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Home Health: The Process of Assigning an Appropriately Trained Skilled Nurse to Provide Safe Patient Care

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School of Nursing and Health Professions

Clinical Leadership Theme

The CNL curriculum element used in this project is Clinical Outcomes Manager with a CNL Role function of Clinician. The clinical leadership theme is Client Safety. I aim to improve the process of placing an appropriately trained nurse in the client's home to provide safe, quality care. The current team members who are in charge for assigning nurses to patients do not have a clinical background. At the end of this project, the team will have an additional team member, a clinical supervisor or CNL respectively, to ensure appropriate training of the skilled nurse has been completed before the skilled nurse cares for the patient. It is expected that the new process leads to shared accountability between recruiters and clinicians. Additionally, the new process is expected to lead to an increase of completion of electronic clinical assignment verification forms, which therefore increases client safety.

Statement of the Problem

After getting hired in the home health agency, active nurses remain in a pipeline until they are placed with a client to provide shift care. During a daily internal office meeting, the team of four recruiters and one administrative officer discuss open shifts of clients that need to have a nurse assigned. This team does not have a nursing background. The electronic clinical assignment verification form, also called ECAV, is started in an online company-wide platform once a skilled nurse has been identified by a recruiter. The purpose of the electronic clinical assignment verification form is to match client skill and competency needs with skilled nurse' skills and competencies. This ensures that the skilled nurse can only provide care that the nurse has been trained on. The electronic clinical assignment verification form is attached for review in

Appendix A.

The process of starting and approving an electronic clinical assignment verification form is supposed to be completed before the skilled nurse starts working with the client autonomously. Three different internal team members have to independently approve the form before it can be closed, which is a company-wide policy. Currently many electronic clinical assignment verification forms are not closed even though the skilled nurse is already working with the client. This is due to several reasons as noted in Appendix D and in further discussions.

Each home health nurse comes with their own set of skills and competencies. These skills and competencies are captured in a Master Skills binder, which is located in the office. All skill check offs and competencies are noted in this Master Skills binder once the nurse has been educated and tested on it. Examples for skills and competencies include but are not limited to using a PAP machine, oxymeter, or cough assist therapy, providing wound or tracheostomy care, performing catheterization, intravenous therapy, or enteral feedings, and caring for ventilator dependent patients.

A skilled nurse's competencies and skills validations have to match the patient's needs in order to provide safe, quality care. Having skilled nurses work before verification of skills and competencies of the nurse has been completed leads to a compromise of client safety. Furthermore, the current process leads to frustration of clinical supervisors, who want to ensure that safe care is provided to their clients.

Project Overview and Methodology

The process of assigning a nurse begins with brainstorming the pipeline of nurses during daily meetings to match a skilled nurse to a patient case. A clinical

supervisor team member, who is already in the office 32 hours a week providing internal support, will be added to the meeting to review appropriate candidates skills and competencies. Once a skilled nurse and a client have been identified an electronic clinical assignment verification form will be immediately started by the recruiter, who is responsible for staffing the case (first independent review). The electronic clinical assignment verification form has to be reviewed two more times before it changes automatically to the "completed" status. As mentioned before, the three reviewer technique is a policy of the company and cannot be changed. Having three reviewers ensures no skill, competency, or status of the nurse gets missed. One of the two last reviewers has to be a clinician who has better understanding of the needs of a patient than a recruiter or administrative officer. This reviewer will be the assigned clinical supervisor team member. This clinical supervisor will be the leader of the team and will ensure that the electronic clinical assignment verification form gets completed using the new process.

It has to be mentioned that one of the steps in order to change the electronic clinical assignment verification form status to "completed", is to attach a Client Specific Orientation form (PSO). The PSO can be found in Appendix C. A PSO will be filled out ideally during the first shadow shift, but can also be completed during a visit by the skilled nurse to the agency office, or be completed telephonically with a clinical supervisor. If the client specific orientation is done over the phone, the clinical supervisor needs to create a computer logging under the patients name and attach that logging to the electronic clinical assignment verification form. The logging may be done as a PSO replacement. Completing a PSO ensures that the skilled nurse understands

the care plan and needs of the patient and the PSO therefore is an important piece for the assignment process.

The new process of completing the electronic clinical assignment verification form before a skilled nurse works independently can be found in Appendix C, titled *Requirements for Skilled Nurse Working a Shift Alone*. The first step after identification of a skilled nurse and a patient is by the recruiter to schedule a 20-minute meet and greet with the client. Requirements for a meet and greet are (1) completion of the basic online modules of Safety, Bloodborne Pathogen Part 1 and 2, (2) completion of a physical assessment performed and signed by a MD, (3) a negative Tb test and (4) a clinical supervisor approval. If the meet and greet goes well and both the patient and nurse agree to work together, a shadow shift will be scheduled by a recruiter. Requirements for a shadow shift are (1) the electronic clinical assignment verification form has been started (1st and 2nd independent review), (2) per clinician discretion additional online modules of training are assigned, and (3) skills and competencies check offs are appropriate as reviewed by a clinical supervisor.

Once the shadow shift is completed the skilled nurse is allowed to work independently when the following requirements have been met: (1) active status of skilled nurse, (2) client specific orientation form (PSO) is completed and signed (or logging created), (3) electronic clinical assignment verification form shows "completed", or "PSO pending" status (3rd review), and (4) additional online modules/skills and competencies check offs are completed. The process ends with having a competent, appropriately trained nurse visiting the client to provide safe, quality care. The specific aim of this process improvement project will be to complete 100% of all electronic

clinical assignment verification forms before a skilled nurse works autonomously with a patient until 7/31/2015.

This project uses Lewin's change theory of unfreeze, change, and refreeze (Mindtools, 2015). Unfreezing means that a gap analysis showed the need of a project and the microsystem team members see a need to change the process in order to improve the process. Changing refers to the way the team is completely invested into the Plan, Do, Study, Act (PDSA) cycle (IHI, 2014). The problem is clearly identified, including aims, goals, and objectives. Data is collected at this point. Lastly, refreezing happens when the project is at its last PDSA cycle and goes into the Standardize, Do, Study, Act (SDSA) cycle to use the best practice found during the PDSA cycle (Microsystem Academy, 2015). The clinical supervisor will continue to collect weekly data on how many electronic clinical assignment verification forms are being completed. Furthermore, the clinical supervisor will continue to use the SDSA<->PDSA cycle to ensure effectiveness of the new process.

