

Winter 12-18-2015

Increasing Self Care Compliance with Follow-up Appointments

Elsa T. Owens
lissaowens6@gmail.com

Follow this and additional works at: <https://repository.usfca.edu/capstone>



Part of the [Other Nursing Commons](#)

Recommended Citation

Owens, Elsa T., "Increasing Self Care Compliance with Follow-up Appointments" (2015). *Master's Projects and Capstones*. 209.
<https://repository.usfca.edu/capstone/209>

This Project/Capstone is brought to you for free and open access by the Theses, Dissertations, Capstones and Projects at USF Scholarship: a digital repository @ Gleeson Library | Geschke Center. It has been accepted for inclusion in Master's Projects and Capstones by an authorized administrator of USF Scholarship: a digital repository @ Gleeson Library | Geschke Center. For more information, please contact repository@usfca.edu.

Increasing Self Care Compliance with Follow-up Appointments

Elsa Owens

University Of San Francisco

Increasing Self Care Compliance with Follow-up Appointments

Clinical Leadership Theme:

The Congestive Heart Failure (CHF) project focuses on two of the CNL competencies. First focus is on the CNL as a clinical outcomes manager. In the CHF project I assumed accountability for healthcare outcomes for a specific group of clients within a unit or setting recognizing the influence of the meso-and macrosystems on the microsystem. The second CNL theme focus is CNL as the Care Environment Manager. The CHF project identified clinical and cost outcomes that improves safety, effectiveness, timeliness, efficiency quality, and the degree to which they are client centered

Statement of the Problem:

The congestive heart failure patient faces many challenges after discharge from the hospital. Learning how to manage diet, medications, and other lifestyle changes needed for symptom management can lead to multiple readmissions and rapid progression of condition. Many patients feel overwhelmed at time of discharge from the hospital, and many miss key components in discharge instructions and education. Jackson, Shahsahebi, Wedlake, & DuBard (2015) states that patients have a higher likelihood of following symptoms management instructions and monitoring symptoms if they have follow-up with a primary care physician within seven days of discharge. The purpose of this project is to evaluate if establishing follow-up appointments prior to discharge for the CHF patient will decrease their risk of symptoms of fluid overload and weight gain within 30 days of discharge. In the first two quarters of 2015 the facility had 915 patient admitted with symptoms of fluid overload. Chart audits found that 253 patients were readmitted with more than a five pound weight gain and increased complaints of

symptoms of fluid overload. One of the major influences on how well a patient will do after discharge is follow-up. Appropriate and timely follow-up after discharge can assist a patient in catching symptoms before they become exacerbated as well as follow-up on needed education. Post discharge follow-up may also ensure the patient has all needed medications at home and is taking them correctly.

According to Jackson, Shahsahebi, Wedlake, & DuBard (2015) ensuring discharge follow-up allows patient to receive education that will decrease their rate of weight gain and increase their rate of compliance with diet, medications and symptom management.

Project overview:

At the time of discharge patients have received information from the Transitional Care RN regarding care management programs and bedside teaching on daily weights, diet, medication and needed lifestyle changes. The patients are then discharged and advised to follow-up with their primary physician or Cardiologist if any problems or questions arise. Upon evaluation of the readmission charts of the patients admitted with congestive heart failure (CHF) it was found that 78% of the patients had a misunderstanding of their discharge information or medication, and had returning symptoms of fluid overload with weight gain in 7- 10 days from discharge.

The CHF project started with a review of patients that were re-admitted within 14 days after discharge with greater than a five-pound weight gain. The audit data was reviewed with the CHF team and a SBAR (Appendix A) explaining the issue was presented to upper leadership within the facility. The SBAR requested a FMEA be conducted to further investigate. The FMEA (See Appendix B) team met conducted nine meetings to review the failure modes, and

possible causes and processes that may influence discharge follow-up of the CHF patient. The team found that the follow-up appointments were a missing component in many of the patients' discharge from the hospital. After discussion between the FMEA group it was found that the process for scheduling follow-up appointments had not been a process driven practice but an individual driven process with no steps in place to ensuring the patient would receive follow-up once discharge. The team agreed on follow-up appointment scheduling becoming the focus on the first PDSA.

The PDSA is carried out in four parts. First an order has been added to the CHF Hospital Based Medicine order set for, follow-up appointment to be scheduled by unit assistant at time of discharge order completion. This will alert the Unit Assistant that they will have orders for follow-up appointment to be scheduled for a patient within seven days. Second a hard stop has been added to the discharge instruction print page alerting the Unit Assistant to the need of scheduling a follow-up appointment. There are now laminated cards reminding staff of the process as well at every nurse's station throughout the Telemetry Unit. Third step, the Nursing Care Pathway for CHF will have a subject line for discharge appointment and follow-up for the nurse to address. This line item will alert the nurse to the fact that a discharge appointment form should be included in the discharge paper work for this patient. The fourth step is the Transitional RN will contact patient within 48 hours of discharge to review, medications, diet, daily weight and upcoming appointments as a reminder for patients of symptoms management methods and appointment verification. If appointment has not been scheduled for the patient the Transitional Care RN will schedule an appointment and email a reminder to patient's email.

The goal of this project is to decrease patient's recurrence of symptoms of fluid overload. Follow-up with a primary physician or cardiologist has been shown to increase

patients' understanding of chronic conditions and can help to find early symptoms of relapse before full condition exacerbation. According to Hersh, Masoudi, & Allen (2013) a facility can decrease a patients' chance of condition exacerbation by 30% with follow-up appointment within seven to ten days of discharge. The goal of the PDSA is to increase follow-up appointments by 5% by the end of 30 days. The global aim would be to decrease patients' episodes of CHF exacerbation by 10% and reduce readmission rates by 6% by first quarter of 2016.

Rationale:

In 2014 the facility started a new nursing care plan and physician order set aimed at patients admitted for symptoms of fluid overload due to congestive heart failure. The congestive heart failure care-plan and order set was initiated to address some of the missing components found in patient care after readmission for fluid overload. During its pilot phase in the first quarter of 2014, all congestive heart failure patients received care under the congestive heart failure treatment plan and order set, with 100% chart reviews to ensure compliance. Chart reviews conducted in the first quarter of 2015 revealed that after the trial period of the new nursing care plan, post discharge follow-up appointments fell to below 42%. After completing audits on 50 random charts of patients with CHF readmitted within 30 days after discharge, it was found that 32 patients did not have a follow-up appointments scheduled. Facility data for readmitted patients also found that one of the key factors of readmission for congestive heart failure patients was a reoccurrence of symptoms of fluid overload. In the first two quarters for 2015 there was a readmission rate of 28% for patients with congestive heart failure, 26% of those patients had a weight gain of five or more pounds.

Further examination into the data showed many other small parts of the physician order set had also stopped being addressed, many of the program patients were missing discharge weights, had no bedside education from pharmacist or dietician and had no scheduled follow up appointments post discharge. The facility conducted a Failure Modes Affects Analysis (FMEA) to identify missed opportunities within the CHF patient population, and determine why the CHF Care Pathway (See Appendix C) of 2014 had lost momentum. The Leadership wanted to ensure all stakeholders were continually in the loop on all decisions and completed a Stakeholders Analysis (See Appendix D). The Stakeholders Analysis determined that the Physicians and front line nurses were the first direct contact and would have the largest input on the success of the PDSA. The Fishbone Diagram (See Appendix E) shows that education is the leading cause of missed opportunities for patient education and follow-up appointment scheduling prior to patient discharge. The team found that out first step would be to educate nurses and staff on the importance of ensuring appropriate follow-up.

The FMEA was comprised of the Continuum of Care Administrator, Director of Risk & Quality, The Cardiology Chief, The Chief of Hospital Based Medicine, The Geographic Managed Care Manager, Out-patient Administrator, Chief Nursing Officer, Risk Administrator, Director of Pharmacy, Director of Dietary Services, Transitional Pharmacist, Telemetry Unit Assist, Telemetry RN Champion from days shift and evening shift, Emergency Room Chief, 2 Emergency Room Nurses, Telemetry Assistant Manager and CHF Transitional Care RN/ CNL Student.

The first step for the FMEA team was to complete a SWAT analysis. The FMEA team found the following, **Strengths**: One of the main strengths is strong leadership support for the success of the project. Another strength is that many of the open positions within the facility is

now filled and staff such as unit assistants are available to schedule appointments most shifts.

Weakness: The facility had many open positions for an extended amount of time and now has a high influx of new personal. The new personal will need training on how flag congestive heart failure patients and schedule appointments. Follow-up appointments will also have to be added the physician's standardized order set for patients with congestive heart failure. **Opportunities:** The FMEA has alerted the team to many missed opportunities for education and follow-up scheduling for the CHF patient. One opportunity is adding hard stops in the electronic health record for the Physician during order entry and Unit Assistant during finalizing of gathering discharge paperwork. **Threats:** One threat is low adherence to the new practice of scheduling appointments for the CHF patient. Currently post discharge appointments scheduling is an individual based practice and not a process based practice. Ensuring that physicians add the stop to their orders and staff schedules the appointment prior to discharge will be a change in culture. The new process will have to ensure that flags are in place to alert nursing and physicians if the appointment is not made.

