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The Association for Healthcare Documentation Integrity (AHDI) is a not-for-profit association representing the individuals and organizations in healthcare documentation. AHDI has established a code of ethics, administers a credentialing program, leads, educates, and advocates for professional excellence and integrity in healthcare documentation policies and practices. We envision a future where optimal healthcare delivery and outcomes are facilitated by complete, accurate, and timely clinical documentation to convey patient health stories. Learn more about AHDI by visiting our website, www.ahdionline.org.

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 personal health information needed to deliver quality health care to the public. Founded in 1928 to improve the quality of healthcare documentation, 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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The Healthcare Documentation Quality Assessment and Management Best Practices toolkit provides a set of explanatory and operational tools that are intended to be adapted by users to their own needs. Although this material is copyrighted, AHDI and AHIMA give blanket permission to any potential users of Healthcare Documentation Quality Assessment and Management Best Practices to download and employ the contents of the toolkit. We do ask that, where appropriate, AHDI and AHIMA be credited with the creation of those contents.
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Introduction

Methods used for creation of healthcare documentation have continued to evolve over time. Clinician-created documentation (CCD) comprises a greater percentage of the healthcare record, yet traditional transcription continues to hold an important role upon which many clinicians still rely. Front-end and back-end speech recognition are also widely used, yet careful editing on the part of both the healthcare documentation specialist (HDS) and the clinician continues to be required to achieve optimal results. As these new trends and roles have become more firmly established, the need for a unified set of standards in quality assessment (also called and may be referred to as quality assurance in this toolkit)—one that is applicable for both HDS-created and clinician-created documentation—has become apparent, both from the perspective of the equivalency of errors being made and for ease of use by the quality assurance workforce. It is for this reason the AHDI quality assessment best practices of 2010-2011 and theclinician-created documentation quality assurance program of 2014 have been combined in this new toolkit of best practices for all.

What is quality, exactly? Quality of healthcare documentation includes several elements, the first of which is accuracy. Accuracy of data is required in both form and content. The determination of accuracy requires specifications and criteria against which to measure. Context is critical, and the data must satisfy the requirements of its intended use. To satisfy the intended use, the report must be accurate, timely, relevant, complete, understandable, and authentic or trustworthy. “Authenticity of documentation,” simply put, means that the data is what it purports to be.

Quality can best be achieved through a planned set of actions designed to provide the end-user with the product they expect to receive. This Healthcare Documentation Quality Assessment and Management Best Practices (also known and referred to as QA Best Practices) toolkit provides a blueprint for the implementation of a cutting-edge quality assessment program as well as a guide for updating an existing program, with an emphasis on continued quality and process improvement over time.

The intended audience for this toolkit includes facility directors of health information management, transcription supervisors and managers, and medical transcription service organizations (MTSOs), as well as attending physicians, residents, mid-level providers, C-suite, physician management, medical executive committees, and quality committees. This toolkit is intended to aid in ensuring quality and consistency of healthcare records for all the various requirements, including patient safety and care, decision support, research, core measure outcomes, and medicolegal purposes, as well as the coding, billing, and reimbursement functions of the healthcare business.

Additional end-users include the patients themselves who are by now actively involved in their own healthcare decision-making processes through independent research, family interaction, health-related support groups, and online resources. More and more patients access their electronic health record via a
patient portal. These patients rely heavily on the accuracy and comprehensibility of their own healthcare documentation to understand their condition and to compare their situation with other patients and/or treatment strategies. Additionally, the content of the healthcare record and its accuracy have a direct impact on patient satisfaction.

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 using this process, the quality of healthcare documentation goes into a continual improvement cycle that provides education for all healthcare documentation specialists and clinicians creating their own documentation, as well as recommendations for corrective processes to help minimize errors going forward.
The Plan, Do, Check, Act Cycle for Quality Assurance

4 Steps of PDCA

<table>
<thead>
<tr>
<th>PLAN</th>
<th>An analysis that establishes the objectives or the expected results and creates a plan of action. By starting with the objective and or desired result, each step of the process can be included in the analysis and in the solution.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DO</td>
<td>Implementation of the plan.</td>
</tr>
<tr>
<td>CHECK</td>
<td>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 as needed.</td>
</tr>
<tr>
<td>ACT</td>
<td>Implementation of changes identified in the CHECK phase.</td>
</tr>
</tbody>
</table>
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 healthcare documentation 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 documentation specialist, entered by a scribe, or created by a clinician within the electronic health record (EHR). 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 healthcare documentation that meets 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, showing 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 assessment 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 clinician author, and, when using their professional assistance, the healthcare documentation specialist (HDS)
or scribe who completes the report. The author is responsible for clear, unambiguous, and complete documentation and dictation. The HDS or scribe 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, HDSs and scribes bring integrity to the process through continuing education and commitment to the documentation process. Reporting errors as well as problematic practices that could cause errors brings further integrity to the quality assurance process. Ultimately, the final responsibility for document integrity falls on the shoulders of the clinician author when their documentation is authenticated.

**Quality Guidelines**

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

- Healthcare documentation must accurately reflect the complete details of the patient encounter.
- Documents must be 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 (when available) to ensure the accuracy of the transcribed or edited document.
- Auditing processes must be applied to all clinician encounters with the patient, regardless of creation process.
- Documents must be reviewed (and scored, according to facility preference) by qualified reviewers in a consistent and unbiased manner.
- Error categories and point values must be clearly defined.
- Identified errors must be consistently communicated to the HDS, 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 HDSs 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.
- **Straightforward and easy to implement.** The process must be straightforward 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 manual and automated processes, for all authors, healthcare documentation specialists, quality personnel, scribes, 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, whether the documentation is created by a clinician alone or assisted by an HDS or scribe.

• **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, speech-recognized edited data, and clinician-entered information. 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 impact document quality. (See also Healthcare Documentation Creation Best Practices Toolkit.)

- **Experience:** The depth and breadth of experience of the healthcare documentation staff within an organization relative to the complexity of the dictation can impact the overall quality of the work produced. Likewise, the clinician author’s level of experience with the EHR, front-end speech recognition practices, and editing of speech recognition errors all impact accuracy.

- **Audio equipment:** Technical issues varying among mobile phone use, Internet phone incompatibility, and user error can affect the quality of the voice file and therefore 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 patient safety issues, unnecessary delays, incomplete or misidentified reports, and HIPAA violations.

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

- **Resources:** Healthcare documentation specialists and quality editors must have current resource materials of the highest professional caliber, including hard copy and Web-based sources. Every HDS should have access to reliable references such as medical and English dictionaries, current drug references, specialty word lists, and appropriate references in anatomy, physiology, and disease processes. It is highly recommended that the required resource list includes the current version of The Book of Style for Medical Transcription to address issues of style and format.

- **Quality Enhancing Software:** Many word processing programs and EHR programs include spellcheck and text expansion capabilities. Using these capabilities effectively can increase both accuracy and productivity. If these are not available through the applications being used, similar programs should be installed on each workstation. Caution should be used when employing word expanders and spell checkers. These enhancements should not take the place of proof reading.
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 healthcare documentation that has the potential to affect patient care. There are valid reasons for blanks in healthcare documentation, and it is important to evaluate the factors that contribute to blanks and the roles and responsibilities of each stakeholder to minimize blanks as much as possible.

Though blanks are not necessarily desirable, they are inevitable. Blanks are indicative of due diligence on the part of the HDS or quality assurance editor. It is in the best interest of the patient, clinician, and healthcare organization to identify points of uncertainty so they can be appropriately rectified. Often, blanks require a query of the clinician author for resolution. EHR software can be set to require blanks to be completed prior to accepting an e-signature by the author. When properly applied, blanks are an important and necessary component of communication and accurate documentation.

A blank occurs when an HDS or scribe makes a professional judgment that some set of factors prohibits the clear understanding of what was dictated, resulting in an inability to transcribe or edit 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 HDS. If the HDS is not confident in what they heard or if the information is contradictory, such that it cannot be verified and resolved by the HDS, it is essential a blank be left rather than to guess. This approach reduces the potential for an error. A “best guess” in healthcare documentation is never appropriate; documentation must be exactly right. Even though HDSs strive to provide a complete report, providing an accurate report is even more important.

