

## **CONTEXT**

Mediclinic Vergelegen selected the CAUTI bundle for the start our Best Care Always campaign, because Urinary tract infections were the main contributor to our HAI.

## **PROBLEM**

Demographics of Vergelegen's catchment area is such that the mean age of our patients is 65 years, many of our patients are admitted from other healthcare institutions and our patients have many co morbidities

H ward was selected for the pilot unit:

- they had a high percentage of infections
- catheter days are high
- 79% bed occupancy
- Disciplines include orthopaedics, neurosurgery and urology

## **AIM**

What are you trying to accomplish?

Aim statement:

A reduction of urinary tract infections by 33% in the hospital

## **CHANGES MADE**

- Stock levels of basic necessities were evaluated and addressed
- Basic Needs/Fixing rounds are reinstated as part of maintenance of catheters.
- Admission centre is fully functioning and more patients' urine is being tested pre-catheterization than before.
- Theatre and EC were identified as the area where most catheters are put in, thus compliance to aseptic insertion and basic procedures were reintegrated.
- A Clinical Chronicle was created by the training department (figure 1) and procedures related to catheter care were done by personnel.

## When to analyse urine: URINARY CARE

- On admission or within 24 hours
- Urinary catheter in-situ, every 24 hours
- Once an urinary catheter is removed, every 24 hours X2
- Pre-operatively urine not tested - catheter inserted intra-operatively, test urine immediately post-operatively

**Always have the patient's file with you when performing any procedure**

### *Symptoms of a UTI*

- Burning sensation when urinating
- Lower abdominal pain
- Cloudy, dark, smelly or bloody urine
- Feeling the urge to urinate but unable to urinate
- pH > 8
- Positive Nitrates & Leucocytes

For any uncertainty refer to the Basic Nursing Procedure File  
"Perform Urinary Catheter Care" No: 54 and "Analyse Urine" No: 51

