the report) is a flaw in the rationale of quality delivery. Any report with a critical error should fail a quality review. When patient safety and improved patient outcomes are the central focus of patient care, a quality assurance process must support that goal.

Sample scores sheets are provided in Appendix A.

CONTINUOUS QUALITY IMPROVEMENT
When reviewing results of any audit (pre-delivery or post-delivery), developing a plan of action should always be considered part of the process. These action plans should be part of an established program for quality improvement, should be developed proactively, and should be made available to all end-users. The plans should be easily applied and easily modified based on the audit results. Goals and objectives need to be clearly outlined and benchmarks set. The action plan should also take into consideration followup steps to measure progress and clearly define outcomes based on the followup audits. Key steps in a continuous improvement program can be summarized as:

- Review
- Revise
- Communicate
- Monitor

As the industry moves forward with benchmarking and further development of workflow optimization, the emphasis will be on the prevention of errors. Analyzing results and pursuing
quality improvement strategies are vital to an effective and successful quality assurance program. Based on data obtained through the quality review process, the following recommendations are made.

- Address technical errors.
  - Evaluate handheld recording devices, microphones, and telephone stations. Evaluate digital voice file formats and settings (e.g., compression ratio) for optimal clarity.
  - Eliminate background noise wherever possible.
  - Replace computer sound cards, headsets, and batteries in recording devices.
  - With feedback from transcriptionists and other end-users, evaluate and update the transcription/editing platform to gain efficiency and reduce technical errors.

- Address errors attributable to the author.
  - Develop training opportunities for all new authors and schedule periodic continuing education opportunities to address problems that impede quality and the timely delivery of data.
  - Distribute dictation cards with concise instructions, reminders, and tips on using dictation equipment/software.
  - Establish document work types and create standardized, workable templates for each.
  - Establish open lines of communication between authors and editing staff to increase awareness of issues.
  - Develop feedback forms to provide specific information to authors to avoid repeated errors or to improve dictation quality. Refer to the AHDI Dictation Best Practices Toolkit for specific recommendations on feedback forms.
  - Develop disciplinary procedures to address problematic authors.

- Address medical transcriptionist errors attributable to content errors.
  - Provide consistent, constructive feedback including references cited and additional resources when possible. Feedback should include excerpts of the transcribed version and the corrected version with sufficient surrounding context. Providing the sound file will increase understanding and retention of corrected information. Verify that feedback is received and acknowledged.

Feedback should be seen as an opportunity for education and edification. Underscore the importance of the feedback with face-to-face or telephone
Quality Assessment in Healthcare Documentation – Best Practices

- Converse with the MT to provide an opportunity to ask questions and discuss the feedback.
  - Distribute sample reports for difficult authors.
  - Provide templates and normals.
  - Assign mentors to new or struggling MTs.
  - Develop policies and procedures for disciplinary action when quality expectations are not met.
- Address medical transcriptionist errors attributable to account specification errors.
  - Compile concise, organized, and easy-to-use account specification sheets.
  - Review and revise account specifications sheets regularly. Clarify instructions that are repeatedly misapplied. Distribute specification sheets to entire staff and communicate specific changes or updates.
  - Maintain up-to-date physician lists and referring physician lists including addresses and fax numbers. Include physician assistants, nurse practitioners, and other providers of care that are included in routine correspondence.
- Set quality assessment intervals. Quality reviews may be monthly, quarterly, semiannual or annual. Maintaining a schedule and performing reviews according to the policy schedule is essential. Reduce intervals for individual MTs not meeting quality expectations and develop an individual quality-assurance plan that addresses that individual's specific types of errors. Reduce overall quality review intervals to address systemwide problems.

Summary Quality Improvement Plan:
1. Conduct regular, random QA review.
2. If suboptimal findings, review them with the MT and provide educational feedback accordingly.
3. Review work again within 3 days (or prescribed interval according to policy).
4. If quality is found to be in line with facility expectations, return to regular intervals.
5. If quality is still found to be an issue, repeat steps 1, 2 and 3 until you can get to step 4.
6. Celebrate success!

