

In hospitalized cardiac patients, what is the impact of a tailored discharge teach-back tool on 30 day readmission rates?

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Background

Background Cardiac surgery and Heart Failure (HF) patients figure among the highest in incidence of readmission within 30 days after discharge. 9.2% of patients that underwent Coronary Artery Bypass Grafts (CABG) were readmitted within that timeframe in our units in 2017. Many of the reasons behind readmissions are directly related to events that could be prevented with adequate discharge teaching and accurate assessment of a patient's understanding of the cardiac surgery performed, their disease process and the self-care regimen involved in maximizing their quality of life.

Purpose The purpose of this project is to develop and implement a tailored discharge teach-back tool to empower nurses to further assess patients' understanding of their surgical or disease process and necessary self-care regimen, in order to minimize readmission rates.

Methods

The Inova Fairfax Medical Library supplied us with eight articles. After careful literature review, we found seven of those to be pertinent to this project's objective.

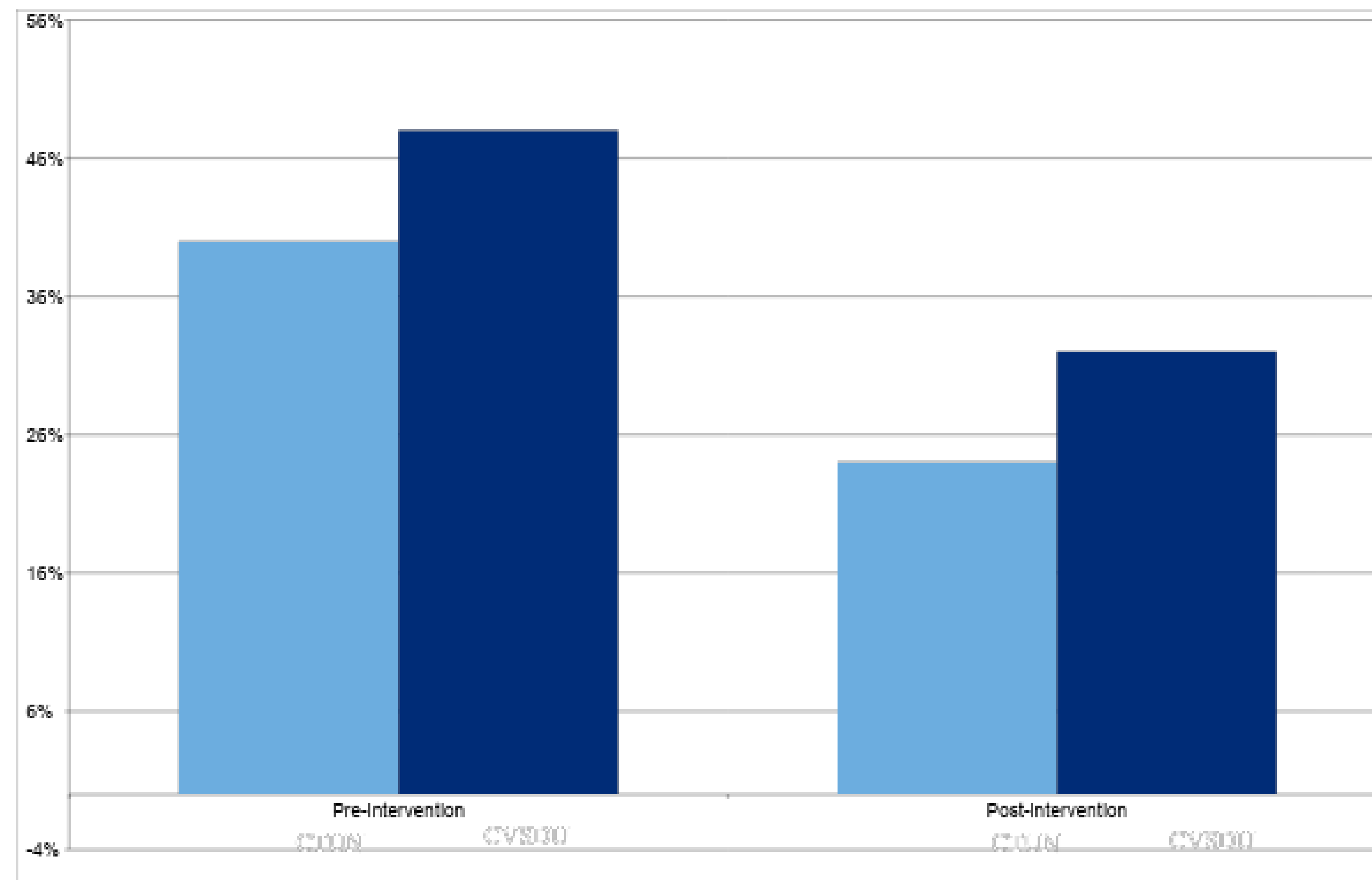
According to Hobbs et al., HF is the most frequent cause of rehospitalization among surgical cardiac patients, which constitutes an outstanding 40% of all their re-admissions.

Since the Affordable Care Act (ACA) penalizes hospitals with a high rate of re-admissions within 30 days of discharge (Cykert, 2012), finding a way to keep that specific population from being readmitted becomes imperative.

As a last step, we approached our units' nurse clinical managers to obtain unit specific statistics regarding readmissions and the reason behind them.

Based on the information found in literature and based on the data supplied by unit statistics, we decided to develop a tailored teach-back method tool, to be used during discharge process. This tool enhances understanding of the patient's surgical or disease process and management in order to prevent health related complications that require further hospitalized interventions.

