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Meeting Joint Commission Compliance by

Improving the Chart Audit Process

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Meeting Joint Commission Compliance by Improving the Chart Audit Process

The agency in which this project was conducted had, at the time, 346 patients that they serviced and is rapidly growing. As a non-profit hospice and home health care organization, it is vital that the agency maintain in good accreditation standing to continue to serve the community. However, the road to achieving Joint Commission accreditation is not an easy one and it was determined by management and quality assurance that in order for them to do so, improving the nursing charts needed to be a priority. As many other health care agencies have experienced, the agency's switch to electronic charting several years ago was not an easy one; nurses were predictably resistant to the change and to this day have not fully integrated the electronic chart system to their practice. The less that stable nursing grasp on electronic chart documentation has left the agency vulnerable in their quest for Joint Commission accreditation, and this project serves to help nurses and management close this gap.

Clinical Leadership Theme

This project will demonstrate the Clinical Leadership curriculum focus in informatics and healthcare technologies and am acting in the CNL Role as an Information Manager. By using resources provided by the agency there will be a redesign of the current chart audit process to gather accurate data that will help improve patient care and secure agency accreditation from the Joint Commission.

Statement of the Problem

The American Association of Colleges of Nursing [AACN] (2007) determines that using technology to is vital to further the care and quality of healthcare systems. Unfortunately, the use of electronic systems may not always be integrated properly or created to be fully functional by both the care staff (nurses, social workers, physicians) and management (nurse managers, quality improvement teams, operations officers). Because of this initial deficiencies, processes must be created to allow for communication and data to still cross disciplinary borders.

In the home health and hospice agency observed, nurses, social workers and physicians have completely adopted the electronic healthcare record [EHR] system. Unfortunately, the system being used was only designed to be a record keeper, and does not allow for any customization based on the agency's needs. From a technology standpoint, the EHR system is very simplistic and is unable to allow for the data gathered by nurses, social workers, and physicians to be used by another other departments of the agency, such as the billing department and the quality assurance department. Since it is extremely costly to implement an EHR system in the first place, it is now up to the billing department and quality improvement team to create their own processes to gather the data they need to function. With that bridge in mind, this focus of this project is to create a chart audit tool that will allow the quality assurance team extract data from patient charts that will allow for identification of charting deficiencies and help the agency achieve compliance with the Joint Commission.

Project Overview

We aim to improve quality of nursing documentation but that must be accomplished by first configuring the system that allows us to track quality in nursing documentation: audits.

Currently, nurses have adopted to the new EHR but have not been documenting all fields that are legally necessary, the reasons as to why will be discussed later in this paper.

The process begins with identifying what is required by the Joint Commission to ensure that all nursing assessments are complete and compliant and creating a system where nurses can audit each other's charts. According to the 2016 Edition of the Joint Commission standards, hospice agencies must "confirm that the required information is present, accurate, legible, authenticated, and completed on time," therefore, it is of utmost importance that any changes that we enact only refer back to these standards. The process ends with 100% compliance in charting and obtaining the Joint Commission accreditation for Hospice. By working on this process, we expect nurses to improve and expand their assessment to help their patients which will in turn benefit the organization. It is important to work on this now because the agency is expanding and the quality improvement team wants to ensure that they continue to provide quality care that has proven positive outcomes, whether that includes patients graduating from hospice or a comfortable death.

The aim statement is "By the end of May of this year, the home health agency's nursing chart audits will be 100% compliant in accordance to the Joint Commission standards." By adding the time needed to complete this goal and by adding a percentage, specific goals are created for this organization. From the wording "nursing chart audits", it makes clear that we are only looking at a percentage of the nursing charts, not the whole facility's census. Some potential problems that could occur are being able to communicate the changes needed in documentation as noted by Pettit and Duffy (2015) that health professionals tend to work autonomously, even though they are nominally team members. This is an even greater issue with nurses at a home health agency, as the nurses do the majority of their work in patients' homes or skilled nursing

facilities, and heavily rely on electronic communication but have stated that they learn better from in-person conversations. This issue will be dealt with by holding “brown bags” which is a common way in this facility to informally have a small group of employees together at lunch to discuss new ideas. It will also be difficult to ensure that audits are complete without full support from the nursing administration and staff to believe in the necessity in the project. However, nursing management is already on board and has talked to several nurses who seem open to this project and its benefits.

