Critical Thinking Problem Solving Project

Clinical Group 1 CMS

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Problem

Inconsistent monitoring of fluid balance in patients with congestive heart failure

Problem

- The problem that was identified by our clinical group was the inconsistent and sometimes lack of intake and output documentation for patients on a heart failure floor. There were patients that were on fluid restrictions and had no way of recording how much fluid they were drinking let alone how much they were urinating. This wasn't true for all the patients on the floor. The problem was the inconsistency with the way they record and handle these types of patients.

(QSEN Institute, 2014)

QSEN Competency

- This relates to the QSEN competency safety. The consistency is created to help minimize risk of harm to patients through effectiveness and individual performance.
- The QSEN safety competency suggests demonstrating effective use of standardized practices that support safety and quality. Heart failure patients are at increased risk of fluid overload and hospital protocol for all heart failure patients should be monitoring their intake and output to make sure they are not retaining fluids.

(QSEN Institute, 2014) image: https://twitter.com/QSEN_Institute

Investigation

The indisputable case for monitoring fluid balance

Where do we start?

Treating and assessing heart failure (HF) patients is a meticulous process. An integral part of the treatment plan for these patients is accurate assessment of **fluid status.**

Nurse's Responsibility:

- Evaluate fluid status regularly
- Assess for fluid overload and depletion
  - both can impair cardiac output
- Ensure timely and proper documentation of intake and output

These are key to proper evaluation and treatment of heart failure patients and will assist in guiding treatment to provide better patient outcomes.

(Hughes, 2013)

Inconsistent Care

Inconsistent assessment, evaluation, and documentation of fluid status was noted on the heart failure unit at ORMC.

The reasons for inconsistent care could be due to:

- Significant increase of new/temporary nurses
- Restructuring of management
- Overwhelming patient load
- High nurse turnover
- Lack of training

These inconsistencies can jeopardize positive patient outcomes.

(Shepard, 2011)
image: http://www.personneltoday.com/hr/public-sector-turnover-rates-indicate-restraint-from-redundancies/

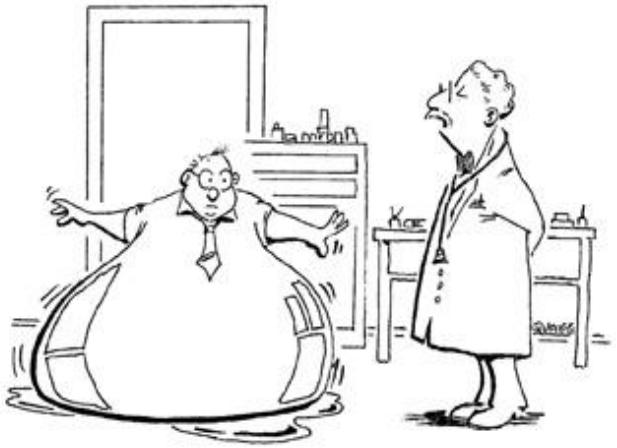
Why is this a problem?

Why is this a problem?

An accurate objective indicator of fluid status is essential to help minimize long term health problems among heart failure patients. Physicians and nurses rely on timely documentation of input/output to determine patient's fluid status. This in combination with:

- Vital signs every 4 hours
- Cardiopulmonary assessments
- Labs
- Diagnostic tests
- Daily weights

will aid in determining the treatment plan.



(Shepard, 2011)
Image: http://www.beaumont.ie/media/FLUID-RETENTION2.jpg

How does it affect outcomes?

Heart failure patients are usually on diuretics. Urine output must be closely assessed to properly titrate these medications. Inaccurate documentation and assessment of the patient's fluid status could lead to adverse complications from these medications. These include:

- Electrolyte imbalances
- Dysrhythmias
- Hypotension
- Renal dysfunction
- Pulmonary retention
- Dehydration

Inadequate information can lead to inappropriate treatment, which can be fatal to heart failure patients.

(Albert, 2012)
Image: http://www.kidneypatientguide.org.uk/images/fluidPic.gif

Treatment Goals

Treatment aims to enhance patient comfort as well as control the signs and symptoms associated with heart failure.

This is essential to:

- Reduce further heart damage
- Stabilize the disease process

Efforts need to be made to implement better assessment and documentation of intake and output. This will improve the quality of hospital care as well as the patient's safety and prevent rehospitalization later.