Rationale

The Institute of Medicine (1999) states that medical errors can and should be prevented in order to save human lives. Two of the 14 types of errors in the report are *error in the performance of an operations procedure or test,* and *failure of communication*. Both failure modes are addressed with this project by sending an appropriate trained nurse into the home to decrease the risk of harm for the patient. According to Boysen (2013), empowering employees to participate in safe efforts in the work environment can lead to an improvement of patient safety. This article can be applied to the electronic clinical assignment verification project, because the additional

clinical supervisor who will be participating in the team meetings will just do that: Improving patient safety by being accountable for patient safety.

The home health safety goals from the Joint Commission for 2015 are important to take into consideration to improve client safety. The Joint Commission is one of the accrediting agencies for a home health agency. These goals are already implemented in the agency's policies and procedures to provide safe care in the home setting. The electronic clinical assignment verification project includes these home health safety goals by including a patient specific orientation (PSO) to ensure the assigned nurse understands the client's care needs (The Joint Commission, 2015).

If the process is followed as suggested, internal staff members start to feel responsible for completing the form, because they are assigned a task to complete. Therefore, the risk of sending a skilled nurse who does not have appropriate training to a patient decreases tremendously. By having an oversight of a team member with clinical background and by assigning recruiters to the team to be responsible for completing the electronic clinical assignment verification form, safe, quality care will be provided to the patient, and shared accountability of the team will be built in regards to patient safety.

Stakeholders for this project are clients, clinical supervisors (including the Director of Clinical Services), skilled nurses, recruiters, human resources, and the administrative officer (Appendix E).The data used for this improvement project will be to count not completed forms at the end of each day. The team leader will also take into consideration how many have been added, how many have been canceled and why, how many are under 1st review, 2nd review, 3rd review, and how many have been

completed at the end of the business day. These notes are only used for internal team discussions and for explanations of trends.

The root cause analysis (Appendix D) shows that the issues why a form is not completed at the end of the day are the following: Faulty equipment and missing material such as missing patient specific orientation forms, miscommunication and not feeling accountable for the form being completed, changes of availability of clients and skilled nurses, skilled nurses are not trained appropriately, technical difficulties, no available facilitator, waiting for reviewers, and time constrictions of clinical supervisors.

Cost Analysis

The incident rate of home health adverse events is 13.2% (Sears et al., 2013). Over 1 million home health care patients are hospitalized unplanned annually (Ellenbecker, n.d.) with almost 56% of these unplanned hospitalizations being preventable (Goodman et al., 2011, p. 593). In 2006, the annual social cost of preventable adverse-event injuries was over $6.7 billion (p. 593). The project aims to prevent adverse events in sending out appropriately trained nurses. The cost analysis breakdown of the project can be found in Appendix G.

The electronic clinical assignment verification process needs a total of three team members, one of which has to be from a clinical background. According to the timeline created, an electronic clinical assignment verification form takes an average of 60 minutes to complete. A recruiter in this agency makes an average of $18 an hour, a clinical supervisor an average of $32 per hour (Glassdoor, 2015). The average total time of 40 minutes for two recruiters to spend on the form was calculated by observation. The clinician was calculated with an average time of 35 minutes per form.

The total cost per form comes to an average of $30.40. There is an average of six new forms per week. The total average cost is therefore $152 per week.

Additionally, please see Appendix H for chart that explains the additional cost of $36 to $101 per form. The additional amount depends on if the clinical supervisor has to drive to the patients home to complete skills validation check offs and competencies with the skilled nurse, or if a RN is already in the home who then can complete the skills validation check offs and competencies. Both case scenarios might not be needed if the nurse is a complete match to the patients needs.

Data Source/Literature Review

For the literature review the PICO search strategy was used with Google Scholar, Sage Journals, and CINAHL. The following terms that showed the best results related to this project were *home health, patient incidents, skills training,* and *patient safety*. Published date restrictions were set ranging from 2010-2015. Over 150 articles abstracts were read. The articles reviewed included literature about home health preventable adverse events, the nurses' perspective of the need to be prepared, and the relationship of nursing care and client safety.

Care provided in the home happens in a less controlled setting than in an inpatient unit. The main reasons for adverse events in home health are lack of communication, inadequate patient monitoring or assessment, and lack of training or knowledge of caregivers which includes skilled nurses (Masotti et al., 2010). One common adverse event in home health are urinary tract infections. The CDC (n.d.) recommends that “only properly trained persons [should] insert catheters using sterile (“clean”) technique”. Masotti, McColl, & Green (2010) stated that in home care a urinary

tract infection has a prevalence/ incidence rate of 2.79-3.4/1000 catheter days with 43% of indwelling catheters infected. Other statistic data shows that line-related adverse events associated with home parenteral nutrition are at 34% (Masotti et al., 2010). By using the electronic clinical assignment verification form, nurses are only sent to a patient if they have been trained on such a skill. This will prevent or minimize the risk of an adverse event from happening.

Retrospective chart abstractions in a stratified, randomized sample of 430 home care patients in Canada discharged in 2004/2005 identified the incidence rate of adverse events in home care (Sears, Baker, Barnsley, & Shortt, 2013). The authors found a high incidence rate of 13.2 % with over 32.7% of these incidences being preventable adverse events (p.19). Preventable adverse events are surgical wounds that resulted in wound infections, urinary tract infections following clean rather than sterile technique catheterizations, and "improper application of compression dressing on venous stasis ulcers" (p. 26). Caregivers need to have access to education and skill development to increase patient safety (p. 24). By providing the agency nurses with the needed skills before providing care to a patient, the electronic clinical assignment verification project will not just increase patient safety, but also will increase the skilled nurses' confidence in providing safe care.