Rationale

This home health care agency has nursing care that has consistently been well received by patients and the Joint Commission, but nursing charting documentation has not. A root cause analysis of the problem (Appendix A) has shown that this lack of documentation can be attributed to several factors within equipment, process, people, materials, environment, and management. The current auditing program is completed by hand on a paper chart and is not in tune with the current EHR system. This directly affects the equipment, process, and materials sections of the root cause analysis because the equipment needed is only at the agency’s office, the process is time consuming and not intuitive, and the hand-written data needs to be re-entered into the computer for it to be disseminated. In addition, nurses are the group responsible for completing the chart audits, but nursing management and the quality assurance teams are the ones interpreting the data.

Although there several areas of issue within the process of nursing documentation completion, the problems combatted were creating materials that are user friendly and a process for communication and collaboration between nurses to help facilitate better documentation. It

was discussed that the quality improvement team could continue to have nurses audit patient charts using the paper format, but it was decided a complete revision was the most feasible option considering that the Joint Commission survey was only a few months away. If there were changes to the management of the audit or the designation of who completed the audit, it could cause more delays in ensuring the audit was done and had the potential to cause more chaos before the Joint Commission survey was complete.

The current auditing system is not user friendly because it was created for a version of EHR that is no longer in use by the nursing staff at this facility (see Appendix B). When the nurses started using the new EHR, the auditing form was not updated as well, and the discrepancy in question wording and order has led to nurses not wanting to use the system. As one nurse put it, “no one gave me directions and I spent half the time allotted trying to figure out what to do”. The new auditing form we created allows for little to no explanation and is intuitive based on how the EHR is set up (see Appendix C).

Currently there are 230 active patients that this home health agency serves in its hospice division. With the agency standard of 10% of patient needed auditing per month, nurses and nursing management should be looking through at least 23 patients’ charts. Currently nurse managers are only asking for 10 charts to be audited per month, which is not a large enough sample size to determine if the data they are gathering is indicative of how nurses are charting. Likewise, when quality improvement officers double checked how the audits were done, they have found all the audits to be deficient in some way. For the agency to be accredited by the Joint Commission, it is vital that nurse charts properly reflect the care given to the patients. Because of audits done by nurses and double-checking audits done by the quality improvement team, it was found that the Plan of Care written for the patient does not match the care done by

nurses 84% of the time, with many necessary communications missing, such as wound orders and charts that do not support decline.

Since the quality improvement team feels that the quality of nursing charts is so far from the necessary standard, they have allowed myself and one other quality improvement team member to completely do away with the previous auditing tool. We have created a new electronic auditing tool that did not cost the agency money out of their capital budget because we used Microsoft Access, which the agency already pays for and is encrypted for privacy purposes. The agency currently has individual Microsoft Office accounts for all employees, with the agency currently staffing a total of 250 employees. It costs \$12.50/month per user for a Microsoft Office account, which totals to \$37,500 per year. The quality improvement team member I am working with is their most junior member who makes \$17/hour and devotes 4 hours a week to this project. Her payment comes out of the agency's operating budget. Since I am here as an unpaid intern and she and I are the only ones who actively work on this project, there are very few costs to re-creating the audit tool itself. Since the audit tool was created on an agency operated application, it is easily modifiable if changes are needed even if the quality improvement team member and I are no longer here. The cost analysis of this project can be found in Appendix D.

Methodology

The change theory that is guiding this project is Lewin's Change Model: unfreezing, change, and refreezing (Levasseur, 2001). These stages are described with the analogy of going about turning a large ice cube turning into a cone of ice. In order to accomplish this, you would

first have to melt the ice to make it amenable to change (unfreeze). Second, you would have to mold the iced water into the shape you want (change). Finally, you must solidify the new shape (refreeze).