The FMEA work group found that establishing a workflow for follow-up appointments was emergent and needed to be addressed immediately. During the fifth meeting a severity work sheet was completed and issue was found to have a Frequency score (5) a Severity Score (3) and a Criticality Scale score of (9). The team addressed how the measures were missed by staff and began to address counter measures that may stop missed appointments and consults. Every team member has a duty to review charts in real time to address missing treatments prior to patient discharge. Nursing champions will continue this work as a CHF committee member and as one of their Staff Nurse Step projects, to ensure audits continue. A 30-day pilot on the Telemetry unit

will began on September 28, 2015. The FMEA team will meet weekly during the pilot to address issues and find resolution during the pilot.

According to CMS as of October 2012, hospitals no longer receive reimbursement for patients readmitted after primary admission with symptoms of congestive heart failure. The facility had a readmission rate of 27% in 2013. The average readmission cost the organization approximately \$ 13,000 per patient (CMS (Centers for Medicare & Medicaid Services), 2011). As of the first quarter of 2015 the facility had 915 patients admitted with symptoms of fluid overload. Chart audits found that 253 patients were readmitted with more than a five pound weight gain and increased complaints of symptoms of fluid overload. CMS calculates average patient stay for patients' readmitted for CHF to be approximately \$13,000 per admission. At 253 patient readmissions in so far in 2015, heart failure is one of the top three leading causes, of less than 30-day hospital readmissions within the organization, and cost the facility approximately \$ 3,289,000. The Projected Cost for the PDSA is as follows:

Department cost associated with FMEA:

1 Unit Assistant: Ave pay 26.00 per hour x 6 hours = 156.00

3 RN: Ave pay 58.00 per hour x 6 hours = 348.00

Time needed to schedule appointment

Average CHF patients admitted weekly 12

Unit assistant time needed to schedule each appointment is 30 minutes.

Cost for Unit Assistant, scheduling approximately 12 appointments a week at 30 minutes per appointment= 156.00 per week in wages

Ryan, Dolack, Ingrassia, & Ganeshan (2013) found that ensuring patients seen their personal physician within 7 days post discharge decreased readmission rates of congestive heart

failure patients by 30% (Ryan, Kane, Dolacky, Ingrassia, & Ganeshan, 2013, p. 992). This project has the potential of possibly saving the facility approximately \$986,700 annually.

The AACN (2006) states that the CNL should participate in systems review to critically evaluate and anticipate risks to client safety to improve quality of client care delivery (p.7). According to Jackson, Shahsahebi, Wedlake & Dubard (2015) ensuring post discharge follow-up appointments allows post discharge symptoms to be treated and symptoms management practices to be discussed with patient, which can decrease readmission rates for patients with CHF. This project aims both at patient care outcomes and fiscal stewardship for the facility; both aspects are essential for a project to gain momentum and obtain leadership support.

Methodology:

The PDSA contains four key elements. First ensure is a doctor's order for a post discharge appointment within seven days of hospital discharge. The physician's IT team has placed within the doctor's order set for the CHF patient a hard stop alerting the MD to the need of follow-up visit. This will help to remind the physician of the need to request follow-up for this patient with either primary care physician or cardiology at time of discharge. The IT team has also added a hard stop to print page for discharge instructions alerting the unit assistant of the need to schedule follow-up appointment per MD orders. The team also developed laminated place cards to alert the unit assistant to what type of appointment is needed (See Appendix F). Follow-up appointment print out has been added to nursing care plan. This will ensure that the bedside nurse looks for discharge appointment slip within the discharge materials.

To track sustainability of the project the FMEA team will complete weekly audits on all patients admitted for CHF. The facility works with an Electronic Health Record (EHR). The

Quality Team has established data collection format to extrapolate information from the EHR to review data for patient admitted with CHF as a primary or secondary diagnosis. This information will be reviewed weekly for information on discharge weights, Transitional Care RN visit, discharge medication reviewed and follow-up appointment scheduled. The data will be shared with the CHF FMEA team and leadership within the facility. It is expected that during the PDSA cycle the project numbers will be in the high ninety percentile, so this data information will be included in the measures shared at the monthly leadership meeting.

The theory that lends itself directly to ensuring the congestive heart failure patient receives timely follow up appointment is the Lewis Theory The Force Field Model of Change. The telemetry team will be in a process of unfreezing the current practice of advising patients to see their physician. By moving the staff to now scheduling appointments for follow-up, and then refreezing the new education and discharge process for the CHF patient in place. The CHF team has completed a FMEA to review factors that inhibit the flow of the CHF patient pathway process. During the PDSA cycle the Telemetry Unit will initiate the new practice of scheduling discharge appointments; while the prior practice of advising patients to schedule appointments once home will be discarded. During the PDSA cycle the team will have a new order set to acknowledge from the hospital based physicians, a educational checklist will be followed for each patient with CHF, and the Unit Assistant will have a hard stop before being able to print discharge instructions. These steps will assist in ensuring post discharge appointments are scheduled prior to discharge. The FMEA team will meet weekly to review process and any obstacles that may be hindering the process.

The CNL participates in systems review to critically evaluate and anticipate risks to client safety to improve quality of client care delivery. The FMEA process has examined a past

workflow that lost momentum after the initial roll out. According to researchers Lile, Buhmann & Roders (1999) the leading cause for hospital readmissions is lack of compliance due to poor understanding of condition and connection between lifestyle changes and symptom management (p.14). Ryan, Dolack, Ingrassia, & Ganeshan (2013) found that ensuring patients seen their personal physician within 7 days post discharge decreased readmission rates of congestive heart failure patients by 30% (Ryan, Kane, Dolack, Ingrassia, & Ganeshan, 2013, p. 992). Ensuring patients have the needed information and follow-up appointments will increase patients understanding of self-management techniques and ensure an assessment is completed by primary provider within a seven day period.

The FMEA team has developed a multifaceted approach to ensure follow-up appointments are scheduled for the CHF patient prior to discharge from the hospital. The goal for this project will be a 10% increase in post discharge follow-up appointments being scheduled for CHF patients at end of the PDSA cycle on October 28, 2015. The PDSA cycle began September 28, 2015. The Telemetry Unit now has signs at the nurse's station as reminders and hard stops in the electronic health record reminding Unit Assistants to look for appointment orders from physicians prior to printing discharge instructions. The nursing staff also has a hard stop placed on their screen alerting them to vaccine and appointment orders that have been placed and are needed prior to discharge.

Appointments are now also in a traceable format within the electronic health record. The quality department will have a list with anyone who is admitted with a primary or secondary admitting diagnosis of CHF and which measures were met during their admission such as, follow-up appointments, Nursing bedside education, Case Manager visit, Discharge Pharmacy bedside visit and dietary visit. For the fourth quarter of 2015 the CHF team will meet monthly

and review the data, for 2016 the CHF team will continue to meet quarterly and review data and cases ensuring the program is continuing in the correct direction.

The FMEA has established a few measures to ensure appointments are being made and continual adherence to policy is established. These measures have been reviewed with Telemetry Department Quality Counsel, Risk Management, The Patient Safety Committee and The Medical Executive Committee. The FMEA team has also recommended adding new key members to the Chronic Conditions Admissions Team; the new team will have representatives from the telemetry unit. The new members will consist of, a unit assistant, RN champion from the Telemetry Unit, the Unit manager and a hospital based medicine physician.

Data Source/Literature Review:

Literatures pertaining to symptom management for the patient with congestive heart failure all support follow-up appointments, and or programs aimed at educating the patient. In the study, Why do patients keep coming back? Results of a readmitted patient survey. (2015), these researchers found that patients feel like they understand all discharge information, had all medication and were ready for discharge. When patients were readmitted upon interview it was found that patients often misunderstood self-management instructions, misunderstood medication instructions and did not schedule appointments to see physicians for early symptoms (p.2). The facility found matching data to the above study. The facility data showed through chart reviews from 50 readmitted CHF patients, 48 of the patients did not understand the diet, 32 did not have all discharge medications, and none of the patients scheduled appointments with their primary care physician for early symptoms. According to Austin-Redderson, Nasir, Berry (2008), that along with pharmacological and non-pharmacological treatments, follow-up with

cardiology is key in effective treatment. After treatment plans developed by cardiologist close monitoring by clinician is key.

Follow-up appointment scheduling for the project facility is an achievable goal. The in-patient hospital is that is part of a Health Maintenance Organization that cares for patients through all stages of care. The site for this project is a 217-bed facility, with an average daily census of 180 patients. The facility is located in an urban area in Northern California, and is a Level II Trauma center. The facility has an average daily census of 180 patients. The microsystem of focus for this project is the telemetry unit that houses patients needing 24-hour cardiac monitoring during the hospital stay. The telemetry unit is a 48-bed unit, with an average of eight CHF patients admitted daily. The patient populations this project will address are, patients admitted with congestive heart failure as their primary or secondary admitting diagnosis. All CHF patients are referred to the Transitional Care program for bedside education and program introduction. The unit nurses have a CHF patient pathway that assists them with daily education modules and orders such as daily weights, diet, fluid restrictions and discharge information.

