

*Southern California Renal Disease Council, Inc.
ESRD Network 18*

Standardized Hospitalization Rate

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Standardized Hospitalization Rate Project

WebEx Conference

Los Angeles, CA

October 12, 2011

Project Selection Criteria

Inclusion Criteria:

- Facility's annual number of readmissions within 30 days is greater than the Network's annual average number of 31.8 after minus one (1) standard deviation.
- Facility census > 50 patients.

Exclusion Criteria:

- Pediatric facilities.
- Veterans Health Administration facilities.
- Transplant facilities.
- Acute, transitional or special circumstance facilities (i.e. majority of patients are ventilator patients).
- Facilities already participating in another Network-driven QI project with the exception of the Task 1c. Psychonephrology Project.
- HMO facilities



Quality Improvement Organization (QIO) Health Services Advisory Group (HSAG)

- Provides oversight and regulatory guidance to hospitals in southern California. (Similar to the Network but for Hospitals.
- .
- Collaboration between the Network and the QIO will be to create a culture of care coordination.
- Hospitals you are working with may not be on the list of those hospitals identified as working on this project. (So, be patient and continue to use the form we will provide you and eventually we will make the dialysis community a culture of coordination.



Clinical Journal of the American Society of Nephrology Study

- Patients with fistulas or grafts who converted to catheters had an increased risk for hospitalization (HR, 1.22; P for all $< .0001$).
- "Catheters remain associated with the greatest hospitalization risk".
- "Conversion from a catheter to either graft or fistula had significantly lower hospitalization risk relative to keeping the catheter.



Clinical Journal of the American Society of Nephrology Study

- The study was conducted on 79,545 hemodialysis patients treated in North America legacy facilities.
- Vascular access was defined as fistulas, grafts, or catheters.
- Patients' first hospitalizations were evaluated for one full year.
- Hospitalization risk was determined for the entire year.



Clinical Journal of the American Society of Nephrology Study

- The case mix was adjusted for age, sex, race, diabetes, and vintage (time a patient received dialysis).
- Of patients included, 43% had fistulas, 29% had catheters, and 27% had grafts.
- Among those with catheters, 32% also had a concomitant maturing fistula, and 14% also had grafts.



Clinical Journal of the American Society of Nephrology Study

- Mean age of the participants was 62 years, 54% were men, 51% were white, 53% had diabetes, and mean vintage was 3.6 years.
- Patients with fistulas were younger, more likely to be men (65%), and had higher albumin and phosphorus levels.
- More black patients (49%) and patients with longer vintage (4.6 years) were using grafts.
- 59% of patients were hospitalized within the year, averaging 1.5 episodes per patient.



Clinical Journal of the American Society of Nephrology Study

- Patients with fistulas composed 46% of exposure days at risk for hospitalization but fewer hospitalization events (36%) and hospital days (35%).
- Catheters composed the fewest exposure days (26%) but a greater proportion of hospital days (37%).
- Grafts had a proportionate share of hospital days.
- Hospitalization risk was highest for patients using catheters, 41% higher vs those using fistula access.



Clinical Journal of the American Society of Nephrology Study

- Graft use was associated with a 22% higher risk for hospitalization vs fistula access.
- HR for grafts vs fistulas was 2.5.
- HR for catheters vs fistulas was 3.4.
- For sepsis or bacteremia-associated hospitalizations, the HR was 3.4 for catheters and 1.4 for grafts vs fistulas confirming a higher infection rate with catheter use.



Clinical Journal of the American Society of Nephrology Study

- **Those who converted from catheters to permanent access (fistula or graft) had a lower hospitalization rate (HR, 0.71 for fistula conversion only and HR, 0.69 for fistula or graft conversion; $P < .001$).**
- For those who had hemodialysis solely with grafts, the HR was 0.87.



Clinical Journal of the American Society of Nephrology Study

- The authors concluded that catheter access was associated with higher hospitalization rates than graft or fistula access and that conversion from a catheter to a graft or a fistula was associated with lower hospitalization rates in patients receiving hemodialysis.

Clinical Implications

- In patients receiving hemodialysis, hospitalization rates are lowest with fistula access, followed by graft and catheter access.
- In patients receiving hemodialysis, conversion from catheter access to graft or fistula access is associated with reduced hospitalization rates.