Lewin's first stage, unfreezing, organically happened with this project before the author started at the agency. With Joint Commission accreditation a few months away, the agency's quality assurance and nursing management were at a crisis for improving nursing documentation and ensuring compliance to Joint Commission standards. This jump-started the unfreezing stage of this project. Once management started to address the issues with the auditing system, nurses started to come out of the fold and bring their complaints to the table. This allowed for more buy-in from other nurses to be open to the change stage.

It is important to identify the early adapters of the project, which are the nurses who had volunteered to audit charts with the original tool in the past. Those are the nurses who are excited to use the new tool and can spread the word that this is a good idea. While the nurses feel that they understand how to use the EHR, they are unclear on what is necessary by the Joint Commission standards and feel that they receive little feedback on how they are doing. It was originally planned for communication to occur through e-mail, but several nurses said that they would appreciate being able to talk to their co-workers and so this idea has been re-worked into the schedule, which allows nurses to audit one another and have a full discussion. By having nurses talk to each other, we can use the TeamSTEPPS approach which results in "Teams mak[ing] fewer mistakes than individuals, especially when each team member knows the responsibilities of other team members (Pettit & Duffy, 2015)."

For us to see if our process is effective, there needs to be two rounds of audit. Since the aim statement covered the audit being done and it being correct, one set of audits needs to be done to ensure that we are completing a sufficient amount, and then analyze the findings of the first audit to identify what areas are incomplete. Then there needs to be a second training session to cover what was missing in charts, and then complete a second audit to ensure that the charts are being done correctly. Once we have enough charts that are completed correctly (all of them), the desired goal is met.

Data Source/Literature Review

Ensuring positive patient outcomes and acquiring Joint Commission accreditation are the main focuses of this project, with audit being solution. Research on auditing and nursing documentation in an acute care setting is plenty; but what is difficult to find is research done in a home-health care setting. The difference in working environment from home health care site to office space for nurses is a challenge to this project in and of itself. Because of this, the literature and studies gathered mostly reflect problems and solutions seen in in-patient facilities, but are believed to hold generalizations that can apply to home health care as well.

This literature that guided this project was determined by the PICO statement: For needed improvement in documentation, will in-person training rather than no communication improve nurses' ability to achieve documentation standards? By using this statement, literature was found that supported this project, however it was difficult to find keywords that could accurately pair down the mass amounts of literature that showed up. The CINHALL Database allows for Boolean search terms like "AND" and an "*" at the end of words to search all derivatives of a word (LibGuides, 2017). By using these tricks, "documentation AND communication" was first

searched, and gradually the search terms were changed to include audit, teaching and team-building to allow for more specific results to populate. This process was satisfactory because literature was found that encompassed the ideas needed, while also providing new insight on how to approach and manifest ideas. What didn't work was when the terms searched were too specific and added too many "AND"s. It was important to keep the wording a little vague so a range of approaches could be seen that applied to dealing with documentation, communication, and audit.

An action research methodology study done by Okaisu, Kalikwani, Wanyana, & Coetzee (2014), used repeated cycles of planning, intervention, reflection and modification, and found that this established best practice approaches for improving nurses' efficacy in documenting assessments in the patient record. Ultimately they determined that that staff training alone was insufficient to achieve the project goal. They recommend that achieving improved documentation needs to be multifaceted and include building a critical mass of competent staff, redesigned orientation and continuing education, documentation form redesign, and continuous leadership support. Because of the findings of this study, it was decided by our quality assurance team that we needed to have a multi-faceted approach to improving the chart audit process.