For the CHF discharge appointment workflow project I used the following PICO research method. Population: The population is the congestive heart failure (CHF) patients. Intervention: Follow-up care. The intervention will establish a workflow to ensure the CHF patient has an appointment scheduled to see primary care or cardiology within seven days of discharge. Comparison: Discharged home to self-care with no follow-up, the chart audits will be conducted before and after trial period to assess the success of workflow. Outcome: Does a patient have higher self-management skills and reduced symptoms of fluid overload if they have follow-up appointments? The outcome will be increase in scheduled appointments for the CHF patient. I

chose these search criteria to assist in finding articles that speak to the success of patients with or without follow-up appointments.

Authors Piamjariyakul, Smith, Werkowitch, & Elyachar (2011) address the need for a systematic teaching plan aimed at personalized education for the heart failure patient and caregiver, expanding past the in-patient setting. “Enhancing heart failure home management: integrated evidence for a new family caregiver educational plan”. Researchers conducted a qualitative study consisting of literature review, focus groups and telephone interviews. The focus groups consisted of health care professionals, heart failure patients, family members and caregivers. During the discussions many of the caregiver voiced frustrations with the lack of information given during discharge from the hospital. Patients also voiced frustration with feeling accused of eating the wrong foods and improper disease management (Piamjariyakul et al., 2011, p. 248).

Piamjariyakul et al. (2011) found that patients and/or their caregiver often felt rushed and unprepared at discharge for self-care and disease management (p.249). Many of the study participants felt uninvolved with the education process and as if a script was read as they were wheeled out of the room. One of the caregivers felt that he/she had received the same information regarding diet and weighing but was unaware of fluid restrictions and other disease management information (Piamjariyakul et al., 2011, p. 249). This study emphasizes the importance of including patients and their caregivers in the education process, and the need for follow-up post discharge. For many of these patients their disease management education was a few words on their last day in the hospital. According to the authors patients feel more able to manage symptoms if they have support and continuous education.

In the study “ Relationship between improvements in heart failure patient disease specific knowledge and clinical events as part of a randomized controlled trial” Kommuri, Johnson, & Koelling, (2011) addresses the use of a knowledge assessment and extended nursing education with the heart failure patient. The authors conducted a randomized, controlled study of 227 patients admitted with symptoms of heart failure. The patients were placed into two groups. Group A, the control group; consist of 114 patients who received consent for program participation in the study, a Heart Failure Questionnaire, and the hospitals standard discharge instructions and process. Group B. was the study group and consisted of 113 patients. This group also received consent for participation in the study, a questionnaire and the standard hospital discharge instructions and process. The study group also received a one-hour person to person Heart Failure symptom management and self-care education with a nurse educator, written handouts pertaining to heart failure and management guidelines.

The Heart Failure Questionnaire was a 30-question survey the patients completed at baseline and 30, 90 and 180 days after hospital discharge (Kommuri et al., 2011, p. 235). The survey consisted of two sets of 15 questions. The first set of questions assessed the patients’ knowledge regarding heart failure self-care management behaviors. The remaining questions tested the patients’ knowledge on low sodium diets and knowledge regarding dietary recommendations for heart failure patients (Kommuri et al., 2011, p. 235). The nurse educator used topics in the questionnaire to build her teaching plan. From here, she was able to educate the patient at their current knowledge base regarding heart failure. The patient’s education program consisted of all of the needed lifestyle changes and rationales behind the self-care practices.

Kommuri, Johnson & Koelling (2011) found that although both control and study groups scored similarly during the baseline survey, the patients randomized to the education intervention had a significantly higher total Heart Failure Questionnaire score at 30 days post discharge. The study also showed an increase in disease management knowledge at 30 and 60 day. Mediator analysis to understand the relationship between disease knowledge and clinical outcomes, showed that the Heart Failure Questionnaire scores at 30 days was strongly associated with clinical outcomes at 90 days post hospital discharge (Kommuri et al., 2011, p. 236).

The Kommuni, Johnson and Koelling study shows a strong correlation between personalized extensive patient education on heart failure management and clinical outcomes at six months. The study also concluded that with more extensive education and higher heart failure knowledge, the patients from study group had lower incidence of hospital readmission and reoccurrences of symptoms at six-months.

Authors Hersh, Masoudi & Allen (2013), examine what environmental factors may increase readmission rates for the CHF patient. The authors completed a literature search examining factors in the patients post discharge environment that may contribute to hospitalization. Factors included housing, finances and ability to obtain medications and post discharge follow-up visits. The authors ascertained that post-discharged follow-up visits are key in patients with low socio-economical status. Post-discharge follow-up is key in assisting patients with resources and education that may be helpful in symptoms recognition and management. The researchers found that even in low economical communities, when caregivers are able to address needs for lifestyle changes that are accessible for the patient the probability of compliance became higher then with just discharge alone.

Authors Felix, Seaburg, Bursac, Thostenson & Stewart (2015), conducted a peer-reviewed study by data review and patient survey to examine what factors may have contributed to patients being readmitted in less than 30 days. Patient surveys indicated that patients felt that they were given appropriate discharge education and instructions. Patients felt they had all of their medications and tools within their home to be successful in managing symptoms post discharge. When asked why they were readmitted, patients replied with symptom like complaints such as feeling short of breath, nausea, chest pain or a reoccurrence of previous symptoms. Upon data review the study found that only one-third of the patients had follow-up appointments scheduled within 14 days of discharge and most re-admissions occurred within 7-12 days, causing patients to miss follow-up due to readmission. The researchers found that patients, who had follow-up within seven days, expanded the timeframe before reoccurrence of symptoms. These finding lead authors believe that decreasing timeframe to less than seven days may decrease reoccurrence of symptoms.

This peer-reviewed study by Jackson, Shahsahebi, Wedlake, & DuBard (2015), examined how post discharge appointment within seven days will increase self-management skills and compliance while reducing readmission risk. The study found that the significance of post discharge follow-up appointments varies with the complexity of the patients' illness. Jackson et, al. found that patients with less complexity in their illness had a 15% less likelihood of reoccurrence of symptoms with follow-up appointments post discharge, and patients with more complexity in their illness showed a 19% less chance of symptoms within 30 days with follow-up appointments. Authors found a core component of patients care was received during follow-up care, and that patients who had earlier post follow-up appointments had better outcomes from their counterparts due to MD symptom recognition and continuance of education.

The authors Lawn, S., & Schoo, A. (2009, October), explored various methods and opportunities to support patients in self-management of chronic conditions. The paper explores options that may be presented to patient during post follow-up appointments such establishing SMART goals, case management programs and educational classes. Data review shows that establishing a program with goals and objectives set a formula that patients can attain and see failures and successes before illnesses progress to point of hospital readmission. The authors' research shows that including patients in the building of their symptom management plan can increase compliance by more than 12%.

All reviewed articles showed an increase in patient self-efficacy, and a decrease in symptom reoccurrences when follow-up appointments were scheduled within a seven day timeframe. The facility hopes to achieve a 10% increase in post discharge follow-up appointments, which will increase patients and thus decrease patients' episodes of CHF exacerbation.

Timeline:

The project started with a SBAR sent to senior leadership on August 25, 2015 requesting a FMEA to evaluate missing components of the CHF Care Pathway. Senior Leadership requested a larger scale data review and found that 56% of discharged patients did not receive discharge follow-up appointments and agreed to the need for a team to be formed to review. The Pre-FMEA on August 28, 2015, this meeting the Continuum of Care Administrator, Chief of Cardiology, The Director of Outpatient Nursing Practice and The Chief Nursing Officer met with my Preceptor, the Director of Education and I to review data and nominate the FMEA team. The first FMEA meeting was a four-hour meeting held on

September 2, 2015. During the first FMEA meeting I introduced the topic and reviewed the guidelines of a FMEA. During this meeting the team discussed the strengths, weaknesses, opportunities and threats the project may face within the facility. The team then began the FMEA process with reviewing the process steps for HBS Physicians, Unit Assistants and RNs for scheduling discharge appointments, Patient education and discharge process for the CHF patient on the Telemetry floor and Palliative Care RN Role. On September 4, 2015 the FMEA team met for two hours and process steps for Advanced Directives, Pharmacy Discharge programs and CHF Transitional Care program. On September 15, 2015 the FMEA team conducted a four hour meeting and invited the physicians IT team to discuss adding hard stops to charting processes during the upcoming update. The team also reviewed home tele-monitoring and how referrals would be best ordered. On September 17, 2015 the FMEA team held a three hour meeting to discuss non-members during discharge and how to offer education without the ability to follow-up. The FMEA team met for scoring and PDSA planning on September 21st and September 23rd. The FMEA team wanted to ensure the first PDSA was started in the current quarter. The FMEA started educating staff during with one hour in-service classes offered twice during each shift on the Friday September 25th through September 28th. The PDSA cycle for discharge appointment scheduling was kicked off on September 28th posters and lunch. Currently the PDSA is still ongoing. The FMEA team met on October 12, 2015 and currently the follow-up appointments are at 88% for the facility.