Causes for 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 documentation)
- Inability to verify terminology
- Unknown person or place
- Preexisting blank within text that has been copied forward

As stated above, blanks left by an HDS or scribe represents information that is not clear, not known, not verifiable, or is inconsistent within the context of related healthcare documentation on a given patient. A clinician creating their own documentation in the EHR with a template or with front-end speech recognition may also have occasion to leave a blank when information needed for completion of their
documentation is not readily available to them. As such, blanks play a vital role in the accuracy of the legal medical record.

Additionally, the presence of blanks in a transcribed, edited, or scribed document may serve as an indicator to the manager, supervisor, QA auditor, or trainer that an HDS or scribe requires further education or training in their profession to gain further understanding and move on to the next level of expertise. Likewise, the continued or habitual incidence of too many blanks over time may represent the need for corrective counseling when attempts at further education and coaching fail.

Blanks can be considered resolvable or unresolvable. Resolvable blanks are those that could have been eliminated by the HDS or scribe had they employed best resolution practices such as using proper researching techniques and contextual clues, viewing approved samples and previously transcribed reports, and re-listening to the dictation. These techniques are often employed by quality assurance staff when incomplete reports are forwarded to them for resolution. Unresolvable blanks are those that are unable to be resolved by any appropriate means.

Some hospitals, facilities, or organizations, however, may restrict the essential practice of leaving blanks in favor of having what they consider to be "complete" documentation. MTSOs often face pressures from their customer base to reduce and even, in extreme cases, completely eliminate all blanks. Since blanks play a vital role in healthcare documentation when used appropriately, to attempt to resolve unresolvable blanks is an unreasonable expectation and puts undue pressure on the MTSO and its HDSs or the facility’s scribes. It is important to recognize that such a practice may encourage the HDS or scribe to hazard a guess. Guessing or making up content just to fill a blank is unethical and would require the HDS or scribe to practice their profession in a manner contrary to their training and integrity. Further, it could subject the patient to safety or care issues and lead to a poor outcome. Lastly, guessing at blanks may become costly to the originating facility when coding, billing, reimbursement, audits, and even medicolegal consequences come to bear. It is for these reasons that the practice of attempting to resolve unresolvable blanks is strongly discouraged.

Organizations that outsource their transcription or scribing to a service organization may complain about the number of blanks in the delivered document as well as the number of documents delivered containing blanks. MTSOs are faced with customer pressure to reduce the overall number of reports with blanks as well as the number of blanks per report. When healthcare documentation or scribing is performed by an employee or contractor of an MTSO, it may be more challenging for an MTSO employee or contractor to obtain past records or other documentation that would assist in the resolution of blanks. Further, MTSOs do not have access to the dictating clinician to ask for clarification. Also, depending on the interface, the integrity of the voice file may be better at the facility than it is through the MTSO’s transcription platform; and in some cases, editing must be done with no audio available. All of these things contribute to the customer’s perception that an MTSO may be delivering too many blanks.
Many facilities or hospitals have a policy in place regarding how many blanks are acceptable in their records. It is not uncommon for one to three (1–3) blanks per report to be considered reasonable, with the expectation that the clinician will rectify these blanks upon authentication. Many MTSOs also have a policy in place stating how many blanks are acceptable in their documents and may use a formula that calculates the number of blanks against a specific number of payroll lines to yield an acceptable number of blanks.

**Resolving Blanks**

Use a stepwise approach, involving all necessary parties, to resolve blanks.

- Adjust the speed of dictation to optimize clarity, look for repetitive or collaborative information elsewhere within the document, use reference materials including approved online reference sites, and review chart or other documents if available.
- Request a review of the report by QA or the immediate supervisor.
- Follow appropriate account-specific instructions to escalate the problem to the next level.
- Make note of any feedback received and update sample reports as needed to avoid a repeat of the blank or problem.
- Resolve as many blanks as possible **before** delivery.
- Rectify all blanks **before** authentication [clinicians].

**Roles and Responsibilities**

The creation of healthcare documentation is frequently a collaborative effort, requiring all of those involved to properly carry out their role to ensure accurate and complete creation of documentation. Any disruption in this chain can result in inaccurate and incomplete information being disseminated through the healthcare record, having potentially negative impacts (e.g., patient care, billing) and even unanticipated consequences (e.g., affecting a patient’s future eligibility for insurance). It is essential that all involved be conscientious in performing their role and recognizing the roles of others, which are outlined below.

**Clinician/Author**

- Organize notes prior to recording.
- Avoid using speakerphones and refrain from using mobile phones on traditional telephony call-in dictation systems, both of which may contribute to suboptimal audio quality.
- Choose a HIPAA-compliant dictation location that is quiet and secure, away from background noises, such as ringing phones, music, shuffling papers, and other conversations.
- Familiarize yourself with how to adjust the volume and all equipment features, such as pause, review, insertion, and new report modes.
- Dictate one patient report per dictation.
- State and spell patient names and give patient identifiers.
- Dictate date of service and other essential dates as required.
• Hold handheld devices four to six inches from the mouth.
• Speak at conversational rates.
• Pronounce sound-alikes clearly.
• Enunciate clearly and spell new terminology, drugs, equipment, proper names, and geographic locations.
• Dictate first and last name and location (if available) if a report is to be sent to another provider.
• Speak numeric values clearly including ages, drug dosages, and laboratory values.
• Comply with the facility's abbreviation policy.
• Report technical issues promptly.

**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/HDS.
• Provide the most current reference materials, including updated lists of active physicians and other healthcare staff members.
• Facility should maintain a complete and up-to-date list of macros and templates for providers, staff, and the MTSO.
• Ensure accuracy and timeliness of admission, discharge, and transfer (ADT) reports and other references for patient demographics.
• Provide feedback on recurring blanks to MTSO/HDS.
• Provide sample reports to MTSO/HDS.
• Provide reliable document upload and transfer mechanisms.

**Healthcare Documentation Specialist**

• Adjust speed of dictation to optimize clarity.
• Use 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 continuous quality improvement.
• Follow appropriate procedures to escalate problem to the next level.

**MTSO**

• Implement procedures for identifying and reporting problems and discrepancies to the facility contact.
• Report faulty equipment to provider or facility contact.
• Provide feedback to the provider or facility contact 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 documentation and editing staff, and notify provider or facility contact of missing macros and templates.
• Coordinate with the facility contact to obtain accurate and timely ADT feeds.
• Provide ongoing education and support for HDSs about questions, errors, and blanks.
• Enable HDSs to access and use 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 the appropriate department.
The training and experience of the HDS/editor has a direct impact on the quality and turnaround time of the transcribed/edited report. Because the experience of healthcare documentation specialists 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 HDS/editing team. The HDS editing staff may include a variety of positions with varying levels of experience, competency, and responsibility. For more information, please refer to the Career Map for Healthcare Documentation.

**Healthcare Documentation Specialist Level 1**

Healthcare documentation specialist, level 1, transcribes and/or edits basic patient healthcare documentation dictated by physicians and other healthcare practitioners. Level 1 individuals possess basic or entry-level knowledge with little to no transcription or editing experience. Nature of work performed would start at entry level and increase as depth and breadth of knowledge, exposure to specialties, and dictators and/or types of documentation can be produced while meeting departmental quality and production expectations.

**Healthcare Documentation Specialist 2**

Healthcare documentation specialist, level 2, transcribes and/or edits patient healthcare documentation dictated by physicians and other healthcare practitioners. Level 2 individuals possess proficient knowledge within certain areas of expertise and can meet departmental expectations. Nature of work performed is for a specific medical specialty or at a community hospital level with limited dictators and/or types of documentation produced. AHDI certification is preferred (RHDS, CMT, or CHDS).

**Healthcare Documentation Specialist 3**

Healthcare documentation specialist, level 3, transcribes and/or edits patient healthcare documentation dictated by physicians and other healthcare practitioners. Level 3 individuals possess proficient knowledge in the field of healthcare documentation. Nature of work performed crosses all medical specialties in a large acute care setting. Individuals may perform QA tasks, mentor peers, and/or assist with projects. AHDI certification is preferred (RHDS, CMT, or CHDS).