RECOMMENDATIONS

Implementing a quality measurement program requires consideration of every step in the voice-to-text conversion process. The following summary recommendations are made:
Industry Recommendations:

- Apply the principles of quality in implementing the quality program. The actual process of implementing the quality program can be specific to each organization but the application of the principles of quality should be at the core of the program.
- Assess specific and unique factors that affect the outcome of the documentation process including workflow, turnaround time, and technology.
- Establish an adequate QA budget for personnel, resources, software, and continuing education. Three percent of the total departmental budget is offered as a suggested starting point.
- In each facility/MTSO, establish quality assessment policies and procedures. Distribute policies and procedures to all documentation authors and transcription staff.
- Establish facility specifications and maintain databases of pertinent, facility-specific information.
- Establish practical workflow procedures in the author-to-text process so that accuracy and turnaround times are achievable. In the transcription portion of the workflow, allow for 100% concurrent review of entry-level, newly hired, or cross-training MTs, and concurrent review of flagged reports. Establish workflow procedures for routine assessment of the recommended baseline of 1% random review for MTs and authors who are not under 100% review. If possible, reviews should be performed concurrently. Perform retrospective reviews if necessary to achieve established turnaround times.
- Establish a feedback mechanism for authors and MTs that is education-based. Errors should be identified within their context. Track improvements following intervention and map any trends.
- Train the quality assessment staff in the computation methods described herein and promote consistency and objectivity among the editing staff. In particular, acknowledge and encourage development of critical thinking skills, continued education in the definition and application of the quality standards, and successful mentoring skills.
- Follow guidelines for appropriate intervals for quality assessments.
- Provide ongoing staff development, especially in areas where quality issues are identified.

Compile results of the QA review findings and provide reporting as needed by various departments or stakeholders at prescribed intervals.
Appendix A: Sample Score Sheets

Quality Assessment
Score Sheet

<table>
<thead>
<tr>
<th>MT Name</th>
<th>Job #</th>
<th>Author</th>
<th>Work Type</th>
<th>Auditor</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>TYPE OF ERROR</th>
<th>ERROR VALUE</th>
<th>NUMBER OF OCCURRENCES</th>
<th>FINAL DEDUCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Errors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Medical Word Misuse</td>
<td>-3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2. Omitted Dictation/Inserted text</td>
<td>-3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3. Incorrect Patient Demographics/Author Identification</td>
<td>-3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4. Other:</td>
<td>-3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Noncritical Errors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Medical Term Misspelling</td>
<td>-1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6. English Misspelling/Misuse</td>
<td>-1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>7. Incorrect Verbiage</td>
<td>-1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>8. Failure to Flag</td>
<td>-1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>9. Protocol Failure</td>
<td>-1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>10. Formatting/Account specifications</td>
<td>-1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>11. Other</td>
<td>-1</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

TOTAL DEDUCTIONS

ERROR TOTAL: ______________

SCORE: __________

If the same error is repeated throughout the document, it is only counted once.
Score of 98 is considered passing.

COMMENTS: ________________________________________________________________

_________________________________________________________________________
SAMPLE
QUALITY ASSURANCE AUDIT/REVIEW
MT: ID:
DATE: TYPE:
AUDITOR INITIALS:

<table>
<thead>
<tr>
<th>Account/Job Numbers</th>
<th>Work Type</th>
<th>Points Possible</th>
<th>Minus Errors</th>
<th>Equals Score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>100</td>
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<td></td>
</tr>
</tbody>
</table>

AVERAGE: #DIV/0!

If the same error is repeated throughout the document, the error is only counted once.