Nurses need to understand that they are responsible for their own learning to provide quality care (Sherwood & Zomorodi, 2014). QSEN's (2015) knowledge, skills, and attitudes (KSAs) are a guide for nurses to achieve the goal to improve the safety and quality of their healthcare system. Registered Nurses working in home health in Canada describe "competence in home health care" as the following: "it's nice to be

prepared… I feel comfortable in front of the patient when I know that I have the skills" (Flöjt, Hir, & Rosengren, 2014, p. 226). Training home care nurses increases patient safety in increasing patient independence in the home (p. 228). Nursing managers, who are responsible for the care provided in the home, need to "ensure and enable knowledge and skill improvement" with their home health nurses (p. 228). Nursing care and ethical aspects, such as lack of knowledge or ability to perform a particular nursing skill, are important to address between nursing management and skilled nurse to improve client safety (Oliveira et al., 2014). The articles showed the need of the current process to be changed. Patient safety can be the number one reason to explain to stakeholders why a certain process needs to be changed.

Timeline:

The start of the project was May 26, 2015 and it concluded at the end of July, 2015. The Gantt chart can be found in Appendix H for reference. The project started with a microsystem and needs assessment, followed by an intra-disciplinary team meeting. In this meeting the team members discussed the need of implementing a better process for the electronic clinical assignment verification. Next, the team leader completed evidenced-based research and presented the research in a second team meeting. At the same time, the team leader started collecting pre-data. The PDSA cycle started thereafter and included data collection. Lastly, after the PDSA cycles were completed, the project concluded with post-data collection and a last team meeting to discuss changes and explain the current best practice.

Expected Results

The goal of this project is to ensure that each client receives the care they need.

The hope is that by improving the process of closing the electronic clinical verification form, safe, quality care will be provided to the client by appropriately trained skilled nurses. Through adding an additional team member, the internal clinical supervisor respectively, intraprofessional communication will be improved. Another expected result is the better understanding of the importance of using the new process in regards to safety of clients by recruiters, also known as shared accountability. Lastly, the number of electronic clinical verification form completed before the nurse is providing care independently will increase to 100%.

Nursing Relevance

The American Nurses Association Code of Ethics (2015) states that nurse managers "must ensure that nurses have the knowledge, skills, and disposition […] and educational preparation" to ensure client safety (p. 11). Additionally, nurses are accountable for their own practice (p.15). Battié & Steelman (2014) elaborate on accountability in nursing practice in regards to client advocacy, continuity of care, lifelong learning, the nursing profession and the accountability of care organizations. Accountability of one's own actions is an "essential component of professional nursing practice" (p. 537) to provide safe, quality care to the client.

Home healthcare nurses feel a lack of leadership, lack of routines, failure to update on procedures by their managers, a lack of knowledge and education, and they feel that leadership is more concerned about economics than client safety in the home (Berland et al., 2012). Home healthcare nurses have a valid concern for client safety. Data collected from a semi-structured 45-minute interview to collect home health care perspectives showed not just several patterns in regards to home care safety, but also

showed (a) inconsistencies of level of responsibilities of home care workers to their training, and (b) expectations of family versus level of support (Macdonald et. al., 2011). In order to deliver safe, high quality care to our clients, the health professionals working in the home need "knowledge and skills for the procedures and care they are expected to provide" (p. 239).

By using and applying this information, the new electronic clinical assignment verification process ensures that clients, nurses, and clinical supervisors are on the same page. Using the new process ensures that a skilled nurse's competencies and skills validation matches the patient's needs. The new process will ensure safe care is provided by the skilled nurse.

Summary Report

The aim of the CNL Internship Project is to improve the process of placing an appropriately trained nurse in the client's home to provide safe, quality care. Adverse events in home health have a high incidence, and the simple step of completing the electronic clinical assignment verification form before the nurse provides care can help minimize or even prevent an adverse event from happening. The home health office team gained an additional team member, a clinical supervisor or CNL respectively, to ensure appropriate training of the skilled nurse has been completed before the skilled nurse cares for the patient. The new process showed an increase in shared accountability between recruiters and the clinical team as evidenced by daily interest and prompt participation of each team member involved. The amount of not completed forms reached zero at the end of the data collection. Additionally, the new process increased client safety due to the correct and complete training of the skilled nurse

providing care in the home.

The population of the project included home health patients in the Bay Area of San Francisco between the ages of two and 89 years. These patients have a variety of needs including but not limited to catheterization needs, wound care, tracheostomy care, and enteral feeding. The project had its base at the home health agency office in Emeryville, California with no actual hands-on patient contact. The Director of Clinical Services and the Administrative Officer were in full support of the project.

A process map has been designed by the team using several techniques such as sticky notes and team interviewing. Once the process map was completed, the new process was explained and discussed during a full office meeting. Ever office member received a copy of the process for future reference. In addition to the process map, patient specific orientation (PSO) forms and the ECAV forms were used to complete the project.

The data collected showed a decrease from 23 open forms at the beginning of the time period to zero open forms at the end of the data collection. This means that the project was successful and the specific aim of 100% of completion of forms at the end of the day has been reached.

During the first team meeting it was found that all four clinical supervisors in the office randomly approve forms during the week if they had some downtime during their busy working day. There was not sense of urgency by neither recruiters nor clinicians. Closing forms late, or after the nurse already works, was one of the reasons why nurses provided care without the right requirements. The first PDSA cycle started 5/31/15 with the assigned clinician being the only clinician approving, and therefore closing, forms.

After implementing this first change, the amount of not completed forms dropped from 23 to two by 6/9/15.

From 6/9/15 to 6/23/15, the amount of open forms increased again from two to a maximum of ten not completed forms on 6/23/15. During a subsequent team meeting with a root-cause discussion, it was found that the assigned clinician is 1st, 2nd, or 3rd reviewer, depending on the time of the day the clinician has time to complete the approvals. This is very ineffective and several forms were missed. The reason for missing forms is the fact that once the form is approved, it is very difficult to track a form status. The form status refers to where the nurse currently is in the process of Appendix B. If the clinician is the 1st or even 2nd reviewer, it is difficult to determine if follow up by the clinician is needed to ensure that the nurse completed all requirements before working in the home. It is difficult to remember which form has been approved and which form needs reassessment by the clinician, if the clinician is 1st or 2nd reviewer. On the other hand, if the clinician is the 3rd reviewer, the form automatically closes if all requirements have been met. Therefore, the second PDSA cycle included that the clinician is not just the only clinician approving forms, but also the 3rd reviewer, to ensure that there are no missed forms.