This approach first targeted the system we were using itself. Because our facility did not have the time to completely change EHRs before the Joint Commission survey, it was decided that we would create a system that could bridge the gaps between the current EHR and the data needed for improvement. This was inspired by a qualitative study done by the Kitsap Public Health District, as public health nurses function similarly to home care nurses since they visit sites instead of patients coming to them. They found that their implementation was successful

because they designed their EHR around the language and assessments that they found necessary. When nurses enter patient data into an EHR in a standardized way, such as using a web-based EHR, data are then easily available for extraction and analysis. Kitsap Public Health District's patient data can be extracted at any time through a reporting function that allows for customization of data fields and filters and can help them with quality improvement. We have done something similar by creating the audit tool on a shared agency drive.

Our next focus was ensuring that we could integrate this program into the work environment. Advanced Practice Nurses from McGill University (2016) conducted a qualitative study using individual, semi-structured interviews with 14 registered nurses to explore the perceptions of nurses in an acute care setting on factors influencing the effectiveness of audit and feedback. According to participants, they were likely to have a better response to audit and feedback when they perceived that it was relevant and that the process fitted their preferences. Because of this, three agency RNs were interviewed who had conducted paper audits to see how they felt about the current manual process. In accord with the study, RNs did not understand why we were conducting the audit in the first place, because they didn't have knowledge of how their charting affected the financial aspects of the agency. However, Center for Medicare Services are tracking how these facilities use their documentation and are increasing their audits for long-term care facilities and their respective physicians to determine how to reimburse, which makes it even more important for nurses to correctly document (Panting, 2016).

Another argument for nurses to chart correctly is that their patient notes are the only thing that can concretely protect them in a court of law. A law case study by Arnold (2015) highlights the need for accurate documentation by describing a nurse's personal experience. It details what

encompasses correct documentation and how this is necessary in a court of law and discusses how nurses must rely on only their documentation to provide a defense for themselves if ever brought into court. Because of the rising population of older adults and the increase in their care, it is a liability for the agency if nurses are not aware of how to correctly prove their adequate care.

It is the hope that with this project, there will be a reduction in the number of errors in the nursing notes made in the patient files and a reduction in the interval between the discharge and the forwarding of the invoice to the health insurance. Researchers from the Hospital de Caridade de Ijuí created an experience report (2016) on the implementation of the concurrent nursing audit at a general hospital and found that the change in the auditing system was helpful. The reports created provide guidance for the team training, and the auditing produces the indicators monthly, which are monitored by the hospital's nursing and financial management. This would be helpful in a smaller non-profit home health agency because it could identify areas of improvement and help management identify cost-saving solutions.

Timeline

This project began in February 2017 and will end in May 2017. February and March 2017 were the unfreezing stage, where data was gathered and the new audit tool was made. April 2017 will be using the audit tool and conducting a survey to see what changes will be necessary. May to June 2017 is the timeframe for the Joint Commission to survey the home health care site. Concurrent to this time, audits will be done using the new tool and the data collected will be

presented to the Joint Commission. The largest challenge in completing this project was the fact that all work must be done on site to access the servers that hold necessary information.

Expected Results

It is expected that the agency will achieve Joint Commission accreditation. The real unknown is whether the agency will be able to use this achievement and the audit interventions to identify problem areas and communicate those in a way that will decrease deficiencies in patients' charts.

Because the discussion is with the act of charting and not actual practice in the field, it is a theory of the quality improvement department that the only way to improve charting is identifying the nurses who are not charting completely and accurately. It is common practice for agencies to conduct in-services to try to get everyone on the same page when it comes to making necessary changes, but for something like charting, it is more difficult to incentivize those who are aware and comfortable with their under-performance, especially if they feel that this deficient area will not harm the patient.