Expected Results:

The audit conducted on the initial CHF Care pathway revealed a significant drop in compliance as a whole. Follow-up appointments for the CHF patients are just a small portion

of the care pathway. If the FMEA team can reintroduce the pathway in increments, and ensure that portions are solidified into practice there is a high probability for the entire pathway to become a process-based practice within the telemetry unit. According to the Lewis Theory, The Force Field Model of Change. The telemetry team will be in a process of unfreezing, moving and refreezing the education and discharge process for the CHF patient. With the implementation of the hard stop added to the print page of the discharge instructions the unit assistant will be alerted to the need of scheduling an appointment before the patient is discharged. This process will become part of the practice norms on the unit, thus becoming frozen as a unit norm. After the practice of scheduling appointments for CHF patients has been in practice for 90 days the FMEA team will introduce the next PDSA cycle.

The practice of scheduling follow-up appointments for the CHF patient will ensure patients are seen during the time they are most probable to experience an exacerbation of their CHF. The follow-up appointment will allow primary care providers the time to examine, coach and follow-up on information the patient may have missed during their admission and discharge. This appointment will also allow the physician to introduce the patients to Case Management programs and order case management follow-up.

Nursing Relevance:

Ensuring patients have follow-up appointments and education profound implications for the nursing practice. According to the AACN the Clinical Nurse leader Effects change through advocacy for the profession, interdisciplinary health care team and the client by identifying clinical and cost outcomes the improve safety, effectiveness, timeliness, efficiency, quality and client-centered care (p.1). The CHF Care Pathway uses a intra-

disciplinary approach not only in caring for the CHF patients while in-patient, but also in ensuring the CHF patient has the follow-up they will need to assist in their knowledge base on how to become self efficient in managing their CHF symptoms.

The CHF follow-up appointment PDSA will also build collaboration between, nursing, physicians and the other disciplines within the Telemetry unit. Working on change within the department will build the team as a whole. The FMEA team was an intra-disciplinary approach to solving the missing gaps within the CHF Care pathway allowing all members to voice their concerns and problems that may occur during the workflow.

Summary Report:

The purpose of this project was to create a system to ensure follow-up appointments are scheduled prior to discharge for the CHF patient. Establishing follow-up appointments will decrease the CHF patients' risk of symptoms of fluid overload and weight gain within 30 days of discharge. In the first two quarters of 2015 the facility had 915 patient admitted with symptoms of fluid overload. Chart audits found that 253 patients were readmitted with more than a five pound weight gain and increased complaints of symptoms of fluid overload. One of the major influences on how well a patient will do after discharge is follow-up. Appropriate and timely follow-up after discharge can assist a patient in catching symptoms before they become exacerbated as well as follow-up on needed education. Post discharge follow-up may also ensure the patient has all needed medications at home and is taking them correctly.

This project addressed patients with congestive heart failure admitted with a primary or secondary admitting diagnosis of fluid overload. Many of these patients have comorbidities such as Diabetes, renal failure and chronic hypertension, and need referrals to supportive programs

such as Palliative Care and/or Chronic Case Management. The patient's ages can range from 21 to 100, with the majority of the patients 39 to 80 years of age. Many of the patients still work full time, and have family obligations on top of a chronic illness. CHF patients come from every ethnic group, education level and income level. Many of the patients enter the hospital with little to no knowledge of Congestive Heart failure or how to decrease symptoms of the illness. The follow-up appointment PDSA was initiated to establish a workflow to ensure patients received follow-up to ensure the education and monitoring continued in the outpatient setting.

The Follow-up Appointment PDSA is a workflow designed to ensure patients have appointments within seven days of discharge. The workflow consists of a hard-stop being placed within the physician order set for CHF admitted patients. The hard stop alerts the physician of the need for a follow-up order prior to discharge. The physician order starts a cascaded of alerts and orders for the unit assistants and floor nurses. The first alert triggers a warning box to trigger the unit assistant to schedule an appointment with the patients' primary physician or cardiologist. The next alert happens within the nurses charting screen, this alert is a hard stop that has to be addressed by the nurse. When the nurse opens the physician order this initiates an alert for follow-up appointments and vaccines that need to be documented prior to final discharge of the patient. This alerts will establish a practice that is protocol driven and not individual driven to ensure follow-up appointments are scheduled for every patient prior to discharge.

The FMEA team decided the most efficient use of the team's resources would be to saturate the Telemetry floor with information and education on the importance of ensuring patients have follow-up appointments. The Telemetry floor is a 48-bed unit with 12 nurses, one telemetry tech and two unit assistants working per shift. The facility provided meals for the staff while they attended the 2-hour in-service on changes in charting, scheduling appointments and

discharge paperwork overview. The PDSA cycle began with an educational rollout. The in-services were held on every shift for four days and included all staff and physicians from the Telemetry floors. The in-services started with a power point presentation showing the nurses and clerical staff how to schedule appointments, where to chart that the appointment has been scheduled and what areas within the Care Pathway needed to be addressed prior to discharge. The physicians also met to review the newly added hard stop with in the order set, how to address the automated appointment order and how to override for non-health plan patients.

During the in-services the nursing staff and physicians had various questions and concerns. The physicians voiced concerns over clinic physicians questioning the new influx of in-person visits and lack of physician time to address these appointments. The physician champion informed the hospital based physicians that these appointments need to be in-person appointments. Many times telephonic appointments do not sufficiently address this patient populations unique needs and that nurse practitioner appointments will help to balance the influx of patients. The newly added hard stop to the physician order set would also require a reason for changing appointment type, before the system will allow it. This feature would inhibit an outpatient unit assistant from being able to change appointment type after the patient has been discharged.

Nursing staff and unit assistants voiced concerns over the added time the new charting will require. The RN champions took time to demonstrate how quickly the charting is added by just adding the problem to the nursing care pathway upon admission. The training also reviewed the top reasons for CHF patient readmission within the facility. The team reviewed the physician's documentation and patient storytelling via video explaining the many reasons for readmissions for this patient population. The team reviewed narrative responsive from patients

explaining that they misunderstood a part of the discharge instructions, medication instruction or needed lifestyle changes for symptom management. This part of the presentation allowed the team to show nurses why ensuring follow-up appointments will allow patients to meet with their primary care physician before symptoms of fluid overload reoccurred. Many of the nurses reported in their in-service evaluation (See Appendix G) sheet that is portion of the classes were the most helpful.

For the first week of the PDSA, nine members of the FMEA team and myself supplied 24 hour coverage for the pilot project, the team were available to floor staff for support and education. After the initial week was completed the assistant managers assisted the staff with any questions or system issues that presented during the pilot. The final evaluations were reviewed at the post PDSA meeting on November 12, 2015. The Telemetry staff was given evaluations reviewing how they felt the about the new workflow process (See Appendix H). A total of 18 evaluations were completed by Telemetry nurses; the results of the evaluation were 7 staff members felt the process was easy to complete and follow, 5 of the staff members reported that the process increased time of charting but was easy to understand and 6 of the staff reported that they were educated appropriately but did not give a comment.

On September 28, 2015 the Follow-up Appointment PDSA started, there were six patients with CHF admitted to the floor on this date. Two of the patients had been given discharge orders and the hard stop functioned and alerted the physician of the need for follow-up. During the appointment scheduling for the patient, the unit assistant had issues with the mainframe program to schedule appointments. The IT technician was able to fix the technical problem and the appointment was scheduled. Once the nurse printed the discharge instructions

the follow-up appointment was included within the instructions and is highlighted for easy recognition.

During the first week of the pilot the hospital discharged 12 patients with heart failure. Three of the patients were not covered by the organizations health plan, nine of the patients had follow-up appointments and one returned to ER due to losing his medications. During the week of October 5th the hospital discharged 24 patients with symptoms of fluid overload, one patient was not covered by the health plan and two patients did not attend scheduled appointments. Twenty-one of the patients discharged attended the follow-up appointment and were not readmitted to ER or hospital within 30 days. On the week of October 12th the facility discharged nine patients with symptoms of fluid overload. One patient was transferred for cardiovascular surgery, and one was discharged to hospice care. Seven of the discharged patients had follow-up visits scheduled and all patient attended their appointment, no patients were readmitted within 30 days. On the week of October 19th the facility discharged eleven patients after treatment for symptoms of fluid overload. The eleven patients all received follow-up appointments within seven days. One of the eleven patients was readmitted for acute myocardial infarction; ten of the eleven patients attended their appointments with no other difficulties.