**Quality Assurance Specialist**

The quality assurance specialist reviews work performed by HDSs. Different facilities use different titles, such as QA editors or analysts. The ideal quality assurance specialist is both a competent healthcare documentation specialist and an educator. The quality assurance specialist must be a Level 2 or 3 healthcare documentation specialist with proven skills in the applicable work types, medical specialties, accents, and dialects. The QA specialist must be proficient in referencing and researching and have
excellent communication skills to give constructive feedback to both HDSs and providers. AHDI credentials preferred. The quality assurance process may occur pre-delivery and/or post-delivery in a retrospective review.

**Quality Manager (document integrity)**

The quality assurance manager must be an individual with proven experience in the healthcare documentation profession. This individual may be responsible for maintaining quality assurance procedures and providing recommendations for quality improvement. They must demonstrate the ability to coordinate and oversee a fair and unbiased review process as well as reviewing, validating, measuring, and reporting quality reviews performed by the quality assurance team.

**Document Integrity Auditor**

The document integrity auditor reviews documentation created directly in the electronic medical record by clinicians. This information may be front-end voice recognized, directly keyboarded, copied and pasted forward but not edited appropriately, or data entered by a clinician via a pick list of information. The document integrity auditor works without a voice file and is looking for critical errors documented in the patient chart that may impact patient care. A document integrity auditor must have extensive knowledge and experience in the ability to identify patient safety and risk management issues within healthcare documentation and have extensive knowledge and experience in medical terminology, anatomy and physiology, pharmacology, and disease processes, as pertains to all specialties in an acute care facility. They also need high-level skills in computer usage, including the electronic medical record application, and Microsoft Office applications.

**Support Staff**

Some portions of the quality assurance process can be handled by those with varying degrees of documentation experience. Document format and demographic data may be reviewed and corrected by an individual with experience and knowledge of the word processing software, transcription platform or healthcare documentation software, and facility specifications.
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, incorporate quality checkpoints at effective stages in the workflow process, and be fully transparent to all parties involved.

A quality review process should involve comparison of the transcript with the original voice, when available, or with use of the patient’s medical record. The quality review should also assess 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 the implementation and adoption of a standardized approach to resolving inconsistencies.

Routine quality assessments include both author and documentation flaws, with the goal being 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 the prompt and specific feedback to the author and HDS. Checkpoints for quality assessment should be set within the workflow process, including audio creation, documentation, editing, and review. A higher-quality first draft is more likely in environments where both the provider and the HDS 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 HDS or auditor of clinician-created documentation, 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 HDS 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 HDS 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 (if available) are purged. Any corrections necessary would then be made according to the organization's policies.

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 or support staff before the file is processed for authentication, thereby allowing resolution of 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 the Sampling Guidelines section).

Feedback

Quality 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 simply 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 HDS in an organized way.

HDS Assessment

For the HDS, feedback provided should include corrected or inserted text with references to support the edits made. 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 reflect upon the HDS 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 should be evaluated on content errors, inconsistencies, and missing information, especially those of a critical nature. Other errors, such as format compliance, punctuation, and style issues should be reflective of the desires of the organization.
Transparency

While a well-defined and clearly documented QA program is essential in any healthcare documentation environment, transparency within the program, from manager(s) to QA auditors to HDS staff and clinicians, is extremely important as well. HDS and QA staff alike should be advised of the entire process, start to finish, including error categories and how scoring is done. HDS staff should be aware of what steps they can take if they disagree with the results. Clinicians should likewise be apprised according to facility policy, if clinician-created documentation auditing is being done. A formal dispute resolution process should be in place so that if staff bring a concern to the QA auditors they can trust their concern will be respected. Some organizations or businesses confer upon one or more individuals as the final authority in the event such conflicts cannot easily be resolved. If the MTSO or facility uses corrective counseling for failed QA audits, the corrective counseling procedures should also be well-defined, clearly documented, and transparent. For further information and resources, see the AHDI Compensation Best Practices Toolkit.
A statistically valid sampling methodology must be scalable and indicative of the overall quality of the HDS and the department or service. It would be impractical, cost-prohibitive, and too time-consuming to audit every report. A minimum sampling size as defined by Six Sigma is recommended as best practice for number of reports to audit. For those who choose not to use the Six Sigma guidelines, it is suggested that a minimum of 1% lines be used for routine assessment. In this case, however, confidence level and margin of error cannot be assured. See Appendix D: Statistically Valid Sampling 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. Many applications contain an algorithm that will enable the user to randomly select reports. If no algorithm is available, then a mutually agreed upon method may be used. One common selection technique used in healthcare is the 5/3 method. Documents with account/encounter numbers or medical record numbers that end in 5 or 3 are selected until the desired sample size is reached. If not using an algorithm, be cautious of unconscious bias.

**Error Categories, Definitions, Scoring, and Ensuring Consistency**

**Error Categories**

Healthcare documentation errors can be divided into these categories: critical, noncritical, and educational feedback or minor errors. Whether the document is created using traditional dictation/transcription or back-end speech recognition edited by an HDS or created by a clinician using front-end speech recognition, direct entry into the EHR, or with the assistance of a scribe, error categories are generally applicable, with a few exceptions in regard to clinician-created documentation. What is most important to remember in any quality assurance methodology and for any audience, however, is transparency of guidelines and processes.

**Critical errors** have the potential to affect patient safety, care, or treatment. Likewise, they have the potential to adversely impact the accuracy of coding and billing or medicolegal outcomes, and they may even result in a HIPAA violation. Such errors include, but are not limited to, the use of incorrect terminology, omission, insertion of incorrect information, or incorrect patient identification.
Noncritical errors impact the integrity of a document but do not change the intended meaning or have the potential to affect patient safety, care, or treatment. Examples of noncritical errors include, but are not limited to, incorrect verbiage, minor medical misspellings, and protocol errors.

Educational feedback or minor errors have no impact on patient safety, care, or treatment and no impact on the integrity of the document. Such errors include, but are not limited to, grammar, typographical errors, and simple misspellings.

**Error Values and Definitions**

The following is a suggested list of potential error categories for use in a quality assurance auditing program for healthcare documentation specialists and clinician-created documentation. It is recommended that each facility, organization, or business carefully review these error categories and adopt them in a manner that suits its needs based on its various methods of healthcare documentation, its EHR, its healthcare documentation staff, and its clinicians. Some organizations may differ in opinion regarding which errors are critical, which are noncritical, and which require further education of the HDS staff or clinician using the EHR. Likewise, some facilities or businesses may choose to focus on error categories as a means of evaluating HDS or CCD performance for reward or corrective counseling. AHDI, in its Mission Statement and Bylaws, stresses the importance of education in the field of healthcare documentation integrity. (Also see the AHDI [Compensation Best Practices Toolkit](https://www.ahdi.org/).)

Errors are assigned a category (critical, noncritical, educational feedback or minor) and are also given a point value relative to the error’s potential adverse consequences. Error types, values, and categories are described below.