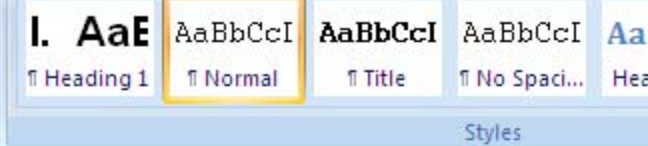
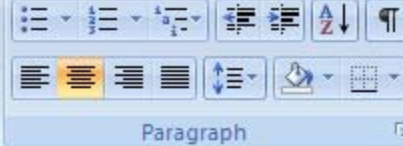
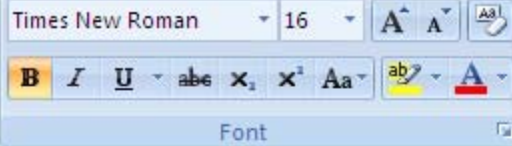
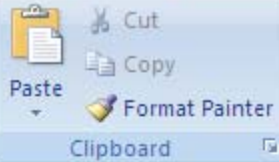


WHAT WE DEEM AS IMPORTANT

- Communication between the dialysis facility and the hospital.
- Transfer of documentation of patient information and records.
- Continued relationships between hospital staff and dialysis staff.
- Patient Safety



Home Insert Page Layout References Mailings Review View



Transition of Care Patient Transfer of Medical Data Form

For the importance and safety of patients, the transfer of pertinent medical records is very important. Transition has been a long standing issue between providers and may cause injury and even death to patients. The following checklist provided for your convenience to assist you in providing pertinent medical records to the next provider patient.

Please provide and attach a copy of the following information to the next provider to ensure the patient's
Please Print Clearly.

Patient's Full Name: _____ Date of Transfer/Discharge: _____

Originating Hospital/Clinic: _____

Origination Physician: _____

Destination Hospital/Clinic: _____

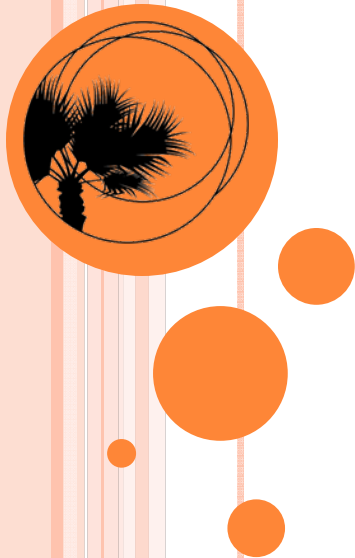
Destination Physician: _____

Destination Arrival Date: _____

Title	Document Attached	Comments
Discharge Summary:	<input type="checkbox"/> Yes <input type="checkbox"/> No	

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***NETWORK 18
QUALITY IMPROVEMENT
METHODOLOGY***



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Quality Improvement Process

Quality improvement is a continuous cycle of planning, implementing strategies, evaluating the effectiveness of these strategies and reflection to see what further improvements can be made.

*Royal Children's Hospital Melbourne –
Clinical Quality & Safety*



Root Cause Analysis (RCA)

Root Cause Analysis:

- Root cause analysis can use a variety of techniques to uncover root causes, including cause mapping, change analysis, the **Ishikawa fishbone diagram**, **5 Whys**, and others.
- All are designed to analyze the elements affecting a particular outcome to determine the root causes.



Root Cause Analysis (RCA)

(continued)