During the pilot phase the facility treated and discharged a total of 62 patients, seven patients did not meet criteria for pilot. During the PDSA cycle 55 patients received follow-up appointments at time of hospital discharge; out of the 55 patients three did not attend their follow-up appointments, and two were seen in the Emergency Room or readmitted within 30 days. Follow-up visit charts were reviewed for patient education and medication reviews completed during follow-up appointments and all educational points were addressed at time of follow-up with patients' primary care providers.

The follow-up appointment for patients with CHF PDSA has established that patients often need follow-up after discharge. The follow-up appointment allows that patient to ask questions and receive education that may have been missed or misunderstood at time of discharge. Comparing data from same time frame in 2014 was difficult. During the same timeframe in 2014 the facility treated a total of 57 patients with CHF, nine of the patients self scheduled follow-up appointments. Four patients received follow-up from Cardiology through direct consultation and eight patients were not covered by health plan at time of discharge. Eleven patients were readmitted within a 30-day timeframe, but bedside and clinic education is not easily distinguished within the charting. The data did show a decrease in readmissions during the same timeframe from the previous year, but due to changes within the charting system itself we are unable to distinguish what education was given to patients during discharge or follow-up appointments. The quality department has now established reports to monitor what education patients are given during admissions and follow-up appointments.

The goal of this project is to decrease patient's reoccurrence of symptoms of fluid overload. The follow-up appointment PDSA was successful in that this part of the patients' follow-up and care was established for the patient prior to discharge. According to Hersh, Masoudi, & Allen (2013) a facility can decrease a patients' chance of condition exacerbation by 30% with follow-up appointment within seven to ten days of discharge (p.7). The PDSA was successful in that the facility ensured 100% compliance during the pilot. The leadership within the facility has joined with the Quality department to ensure longevity of this success. To ensure sustainability the facility has added hard stops during the order entry phase of the physicians charting, the facility has also added alerts for the unit assistant and nurse prior to acknowledging orders or printing discharge instructions. If the alert is skipped then the alert is added to the

closing of the patient's discharge and quality is alerted to the skipped hard stop in the database. This information will be shared monthly in Telemetry Department Quality Counsel, Risk Management as well as The Patient Safety Committee and the Leadership Committee quarterly.

Appendix A:

SBAR for CHF Management Post Hospital Care

Situation: Preventable readmission of Congestive Heart Failure (CHF) patients within 30 days per CMS requirement.

Background Information: In early 2014, an evidence- based CHF care pathway¹ was implemented at KPSSC to assist the inpatient team transitioning the CHF patients post discharge to an outpatient services, reducing readmission. The pathway included:

- At the time of discharge, an appointment with the PCP or Cardiologist would be made by the unit assistant
- Patient would be seen in the clinic within 7 days of hospital discharge
- Patient would be evaluated and appropriate care plan made to avoid readmission

With the implementation of the Affordable Health Care Act (ACA) and the CMS reimbursement regulations updates, hospitals will no longer be fully compensated for readmission of patients with the

¹ CHF Care Pathway

discharged diagnosis of CHF within 30 days². The average readmission cost to the organization is approximately \$13,000 per patient and if their personal physician sees CHF patients within 7 days post discharge, the readmission rates can be decreased by 30%³.

Assessment: A random chart audit of 20 discharged patients with the diagnoses of CHF who were readmitted within 30 days conducted. 55% (11/20) patients did not have an appointment for their post hospitalization visit. Their readmission diagnosis were fluid overload or CHF exacerbation, which are preventable by ensuring post discharge visit with their PCP or Cardiologist.

Recommendation: Conduct a formal Failure Modes Effects Analysis (FMEA) with a multidisciplinary team to identify gaps and opportunities for improvement. The team will include HBS, Cardiologists, Discharge Planning, Pharmacy, Nursing staff and management, and clinical educators. The FMEA sponsor would be APIC for Risk Management Patient Safety, Clinical Adult Services Director, and Continuum Administrator.

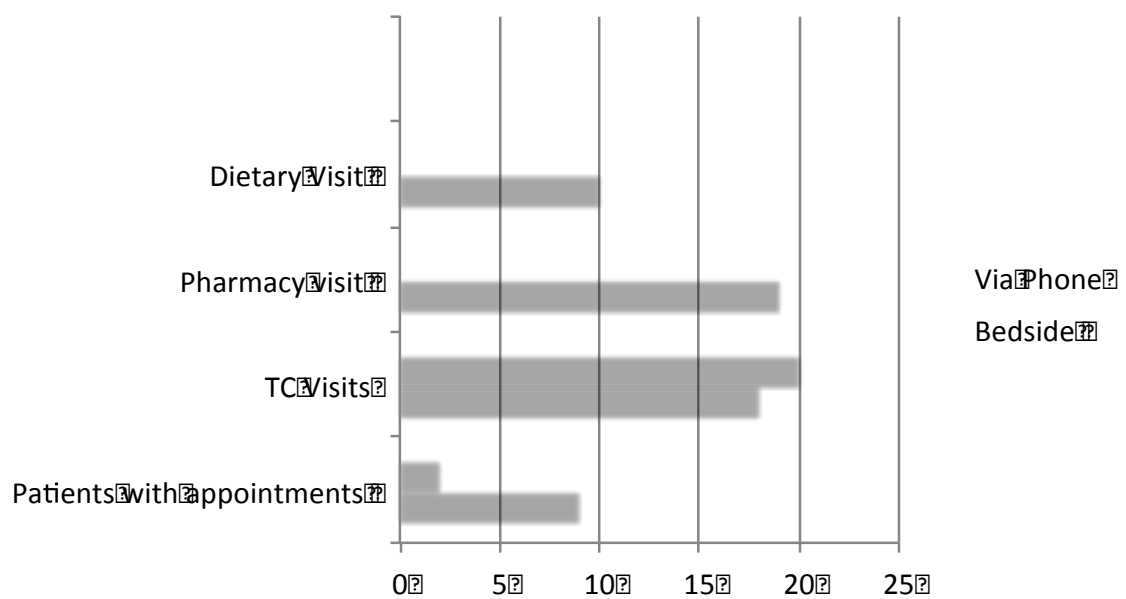
Audit Information

Number of Patients	Number with face-to face appointments	Number with Telephone appointments	Number with Transitional Care Visit at bedside	Number with Pharmacy Bedside Visit	Number with Dietary Bedside Visit
20	9	2	18	19	10

² CMS (Centers for Medicare & Medicaid Services), 2011

³ Ryan, Dolack, Ingrassia, & Ganeshan (2013)

2013 patient chart audit for care pathway (SBAR audit)



Step 3	Step 4	Step 5	Step 6	Step 7			Step 8
Process Step	Failure Modes	Potential Causes	Potential Effects	Frequency of Event	Severity of Harm	Risk Code (F*S)	Recommended Actions and Counter Measures
1. The physician to write discharge instructions for follow-up appointment	1a. Multiple route of scheduling appointment (RN, PCC, MA)	Staff lack of knowledge of process	Appointments not scheduled Wrong appointment scheduled Rehospitalization Increased hospital bed utilization Reduced revenue for the hospital Decreased patient's satisfaction Financial impact on patient	5	3	15	
	1b. Lack of access to cardiology due to resources	Readmission to hospital Increased mortality	Increased hospital bed utilization Reduced revenue for the hospital	5	3	15	2 cardiologist being hired
	1c. Lack of access to adult medicine clinic due to resources	Increased morbidity Delay in patient's treatment	Decreased patient's satisfaction Financial impact on patient				9 MD being hired ?NP being hired
	1d. HBS variation of scheduling appointment	Burned out Lack of HBS resources/ staffing	High turnover of HBS	5	3	15	

Step 3	Step 4	Step 5	Step 6	Step 7			Step 8
Process Step	Failure Modes	Potential Causes	Potential Effects	Frequency of Event	Severity of Harm	Risk Code (F*S)	Recommended Actions and Counter Measures
2. Discharge Instructions provided by RN	2a. Inadequate/Inconsistent delivery of education 2b. Patient's knowledge 2c. Inconsistent patient <i>Teach-back</i> 2d. Lack of standardized CHF packets between North & South Tower	Patient language barrier Cultural influence Readiness to learn Nurse comfort level Time constraints Nurse knowledge Multiple vendors (patient education hand-outs) Inconsistent supply Variation of education supply	Readmission to hospital Increased mortality Increased morbidity Decrease patient satisfaction Patient and staff dissatisfaction	5	3	15	

Step 3	Step 4	Step 5	Step 6	Step 7			Step 8
Process Step	Failure Modes	Potential Causes	Potential Effects	Frequency of Event	Severity of Harm	Risk Code (F*S)	Recommended Actions and Counter Measures
3. Inconsistent assessment by palliative care RN	3a. Lack of Palliative care physician resources 3b. Lack of recognition of patient needs for hospital vs hospice care	Delayed / inappropriate treatment Lack of training and resources	Inappropriate hospital bed utilization Inappropriate treatment plan based on patient's wishes Reduced revenue for the hospital Decreased patients satisfaction Financial impact on patient	5	3	15	