**Critical Errors (-3)**

**Definition:** A critical error is any error in a patient care record that has the potential to:

1. Adversely impact patient safety.
2. Alter the patient’s care or treatment.
3. Adversely impact the accuracy of coding and billing.
4. Result in a HIPAA violation.
5. Adversely affect medicolegal outcomes.
## Types of Critical Errors

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>EXAMPLE(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient demographics</td>
<td>Wrong patient, content or encounter; incorrect, inserted or omitted date of service.</td>
<td></td>
</tr>
<tr>
<td>Wrong work type/template</td>
<td>Such errors may result in improper filing of the document and/or incorrect content.</td>
<td></td>
</tr>
<tr>
<td>Wrong provider information</td>
<td>May depend upon whether document is distributed and/or authenticated.</td>
<td>Courtesy copies, author is not identified correctly, wrong co-signer.</td>
</tr>
<tr>
<td>Terminology misuse</td>
<td>Use of incorrect terminology, medical or English, which alters, obscures or is opposite the meaning of what was dictated or entered.</td>
<td>hypo/hyper; negative/positive; regular/irregular; no/known.</td>
</tr>
<tr>
<td>Wrong medication, wrong dose/dosage</td>
<td>Incorrect, inserted or omitted medication name, dose or dosing schedule, method of medication administration, or unit of measure.</td>
<td></td>
</tr>
<tr>
<td>Wrong lab value</td>
<td>Dictated value transcribed or entered in a manner that impacts patient safety/care.</td>
<td></td>
</tr>
<tr>
<td>Unapproved abbreviations</td>
<td>Those of The Joint Commission, along with other organizations approved by the facility or organization. Healthcare organizations may also have their own list of approved and unapproved abbreviations for healthcare documentation.</td>
<td>Institute for Safe Medication Practices at <a href="http://www.ismp.org">www.ismp.org</a>.</td>
</tr>
<tr>
<td>Incomplete or missing text</td>
<td></td>
<td>Neurologic: 2+ ___; Extremities show 2 to 3 over 4 ___; X-ray shows pathologic fracture, no acute ___.</td>
</tr>
<tr>
<td>Inserted text</td>
<td>Includes transcribed text not dictated, copy/paste (with or without context).</td>
<td></td>
</tr>
<tr>
<td>Omitted text</td>
<td>A word, phrase or sentence of a critical nature dictated but not transcribed, or not entered.</td>
<td>Surgical procedure, treatment plan or key words of a diagnosis.</td>
</tr>
<tr>
<td>--------------</td>
<td>------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------</td>
</tr>
<tr>
<td>Incorrect side/site</td>
<td>Right/left; humerus/femur; peroneal/perineal.</td>
<td></td>
</tr>
<tr>
<td>Failure to edit</td>
<td>Speech recognition output, dictation quality issues, nonsense text.</td>
<td></td>
</tr>
<tr>
<td>Failure to flag</td>
<td>Failure to call out critical inconsistencies/discrepancies, dictated instructions HDS cannot accomplish.</td>
<td></td>
</tr>
<tr>
<td>Failure to follow author instructions</td>
<td>“Go back up and add to the diagnosis ____.” “Go back up and delete the procedure ____.”</td>
<td></td>
</tr>
<tr>
<td>Inconsistencies/discrepancies</td>
<td>HPI: Patient has weakness. Musculoskeletal: Normal strength.</td>
<td></td>
</tr>
<tr>
<td>Unauthorized substitution</td>
<td>Transcription of generic vs. dictated trade name drug, or vice versa; misuse of word expander, short cut, etc.</td>
<td></td>
</tr>
</tbody>
</table>
### Additional Critical Errors for Clinician-Created Documentation Only

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>EXAMPLE(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confusing/Questionable Information</td>
<td>Includes any confusing words/phrases/punctuation requiring clarification from the provider. This type of error can result in the provider having to add a clarifying addendum to a document or, less likely, the provider having to completely recreate the document.</td>
<td></td>
</tr>
<tr>
<td>Referenced documentation</td>
<td>Providers should not be referencing documents outside of the respective encounter. Specific dates or versions of a document being referenced must always be identified and included in the note. Medical student documentation should never be referenced.</td>
<td></td>
</tr>
<tr>
<td>Note bloat</td>
<td>A gray area not always easy for the auditors to discern. One organization has determined note bloat to be anytime an ENTIRE document is pulled into another document. Providers should summarize applicable lab data, pathology and radiology results rather than copying in entirety into progress notes and other documentation. Note: Exam results or information that changes must never be copied forward.</td>
<td></td>
</tr>
</tbody>
</table>
Noncritical Errors (-1)

Definition: Noncritical errors impact document integrity but do not have the potential to affect patient safety, care, or treatment, and/or do not alter the intended meaning of the author.

Types of Noncritical Errors

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>EXAMPLE(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Misspelled medications, terminology, names</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transposition of proper names</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incorrect word form</td>
<td></td>
<td>Complete, completed; given, giving.</td>
</tr>
<tr>
<td>Incorrect, inserted or omitted text</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonsense text</td>
<td>Incomprehensible text; text that does not make logical sense given the context.</td>
<td></td>
</tr>
<tr>
<td>Punctuation</td>
<td>Text that alters or obscures the meaning.</td>
<td>“Reassess spinal stability after patient is stabilized by flexion/extension films.”</td>
</tr>
<tr>
<td>Failure to Flag</td>
<td>Failure to call out noncritical inconsistencies/discrepancies.</td>
<td></td>
</tr>
<tr>
<td>Sound-alikes</td>
<td></td>
<td>Hear, here; 8, ate; gait, gate.</td>
</tr>
<tr>
<td>Protocol failure</td>
<td>Errors resulting from failure to follow a procedure determined by the facility/organization’s own platform, formatting, training and Style Guide, or account specifics.</td>
<td></td>
</tr>
</tbody>
</table>
Educati onal Feedback (−0) and/or Minor Errors (−0.25, −0.5)

Definition: A difference between dictation and transcription, or text that is entered in the EHR by the clinician, that has no impact on patient safety/care and no impact on the integrity of the document.

Best practices dictate that a facility, organization, or business provide educational feedback to the HDS or clinician regarding these errors as a means of continuing education of healthcare documentation integrity. Best practice, also, is not to penalize an HDS for occasional random errors that do not impact the integrity of a document and instead to identify them only as educational opportunities. Doing otherwise can adversely affect the HDS and can even impact their pay. (See the AHDI Compensation Best Practices Toolkit.)

Nevertheless, a facility, organization, or business may choose to refer to some or all of these error types as minor errors and assign a lesser point value, setting their own threshold for the number of educational feedback errors that can occur in a document before the integrity of the document is compromised. Consideration is given to the possibility that, with some HDS staff, applying a point value to an error that might otherwise be considered for educational feedback will engender in them a greater desire to improve their current skill level. In such situations, repetitive educational errors could result in a deductible error and/or corrective action.

Types of Educational Feedback and Minor Errors

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>EXAMPLE(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grammar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Typographical errors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Punctuation (other than mentioned above)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capitalization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Misspelling (other than mentioned above)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transposed words (other than proper names)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incorrect, inserted or omitted verbiage (other than mentioned above)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sound-alikes</td>
<td>Nonmedical.</td>
<td>Their, there; where, wear; to, too.</td>
</tr>
<tr>
<td>-----------------</td>
<td>-------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td><strong>Duplicate errors within the same report</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Duplicated adjacent text</strong></td>
<td></td>
<td>D: “The patient was alert and oriented.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>T: “The patient was alert and oriented. The patient was alert and oriented.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“… who is here to is here for …”</td>
</tr>
</tbody>
</table>

**Scoring Quality Assurance Audits**

The scoring of quality assurance audits can be assessed in two different ways according to the goals and needs of a given facility, organization, or business, and the results of each method may be used to provide a numeric result for documentation of the audit. Some facilities use a score or percentage for performance evaluation, and some simply use a Pass/Fail system based on meeting a predetermined standard. In organizations that choose to incentivize high quality, such a scoring standard may be set; a score above the standard qualifies the HDS for a bonus. There are advantages and disadvantages to any method used.

AHDI recommends a QA score of 98.0 (or 98%) as the minimum industry standard as best practice for documentation created by an HDS.

While auditing a single report can provide trending information for a QA auditor or manager, it is recommended that a sampling of many reports be audited and the scores of each individual report be averaged together for a final score.

Scoring methods for clinician-created documentation are generally managed differently than those of the HDS or scribe and should also be designed with the facility’s goals and needs in mind. Many organizations do not use scores for their clinician-created documentation quality audits. Some may provide a “score card” to the clinician, while others may not. Some hospitals may choose to use a CCD audit process purely for educational purposes, others may perform CCD audits to correct the healthcare documentation, and still others may wish to accomplish both goals with a single program.
Error Value from 100 Method
This method subtracts error values from a per-report or job value of 100. Each error is subtracted from a total score of 100, if 100 is a perfect score. **Note that a single critical error will fail a document in this methodology, regardless of its length, based on a QA score of 98.0% as the minimum industry standard.**

Advantage:
- Supports the values of quality delivery.