The data collection after this second change was not satisfying and showed amounts of four to eight not completed forms from 6/23 to 7/7 on a daily basis. Thus, the third PDSA included that the assigned clinician is (1) the only one approving the form, (2) is the 3rd reviewer and (3) makes the electronic clinical assignment verification forms a work day priority. The forms are now integrated into the work schedule of the assigned clinician. One of the first tasks the clinician does at the beginning of each day

is to open the online platform, check it, complete forms, and then leave it open throughout the work day for fast access to complete new forms. The very first day this plan was incorporated, on 7/07/15 respectively, the amount of not completed forms dropped to two and stayed between the ranges from zero to three. The first time a zero was reached was 7/17/15 and continued to stay between zero and one to the end of data collection on 7/29/15.

This project is planned to be used in this home health agency microsystem on an ongoing basis. The only modification after the presentation of results is to add one additional back-up clinical staff member who is trained to chart data and complete the electronic clinical assignment verification forms the way it has been described. It is planned that the most qualified person at this time, the Director of Clinical Services (DOCS), will fulfill this role. The DOCS and the internal clinician are the champions for this project and will be able to support the SDSA. The project is within the organization's mission to "provide reliable, safe, and patient-centered care through innovation and efficient care delivery models" (Maxim Healthcare Services, 2015).

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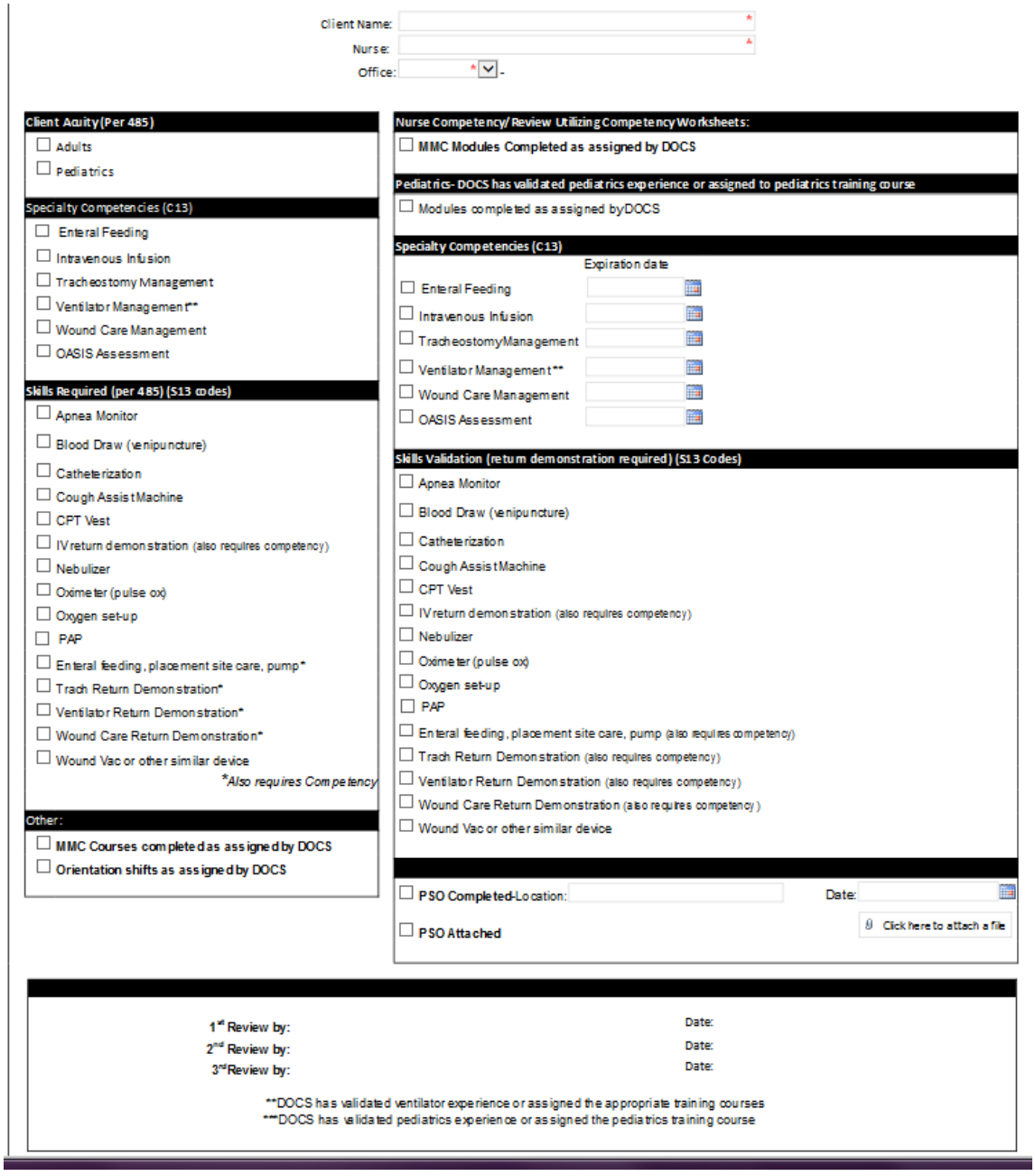
Appendix A

Electronic Clinical Assignment Verification Form



Client Name: *
Nurse: *
Office: * -

Client Acuity (Per 485)
- ☐ Adults
- ☐ Pediatrics

Specialty Competencies (C13)
- ☐ Enteral Feeding
- ☐ Intravenous Infusion
- ☐ Tracheostomy Management
- ☐ Ventilator Management**
- ☐ Wound Care Management
- ☐ OASIS Assessment

Skills Required (per 485) (S13 codes)
- ☐ Apnea Monitor
- ☐ Blood Draw (venipuncture)
- ☐ Catheterization
- ☐ Cough Assist Machine
- ☐ CPT Vest
- ☐ IV return demonstration (also requires competency)
- ☐ Nebulizer
- ☐ Oximeter (pulse ox)
- ☐ Oxygen set-up
- ☐ PAP
- ☐ Enteral feeding, placement site care, pump*
- ☐ Trach Return Demonstration*
- ☐ Ventilator Return Demonstration*
- ☐ Wound Care Return Demonstration*
- ☐ Wound Vac or other similar device

*Also requires Competency

Other:
- ☐ MMC Courses completed as assigned by DOCS
- ☐ Orientation shifts as assigned by DOCS