Step 3	Step 4	Step 5	Step 6	Step 7			Step 8
Process Step	Failure Modes	Potential Causes	Potential Effects	Frequency of Event	Severity of Harm	Risk Code (F*S)	Recommended Actions and Counter Measures
4. Advance Directive discussion	4a.Lack of training for provider's time and understanding	<p>Lack of understanding of role and purpose of advance directive</p> <p>Lack of dedicated time for advance directive discussion</p>	<p>Inappropriate hospital bed utilization</p> <p>Inappropriate treatment plan based on patient's diagnosis</p> <p>Family expectation and disparity</p> <p>Potential for greater patient suffering without change in prognosis and/or outcome</p>	5	3	12	PDSA cycle to be started on September 28, 2015

Step 3	Step 4	Step 5	Step 6	Step 7			Step 8
Process Step	Failure Modes	Potential Causes	Potential Effects	Frequency of Event	Severity of Harm	Risk Code (F*S)	Recommended Actions and Counter Measures
5. Telemonitoring program at home (guidelines) 6. Non Telemonitoring program at home (guidelines) Workflow? Algorithm?	5a.Patient compliance with technical equipment 6a.Equipment failure 6b.Equipment resources availability 5c. Lack of FTE resources (afterhours/week ends)- 1 FTE (no weekend coverage) 5d. Appointment scheduling (primary provider vs cardiology) 5e. Information availability for physician	Patient adherence to the CHF plan <ul style="list-style-type: none"> Lack of understanding Lack of consistency Financial challenge Protocols <ul style="list-style-type: none"> Consistency between two different programs (CHF/CCM) Compliance on the patients part i.e. returning phone calls/attending scheduled appointments Inconsistent governance) Program placement of patient (geographic and strategic alignment rounds) ? 	Re-hospitalization Patient/MD/RN dissatisfaction	5	3	15	**Use Surgical appointment process – Dr Miles

Step 3	Step 4	Step 5	Step 6	Step 7			Step 8
Process Step	Failure Modes	Potential Causes	Potential Effects	Frequency of Event	Severity of Harm	Risk Code (F*S)	Recommended Actions and Counter Measures
7. Psychosocial aspects (pts socio-economics) FTKA?							
8. PTA Medication Review 9. Medication reconciliation prior to discharge	8a. Inconsistent practice of medication reconciliation	Multiple prescription for the same medication or therapeutic equivalent Patient confusion about dosage and medication (old vs new)	Readmission to hospital Increased mortality Increased morbidity Decrease patient satisfaction Patient and staff dissatisfaction	3	3	9	
10. TCP transitional care follow up 11. Nonmember/ Members patient management process differs	10a. Nonmembers not followed up by specialty services			5	3	15	

Step 3	Step 4	Step 5	Step 6	Step 7			Step 8
Process Step	Failure Modes	Potential Causes	Potential Effects	Frequency of Event	Severity of Harm	Risk Code (F*S)	Recommended Actions and Counter Measures

FMEA Scoring System:

Appendix F

Frequency SCALE 1-5:

- Remote (1)
- Occasional (3)
- Frequent (5)

Severity SCALE 1-4:

- Catastrophic (Death): (4)
- Critical (Severe injury or exacerbation of injury) (3)
- Marginal (Minor injury) (2)
- Negligible (Trivial injury) (1)

Criticality SCALE:

- High Risk (Frequent and catastrophic) **20**
- Medium Risk (Occasional and critical) **9**
- Low Risk (Remote and marginal or negligible) **1 or 2**

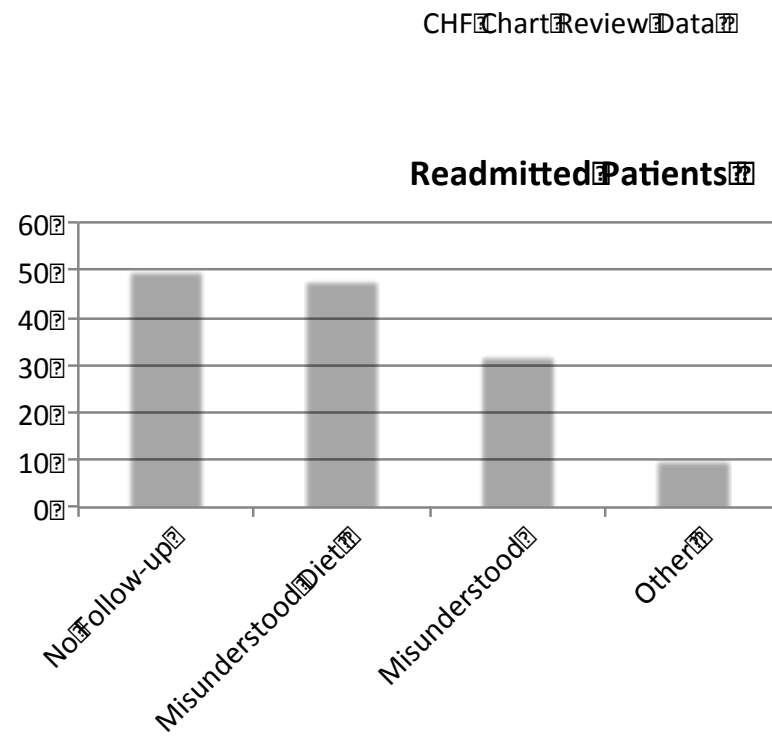
Formula for calculation of the CRITICALITY:
Frequency X Severity = Criticality

CHF BEST PRACTICES

TEAM	UPON ADMISSION	DAY 1	DAY 2	DAY 3	DAY 4/DISCHARGE
ED/MD	<ul style="list-style-type: none"> Confirm Dx CHF Obtain Standing Weight Diurese if other meds Urine output > 500 in 2 hrs, 5x resolved chest and Sw/amb, consider CDA Follow-up appt with PCP-TAV 	<ul style="list-style-type: none"> Discuss CDA, contact Transitional RN to evaluate for DPP program CHF educational tools-Video, written materials 			
HBS/MD (Primary CHF)	<ul style="list-style-type: none"> Confirmed CHF, admit to PCP, continue IV diuresis Initiate CHF order set including nursing I/O and daily weights. Dietary Consult and Education telemetry until D/C Day Confirmed CHF, admit to PCP, continue IV diuresis 	<ul style="list-style-type: none"> Prognosis- expectancy less than 6-months, discuss palliative hospice (Seattle Heart Failure Score to calculate mean survival- free app by Epocrates on iPhone.) Palliative Referral Hospice referral, if indicated Dietary Referral and education 	<ul style="list-style-type: none"> Evaluate for D/C of telemetry (no arrhythmia, stable electrolytes) Advanced Directive discussion Continue IV Lasix Manage diuretics while following daily weights and I/O Discuss with PCC/PC-Consult to Telemonitoring RN 	<ul style="list-style-type: none"> Change to PO Lasix Day prior to D/C telemetry Day prior to D/C Follow daily weights and I/O Should be negative and O prior to D/C confirm via actual weight HBS communicates with PCP for Cardiology day prior to D/C or face-to-face appt. 5-7 days post D/C, if Cardiology did not consult in person while PCP, first PCP Cardiology visit MUST be Consult, not follow-up visit. 	<ul style="list-style-type: none"> Completed C/instructions including Face-to-face follow-up appointments Follow-up PCP/PCP Cardiology (if not Cardiology Consult in-house, order NEW consult.) PO LST Record actual discharge baseline weight and Problem List (add as an ADDENDUM under CHF dx and dated)
HBS/MD (History of CHF)	<ul style="list-style-type: none"> Order Strict I/O and daily weights telemetry, if indicated Dietary Referral and Education 	<ul style="list-style-type: none"> Evaluate I/O and daily weights Advanced Directive discussion Consider telemetry due to history 	<ul style="list-style-type: none"> Evaluate I/O and daily weights Triage for Transitional Telemonitoring RN Ex Transitional Pharmacy Consider change from IV Lasix to PO Lasix 	<ul style="list-style-type: none"> On IV Lasix, change to PO Lasix Day prior to discharge Closely follow I/O and daily weights and evaluate risk of CHF exacerbation relative to primary diagnosis/treatment 	<ul style="list-style-type: none"> Home for SNF Follow-up AV and PCP/PCP Cardiology within 5-7 days with PCP/PCP Cardiology referral (if indicated) PO LST