Disadvantage:
- A huge disparity of line lengths can exist among documents. If not all HDS staff transcribe/edit an equal number of short and long documents, this method may not provide an accurate picture of the HDS’s skillset.

See Appendix A: Sample Score Sheet #2.

Total Errors Divided by Number of Lines Audited
This method is based on the total number of transcribed or edited lines in the sample to be audited; it is **not** based on the number of reports in a sampling.

The total number of errors is divided by the total number of transcribed or edited lines. The result is then multiplied by 100 and subtracted from 100, yielding the score, which can be called a score or a percentage.

<table>
<thead>
<tr>
<th>Example (using one 0.5-point error and one 0.25-point error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.75 total error value / 206 lines reviewed = 0.00364</td>
</tr>
<tr>
<td>0.00364 x 100 = 0.364</td>
</tr>
<tr>
<td>100 – 0.364 = 99.636, which can be rounded to a score of 99.6, or 99.6%</td>
</tr>
</tbody>
</table>

Advantage:
- Produces an errors-to-lines ratio that can provide a more accurate picture of the HDS’s skillset.

Disadvantages:
- A single critical error in a document with many lines may yield a percentage that allows the QA audit to pass.
- A single critical error in a document with very few lines will not only fail the QA audit but skew an average of several audits in a downward fashion.
See Appendix A: Sample Score Sheet #1.

While auditing a single report can provide trending information for a QA auditor or manager, it is recommended that a sampling of many reports be audited and the scores of each individual report be averaged together for a final score.

**Ensuring Accuracy and Consistency in Your QA Program**

Whether an MTSO or healthcare facility has one or multiple QA reviewers or document integrity auditors, it is extremely important to ensure program consistency and accuracy. This guarantees the program is viable for the organization and application is fair to the HDS staff. To accomplish such goals, follow these recommendations:

Step 1: Manager pulls 3-4 sample documents for review by QA staff.
Step 2: Each QA staff reviews and scores the documents individually, without consulting their peers.
Step 3: Manager then reviews the documentation for consistency in application of their organization’s QA program.
Step 4: Manager meets with the entire group and reviews their findings.
Step 5: Following the review, manager creates a summary of the findings. If inconsistencies are found, review as a group to determine the issues. Define problems and recommend solutions. Develop an action plan and track for improvements.

If your QA staff transcribes or edits documents, the documents they complete should be reviewed and held to the same standard as the HDS staff.

QA consistency reviews should be done on a periodic basis. At a minimum, reviews should occur every six months, but quarterly reviews are recommended.

*NOTE: An alternate method is to review the documentation as a group without first review by the manager.*
Developing an Action Plan

When reviewing the results of any audit (predelivery or postdelivery), 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 continual 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 Issues

- Evaluate recording technology such as microphones, mobile devices, apps, voice over internet protocol (VOIP), 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.
- Evaluate and update the transcription/editing platform to gain efficiency and reduce technical errors based on feedback from HDSs and other end-users.

Address Errors Attributable to the Author

- Develop training opportunities for all new authors in voice recognition best practices, dictation best practices, and/or use of the EHR and schedule periodic continuing education opportunities to address issues that impede quality and the timely delivery of data.
- Distribute dictation cards with concise instructions, reminders, and tips for using dictation equipment/software or voice recognition equipment/software. Cards with instructions, reminders, and tips for using the EHR may also be helpful.
- Establish document work types and create standardized, workable templates for each (do this with each type of technology, if using more than one).
• Establish open lines of communication between authors and facility staff to increase awareness of issues.

• Develop feedback forms (see Appendix C: QA Review form and sample) to provide specific information to authors to avoid repeated errors or to improve dictation quality. For clinician-created documents, provide constructive feedback with references and resources cited when possible. Feedback should include excerpts of both the original and corrected versions, with sufficient surrounding context.

• Encourage feedback to be an opportunity for improvement and invite the author to ask questions and discuss the feedback received.

• Develop policies and procedures to address problematic documentation practices. (See Sample Policies & Procedures.)

Address Healthcare Documentation Specialist Errors Attributable to Content Errors

• Provide consistent, constructive feedback including references and resources cited when possible. Feedback should include excerpts of both the original and corrected versions, with sufficient surrounding context. When available, provide the sound file to increase understanding and retention of corrected information. Verify that feedback is received and acknowledged.

• Encourage feedback to be an opportunity for improvement and invite the HDS to ask questions and discuss the feedback received.

• Underscore the importance of the feedback with face-to-face or telephone conversations. Again, provide an opportunity for the HDS to ask questions and discuss the feedback.

• Distribute sample reports for difficult authors.

• Provide templates and normals.

• Assign mentors to new or struggling HDSs.

• Develop policies and procedures for corrective action when quality expectations are not met.

Address Healthcare Documentation Specialist Errors Attributable to Account Specification Errors

• Compile concise, organized, and easy-to-use account specifications.

• Review and revise account specifications regularly, clarify instructions that are repeatedly misapplied, distribute specifications to entire staff, and communicate specific changes or updates.

• Maintain up-to-date clinician lists and referring physician lists, including addresses, phone, and fax numbers. Include physician assistants, nurse practitioners, and other providers of care that are included in routine correspondence.
Set Quality Assessment Intervals

- Perform quality reviews at regular intervals based on QA staffing resources. Recommend weekly, bi-weekly, monthly, or at least quarterly.
- Maintain a schedule and perform reviews according to the policy.
- Increase frequency for individual HDSs not meeting quality expectations and develop an individual quality assurance plan that addresses that individual’s specific types of errors.
- Increase frequency of quality review intervals to address systemwide issues.

Review “Ensuring Accuracy and Consistency in Your QA Program” on page 30 again as needed.

**Summary Quality Improvement Plan for Healthcare Documentation Specialists**

1. Conduct regular, random QA reviews.
2. If suboptimal findings, review them with the HDS and provide educational feedback accordingly.
3. Review work again within the prescribed interval according to facility 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!

**Continuous Quality Improvement for Medical Scribes**

Medical scribing has become an established method of patient care documentation used by many busy healthcare providers. It is recommended that any organization, facility, or MTSO who employs medical scribes and allows them to accompany providers to document patient care create and implement a program for quality assessment and management that closely adheres to the best practices outlined in this document. A continual quality improvement process for medical scribes is just as vital as it is for the HDS and clinician, and these best practices are offered as a blueprint for success of that process.

**INDUSTRY RECOMMENDATIONS**

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

- 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 a sufficient budget for QA personnel, resources, software, and continuing education. Based on the selection of sampling guidelines, determine what is best for the organization based on number of HDSs and reports required to established 95% confidence level (refer to Appendix D). Be mindful that organizational budget constraints may exist.
• Establish quality assessment policies and procedures in each facility/MTSO. Distribute policies and procedures to all documentation authors and documentation 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 documentation portion of the workflow, allow for 100% concurrent review of entry-level, newly hired, or cross-training HDSs, and concurrent review of flagged reports. Establish workflow procedures for routine assessment of the HDSs 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.
• Determine a sufficient amount of clinician-created documentation for review (will vary by facility or organization).
• Establish a feedback mechanism for authors and HDSs that is education-based. Errors should be identified within their context. Track improvements following intervention and map any trends. (See Sample HDS Annual QA Performance Metrics.)
• 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 to various departments or stakeholders at prescribed intervals.
## APPENDIX A: Sample 1 – Quality Assessment Score Sheet

<table>
<thead>
<tr>
<th>HDS Name</th>
<th>Job #</th>
<th>Author</th>
<th>Work Type</th>
<th>Auditor</th>
<th>Date of Review</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><strong>Critical Errors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Patient demographics</td>
<td>-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Wrong work type, template, provider information</td>
<td>-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Terminology misuse; wrong lab value</td>
<td>-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Wrong medication, wrong dose/dosage</td>
<td>-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Unapproved abbreviations</td>
<td>-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Incomplete or missing text, inserted/omitted text</td>
<td>-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Incorrect side/site; unauthorized substitution</td>
<td>-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Failure to edit; failure to flag</td>
<td>-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Failure to follow author instructions</td>
<td>-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Inconsistency/discrepancy</td>
<td>-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Noncritical Errors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Misspelled medication, terminology, names</td>
<td>-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Transposition of proper names</td>
<td>-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Incorrect word form</td>
<td>-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Incorrect, inserted or omitted text</td>
<td>-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Nonsense text; punctuation; failure to flag</td>
<td>-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Sound alikes; protocol failure</td>
<td>-1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL DEDUCTIONS**

**ERROR TOTAL:**

**FINAL SCORE:**

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

**COMMENTS:**

________________________________________________________________________
APPENDIX A: Sample 2 – Quality Assurance Audit

HDS NAME: 
ID: 
DATE: 
TYPE: 
AUDITOR INITIALS: 

<table>
<thead>
<tr>
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<th>Points Possible</th>
<th>Minus Score</th>
<th>Equals Score</th>
</tr>
</thead>
<tbody>
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<td></td>
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<td>100</td>
<td>100</td>
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**AVERAGE** #DIV/0!