<table>
<thead>
<tr>
<th>TYPE OF ERROR</th>
<th>#ERRORS</th>
<th>x VALUE</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRITICAL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Terminology Misuse</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Omission or Insertion</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Incorrect Patient Demos/Author ID</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>NONCRITICAL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Misspelling</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Incorrect verbiage</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Failure to flag</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Protocol failure</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Formatting/account specifications</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

TOTALS                          |         |         |       |

SCORE: 98 and above PASS < 98 NEEDS IMPROVEMENT

NOTE: Any critical errors found upon audit will automatically fail the audit.

Critical—potential to compromise patient safety
Noncritical—compromises document integrity
Areas For Improvement—instructional/educational
Appendix B: Statistically Valid Sampling

Quality in healthcare documentation is essential to improved patient outcomes. Using a statistically sound method to measure quality as well as assessing quality at regular intervals will keep quality documentation as the primary focus of the organization.

A sample set of documents that accurately reflects the quality level of all documents is referred to as a statistically valid sample set. How well a sample set represents the whole is gauged by two important statistics—the margin of error and the confidence level. The confidence level indicates how certain you are that the average score from the sample set represents the actual average score (ie, the score that would be obtained if all documents were evaluated). The margin of error indicates how closely the average score of the sample set would match the actual average score. For example, if the average score of the sample set is 98 with a margin of error equal to +/-1 and a confidence level of 95%, you can state that you are 95% sure that the actual score (if all documents were evaluated) would fall somewhere between 97 and 99 (ie, 98 +/-1).

For the purpose of quality assurance in healthcare documentation, AHIMA, AHDI, and MTIA have agreed to 95% as the minimum confidence level for sampling. To a certain extent, the larger the sample size, the smaller the potential margin of error, although very large sample sizes produce diminishing returns. The table below shows sample sizes and their corresponding margin of error using a confidence level of 95%. The number of lines is based on a full-time transcriptionist producing 1,200 lines (total characters divided by 65 characters per line) per workday. For the purpose of these examples, a “document” contains 45 lines.

<table>
<thead>
<tr>
<th>Average Lines/day</th>
<th>Monthly Total (20 working days/month)</th>
<th>Number of documents (avg 45 lines/document)</th>
<th>Volume</th>
<th>Documents to evaluate/month</th>
<th>Lines to evaluate/month</th>
<th>Margin of Error (at 95% confidence level)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1200</td>
<td>24,000</td>
<td>533</td>
<td>1%</td>
<td>5.3</td>
<td>240</td>
<td>.851</td>
</tr>
<tr>
<td>1200</td>
<td>24,000</td>
<td>533</td>
<td>2%</td>
<td>10.6</td>
<td>480</td>
<td>.602</td>
</tr>
<tr>
<td>1200</td>
<td>24,000</td>
<td>533</td>
<td>3%</td>
<td>16.2</td>
<td>720</td>
<td>.487</td>
</tr>
</tbody>
</table>

Consequently, if auditing 1% of a full-time transcriptionist’s workload (240 lines per month) yielded an average score of 98.4, you could be 95% confident that the average of all documents (if you scored every one of them) would be 98.4 +/- 0.851 (the margin of error). In other words, the actual score (if all documents were audited) would lie somewhere between 97.549 and 99.251.
The formula below is used to calculate the sample size \((n)\) and margin of error \((E)\).

\[
\begin{align*}
 n &= \left(\frac{z \times \sigma}{E}\right)^2 \\
\text{where} & \\
 n &= \text{number of documents to be evaluated} \\
 z &= \text{a constant value of 1.96 representing a 95% confidence level} \\
 \delta &= \text{the standard deviation (SD), which is presumed to be 1 (see description of SD below)} \\
 E &= \text{the margin of error}
\end{align*}
\]

The following example shows the calculation for the number of documents to be evaluated using a confidence level of 95% and a margin of error of 0.5:

\[
 n = \left(\frac{1.96 \times 1}{0.5}\right)^2 \\
 n = 3.92^2 \\
 n = 15.4
\]

The above calculation assumes a standard deviation (SD) of 1. The standard deviation indicates the degree of variation in the values used to calculate the average score. A low standard deviation indicates the scores that are used to calculate the average are very close to the average itself and implies that the scores are consistent. A high standard deviation would indicate the values used to calculate the average were spread out over a large range. For example, if 10 document scores are used to calculate a mean (average) of 95 and the SD is 1, then the majority of the document scores will be within the range of 94 to 96 (95 +/-1). If the standard deviation is 3, the majority of the values used to calculate the mean would be within the range of 92 to 98 (95 +/-3).