TEAM	UPON ADMISSION	DAY 1	DAY 2	DAY 3	DAY 4/DISCHARGE
NURSING	<ul style="list-style-type: none"> Strict I/O Daily Standing Weights Begin CHF Education Follow Nursing Care Path (in Development) V/S Q 4 hours 	<ul style="list-style-type: none"> Strict I/O Daily Standing Weights Begin CHF Education (Jennifer Stewart to assess current RN tools for CHF Education) 	<ul style="list-style-type: none"> Strict I/O Daily Standing Weights Continue CHF Education Core Measures 		<ul style="list-style-type: none"> Carefully review D/C instructions with patient and family/caregiver(s); instruct patient on bringing all medications, bottles to PCP/PCP Cardiology Review follow-up face-to-face appt with PCP/PCP Cardiology Address remaining core measures Review CHF Education Document patient understanding of D/C instructions Actual discharge baseline weight documented prior to D/C as an ADDENDUM in the CHF Problems List and dated
PHARMACY		<ul style="list-style-type: none"> PCP Consult with patient (Day 1 or 2) PCP Consult with HBS (Day 1 or 2) Evaluate patient meds prior to admission/Assess medication adherence prior to admission 	<ul style="list-style-type: none"> Patient medication education Review Labs/Physician Consult 	<ul style="list-style-type: none"> Patient medication education Review Labs/Physician Consult Coordinate who will do final call to PCP (w/PCP or Transitional RN) 	<ul style="list-style-type: none"> Med Reconciliation Deliver medications to PCP/PCP medication instruction Consider follow-up consultation by phone following D/C
PCC	<ul style="list-style-type: none"> NOTE: For all patients with Primary CHF and History of CHF, PCC discusses CHF with HBS and ensures above activities are addressed. 	<ul style="list-style-type: none"> For all pts w/ CHF: <ul style="list-style-type: none"> Ensure CHF order set in place, including weights and I/O Assess for transition concerns Discuss D/C needs relating to CHF 	<ul style="list-style-type: none"> Discuss D/C needs relating to CHF Consider SW referral Coordinate with Transitional RN/Pharmacy 	<ul style="list-style-type: none"> Reinforce plan for CHF follow-up, coordinate with RN re: CHF Education Consider HH Consider COP 	<ul style="list-style-type: none"> Consult with HBS regarding finalization of D/C follow-up plan Review D/C instructions for completeness and if information Consult with Transitional Tele-monitoring or COP RN

TEAM	UPON ADMISSION	DAY 1	DAY 2	DAY 3	DAY 4/DISCHARGE
TRANSITIONAL RN (Lisa Owens)	<ul style="list-style-type: none"> Attends M-F JUM Team huddle to identify and discuss CHF pts 	<ul style="list-style-type: none"> Attends M-F JUM Team huddle to identify and discuss CHF pts Introduce DPP CHF programs to new patients; Begin education, CHF video Evaluate type of CHF ID/PP program 	<ul style="list-style-type: none"> Discuss CHF tele-monitoring RN Consult or CMG/CHF Clinic referral Continue CHF Education 	<ul style="list-style-type: none"> Continue CHF Education Consult for Telemonitoring Set up monitor/Install Refer to CHF program, as appropriate 	<ul style="list-style-type: none"> Visit patient 1 day prior to D/C to reinforce plan for DPP follow-up Telephone call to patient at home







Readmitted Patients

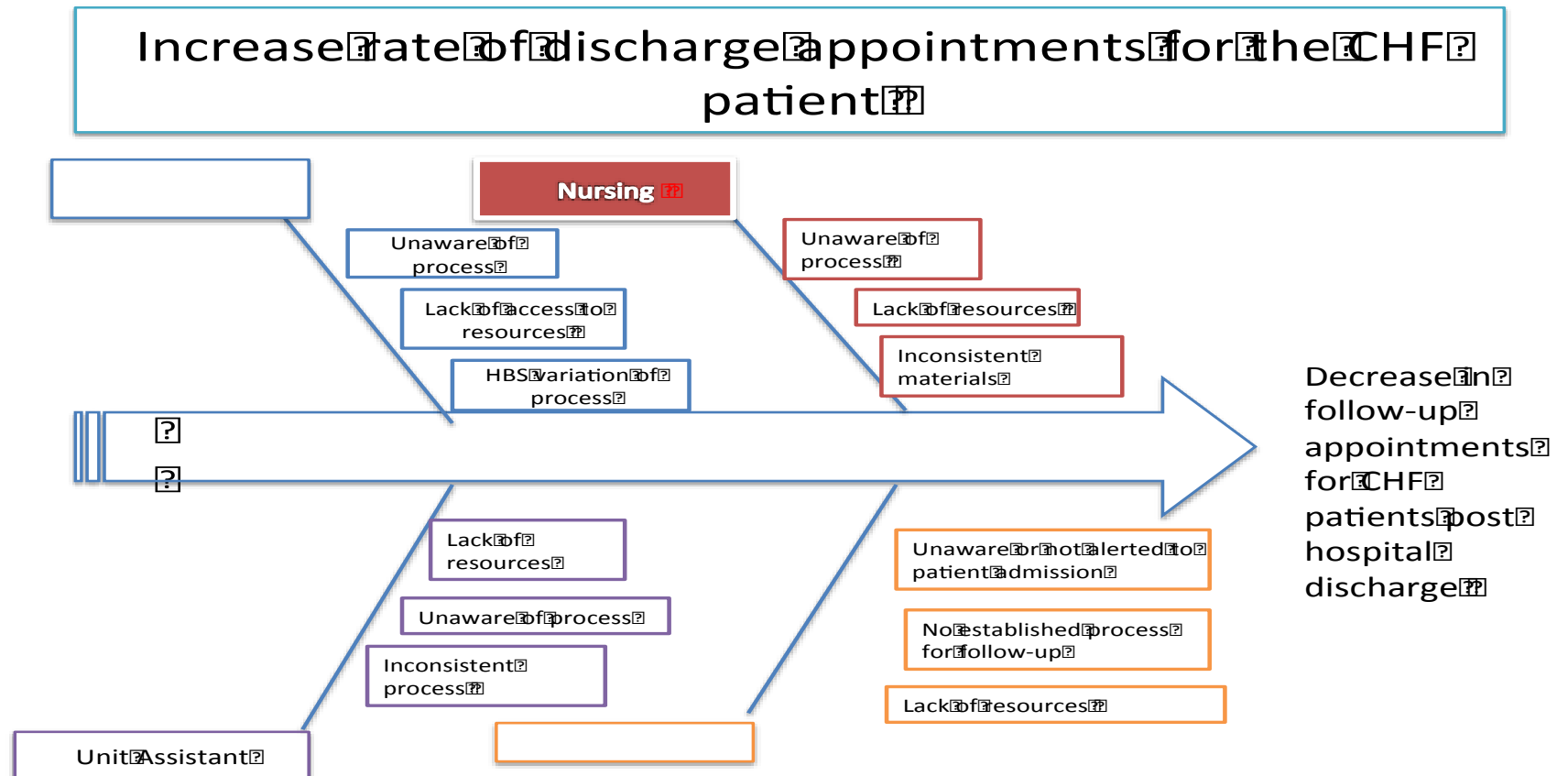
Stakeholders Analysis



S.W.O.T?

S. 	W. 	O. 	T. 
Strong leadership support. Unit Assistant positions filled. Internal electronic healthcare record	Multiple new employees unaware of process. Individual based practice not process based practice. and	Adding hard stop to electronic healthcare record. Educating in- patients and outpatient staff	Low adherence to new practice. Missed opportunities in training on coming staff in telemetry unit

Fishbone Diagram E:



CHF D/C FOLLOW-UP APPOINTMENT
<p>Patients with PRIMARY discharge diagnosis of CHF:</p> <ul style="list-style-type: none">• Must have In-person, Face-to Face physician visit• EF < 45% refer to Cardiology• EF > 45% refer to PCP• Remind patients to bring all of their medications from home to their follow-up MD appointments (NOT only List of Meds)
<p>Patients with SECONDARY discharge diagnosis of CHF:</p> <ul style="list-style-type: none">• TAV or In-person with PCP (HBS discretion)• Cardiology In-person at HBS discretion

*Evaluation of Program*Name of Program: CHF Care Pathway Education

Date of Program: _____ Participant's Name (optional) _____

*Evaluation of the Faculty**For each of the items listed below. Please use the following rating scale to rate each of the faculty/presenters:***1 = Poor; 2 = Below Average; 3 = Average; 4 = Above Average; 5 = Outstanding**

	Faculty: 1-5	Faculty 1-5	Faculty 1-5	Faculty 1-5	Faculty: 1-5	Faculty: 1-5
Demonstrates knowledge of the subject matter						
Displays enthusiasm when teaching						
Stimulates interest in the subject matter						
Responded to questions appropriately and encouraged participation						
Creates a positive environment for learning						
Encourages critical thinking.						
Presents material in a clear, logical, organized manner						
Uses relevant examples and illustrations to clarify the material						
In general, taught the class effectively						

Comments:*Evaluation of the Course/Program: Please circle the number that applies.*


	Poor	Below Average	Average	Above Average	Outstanding
The objectives of the course were clear.	1	2	3	4	5
The course content was consistent with the objectives	1	2	3	4	5
The course was valuable for my professional development.	1	2	3	4	5
This course stimulated critical thinking and problem solving.	1	2	3	4	5
All things considered, this course was outstanding, above average, average, below average, or poor	1	2	3	4	5
The handouts, and audio-visual, etc. contributed to learning and meeting the course objectives	1	2	3	4	5

What was the one thing you learned that was most helpful to you?