Nurse Competency/Review Utilizing Competency Worksheets:
- ☐ MMC Modules Completed as assigned by DOCS

Pediatrics- DOCS has validated pediatrics experience or assigned to pediatrics training course
- ☐ Modules completed as assigned by DOCS

Specialty Competencies (C13)

	Expiration date
☐ Enteral Feeding	
☐ Intravenous Infusion	
☐ Tracheostomy Management	
☐ Ventilator Management**	
☐ Wound Care Management	
☐ OASIS Assessment	

Skills Validation (return demonstration required) (S13 Codes)
- ☐ Apnea Monitor
- ☐ Blood Draw (venipuncture)
- ☐ Catheterization
- ☐ Cough Assist Machine
- ☐ CPT Vest
- ☐ IV return demonstration (also requires competency)
- ☐ Nebulizer
- ☐ Oximeter (pulse ox)
- ☐ Oxygen set-up
- ☐ PAP
- ☐ Enteral feeding, placement site care, pump (also requires competency)
- ☐ Trach Return Demonstration (also requires competency)
- ☐ Ventilator Return Demonstration (also requires competency)
- ☐ Wound Care Return Demonstration (also requires competency)
- ☐ Wound Vac or other similar device

- ☐ PSO Completed-Location: Date:
- ☐ PSO Attached — Click here to attach a file

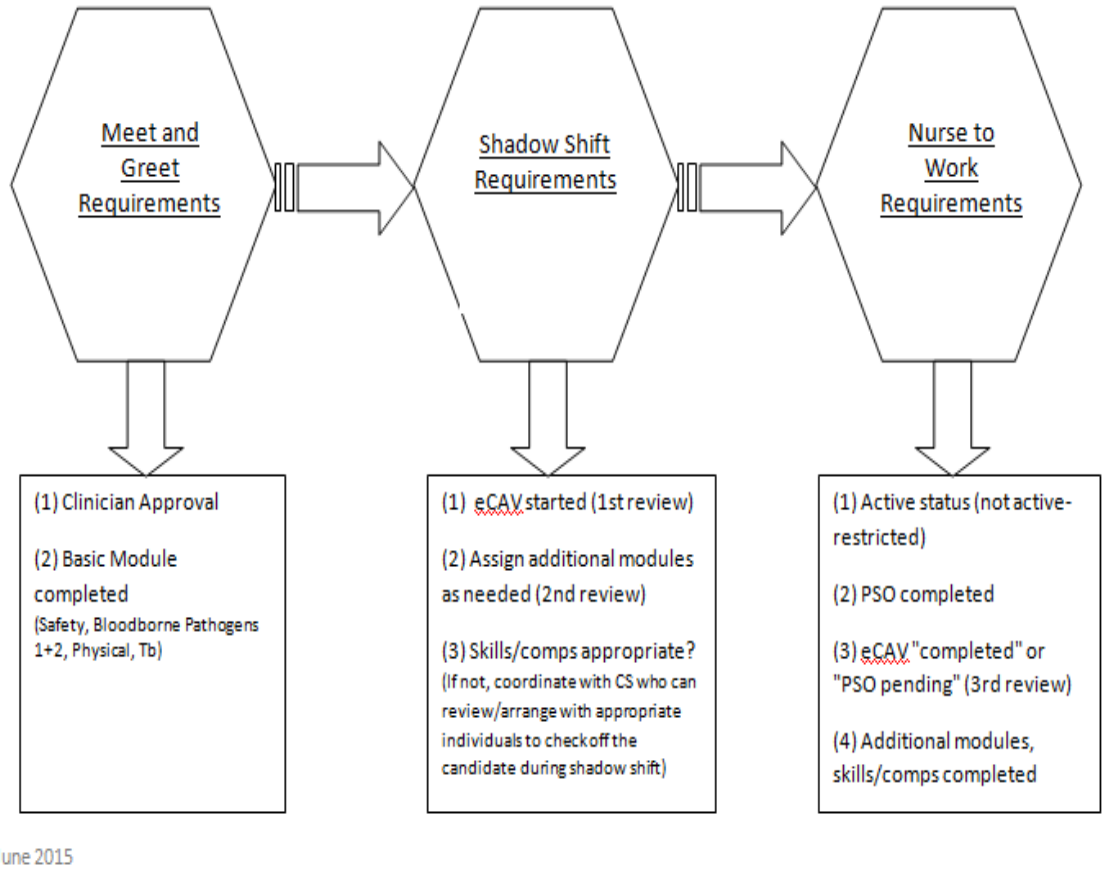
1st Review by: Date:
2nd Review by: Date:
3rd Review by: Date:

**DOCS has validated ventilator experience or assigned the appropriate training courses
***DOCS has validated pediatrics experience or assigned the pediatrics training course

Note. This form is already used by agency offices. This form has not been designed by the author.

Appendix B

Requirement for Skilled Nurse Working a Shift Alone - Process Map



Note. Created by the author. Meet and Greet = 20 minutes, hands off, meet between patient and skilled nurse before first shift is started, Tb = Tuberculosis, shadow shift = hands on, competencies and skills check offs can be completed, shadowing the current skilled nurse, eCAV = electronic clinical assignment verification, CS = clinical supervisor, PSO = patient specific orientation.