Nursing Relevance

In the county that the agency is located, Home Health Care agencies can choose between California state accreditation and Joint Commission accreditation. The rationale of the agency in moving forward with Joint Commission accreditation is due to several factors. Joint Commission accreditation is known for being more in depth and difficult to obtain than the state accreditation, however Joint Commission accreditation comes with more prestige and benefits. Since this Home Health Care agency's patient population is majority Medicare recipients, it is important

for the agency to ensure that they will be fiscally safe. The Joint Commission accreditation provides deeming authority for Medicare certification, which means that if the agency qualifies, they will not have to undergo another Medicare and Medicaid inspection. It also covers their population that is privately insured because in the agency's county, the accreditation is a prerequisite to eligibility for insurance reimbursement and allows the agency to participate in managed care plans and contract bidding. Fiscal benefits aside, the Joint Commission's survey is a type of report card that can address issues within the agency that are affecting patient care. This helps give clout to management and the quality improvement team to push for innovation and improvement in patient safety and quality of care. Nurses are especially affected by the Joint Commission survey; surveyors judge patient care given by nurses. By having a third-party agency like the Joint Commission evaluate the working environment, it communicates to the nursing staff that the quality of care you are giving is being noted and sets the precedent that care needs to be as good as possible.

A personal hope for this project is that it will shed light on the fact that the transition to EHRs are not a quick fix for nursing documentation. The CNL role frequently teaches that health care needs to be interdisciplinary but when working on an acute care floor, interdisciplinary just means working with other care providers, and not necessarily looking at the other professions and teams that are indirectly affecting patient care. By looking at a home health care agency, light was shed on how the construction of EHRs needs to consider all aspects of healthcare, not just providers. This project shows what all nurses know to be true: solutions to your problems do not have to be more complicated or expensive, they just need to accept the realities of the situation and work with what is available.

Summary Report

The results of this project manifested an electronic questionnaire in which the answers gathered are automatically deposited into a Microsoft Excel spreadsheet with charts generated as well. This product allows for dissemination of the data gathered and graphs to visually explore the areas of deficiency. Since the tool is electronic, there is the ability reformat it and add information as nurses give their feedback. The response to the new tool have been positive, with nurses being very pleased with the decrease in time it takes to complete the audit now that the question order matches the format of the EMR (Appendix E). Nurses have also appreciated that the questions asked makes them reflect on their own charting and what they personally are missing from their charts.

The project was implemented with brown bag meetings directed by the agency chart resource nurse. She was designated as the teacher of the audit tool project because she knows the charting system the best and could explain to all nurses where to find the information to answer the audit. At a baseline of 5 nurses completing the chart audit, all 5 rated the experience as “difficult”. When asked for comments on why the experience is difficult, nurses maintained that the process was tedious due to the information needed to answer the audit was not in any sort of logical order based on the chart. Because of this, the design of the electronic audit was made to go in order of what comes first in the nursing chart. Nurses were taught in small sessions on how to use the electronic chart audit tool and therefore did not use any teaching materials. Before the author completes her clinical hours at this facility, she will create a step-by-step guide on where to find the information necessary to answer each question in the audit.

This change project is sustainable because the agency has an established change “champion” and that the change better fits the agency’s mission and procedures. The change champion is the head of the Quality Assurance Department at this agency. She is generally very well liked and has given the agency the push needed to chart electronically and create quality improvement programs. This has created a cultural shift that has all providers more open to using electronic data entry, and why there is confidence that the chart audit program that we have created will become standard for the agency in every sub-department.

In conclusion, the project followed the timeline set initially, with the Joint Commission Survey being completed at the time of writing this report. As we do not know the results of the survey so far, it cannot be said with certainty that this project was a complete success, however plans are in place to modify the tool to gather data that the Joint Commission identifies as lacking, which ensures that the push for improved patient outcomes will continue.

