Intermountain ESRD Network, Inc.
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Example QI Immunization Project

Let's go ahead and walk through a quality improvement project focused on improving immunization rates.

First, look at your data to see if you are meeting the 90% vaccination goal of the Safe and Timely Immunization Coalition (STIC). If you track immunizations using other methods, include these reports in your review. How do you compare to others in your geographic area? If you're not meeting the goal, or you aren't up to your community standard, you should consider an improvement effort in this area.

Next, decide which people at your facility should be included in the team effort. Do you have a designated "vaccinator"? Are your home training nurses available to help you give vaccinations to your in-center patients? Who else would you like to include? Consider having your state health department or Visiting Nurse Association assist with vaccinations this season if you're running short on staff.

Now, take a closer look at your clinic to see what is going on that might be impacting your rates. Are there groups of patients who have lower/higher vaccination rates than others e.g., patients who speak Spanish or are elderly, those who dialyze on certain shifts? Which vaccination processes can be improved, i.e., what isn't working as well as it could be? This will help to narrow your focus and concentrate on the root cause of the problem.

To get you started, the following barriers to immunization have been identified by Medical Review Board members of Network #15 as potential causes of low rates:

- → Lack of a systematic approach to offering, providing and tracking patient vaccinations;
- → Communication failure between dialysis facility and point of vaccination i.e., immunization records are not shared among providers, nor are they updated when patients have been seen in the hospital or physicians' offices;
- → Facilities aren't aware that Medicare reimburses for immunizations;
- → Lack of availability of vaccines (real or perceived);
- → Some patients do not realize the benefits of immunizations and refuse vaccinations;
- → Knowledge deficit among patients and staff (may be a language barrier in some instances);
- → Needle phobia;
- → Mis-reporting data to the Network causing inaccurate computation of rates;
- → Patient refusal (address individual reasons for refusal).

Root cause: Determined by your CQI team who have reviewed the data and barriers. Example: Lack of consistent tracking of immunization data.

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Decide on an "AIM" Statement; what are you trying to accomplish?

- 90% of patients and staff members are immunized for influenza, pneumococcal pneumonia and hepatitis B by December 31, 2009.

How will you measure improvement?

Monthly measurement as QA monitor

Potential measurement (if above goal is used):

Numerator: # of patients (or staff members) immunized for each of the individual vaccines
Denominator: total # of eligible* patients (or staff members) dialyzing at facility during collection period
*Consider excluding patients with allergies. When checking hepatitis B status consider excluding patients who are allergic, have antibodies present or are non-responders.

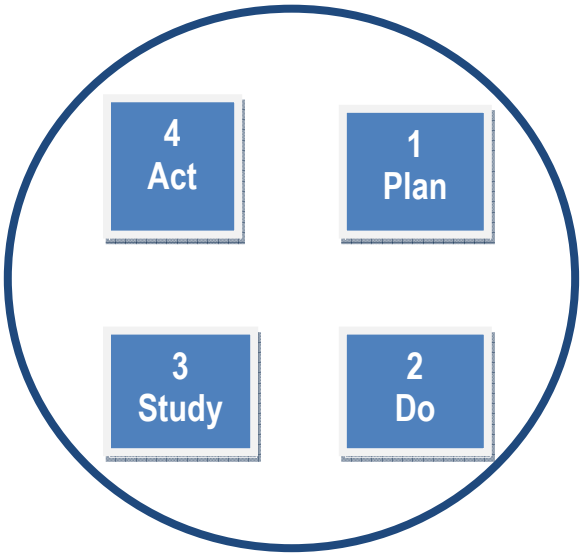
Additional MRB recommendations that might be included in your statement:

- Administer Influenza vaccination annually
- Administer the Hepatitis B series to all patients prior to or within the 1st year of beginning dialysis
- Administer the Pneumococcal Pneumonia vaccination prior to or within 12 months of the start of dialysis
- Complete immunization tracking for each patient for each vaccination
- Or, develop your own!

Brainstorm potential solutions based on barriers / root cause prioritized by your QI team.

Begin PDSA cycles and document your improvement!

4-*ACT
-Adopt the change *or*
-Abandon it *or*
-Run through the cycle again, possibly under different environmental conditions



1-Plan a change or a test aimed at improvement

2-Carry it out (preferably on a small scale)

3- Study the results
What did we learn?

Begin a new PDSA Cycle!