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

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<tr>
<th>TYPE OF ERROR</th>
<th>#ERRORS</th>
<th>X VALUE</th>
<th>TOTAL</th>
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</thead>
<tbody>
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<td></td>
<td></td>
</tr>
<tr>
<td>Patient demographics</td>
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<tr>
<td>Wrong provider information</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Terminology misuse</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Wrong medication, dose/dosage</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Wrong lab value</td>
<td>0</td>
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<tr>
<td>Unapproved abbreviations</td>
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<td>Incomplete or missing text</td>
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<tr>
<td>Inserted or omitted text</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Incorrect side/site</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Failure to edit/failure to flag</td>
<td>0</td>
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<td>0</td>
</tr>
<tr>
<td>Failure to follow author instructions</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Inconsistencies/discrepancies</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Unauthorized substitution</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td><strong>NONCRITICAL</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Misspelled meds, terminology, names</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Transposition of proper names</td>
<td>0</td>
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<tr>
<td>Incorrect word form</td>
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<td>0</td>
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<tr>
<td>Incorrected, inserted or omitted text</td>
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<td>0</td>
</tr>
<tr>
<td>Nonsense text; punctuation</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Failure to flag; sound alikes</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Protocol failure</td>
<td>0</td>
<td>1</td>
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</tr>
<tr>
<td><strong>TOTALS</strong></td>
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</table>

**FINAL SCORE:**

<table>
<thead>
<tr>
<th>98 and above</th>
<th>PASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 98</td>
<td>NEEDS IMPROVEMENT</td>
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</tbody>
</table>

**NOTE:** Any critical errors found upon audit will automatically fail the audit.
## APPENDIX B: Sample Quality Assurance Scoring Worksheet

<table>
<thead>
<tr>
<th>JOB NUMBERS</th>
<th>WT</th>
<th>DATE TRANSCRIBED</th>
<th>DATE REVIEWED</th>
<th>TOTAL LINES</th>
<th>3-Point Errors</th>
<th>1-Point Errors</th>
<th>0.5-Point Errors</th>
<th>0.25-Point Errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1459801, 1460168 and</td>
<td>6, 24</td>
<td>12/18, 12/19</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1460549</td>
<td>2</td>
<td>12/20/16</td>
<td>12/28/16</td>
<td>198</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
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<tr>
<td>1466708, 1466843 and</td>
<td>1/1, 1/2</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>160607</td>
<td>30</td>
<td>1/3/16</td>
<td>1/11/16</td>
<td>211</td>
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<td>0</td>
<td>0</td>
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<tr>
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<td>1/15, 1/16</td>
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<td></td>
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<tr>
<td>1475646</td>
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<td>0</td>
<td>0</td>
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<tr>
<td>1481712, 1482295 and</td>
<td>1/29, 1/30</td>
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<td>1483455</td>
<td>24</td>
<td>2/1/17</td>
<td>2/7/17</td>
<td>231</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>1497143, 1497477 and</td>
<td>2/6, 2/26, 2/27</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1498439, 1498927</td>
<td>37/17</td>
<td>2/7/17</td>
<td>206</td>
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<td>2</td>
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<tr>
<td>1506576, 1507959</td>
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<td></td>
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<td></td>
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<td></td>
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<tr>
<td><strong>TOTALS:</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>1309</strong></td>
<td><strong>0.00</strong></td>
<td><strong>0.00</strong></td>
<td><strong>1.00</strong></td>
<td><strong>1.25</strong></td>
</tr>
</tbody>
</table>

Total lines counted, all reports = 1309.
Total Errors = 2.25
Errors divided by lines = 0.00172
Error percentage rate = 0.17 %

**ACCURACY % RATE** = 99.8

Total lines transcribed this quarter: 105,531
Actual Percentage of Lines Reviewed: 1.24%

Accuracy rate must be 98.5% or higher

### Critical Errors
-3
1. Patient demographics
2. Wrong work type, template, provider information
3. Terminology misuse; wrong lab value
4. Wrong medication, wrong dose/dosage
5. Unapproved abbreviations
6. Incomplete or missing text, inserted/omitted text
7. Incorrect side/site; unauthorized substitution
8. Failure to edit; failure to flag
9. Failure to follow author instructions
10. Inconsistency/discrepancy

### Noncritical Errors
-1
1. Misspelled medication, terminology, names
2. Transposition of proper names
3. Incorrect word form
4. Incorrect, inserted or omitted text
5. Nonsense text; punctuation; failure to flag
6. Sound alikes; protocol failure

### Minor Errors
-0.5
-0.25

### Educational Feedback
-0
APPENDIX C: CCD QA Review Form

Reviewer:
Provider:

**Critical errors** – A critical error is any error in a patient care record that has the potential to:

1. Adversely impact patient safety.
2. Alter the patient’s care or treatment.
3. Adversely impact the accuracy of coding and billing.
4. Result in a HIPAA violation.
5. Adversely affect medicolegal outcomes.

**Please correct all critical errors.**

**Noncritical errors** – Noncritical errors impact document integrity but do not have the potential to affect patient safety, care, or treatment, and/or do not alter the intended meaning of the author.

**Error-free documents** – number of documents with no critical or noncritical errors.

*Explanation and copy of errors are listed below the table.*

<table>
<thead>
<tr>
<th>Date</th>
<th>Document Type</th>
<th>Encounter #</th>
<th>MR#</th>
<th># of Error-Free Documents</th>
<th>Critical # of Errors</th>
<th>Noncritical # of Errors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Yellow – errors/concerns
Green – Corrections
Critical errors in red
Noncritical errors in blue
MRN#
Encounter #/Date

©2017 AHDI
CCD QA Review Form—SAMPLE

Reviewer: JLD
Provider: Joe Shmoe, MD

Critical errors – A critical error is any error in a patient care record that has the potential to:

1. Adversely impact patient safety.
2. Alter the patient’s care or treatment.
3. Adversely impact the accuracy of coding and billing.
4. Result in a HIPAA violation.
5. Adversely affect medicolegal outcomes.

Please correct all critical errors.

Noncritical errors – Noncritical errors impact document integrity but do not have the potential to affect patient safety, care, or treatment, and/or do not alter the intended meaning of the author.

Error-free documents – number of documents with no critical or noncritical errors.

Explanation and copy of errors are listed below the table.

<table>
<thead>
<tr>
<th>Date</th>
<th>Document Type</th>
<th>Encounter #</th>
<th>MR#</th>
<th># of Error-Free Documents</th>
<th>Critical # of Errors</th>
<th>Noncritical # of Errors</th>
</tr>
</thead>
<tbody>
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<td></td>
</tr>
<tr>
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<td>9876542</td>
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<td>2</td>
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<tr>
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<td>134625</td>
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<tr>
<td>02/06/14</td>
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<tr>
<td>02/05/14</td>
<td>Progress</td>
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<td></td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Yellow – errors/concerns
Green – Corrections
Critical errors in red
Noncritical errors in blue
MRN# 123456
Encounter# 123456789     2/5/2014:

REVIEW OF SYSTEMS
Gastrointestinal: Nausea, no vomiting, no diarrhea, no constipation. Abdominal pain: The pain is mild, characterized as continuous. (Critical – Inconsistent with PE)

PE

-----------------------------------

MRN# 9876542
Encounter# 987654321     2/5/2014:

Clinical Milestones
Appreciate oral surgery inout input (Noncritical – Wrong word form/spelling/typo)

Dx and Plan: Check echo to rule out compensated decompensated (Noncritical – Wrong word form/spelling/typo) valve disease. There was no documentation of MR or AS on previous echo last year.