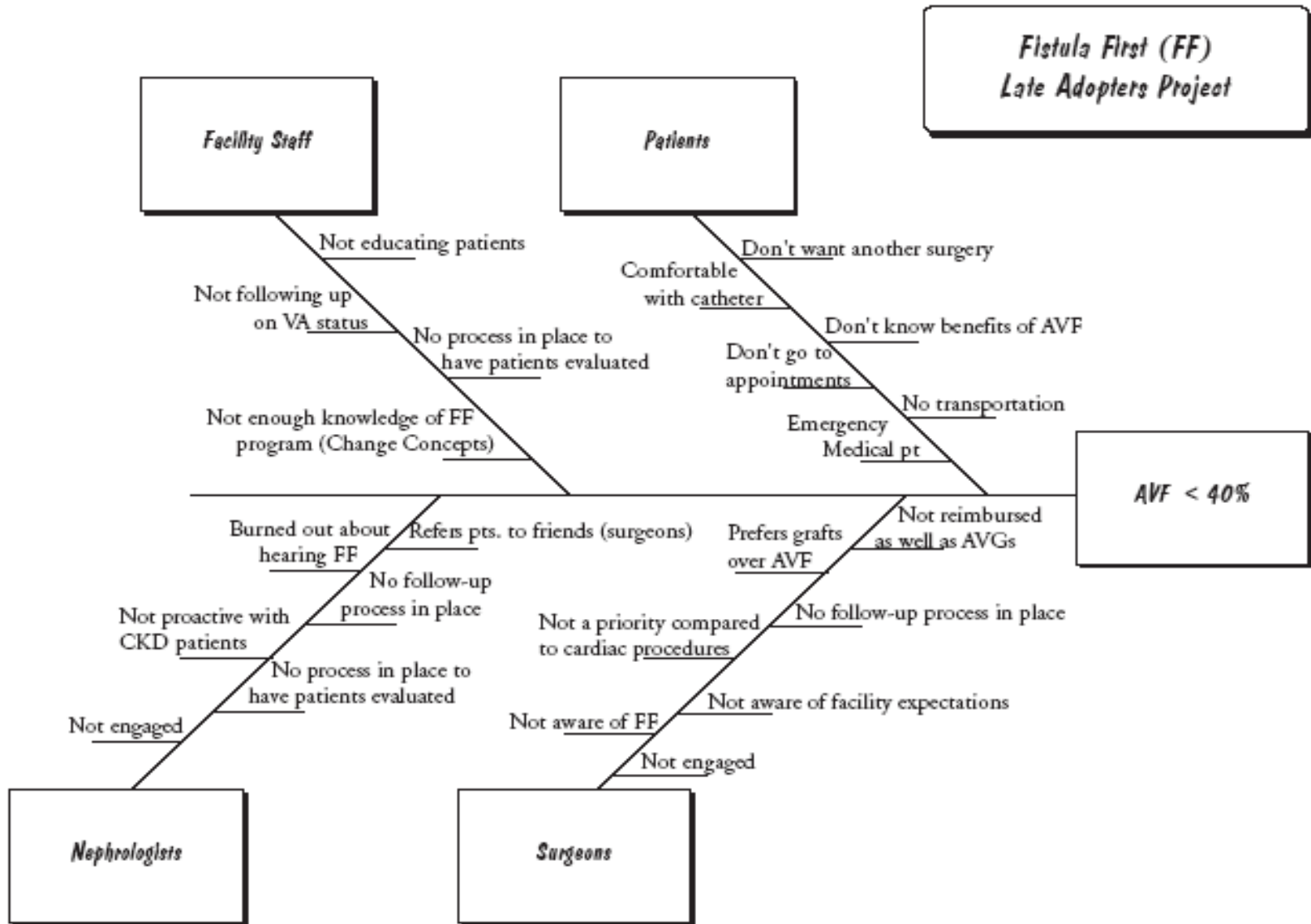
Fishbone Diagram

(aka: Cause and Effect Diagram)

- Will help to visually display the many potential causes for a specific problem or effect.
- Can be used by individuals or teams - most effective by a group.
- The team assists by making suggestions of possible causes until no more causes can be suggested.
- Once the entire fishbone is complete, a team discussion takes place to decide what are the most likely root cause(s) of the problem.