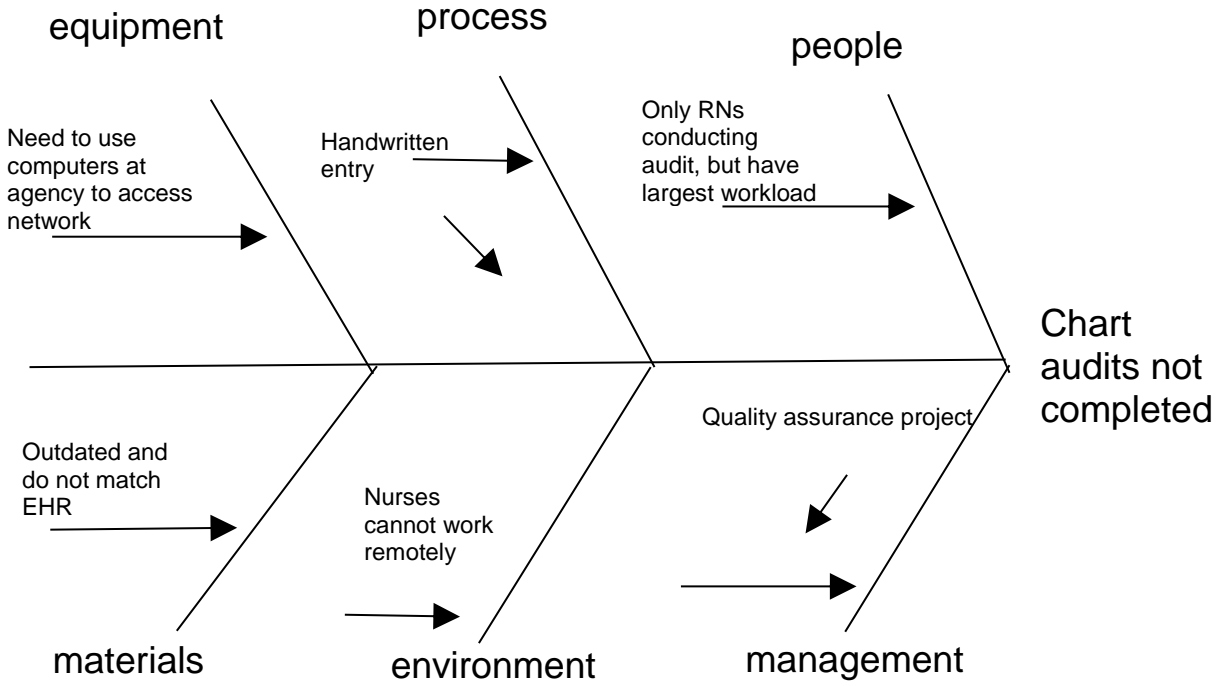
References

- Arnold, P. (2015). Rising with accurate documentation to shine in the justice system: a nurse's experience. *ACORN: The Journal Of Perioperative Nursing In Australia*, 28(2), 16-19.
- Christina, V., Baldwin, K., Biron, A., Emed, J., & Lepage, K. (2016). Factors influencing the effectiveness of audit and feedback: nurses' perceptions. *Journal Of Nursing Management*, 24(8), 1080-1087. doi:10.1111/jonm.12409
- Levasseur, R. E. (2001). People skills: Change management tools—Lewin's change model. *Interfaces*, 31(4), 71-73.
- Okaisu, E. M., Kalikwani, F., Wanyana, G., & Coetzee, M. (2014). Improving the quality of nursing documentation: An action research project. *Curationis*, 37(2), 1-11. doi:10.4102/curationis.v37i1.1251
- Panting, K. (2016). How chart audits affect reimbursement. *Long-Term Living: For The Continuing Care Professional*, 65(4), 18-21.
- Pettit, A. M., & Duffy, J. J. (2015). Patient Safety: Creating a Culture Change to Support Communication and Teamwork. *Journal Of Legal Nurse Consulting*, 26(4), 23-26.
- Plemmons, S., Lipton, B., Fong, Y., & Acosta, N. (2012). Measurable Outcomes from Standardized Nursing Documentation in an Electronic Health Record. *ANIA-CARING Newsletter*, 27(2), 4-7.
- Viana, C. D., Zambarda Todendi de Bragas, L., Delacanal Lazzari, D., França Garcia, C. T., & Schebella Souto de Moura, G. M. (2016). IMPLEMENTATION OF CONCURRENT

NURSING AUDIT: AN EXPERIENCE REPORT. *Texto & Contexto Enfermagem*,
25(1), 1-7. doi:10.1590/0104-070720160003250014