Appendix C

Patient Specific Orientation (PSO) form

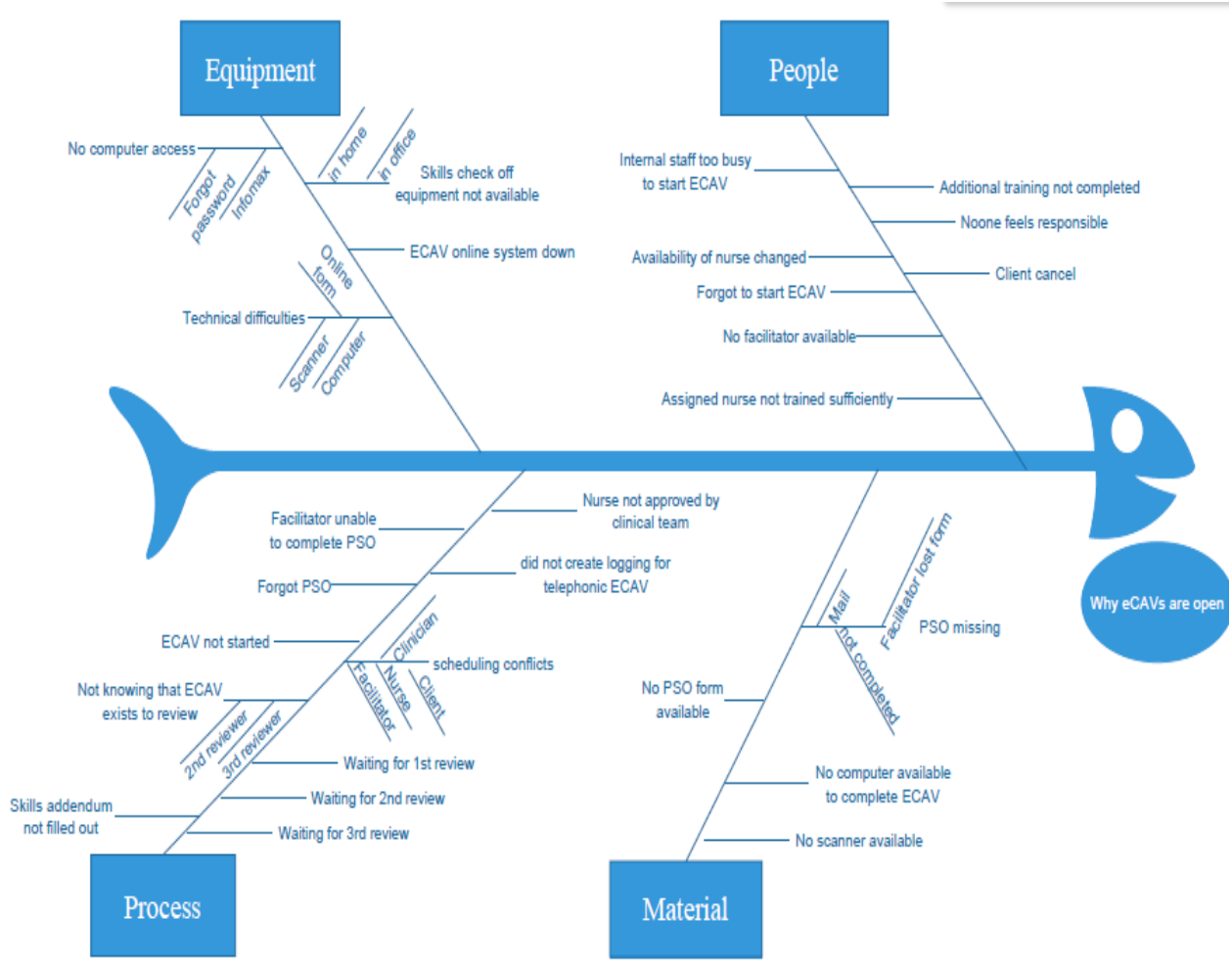
PATIENT SPECIFIC ORIENTATION - SKILLED NURSE

Patient Name and Medical Record Number:	**Date:**	**Time In:** **Time out:**
Employee Name: *(print)*	**Employee Name:** *(signed)* (Not required if telephonic PSO)	
Facilitator Name: *(print)*	**Facilitator Name:** *(signed)*	
PSO Location: □ Home □ Phone *(May only be selected if Skills previously validated)*		
☐ Emergency Preparedness reviewed Indicate emergency risk level: _____ Review Code Status: ___Yes ____NO		
Plan of Care review: __Yes	**DME Provider:** _____	**DME Phone Number:** _____
□ **Tracheostomy**	Type: Size/including back up size:	Trach care and frequency of change:
□ **Oxygen**	Amount Ordered: Storage location:	Delivery system:
□ **Oximeter**	Alarms audible: □Yes □No □No Alarms	Settings:
□ **Ventilator**	Type and frequency of use: Settings:	Battery check □Yes □No Alarms audible: □Yes □No
□ **Apnea Monitor**	Alarms audible: □Yes □No	Settings:
□ **Cough Assist Device**	Type:	Care:
□ **Suction**	□Oral □ Nasal □ Tracheal □ Other _____	Care:
□ **CPT Vest**	Type:	Care:
□ **Respiratory**	Nebulizer:	□BIPap □C-Pap
□ **Feeding Tube:**	Type: Size:	Feeding Pump device: _____ Bolus: _____
□ **Elimination Devices**	GU:	GI:
□ **Ostomy**	Describe:	Care:
□**Musculoskeletal**	Ambulatory: □Yes □No	Assistive devices:
	Braces:	Lift:
□ **Integumentary**	Skin care:	Wound locations: Wound care:
	Pressure Relieving device:	Describe:
□ **Neurological:**	Precautions:_____(consider aspiration, falls, Oxygen, toddler, Seizure)	Shunt: □Yes □No
□ **IV or Central/PICC Line**	Type: Site:	Infusion type:
	Dressing Change:	Flush/Heplock:
	Pump:	Site:
□ **Lab draw**	Glucometer:	Frequency: Test/Frequency:
□ **Transportation**	Transportation Protocol:	GO Bag Review:
Other Equipment/Supplies (as applicable)	Other: Other: Other:	Other: Other: Other:
Patient/Family Preference: (as applicable)		

Note. This form is already used by agency offices. This form has not been designed by the author.

Appendix D

Root Cause Analysis - Fishbone diagram



Note. Shadow shift = hands on, competencies and skills check offs can be completed, shadowing the current skilled nurse, eCAV = electronic clinical assignment verification, CS = clinician, clinical supervisor, PSO = patient specific orientation.

Appendix E

Stakeholder Analysis

Note. The clinical supervisor (CS) has the highest power and the highest interest. Recruiters have a high interest as well, but less power to decide because they do not have a nursing background. Clients have a high power as well and need to be satisfied because they can make a decision about keeping the skilled nurse. Skilled nurses have to be monitored (checked off) and satisfied (interesting case), human resources (HR) has interest to keep the skilled nurse personal file updated and has medium power to decide (active, active restricted, inactive skilled nurse).