PRE-INTERVENTION GROUP VS POST-INTERVENTION GROUP



We created two different patient samples of twenty five individuals each in CTUN and CVSDU. One sample would be considered a pre-intervention sample, whereas the other one would become the post-intervention group. The pre-intervention sample would obtain a regular After Visit Summary (AVS) based discharge teaching. On the other hand, the post-intervention sample would have the tailored discharge teach-back tool in addition to the AVS resource. We followed those samples through daily unit census check ups to ensure whether or not those patients were readmitted within 30 days of discharge. This graph illustrates the findings.



Special Instructions:

Cardiac Medicine Teach Back Sheet

- Why am I in the hospital?
 - Fluid overload
 - Kidney failure
 - Heart attack
- How much fluid can I drink every day?
 - 1.5L
 - 2L
 - Other _____
- How much salt can I take in per day?
 - Weekly
 - Monthly
 - Daily
 - 4 times a day
- How often should I weigh myself?
 - Weekly
 - Monthly
 - Daily
 - 4 times a day
- My current ejection fraction (heart function) is: _____
Normal is 55%-65%.
- What kind of diet should I follow (select all that apply)?
 - High fiber
 - Low sugar
 - High sugar
 - Low fat
 - High protein
- How many mL are in a can of soda?
 - Never
 - Several times a day
 - 40 times a day



Special Instructions:

Cardiac Surgery Teach Back Form

- Why am I in the hospital?
 - Aortic Valve Surgery
 - Tricuspid Valve Surgery
 - Mitral Valve Surgery
 - Atrial Fibrillation
 - MAZE Procedure
 - Heart Transplant
 - Bypass surgery
- Do I have sternal precautions? Yes / No
If yes, which of the following are sternal precautions (select all that apply)?
 - No lifting objects heavier than 5 lbs (a gallon of milk)
 - No swimming
 - No lifting a cup
 - No wiping after going to the bathroom
 - No lifting elbows past the shoulders
 - No pushups
 - Coughing with a pillow
- How do I take care of my incisions (select all that apply)?
 - Wash with mild liquid soap
 - Use the same washcloth on different incisions
 - Clear yellow/pink drainage is a sign of infection
 - Call the doctor if it is more painful than when I left the hospital
 - Increasing redness around the incision is normal
- What diet should I follow?
 - Low sodium, high fat, low protein, high sugar
 - Low sodium, high fat, high protein, high sugar
 - High sodium, low fat, low protein, low sugar
 - Low sodium, low fat, high protein, low sugar
- How often should I walk (5-10 mins)?
 - Never
 - Several times a day
 - 40 times a day

6. Cardiac Medications Matching: Match the medication name with its action:

- Names:
- ___ Amiodarone (antiarrhythmic)
 - ___ Tramadol (analgesic)
 - ___ Elixiquor or Warfarin/Coumadin (anticoagulant)
 - ___ Carvedilol or Metoprolol (beta-blocker)
 - ___ Lasix (diuretic)
 - ___ Oxycodone (analgesic)
 - ___ Lisinopril or Amlodipine
 - ___ Simvastatin or Atorvastatin
- Action:
- Increase urine production to decrease fluid retained in the body
 - Prevents irregular heart rhythms
 - Moderate to severe pain medication (opioid)
 - Lowers cholesterol
 - Lowers heart rate and blood pressure
 - Mild to moderate pain medication (non-opioid)
 - Blood thinner
 - Lowers blood pressure
- How many times an hour should I use my incentive spirometer when I am awake?
 - Whenever I feel like it
 - 5 times
 - 10 times
 - 1 time
 - During commercial breaks
 - When can I resume driving?
 - When I am no longer taking narcotic/opioid pain medication
 - When my doctor tells me my sternum is healed
 - When I need to go to the grocery store
 - When should I start cardiac rehab?
 - Next week
 - 4-6 weeks after surgery
 - 6 months
 - Never
 - When do I contact the cardiac surgery office at 703-280-5858 (select all that apply)?
 - When my blood pressure or pulse is too high or too low
 - When I have a temperature of 101 degrees or above
 - If I gain more than 3 pounds in a day or 5 pounds in a week
 - If I feel tired or have a poor appetite
 - If I notice my incisions look redder or are draining

Findings

At CTUN, in the pre-intervention group, ten out of twenty five discharged cardiac patients were readmitted within 30 days of resuming life outside the hospital setting. This constitutes 40% of the individuals in the sample. On the other hand, in the post-intervention group, six out of twenty five discharge patients were readmitted within the same period of time. This constitutes 24% of the sample, which in turn translates into a 16% decrease in readmission rates.

At CVSDU, in the pre-intervention group, twelve out of twenty five discharged cardiac patients were readmitted within 30 days after discharge. This constitutes 48% of the individuals in the sample. In the experimental group eight out of the twenty five discharged cardiac patients were readmitted within the same period of time. This constitutes 32% of the individuals in the sample, which in turn translates to a 16% decrease in readmission rates.

Implications for Practice

Many factors are associated with this specific patient population's return to the hospital within 30 days of discharge; however, effective education, with resultant patient comprehension of the discharge plan, based on comprehension of the disease or surgical process, has the potential to decrease the likelihood of readmission by 30% (Almkuist, 2017).

In addition, the creation of teach-backs tools puts the nursing profession in the lead to improve public/community health once more, allowing hospitals to comply with ACA and allocate resources more efficiently.

References

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Almkuist, K. D. (2017). Using teach-back method to prevent 30-day readmissions in patients with Heart Failure: A systematic review. *MedSurg Nursing, 26*(5), 309-351

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