Appendix A

Root Cause Analysis



Appendix B Old Manual Chart Audit Tool

HOSPICE CHART AUDIT CHECKLIST - Active		Audited by: _____		
Pt. Initial: _____		SOC: _____		
RNW: _____		SOC: _____		
AREA OF AUDIT		YES	NO	NA
RN Initial Assessment				
1 Initial Assessment	Were the VS/MAC reported?			
2	Was the LCD appropriate with respect to pain?			
3 Pain Assessment	Was patient uncomfortable due to pain?			
4	If yes, was pain assessment completed?			
5	Did RN Measure use PI for 90 of SOB?			
6 Emergency Preparedness	Was the Triage Code Reported?			
7 Integumentary Status	Was patient admitted with active pressure wound?			
8	If yes, is there a wound chart?			
9 Digestive	Was the last BM date reported?			
10 GU (wound urinary)	Was patient screened for recurrent UTI?			
11 Fall Assessment	Is there Fall Assessment?			
12 DME	Is there a DME bill?			
Plan of Care				
13 Coordination of Care	Are there full description of hospice services?			
14 Scope & Frequency	Are visit frequencies specified?			
15 Problems	Is Collaboration listed?			
16	Is there a POC for skin integrity?			
17	Is there O2 Safety?			
18	Did POC support documentation of decline?			
19 OAC	Is there a POC, updated once 14 days?			
Medication Profile/Flags				
19 OAC	Is OAC updated?			
20	If yes, is there a flag for OAC?			
21 Ins	If Ins is listed, was it/they taught to safely administer each?			
22 Infection	Was Anti-Infective Ordered?			
23	If yes, was the medication added to med profile?			
24	If yes, is there a flag for Infection?			
Orders				
21 Wound Order	Is there Wound Care Order(s)?			
24 Medication Orders	Is there Medication Order(s)?			
Home Health Aide				
25 HHA POC	Is there Aide Care Plan?			
26	Did the Aide Visits meet visit frequency?			
27	Was Aide Supervisory completed every 14 days?			
Visiting				
28 Skilled Visits	Did the skilled visits meet Visit Frequency?			
29	Was Aide Supervisory completed every 14 days?			
Misc				
30 Med Reconciliation	Is there Medication Reconciliation every week?			
Comments				
Please see back of this page				

Appendix C New Electronic Chart Audit Tool (Active Patients)

The screenshot displays the 'Hospice Chart Audit Form' software interface. At the top, there are tabs for 'ACTIVE' and 'DISCHARGED', with 'ACTIVE' selected. Below this, the 'ACTIVE PATIENTS' section is visible, featuring a 'New Chart' button and navigation controls. The form is divided into several sections, each with a set of questions and 'Yes', 'No', and 'N/A' response buttons. A red callout box on the right side of the top view contains the following text:

Important:
If something does not apply to the patient (i.e. not on oxygen) you must mark 'N/A' -- an answer of 'No' means something is not being done that should be.
If SN or HHA visits are less than POC Frequencies or **MORE THAN** POC frequencies, frequencies do not match.
Section titles on this form will help guide you where to look for certain items/questions.

The bottom view of the form shows the continuation of the assessment questions, including sections for 'Misc Folder', 'Most Recent Medication Profile', 'Aide Folder', and 'Flags'. A 'Comments' section is located at the bottom of the form, with a large text area for input. The Windows taskbar at the bottom of the screen shows the date as 3/31/2017 and the time as 3:54 PM.

Appendix D
Cost Benefit Analysis

	Initial Costs	Additional Costs
The chart audit program- Microsoft Access	250 employees at \$12.50/month per user for a Microsoft Office account= \$37,500 per year	15 employees added per year with Microsoft Office accounts
Initial Labor Costs to create program 4 hours/week for 12 weeks, junior member wages (\$17/hour)	4 hours/week for 12 weeks, junior member wages (\$17/hour) = \$816 to complete new tool	
Maintenance/Editing Costs		\$0 for an unpaid intern \$34/week for junior member

Appendix E