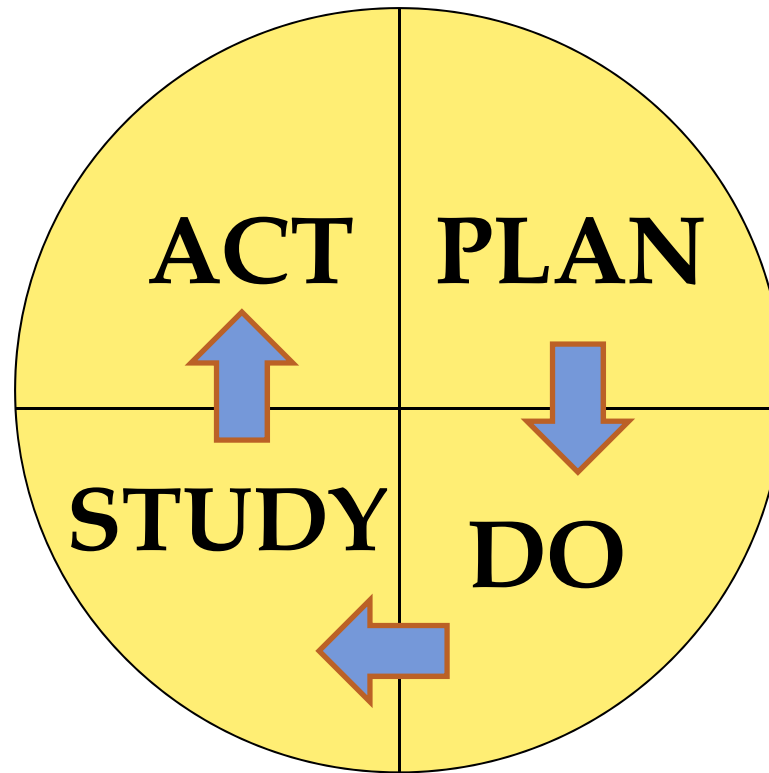


Fishbone Diagram



Plan-Do-Study-Act (PDSA):

PDSA is the format the Network uses for developing a QAPI plan.



Plan-Do-Study-Act (PDSA) *(continued)*

- PDSA approaches promote action by getting clinicians to reflect and brainstorm strategies that they hope will lead to improvement.
- It also promotes evaluation of these changes once the strategies have been implemented.



Plan-Do-Study-Act (PDSA) *(continued)*

PDSA is a cycle of improvement that involves asking three key questions:

1. What are we trying to accomplish?
2. How will we know that a change is an improvement?
3. What changes can we make that will result in an improvement?



Plan-Do-Study-Act (PDSA) (continued)

Plan

Write out the measure you will be using to analyze if you are achieving your goal.
(numerical formula)

○ **Measurement:**

○ Aggregate number of 30 Day Readmissions compared to current annual DFR.

- Numerator: Number of received medical record transfers
Denominator: Total number of hospital discharges (new admissions + prevalent patients returning from a hospitalization)

○ **Frequency of Measurement:**

○ Quarterly

- Note your baseline for comparison towards your goal
- Note the frequency in which you will conduct measurement of your progress



Plan-Do-Study-Act (PDSA) (continued)

Do:

- Implement your plan
- Document problems and unexpected observations of your plan

Study:

- Analyze the results and compare it to the goal
- This analysis should be conducted with the interdisciplinary team.
- Revise plan if necessary to achieve goal



Plan-Do-Study-Act (PDSA) (continued)

Act:

- Is your plan successful?
- How will you ensure continued improvement?
- If it wasn't successful, what needs to be changed based on what you have learned?
- Should you continue to search for other root causes?



Plan-Do-Study-Act (PDSA) (continued)

Act:

- The PDSA cycle is a continuous cycle. It allows you to frequently assess your plan and make revisions as necessary to achieve your goal.
- Your plan should be reviewed at least monthly and/or when you realize that your strategy or activity is not working.



Plan-Do-Study-Act (PDSA) (continued)

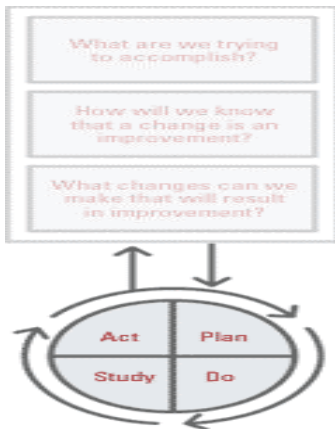
Act:

- You can go back to any step and revise as necessary.
- Note your progress on your form so that you have a record of the strategies/activities you've attempted and results of those attempts as well as the revisions you have made to improve your plan.



Quality Assessment and Performance Improvement (QAPI) Plan

Cycle (Dates of the project):



Adopted from IHI Website, June 2007

Step 1.

PLAN:

Plan/develop the test.

Project:

TEAM: Facility Name & Provider #

(List all members)

BACKGROUND: (Summary of facility's identified problem and description of what the facility has been doing to improve the problem in the past – root cause analysis (RCA) will assist with finding out where the problem(s) are.)