Appendix F

Strengths, Weaknesses, Opportunities, Threats (SWOT) Analysis

Positives	Negatives
STRENGHTS Team recognizes importance Computer savvy team No buy-in needed Great manager team support Additional clinical team member hired for this type of improvement	**WEAKNESSES** Small internal team Bay area has high living cost, but wage of nurses are low (small amount of proficient nurses available)
OPPORTUNITES Provide quality care Future possible referrals Provide safe care Improve outcomes of client Gain valuable time for each internal team member	**THREAT** Computer issues Not enough nurses on hand for variety and flexibility Client cancels Nurse cancels Increases in living cost, stagnant wages

Appendix G

Cost Analysis - Timeline of completing eCAV

STEPS	WHO	WHAT	HOW LONG	COST
Step 1	Recruiter1+2 CS (=CNL)	Identify appropriate nurse (active, modules completed	5-10 minutes	$1.50-$3 x 2 $2.70-$5.30
Step 2	Recruiter 1	Set up MG - call nurse, call patient, confirm time	10 minutes	$3
Step 3	Recruiter 1	start ECAV form - information to be put in: Name patient, name nurse, patient skills, MG comment on bottom, click submit	3 minutes	$0.90
Step 4	Recruiter 2	2nd review of ECAV (review of Recruiter 1 info)	2 minutes	$0.60
Step 5	CS	3rd review. Plug in info on patient side. Confirm skills validation and competency matched with nurse to patient. Assign additional modules, training. If approved form may changed to PSO pending (=approved to work) until PSO is attached. Add comment on ECAV to what is pending, or if approved.	20-25 minutes	$10.60- $13.30
Step 6	Recruiter 1	MG went well? Set up shadow shift nurse-nurse, set up PSO form to be completed where? (either on shadow shift, telephonically, or office).	10 minutes	$3
Step 7	CS	Upload of PSO form, comment that approved.	5 minutes	$2.70
Total			**55-65 minutes**	**$26.50 - $34.80**

Note. MG = Meet and greet, eCAV = electronic clinical assignment verification, PSO = patient specific orientation. CS = Clinical Supervisor

Appendix H

Cost Analysis Additional Steps

Scenario A: Clinical supervisor has to complete PSO and skills validation check offs and competencies at patient home.

WHO	**WHAT**	**HOW LONG**	**COST**
CS and skilled nurse	PSO form completion	15minx2	$8 plus $6
CS	Drive to patient and back to office	30 min x2 (back to office)	$32
CS and skilled nurse	Perform skills validation check offs and competencies at patient home	30 - 60 min x 2	$16-32 plus $12-23
			$74-101

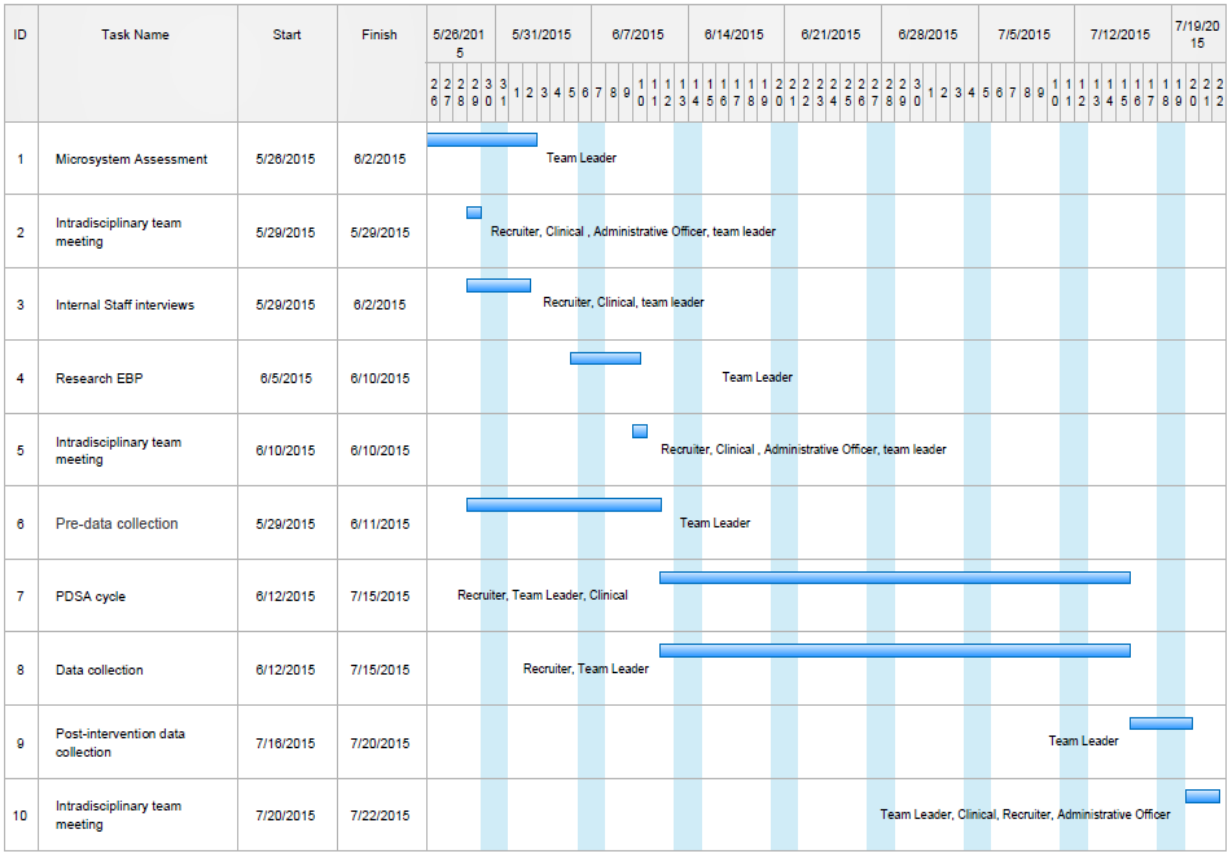
Scenario B: PSO, skills validation and check offs and competencies are completed at patient home with existing RN

WHO	**WHAT**	**HOW LONG**	**COST**
RN and skilled nurse	PSO form completion	15minx2	$12
RN and skilled nurse	Perform skills validation check offs and competencies at patient home	30 - 60 min x 2	$24-46
			$36-58

Note: $ amounts are rounded. Time and $ amounts are average. Assumption that nurse is at patients home ready to work once check offs have been completed. CS = Clinical Supervisor. PSO = patient specific orientation.