(Albert, 2012)
Image: http://jama.jamanetwork.com/article.aspx?articleid=184062

Solution

Solving the problem of fluid balance monitoring

Possible Solutions

Many ways this problem can be improved:

- Post signs in patient rooms that need intake and output measurements.
- Educate nursing staff and assistive personnel on how to measure.
- Review how to properly chart intake and output with nursing staff and assistive personnel.
- Educate patient and family on the importance of intake and output measurements and how to measure.
- Display educational poster in break room with full explanations of fluid balance measurement orders.
- Keep paper intake and output log in patient's room for everyone to log information on, then enter into electronic chart at end of shift.

("Policy for the recording of fluid balance/intake-output", 2008)
(Shepard, 2011) (Burton, 1994) (Alexander & Allen 2011)

Plan of Action

The First Step in Making a change:

- Educate nursing staff and assistive personnel on importance of measuring intake and output, how to measure volume, and tips for charting.

Why is this an important Solution?

According to Shepherd, the main reasons why intake and output is not recorded appropriately is due to staffing shortages, lack of time, and lack of training. Educating the nursing staff and assistive personnel is the one aspect that could be address by our group. Alexander and Allen found that educating staff about fluid balance measurements and reducing the number of patients with orders for intake and output measurement increased charting compliance. Before implementation of a fluid balance measurement policy on two oncology floors, the documentation percentage was 15%. After implementation, the percentage of documentation compliance was more than 90%.

(Shepard, 2011), (Alexander & Allen, 2011)

Implementation

Executing the plan to provide a safer environment

Classroom Teaching

Required: 2 one hour class for all licensed nurses and clinical technicians

First Class Includes:

- Why documenting intake and output is important
- Monitoring of patient's fluid status
  - highlighting that a 5 percent change in volume causes damage

Second Class Includes:

- Hands on activities - measuring volumes and practice charting
  - Fluid volume must be documented hourly using quantifiable measurements
- How to chart insensible losses
- Discuss and practice proper measurement of fluid samples
- Practice teach back to ensure staff know how to empower the patient with keeping track of their I/O when no one is around

(Shepherd, 2011) (Alexander & Allen, 2011)

Class Specifics

Class Times:

- 0530, 1300, 1730, 1930
  - Staff attend a convenient class time
  - Held biweekly
  - Included in the orientation for new hires on the unit

Class Effectiveness:

- Passing 10 question multiple choice quiz with a 9/10 for each class

Proof of Attendance:

- Each attendee will receive a certificate to give their floor manager
- Floor managers are responsible for making sure all attend

Image: https://www.cwnp.com/wp-content/uploads/2012/05/training-class.jpg

Measurement and Goals

Expected Outcome:

- Documentation compliance continually increasing by 20% monthly
- Documentation compliance of 90-100% within the first year on a HF unit

Review Process:

- Monthly audits performed by unit or nurse manager on 25% of patient charts
  - Cover date of initiation of plan to a 30 day period
  - Begin after nursing training on fluid balance has been completed
- Immediately review errors with staff for continued improvement
- Special focus on patients with an extended hospital stay

(Shepherd, 2011) (Alexander & Allen, 2011)

Evaluation

Items Reviewed and Tracked:

- Timely documentation at regular intervals to decrease errors
- Correct documentation of all Intake and Output
- Decrease in patient readmissions
- Increase in nurse to patient teaching of fluid balance maintenance
- Decrease in number of patients with worsening symptoms each quarter

Staff Buy-In

Monthly Incentives:

- The staff with the best charting on that floor will receive a small gift
  - Movie tickets, cafeteria credit, or a novelty hospital item

Incentive Rules:

- This staff member cannot win twice in a row
- This will encourage and motivate others to work hard to win
- The prizes are small enough to not ignite fierce competition in the team.

Image: http://www.preventiongroup.com/wellness-incentives/

Why Give an Incentive?

Why offer a reward for performing their job?

- Incentive programs are an important part of a company
- There is a "79% success rate in achieving the established goals when the correct reward was offered"
- Incentive programs also increase worker satisfaction, and in return patient satisfaction.
- Motivation to reach the goal of a documentation rate in the 90th percentile after completion of the class.

(Sanders, 2013)

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