Problem Statement: (Statement outlining the root cause)

AIM Statement: (Statement designed to guide you to your goal.)

What is the goal? (Include a numeric goal to achieve.)

Develop a plan to achieve the goal?

(List steps of the plan – this will allow you to identify the step that may need modifying/revising if necessary.) Add more paper if necessary.

What data sources are needed for the test? (What data sources will you be using to monitor your progress?)

What measures are used to analyze if you are achieving the goal?

Baseline: _____

Measure: (Numerical formula – i.e. numerator/denominator = %)

Monitoring frequency:

<p>Step 2. <u>DO:</u> Try out the test on a small scale.</p>	<p>Implement the plan. <u>Document problems and unexpected observations.</u></p>
<p>Step 3. <u>STUDY:</u> Set aside time to analyze the data and study the results.</p>	<p>Analyze the results and compare the results with your goal.</p>
<p>Step 4. <u>ACT:</u> Determine if the test was successful or the plan needs to be revised.</p>	<p>If the test was successful, how will you implement the plan on a wider scale?</p> <hr/> <p>If it was not successful, what needs to be changed based on what you have learned? Should you continue to search for other root causes?</p>

Project Tools & Resources

- WebEx Power Point Presentation.
- WebEx Conference Call recording.
- Conference call minutes.
- Expert resources.
- Best Practices



Project Summary

○ Objective:

- To reduce the hospitalization rate in the project facilities and bring awareness to coordination of care.

○ Goal:

- Achievement of facility-specific goal by March 2012 = Noted on PDSA form.
- Decrease the project facility's aggregate yearly 30 Day Readmission number by 5% from 453 to 431 by March 2012.
- 100% medical record transfer received from hospitals upon admission from a hospital or return from a hospitalization.



Project Summary

○ Timelines:

- Project cycle: August 2011 – April 2012.
- RCA & PDSA (Step 1) due: **Friday, November 18, 2011.**
- **Meetings and Conference Calls**
 - **Conference Call TBD. (If needed)**
 - Reminder notices and agendas will be faxed prior to the call.
- Achievement of facility-specific goal and project facilities' aggregate goal by March 31, 2012.
- Final PDSA (Step 2 – 4) due: April 2012
 - The Network will inform you when this is due.



Network Communication

- In the past, we have had e-mail delivery problems because of the facility’s firewalls, **please ensure you are able to receive e-mails from me about the project.**
 - Add the Network email address to your contacts.
 - Consult with your IT Department to assist you.
 - Please check your “junk mail” /”spam” mail for they may have been sent there.



References

- *Hecking E, Bragg-Gresham JL, Rayner HC et al. Haemodialysis prescription, adherence and nutritional indicators in five European countries: results from the Dialysis Outcomes and Practice Patterns Study (DOPPS). Nephrol Dial Transplant 2004; 19: 100–107*
- *Locatelli F, Pisoni RL, Combe C et al. Anaemia in haemodialysis patients of five European countries: association with morbidity and mortality in the Dialysis Outcomes and Practice Patterns Study (DOPPS). Nephrol Dial Transplant 2004; 19: 121–132*



References

- *Pisoni RL, Young EW, Dykstra DM et al. Vascular access use in Europe and the United States: results from the DOPPS. Kidney Int 2002; 61: 305–316*
- *Combe CH, Pisoni RL, Port FK et al. Dialysis Outcomes and Practice Patterns Study: données sur l'utilisation des cathéters veineux centraux en hémodialyse chronique. [Dialysis Outcomes and Practice Patterns Study: data on the use of central venous catheters in long-term haemodialysis.] Nephrologie 2001; 22: 379–384*



References

- *Dhingra RK, Young EW, Hulbert-Shearon TE et al. Type of vascular access and mortality in US hemodialysis patients. Kidney Int 2001; 60: 1443–1451*
- *Pastan S, Soucie JM, McClellan WM. Vascular access and increased risk of death among hemodialysis patients. Kidney Int 2002; 62: 620–626*



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Network 18 Website

www.esrdnetwork18.org

**Professionals to Quality Improvement to QI Work Plan to
2011-2012 QIWP then to Standardized Hospitalization Rate
Project.**



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