Name of facility / Provider #_____

Facility Contact/Position _____

Root Cause Assessment
Infection/Immunizations

Major Barriers to Prevent Infections	Potential Root Cause For Infection/Immunization	Problem in facility?	Potential to change
Patient Factors			
Awareness/Knowledge	• Lack of education regarding the care of vascular access	Y/N	
	• Lack of education regarding s/s of infection	Y/N	
	• Lack of awareness of benefit of immunizations	Y/N	
	• Lack of awareness of benefit of Hepatitis vaccine	Y/N	
	• Lack of knowledge about infection control	Y/N	
	• Lack of knowledge concerning personal hygiene and hand washing	Y/N	
Physical factors that increase the chances of Infection	• History of respiratory problems	Y/N	
	• Diabetes	Y/N	
	• Long-term steroid use	Y/N	
	• History of or active drug abuse	Y/N	
	• Medical instability	Y/N	
	• Malnutrition	Y/N	
	• History of auto-Immune diseases	Y/N	
Communication/ Education	• Failure to report s/s of infection to healthcare workers	Y/N	
	• Failure to take prescribed medications (antibiotics)as prescribed and for the length of time ordered	Y/N	
Social	• Cultural bias regarding sickness, hygiene, foods,	Y/N	
	• No insurance	Y/N	
Other	• Preference for catheters since catheters do not require a "stick" or wish to avoid another procedure	Y/N	
	• Patients aware that catheters are a major source of infection, but tend to ignore medical advice	Y/N	
	• Exposure to environmental hazards, ie. Smoking, pollutants	Y/N	
	• Under dialyzed	Y/N	
	• Hospitalization	Y/N	
Nephrologist Factors			
General	• Failure of nephrologists to educate patients regarding the pros and cons of the different types of vascular access	Y/N	
	• Failure of nephrologists to monitor infection control issues and lead CQI program to track and decrease infections	Y/N	
	• Failure to refer CKD patients for early access placement (catheters placed due to emergent need for care and ease)	Y/N	
	• Failure to track immunization rates of all patients and / or develop plan to make sure all patients are immunized at facility	Y/N	

	• Lacks current knowledge concerning the latest medication s for infection control and prevention methods	Y/N	
Facility Factors			
Awareness/Knowledge	• Facility failed to provide education to housekeeping regarding methods of cleaning and disinfecting surfaces in the facility to minimize transmission of microorganisms	Y/N	
	• Facility has failed to educate staff about AAMI Water Standards . Staff lack knowledge about procedures for monitoring water, monthly cultures, follow-up to results, and water sterilization	Y/N	
	• Facility lacks tracking mechanism for infectious processes	Y/N	
	• Lack of knowledge and training regarding handling and delivery of patient's medicine	Y/N	
Communication/Education	• Inadequate communication between facility and nephrologists, surgeon, radiologist regarding infection rates	Y/N	
	• Failure by nurses or technicians to report s/s of patient infections	Y/N	
	• Lack of centralized record keeping to monitor and prevent complications from infections, including immunization, bacteremia and access	Y/N	
	• Lacks Infection control team	Y/N	
	• Lack knowledge regarding infectious disease process for MRSA and VRE	Y/N	
Training/Experience	• Techs and nurses lack adequate training/experience in infection control and isolation practices	Y/N	
	• Lack of education concerning use of protective equipment (PPE)	Y/N	
	• Staff lacks education in proper personal and hand hygiene techniques.	Y/N	
	• Lack knowledge about need for immunizations for staff and patients	Y/N	
	• Lack of and/or failure to have a policy on monitoring infectious processes		
Administrative	• Lack of and/or failure to use a Quality Improvement program to monitor and decrease infection rates	Y/N	
	• Proper distance for patients infected with MRSA or VRE and the general dialysis population not maintained because Policy and procedures are not enforced	Y/N	
	• Designated supplies for those patients who have MRSA or VRE are not available	Y/N	
	• Lack of supplies available for hand hygiene	Y/N	
	• No current Policy & Procedure for infection control and prevention and/or improving immunization rates	Y/N	
	• Lack of and/or failure to use an educational program to instruct patients about post-op care, signs and symptoms of infection and when and to whom the patient report to, etc	Y/N	
	• Continuous educational opportunites for infection control issues and tracking	Y/N	

* This list does not include every root cause affecting infection

AN INVITATION
From Network #15

Free Resources

Safe & Timely Immunizations Coalition

Please contact us if you would like additional help developing an immunization QI project!

Phone: 303-831-8818
E-mail: info@nw15.esrd.net

TRACKING TOOL

Immunization Project Resources

Download a free tracking tool at:
http://www.esrdnet15.org/QI.htm (click 'MIMI' link at top)

Web-site links:

- STIC Resource Guide:
  http://www.esrdnet15.org/QI/STIC%20Book.pdf
- Guidelines for Vaccinating Kidney Dialysis Patients and Patients with Chronic Kidney Disease: summarized from Recommendations of the Advisory Committee on Immunization Practices (ACIP):
  http://www.esrdnet15.org/QI/immunize.pdf
- CDC Resources for Healthcare Professionals:
  http://cdc.gov/CDCForYou/healthcare_providers.html