Review of Systems
Gastrointestinal: Abdominal pain: Left middle (see PE below). The pain is severe, characterized as cramping/colicky.

PE-Objective

-----------------------------------

MRN# 134625
Encounter# 13467932     2/5/2014:

Interval History
&! (Critical – incomplete or missing data) y/o woman admitted with syncopal episode that she had after bouts of diarrhea. She became nauseated and had bowel and bladder incontinence, at which point hematochezia was discovered. Admitted for evaluation by GI for hematochezia and by Neurology to rule out seizure.

-----------------------------------

MRN# 852147
Encounter# 147852369     2/6/2014:

HOSPITAL COURSE
Medical management: Postop left THA day #1 (Critical – Incorrect postop site. Patient had a left TKA.)
APPENDIX D: Statistically Valid Sampling

Sampling is an essential step in determining the quality of work that is being delivered without having to check all the reports or jobs delivered. Good quality sampling is characterized by the sampling technique used and the sample size picked. Obtaining a sample that is appropriate in both regards is critical to having a good understanding of the quality of work delivered. Sampling must be done at a job level since accuracies are measured at a job level.

Sampling Technique
Using a random sampling technique will ensure all jobs delivered have an equal opportunity to be picked as a sample. Random sampling is both easy to use and can give an accurate representation of all jobs delivered.

Sample Size Determination
Determining the correct sample size will help us get an accurate measure of the quality of work while using the resources required for sampling in an optimal manner. Using a larger sample size could provide us better accuracy in determining the population (population is the set of all jobs delivered); however, this will exhaust more resources for sampling. On the flip side, a smaller sample size would help conserve resources but may not necessarily provide a good understanding of the quality of the population. Also, a smaller sample size is susceptible to higher variation in the population (e.g., if the population contains jobs with accuracies that are highly varied). Calculating the minimum sample size helps us determine the correct sample size required.

Minimum Sample Size Calculation
Minimum sample size (MSS) is calculated using this formula:

\[ \text{MSS} = \left( \frac{(CI \times SD)}{P} \right)^2 \]

SD refers to the estimated standard deviation of the population. Standard deviation is a measure of variation. A low standard deviation indicates a low variation. If the standard deviation is low then MSS will also be low; the converse is also true.

CI refers to the confidence intervals (also known as confidence level), which determines the probability that the sample will represent the population. This should be set at 95%. Increasing the CI to greater than 95% will increase the probability that the sample represents the population, but this will also increase the minimum sample size required; the converse of the statement is also true, i.e., reducing the CI will result in reduction of MSS.

P refers to precision, which means the accuracy level, in decimal points, that we would want when determining the quality of the population. It is recommended that precision be set at 0.025 for healthcare documentation jobs. What this means, essentially, is if the actual quality of the population is 99.50, the sample will give us an accuracy estimate that will fall between 99.475 and 99.525.
The spreadsheet embedded below provides a calculator for minimum sample size. Once the user inputs the standard deviation, confidence level, and precision, the minimum sample size required is provided.

MSS Calculator.xls

Data Requirements to Determine Minimum Sample Size
To calculate the minimum sample size, it is necessary to get the estimated standard deviation of the population (SD). To do this, collect the job level accuracies for all the jobs audited. Using the latest three (3) months of data is ideal. Data should be collected only for unbiased samples. Biased samples like focused audits, special audits, version audits, etc., which concentrate on specific authors, employees, or other specific variables should be excluded from this data set. Standard deviation can be easily calculated in Microsoft Excel using the formula “STDEV.”

Caveats
➢ MSS calculation should not be generalized; i.e., MSS calculated for a particular data set or population should not be used for its subsets because each subset can have a different standard deviation.
   o **Example:** If minimum sample size is calculated for a particular facility, then it should be used only for that facility and should not be used for sampling a specific author, healthcare documentation specialist, or department within that facility as the standard deviation can be different for each.
➢ It is possible that in case of smaller facilities (or data sets) the minimum sample size calculated would exceed the total number of jobs delivered (or total data points), or the minimum sample size may be too large for a department or facility to audit. Employ subjective decision-making in such cases, keeping in mind that the confidence level of such samples will be less than 95%.
➢ Each organization or MTSO will have to determine how they will use the resulting numbers in performing their retrospective QA reviews, keeping in mind their budgetary constraints.
➢ The recommended number of reports to review may be spread over a period of time that aligns with your QA staffing capabilities and budget constraints.
➢ **Note regarding clinician QA:** If no score is assigned to clinician reviews, these sampling guidelines cannot be used.

Examples for Calculation of Minimum Sample Size by Facility/Client
Consider this scenario: We have two facilities (or MTSO clients) for which we need to determine the minimum sample size, and we assume the information below is provided data of the job level accuracy of all audited jobs for the last 3 months. Calculate the standard deviation in Microsoft Excel using the formula “STDEV.” Our example data set is provided below.

<table>
<thead>
<tr>
<th>Facility1</th>
<th>99.89</th>
<th>99.56</th>
<th>99.76</th>
<th>99.87</th>
<th>100</th>
<th>100</th>
<th>99.87</th>
<th>99.89</th>
<th>99.6</th>
<th>100</th>
<th>99.84</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility2</td>
<td>99.95</td>
<td>99.61</td>
<td>100</td>
<td>99.45</td>
<td>100</td>
<td>99.95</td>
<td>99.87</td>
<td>99.32</td>
<td>100</td>
<td>100</td>
<td>99.82</td>
<td>SD</td>
</tr>
</tbody>
</table>

As given in the recommendations, the confidence level is set at 95% and precision is set at 0.025.
**Facility 1:** The standard deviation for Facility 1 is 0.1503. Using the calculator, we get the minimum sample size for Facility 1 as 139 jobs.

<table>
<thead>
<tr>
<th>Continuous Data</th>
<th>Inputs</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Deviation</td>
<td>0.1503</td>
<td></td>
</tr>
<tr>
<td>Confidence Level (e.g. 95%)</td>
<td>95.0%</td>
<td></td>
</tr>
<tr>
<td>Precision (e.g., ± 2 units)</td>
<td>0.025</td>
<td></td>
</tr>
<tr>
<td>Minimum Sample Size</td>
<td></td>
<td>139</td>
</tr>
</tbody>
</table>

This means for Facility 1 we need to sample at least 139 jobs to have a 95% confidence level that the sample picked is a good representation of all jobs delivered.

**Facility 2:** The standard deviation for Facility 2 is 0.2443. Using the calculator, we get the minimum sample size for Facility 2 as 367 jobs.

<table>
<thead>
<tr>
<th>Continuous Data</th>
<th>Inputs</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Deviation</td>
<td>0.2443</td>
<td></td>
</tr>
<tr>
<td>Confidence Level (e.g. 95%)</td>
<td>95.0%</td>
<td></td>
</tr>
<tr>
<td>Precision (e.g., ± 2 units)</td>
<td>0.025</td>
<td></td>
</tr>
<tr>
<td>Minimum Sample Size</td>
<td></td>
<td>367</td>
</tr>
</tbody>
</table>

This means for Facility 2 we will need to sample at least 367 jobs to have a 95% confidence level that the sample picked is a good representation of all jobs delivered. Here, a higher number of jobs need to be sampled for Facility 2 as the standard deviation for Facility 2 is high. The standard deviation for Facility 2 is high because job level variation in accuracies is higher for Facility 2 (varies between 99.32 to 100).