What ideas or activities were **most helpful** to you?What were the **least helpful** to you?

I would like additional information about the following:

Comments:



**CHF
LOCAL AGREEMENT GUIDELINES**

Consider in-patient Cardiology Consult for Heart Failure Patients:

1. Hyponatremia < [127]
2. Creatinine > or = to 2
3. Systolic BP < 95mmHg
4. Recurrent hospitalizations or ED visits for CHF
5. Known significant CAD
6. Significant valve disease such as moderate to severe aortic stenosis, 3+ mitral regurgitation, 3+ aortic insufficiency

*Evaluation of New Workflow*Name of Program: CHF Pilot (Follow-up Appointment Scheduling)

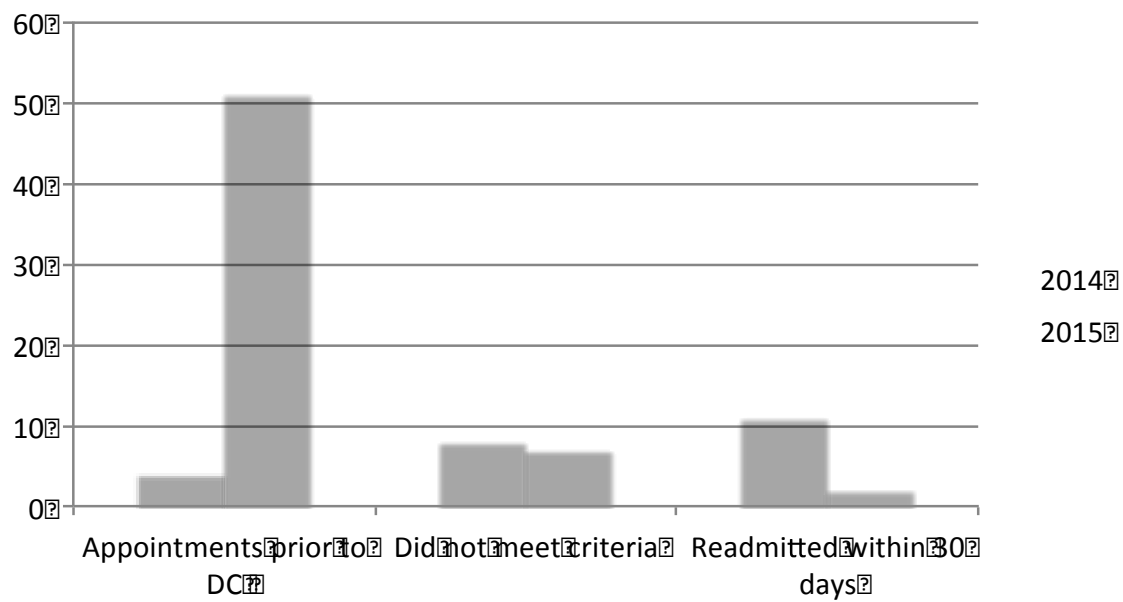
Date of Pilot Week: _____ Participant's Name (optional) _____

*Evaluation of the Process****For each of the items listed below. Please use the following rating scale to rate each part of the Pilot Processes:*****1 = Poor; 2 = Below Average; 3 = Average; 4= Above Average; 5 = Outstanding**

	1-5
Did you understand the workflow prior to starting the process?	
Adding appointments within workflow is a smooth process	
Did alerts trigger your need to schedule the appointment? If yes, when:	
During discharge printing	
During closing Pathway	
During order review	
The DC needs in workflow allowed time to meet objective.	

Comments:

Post-PDSA Data 2014 Comparison



Appendix: G

Project Time Line

- August 25, 2015 Met with Preceptor build SBAR
- August 28, 2015 Leadership Pre FMEA meeting and FMEA invites completed
- August 31, 2015 FMEA rules and instructions sent to FMEA Team with introduction of team members
- September 2, 2015 FMEA Meeting #1
- September 4, 2015 FMEA Meeting #2
- September 15, 2015 FMEA Meeting #3
- September 17, 2015 FMEA Meeting #4
- September 21, 2015 Scoring of FMEA topics
- September 23, 2015 Scoring of FMEA topics completed and PDSA project selected
- September 24, 2015 continued on from September 23rd meeting. PDSA reviewed and steps decided upon, and hard stops added to electronic health record complete.
- September 25, 2015 two hours in-service offered every four hours to educate staff on Discharge Appointment Workflow
- September 28, 2015 PDSA cycle kick off date. Lunch served to staff, as they are educated on new order-set and appointment scheduling workflow for the CHF patient.
- October 12, 2015 PDSA data review and team meeting.
- October 26, 2015 PDSA data review and team meeting
- October 28, 2015 PDSA cycle complete and team meeting to discuss any obstacles or practices that were unsuccessful.
- November 12, 2015 FMEA team to meet with Chronic Conditions Groups and Patient Safety Committee to review PDSA and discuss next PDSA cycle from FMEA
- November 24, 2015 Data available from discharged appointments and follow-up visits from quality

References

- American Association of College of Nurses. (2006). *AACN End of Program & Required Clinical Experiences for the Clinical Nurse Leader* [Competencies List]. : .
- Ashley, L., Armitage, G., Neary, M., & Hollingsworth, G. (2010, August). A Practical Guide to Failure Mode and Effects analysis in health care: Making the most of the team and its meetings. *The Joint Commission Journal on Quality and Patient Safety*, 36(8), 351-358.
- Austin-Redderson, L., Keen, C., Nasir, L., & Berry, D. (2008). Diastolic heart failure: State of the science on best treatment practices. *American Academy of Nurse Practitioners*, 20, 506-514.
- CMS (Centers for Medicare & Medicaid Services). (2011). <http://cms.hhs.gov>
- Centers for Disease Control. (2014). [CDC.gov](http://cdc.gov)
- Charles, K., Cannon, M., Hall, R., & Coustasse, A. (2014, October 14). Can Utilizing a Computerized Provider Order Entry (CPOE) System Prevent Hospital medical errors and adverse drug events? *Perspectives in Health Information Management*, 1-16.
- Felix, H. C., Seaburg, B., Bursac, Z., Thostenson, J., & Stewart, K. (2015, January). Why do patients keep coming back? Results of a readmitted patient survey. *Social Work in Health Care*, 54(1), 1-15.
- Gurwitz, J. H., Fields, T. S., Ogarek, J., Tjia, J., Cutrona, S. L., Kanaana, A. O., ... Garber, L. (2014, May). An electronic health record-based intervention to increase follow-up office visits and decrease rehospitalizations in older adults . *Journal of the American Geriatrics Society*, 62(5), 865-871.
- Hersh, A. M., Masoudi, F. A., & Allen, L. A. (2013, April 11). Post discharge Environment Following Heart failure hospitalization: Expanding the view of hospital readmission.

- Journal of the American Heart Association*, 1-14. <http://dx.doi.org/doi:10.1161/JAHA.113.000116>
- Jackson, C., Shahsahebi, M., Wedlake, T., & DuBard, C. (2015, March/April). Timeliness of outpatient follow-up: An evidence-based approach for planning after hospital discharge. *Annals of Family Medicine*, 13(2), 115-122.
- Kommuri, N. V., Johnson, M. L., & Koelling, T. M. (2011, May 9). Relationship between improvements in heart failure patient disease specific knowledge and clinical events as part of a randomized controlled trial. *Patient Education and Counseling*, 86(2012), 233-238.
- Lawn, S., & Schoo, A. (2009, October). Supporting self-management of chronic health conditions: Common approaches. *Patient Education and Counseling*, 80(2010), 205-211.
- Lile, J. B., Buhmann, J., & Roders, S. (1999). Development of a learning needs assessment tool for patients with congestive heart failure. Retrieved from www.sagepublications.com
- McHugh, M. D., & Ma, C. (2014, January 1). Hospital nursing and 30-day readmissions among Medicare patients with heart failure, acute myocardial infarction, and pneumonia. *Journal of Nursing Administration*, 43, 11-22.
- Piamjariyakul, U., Smith, C. A., Werkowitch, M., & Elyachar, A. (2011, May 18). Part I: Heart failure home management: Patients, multidisciplinary healthcare professionals and family caregivers perspectives. *Applied Nursing Research*, 25(2012), 239-245.
- Piamjariyakul, U., Smith, C. E., Werkowitch, M., & Elyachar, A. (2011, July 13). Enhancing heart failure home management: integrated evidence for a new family caregiver educational plan. *Applied Nursing Research*, 25(2012), 246-250.

Ryan, J., Kang, S., Dolack, S., Ingrassia, J., & Ganeshan, R. (2013, November). Change in readmissions and follow-up visits as part of a heart failure readmission quality improvement initiative. *The American Journal of Medicine*, 126(11), 989-994.