To calculate the standard deviation, first calculate the difference of each data point from the mean and square each result. Next, add all of these values and divide the sum by the total number of data points. Finally, take the square root of this value. Software programs for calculating the standard deviation are readily available and much more efficient than calculating manually.

Based on reviewing the specific error values and sampled results in the best practices method, using a standard deviation value of 1 is reasonable. Individual departments may find that the actual standard deviation of scores is slightly higher or lower and may adjust accordingly.
Appendix C: Plan, Do, Check, Act (PDCA)

PDCA (Plan, Do, Check, Act) is a four-step model for assessing problems and enacting solutions with the goal of improving quality. PDCA is considered a continuous improvement process represented by a circular graphic. The PDCA method of continuous quality improvement was designed by Dr. Walter A. Shewhart and popularized by Dr. W. Edwards Deming.

Dr. Deming advocated cyclic business processes that include analysis and identification of variables that cause products or outcomes to deviate from an expected level of quality. PDCA emphasizes processes that incorporate continuous feedback loops to identify sources of error on an ongoing basis and to provide the data needed to make the necessary changes and improvements. Although PDCA has its roots in the manufacturing sector, PDCA can be applied to a variety of decision-making processes. PDCA follows the concept of the scientific method of first establishing a hypothesis, developing and executing a plan to test the hypothesis, analyzing the results, and then making modifications to the hypothesis. The cycle is then repeated to continue to assess and improve the quality process. PDCA provides a blueprint for quality assurance managers to properly identify the goals, construct accurate metrics for measuring the goals, evaluate the outcome, and then implement the solutions.

The four steps of PDCA include:

**PLAN:** An analysis that establishes the objectives or the expected results and creates a plan of action. By starting from the end result and working backwards, each step of the process can be included in the analysis and in the solution.

**DO:** Implementation of the plan.

**CHECK:** Measurement of the objectives to see how closely they meet expectations. This is an important step, as it allows for the adjustment of the plan where necessary.

**ACT:** Implementation of changes identified in the CHECK phase.

The PLAN is a critical step in the process of achieving quality outcomes. This stage deconstructs the entire process and allows for the identification of problems and the acknowledgement of what works. Once problems are identified, specific steps can be outlined to address those problems. The process is repeated with gradual improvements made with
Quality Assessment in Healthcare Documentation – Best Practices

each iteration. Incremental changes made with each cycle, instead of a one-time approach to attaining perfection, avoid the analysis-paralysis that can ensue when trying to attain perfection on the first pass.

PDCA also helps avoid the “fear of being wrong” that may accompany a one-shot approach to quality. Knowing that incremental change is part of the plan from the beginning gives managers the freedom to act on the analysis and execute the necessary changes. The DO and CHECK phase should provide data that shows trends and patterns that can be used to devise a list of solutions that will be carried out in the ACT phase.
## GLOSSARY