**Examples on Calculation of Minimum Sample Size by Healthcare Documentation Specialist**

<table>
<thead>
<tr>
<th>Job</th>
<th>Job 1</th>
<th>Job 2</th>
<th>Job 3</th>
<th>Job 4</th>
<th>Job 5</th>
<th>Job 6</th>
<th>Job 7</th>
<th>Job 8</th>
<th>Job 9</th>
<th>Job 10</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee 1</td>
<td>100</td>
<td>99.75</td>
<td>99.5</td>
<td>99.75</td>
<td>99.75</td>
<td>99.75</td>
<td>100</td>
<td>100</td>
<td>99.75</td>
<td>99.5</td>
<td><strong>0.1845</strong></td>
</tr>
<tr>
<td>Employee 2</td>
<td>98.5</td>
<td>98.25</td>
<td>99</td>
<td>98.75</td>
<td>98.25</td>
<td>98.5</td>
<td>99</td>
<td>98.25</td>
<td>97</td>
<td>98.25</td>
<td><strong>0.5683</strong></td>
</tr>
</tbody>
</table>

As given in the recommendations, the confidence level is set at 95% and precision is set at 0.025.

**Employee 1:** The standard deviation for Employee 1 is 0.1845. Using the calculator, we get the minimum sample size for Employee 1 as 209 jobs.

<table>
<thead>
<tr>
<th>Continuous Data</th>
<th>Inputs</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Deviation</td>
<td>0.1845</td>
<td></td>
</tr>
<tr>
<td>Confidence Level (e.g. 95%)</td>
<td>95.0%</td>
<td></td>
</tr>
<tr>
<td>Precision (e.g., ± 2 units)</td>
<td>0.025</td>
<td></td>
</tr>
<tr>
<td>Minimum Sample Size</td>
<td></td>
<td>209</td>
</tr>
</tbody>
</table>
This means for Employee 1 we need to sample at least 209 jobs to have a 95% confidence level that the sample picked is a good representation of all jobs delivered.

Employee 2: The standard deviation for Employee 2 is 0.5683. Using the calculator, we get the minimum sample size for Employee 2 as 1985 jobs.

<table>
<thead>
<tr>
<th>Continuous Data</th>
<th>Inputs</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Deviation</td>
<td>0.5683</td>
<td></td>
</tr>
<tr>
<td>Confidence Level (e.g. 95%)</td>
<td>95.0%</td>
<td></td>
</tr>
<tr>
<td>Precision (e.g., ± 2 units)</td>
<td>0.025</td>
<td></td>
</tr>
<tr>
<td>Minimum Sample Size</td>
<td>1985</td>
<td></td>
</tr>
</tbody>
</table>

This means for Employee 2 we will need to sample at least 1985 jobs to have a 95% confidence level that the sample picked is a good representation of all jobs delivered. Here, a higher number of jobs need to be sampled for Employee 2 as the standard deviation for Employee 2 is much higher compared to Employee 1. The standard deviation for Employee 2 is high because job level variation in accuracies is higher for Employee 2 (varies between 97 to 99).

NOTE: If the sample size is very high and impractical, the confidence level could be lowered to achieve a more practical sample size. In the Employee 2 example, if the confidence level were changed to 80%, the minimum sample size would be reduced to 849.

Glossary Quick Reference

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>Total number/the set of all jobs/reports measured</td>
</tr>
<tr>
<td>Standard Deviation (SD)</td>
<td>A statistic that indicates how tightly the data points are clustered around a mean for a given process, which in turn indicates how much variation exists</td>
</tr>
<tr>
<td>Confidence Interval (CI) or Confidence Level (CL)</td>
<td>Refers to the confidence interval which determines the probability that the sample will represent the population. Also referred to as margin of error.</td>
</tr>
<tr>
<td>Precision (P)</td>
<td>Refers to the accuracy level, like decimal points, that we would want when determining the quality of the population</td>
</tr>
</tbody>
</table>
## APPENDIX E: Glossary

| **Admission, Discharge, Transfer (ADT) feed** | An electronically generated list of patients and their corresponding demographic information, typically used by the healthcare documentation specialist to properly identify transcribed reports. |
| **Auditor** | A qualified and trained higher-level HDS who reviews the work of HDS staff and/or clinician created documentation for essential quality components as deemed necessary by a facility, organization, or business. This work may be done with or without voice files. |
| **Author** | An individual who creates a sound file to be converted to text or who generates a document using a variety of input methods, such as direct computer entry (EHR) or front-end speech recognition. This individual may also be referred to as a dictator, originator, clinician, or provider. |
| **Authentication/Authenticator** | Refers to the process by which the provider verifies what has been captured in the record and affixes their 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. |
| **CHDS** | Abbreviation for Certified Healthcare Documentation Specialist. |
| **CMT** | Abbreviation for Certified Medical Transcriptionist. |
| **Concurrent review** | An audit of a document that occurs before the document is authenticated. |
| **Demographics** | Information pertaining to the patient, such as name, date of birth, medical record number, and encounter number. |
| **Dictator** | See 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. |
<p>| <strong>Facility</strong> | 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. |
| <strong>HDS Level 1</strong> | The healthcare documentation specialist, level 1, transcribes and/or edits basic patient healthcare documentation dictated by physicians and other healthcare practitioners. Level 1 individuals possess basic or entry-level knowledge with little to no transcription or editing experience. Nature of work performed would start at entry level and increase as depth and breadth of knowledge, exposure to specialties, and dictators and/or types of documentation can be produced while meeting departmental quality and production expectations. |
| <strong>HDS Level 2</strong> | The healthcare documentation specialist, level 2, transcribes and/or edits patient healthcare documentation dictated by physicians and other healthcare practitioners. Level 2 individuals possess proficient knowledge within certain areas of expertise and can meet departmental expectations. Nature of work performed is for a specific medical specialty or at a community hospital level with limited dictators and/or types of documentation produced. AHDI certification is preferred (RHDS, CMT, or CHDS). |
| <strong>HDS Level 3</strong> | The healthcare documentation specialist, level 3, transcribes and/or edits patient healthcare documentation dictated by physicians and other healthcare practitioners. Level 3 individuals possess proficient knowledge in the field of healthcare documentation. Nature of work performed crosses all medical specialties in a large acute care setting. Individuals may perform QA tasks, mentor peers, and/or assist with projects. AHDI certification is preferred (RHDS, CMT, or CHDS). |
| <strong>Macros</strong> | A single instruction that expands automatically into a set of instructions to perform a particular task. |
| <strong>Medical specialty</strong> | In this context, a distinct field of study, such as cardiology, orthopedics, gynecology, or psychology. |
| <strong>MTSO</strong> | Medical Transcription Service Organization |
| <strong>Normals</strong> | 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. May also be referred to as “standards” and “routines.” |
| <strong>Healthcare Documentation Specialist (HDS)</strong> | An individual who transcribes traditional dictation by physicians and other healthcare providers to document patient care. May also edit draft text created by speech recognition software. |
| <strong>Originator</strong> | See Author. |
| <strong>Retrospective review</strong> | An audit of a document that occurs after the document has been delivered to the client or the chart. |
| <strong>RHDS</strong> | Abbreviation for Registered Healthcare Documentation Specialist. |</p>
<table>
<thead>
<tr>
<th><strong>Account Specifications</strong></th>
<th>Documentation describing a facility or client’s unique requirements and preferences including technical data and issues of style. May also be referred to as a Style Guide for facilities.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Speech Recognition</strong></td>
<td>Computer technology that enables a device to recognize and understand spoken words, by digitizing the sound and matching its pattern against the stored patterns.</td>
</tr>
<tr>
<td><strong>Template</strong></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. A clinician EHR template may also draw in discrete data from within the patient’s medical record to enhance the final document.</td>
</tr>
</tbody>
</table>
| **Turnaround time (TAT)**  | 1. The interval of time measured from the time of document completion by an author in the EHR to the time of authentication.  
2. For transcribed/edited documentation, TAT is the interval of time from completion of dictation to completion of document and filing of that document to the EHR.  
3. For an MTSO, interval of time measured from the time the dictation is received until the document is finalized in the transcription process. |

See also [Career Map Abbreviations](#).

**REFERENCES**