Appendix I

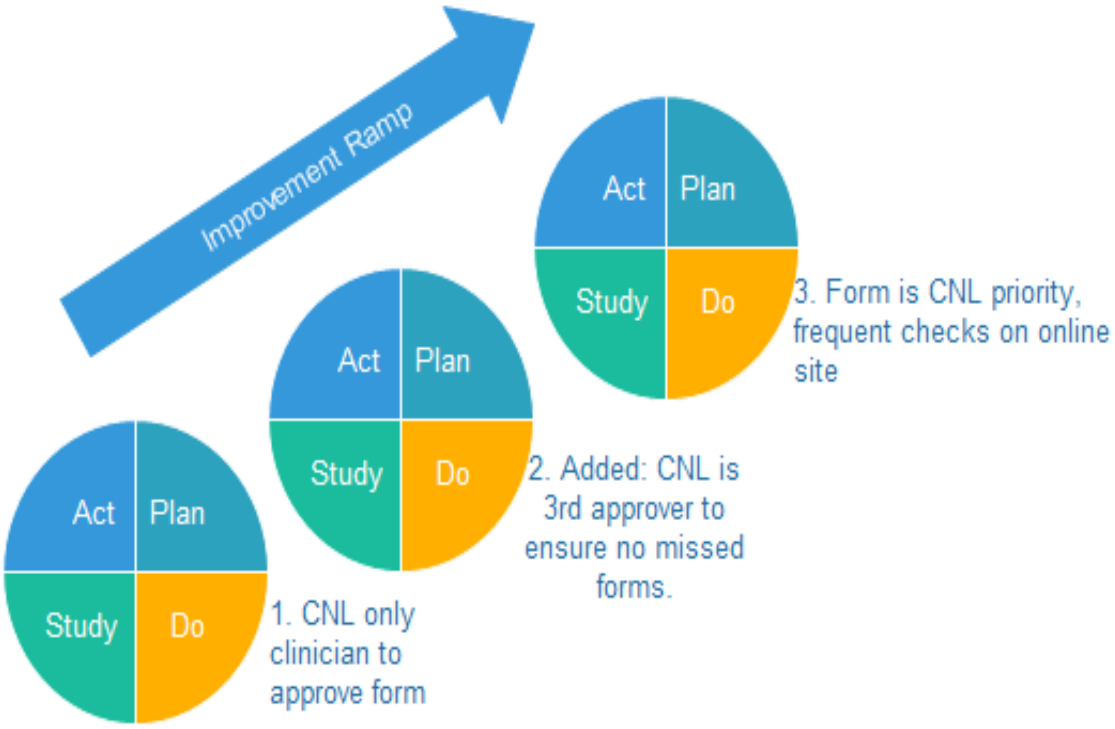
Gantt Chart



Note. Team Leader is the internal clinical supervisor (CNL).

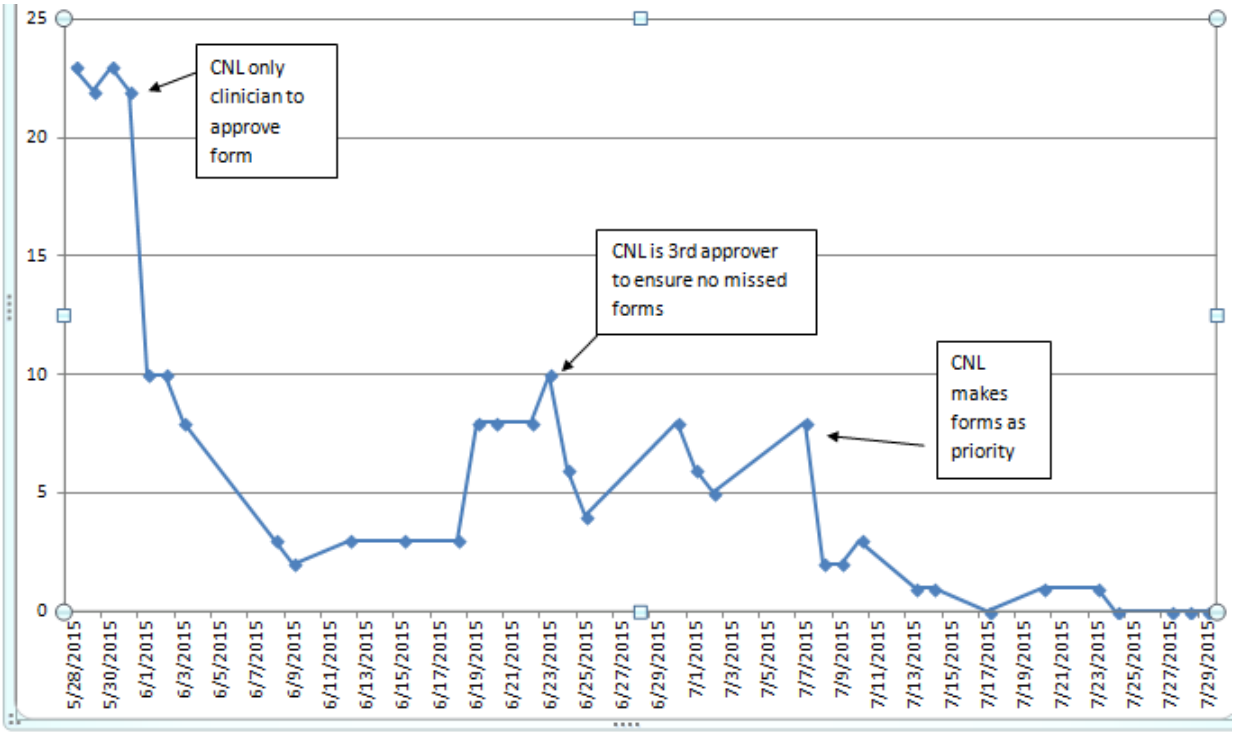
Appendix J

Plan, Do, Study, Act (PDSA) Improvement Ramp



Appendix K

Electronic Clinical Assignment Verification Forms Pending Reviews (=not completed forms)



Note: Shown is the data trend of not completed ECAVs. The textboxes show the PDSA cycles.