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Admission, Discharge, Transfer (ADT) feed</strong></td>
<td>An electronically generated list of patients and their corresponding demographic information, typically used by the medical transcriptionist to properly identify transcribed reports.</td>
</tr>
<tr>
<td><strong>Author</strong></td>
<td>An individual who creates a sound file to be converted to text or generates a document using a variety of input methods such as direct computer entry or front-end speech recognition. This individual may also be referred to as a dictator, originator, clinician, or provider.</td>
</tr>
</tbody>
</table>
| **Authentication/Authenticator** | Refers to the process by which the provider verifies what has been captured in the record and affixes his or her signature to the report as proof of that verification. According to the Joint Commission, authentication must be done by the author of the record and cannot be delegated to anyone else, regardless of the process for inclusion of signature.  
Note: The dictator may not be the same as the authenticator, as ancillary personnel may be employed to assist in dictation and information capture. |
| **CMT** | Abbreviation for Certified Medical Transcriptionist. |
| **Concurrent review** | An audit of a document that occurs before the document is delivered to the client/chart. |
| **Demographics** | Information pertaining to the patient such as name, date of birth, medical record number, and encounter number. |
| **Dictator** | An individual who creates a sound file to be converted to text. This individual may also be referred to as the originator, clinician, provider, or author.  
Note: The dictator may not be the same as the authenticator, as ancillary personal may be employed to assist in dictation and information capture. |
| **Facility** | A hospital, clinic, physician practice, outpatient surgery center, dental practice, long-term care or skilled nursing facility, birthing center, or other organization that provides healthcare services. Other examples include physical and occupational rehabilitation centers and dialysis centers. |
| **Level 1 Transcriptionist** | A medical language specialist who transcribes dictation by physicians and other healthcare providers in order to document patient care. The incumbent will likely need assistance to interpret dictation that is unclear or inconsistent, or make use of professional reference materials (taken from The Hay report, "Compensation for Medical
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 2 Transcriptionist</td>
<td>A medical language specialist who transcribes and interprets dictation by physicians and other healthcare providers in order to document patient care. The position is also routinely involved in research of questions and in the education of others involved with patient care documentation (taken from The Hay report, &quot;Compensation for Medical Transcriptionists&quot;).</td>
</tr>
<tr>
<td>Level 3 Transcriptionist</td>
<td>A medical language specialist whose expert depth and breadth of professional experience enables him or her to serve as a medical language resource to authors, coworkers, other healthcare providers, and/or students on a regular basis (taken from The Hay report, &quot;Compensation for Medical Transcriptionists&quot;).</td>
</tr>
<tr>
<td>Macros</td>
<td>A term used to describe a shortcut for inserting standard text. Authors may request the insertion of a specified standard text in lieu of repeatedly dictating the same information.</td>
</tr>
<tr>
<td>Medical specialty</td>
<td>In this context, a distinct field of study such as cardiology, orthopedics, gynecology or psychology.</td>
</tr>
<tr>
<td>Medical Transcriptionist (MT)</td>
<td>An individual who transcribes dictation by physicians and other healthcare providers in order to document patient care.</td>
</tr>
<tr>
<td>Originator</td>
<td>An individual who creates a sound file to be converted to text or generates a document using a variety of input methods such as direct computer entry and front-end speech recognition. This individual may also be referred to as an author, provider or dictator.</td>
</tr>
<tr>
<td>Retrospective review</td>
<td>An audit of a document that occurs after the document has been delivered to the client/chart.</td>
</tr>
<tr>
<td>RMT</td>
<td>Abbreviation for Registered Medical Transcriptionist.</td>
</tr>
<tr>
<td>Specification sheet (account specification sheet)</td>
<td>Documentation describing a client’s or facility’s unique requirements and preferences including technical data and issues of style.</td>
</tr>
<tr>
<td>Speech Recognition Editor (SRE)</td>
<td>An individual who edits draft documents generated using speech recognition technology.</td>
</tr>
<tr>
<td>Template</td>
<td>A standardized layout for a given report type. A template may include placement markers for patient demographic information as well as formatted headings, subheadings and signature blocks.</td>
</tr>
<tr>
<td><strong>Turnaround time</strong></td>
<td>The interval of time measured from the time of dictation completion to the time of delivery of its corresponding transcribed document.</td>
</tr>
</tbody>
</table>
REFERENCES


 Dictation Best Practices Toolkit, AHDI, 2006