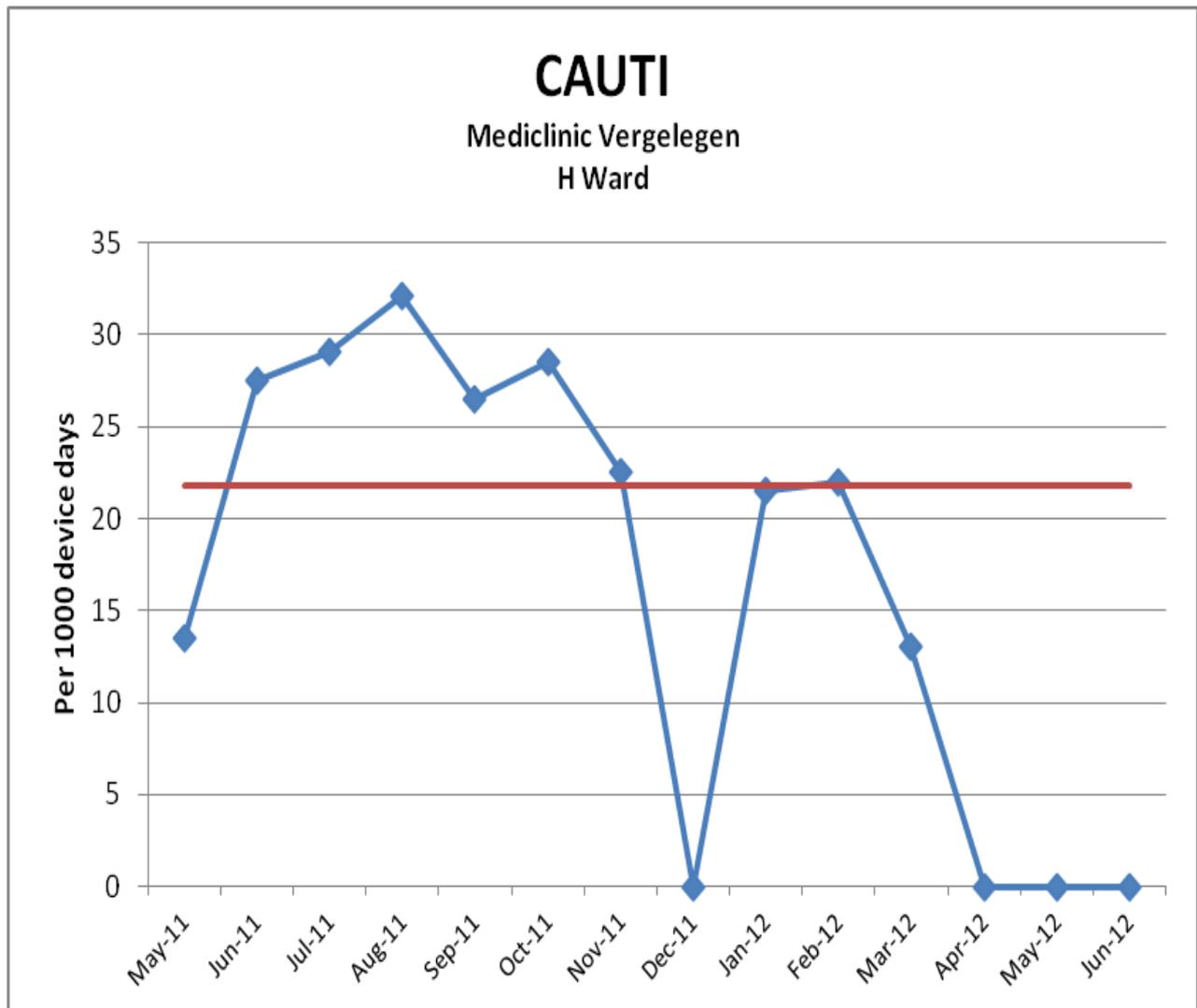
### MAINTENANCE OF URINARY CATHETERS

- Maintain a sterile, continuously closed drainage system
- Keep catheter properly secured to prevent movement & urethral traction
- Keep drainage bag below the level of the bladder at all times
- Maintain unobstructed urine flow
- Empty drainage bag regularly as per care plan

**CATHETER CARE  
SHOULD BE PERFORMED  
4 HOURLY**

These guidelines are to be followed  
by all nursing personnel at all  
times!

Figure 1: Clinical Chronicle – urinary care



**FIGURE 2: Catheter urinary tract infections – H ward**

In the beginning of 2011 training was done in H ward on the correct procedures in performing urinary catheter care, analysis of urine, insertion and removal of a urinary catheter and emptying of a urine catheter bag.

There was a lapse in control from June to November as can be see in figure 2. Sustainability is always a challenge. As a hospital we had a number of concerns we wanted to address. A chronicle on the basic needs round was developed by the training department (figure 3). As described in Institute for Healthcare Improvement: Leaning toward Better Patient Care (2011) “We standardized all our processes and choreographed them in a way that optimized staff time and still allowed for flexibility.”

We wanted a continuous flow in patient care and did not want Best Care Always to be seen as an extra burden, but rather wanted to incorporate it into an already existing system of care being given. Too many focus areas can de-motivate staff. It was then decided to link on the Best Care Always Campaign with the basic needs round.

**“BASIC NEEDS” ROUND  
(FIXING ROUND)**

**WHEN DO WE DO A BASIC NEEDS ROUND?  
As per daily patient care plan prescription**

**Always have the patient's file with you when performing any procedure**

**WHAT DO WE DO DURING BASIC NEEDS ROUND ?**

**ASSESS THE PATIENT FOR:**

- PAIN
- SKIN INTEGRITY
- URINE ANALYSIS
- CONSTIPATION
- THROMBOPHLEBITIS
- WOUND INFECTION
- EMOTIONAL WELLBEING
- PERSONAL HYGIENE
- COMFORT
- ENVIRONMENT TIDY

For any uncertainty refer to the Basic Nursing Procedure File:  
Attend To Patient Basic Needs No: 17  
Catheter care No: 54  
Oral hygiene No: 16  
Perform hair & nail care No: 20  
Monitor fluid intake & output No: 21A

How do we do basic needs round?

Perform necessary hygiene :

- Face ( make-up, shave males)
- Hair, hands, nails, mouth care
- Catheter care

Pressure areas massage with lubricant

Change patient position, ensure comfort

Do passive exercises and encourage active exercises

Assess patient hydration status, check IV site, wound drainage

Empty urinary catheter and record

Maintain patients rights and principles of infection at all times

Tidy direct environment

Turning & Repositioning Schedule

Waterlow score <10 Reposition 2-4 hourly

Waterlow score 10-14 Reposition 2 hourly

Waterlow score 15-19 Reposition 1-2 hourly

Waterlow score > 20 Reposition every hour

*Record all abnormalities on implementation  
record and report to health practitioner*

*Remember, what was not recorded was  
NEVER performed !*

**Figure 3: Clinical Chronicle - Basic needs round**

## **BASIC NEEDS/FIXING ROUNDS**

Patients are assessed during rounds on:

Pain, skin integrity, hydration status, personal hygiene, urine analysis, wound infection, constipation, emotional wellbeing, comfort and environment tidiness.

During rounds personal hygiene is performed – face, hair, nails, mouth care and catheter care. Specific mention is made of the importance of using two face cloths and/or a disposable one during the training.

Pressure areas are massaged with lubricant and position of patient is changed to ensure comfort and reduce the possibility of bedsores.

Emptying of urinary catheter is done according to BCA principles and the output recorded. Signs of a urinary tract infection can then be observed.

The intravenous site is checked for abnormalities and also the wound for drainage and possible infection.

It is ensured that the urinary catheter is secure and free flowing.

The ward is divided into two or three parts, depending on the layout and the amount of patients. A team consisting of a PN, EN, ENA and CW is formed for each part. The ENA and CW will do the basic needs/fixing rounds three times a shift under supervision of the PN and EN on their team. The team is responsible for the total care of their allocated patients. Not all patients need the total basic needs round done all three times, thus time wise it is practical.

The training was done on the basic procedures:

Attend to patient basic needs, Catheter care, Oral hygiene, Perform hair and nail care and Monitor fluid intake and output. (Basic needs procedure)

## **OUTCOME**

“Lean achieves two things: it maximizes customer value, while eliminating waste in all its form” (Quality at work, 2012)

The basic needs/fixing rounds was implemented by all the wards, not only the pilot ward. The outcome was very positive (figure 4). There is a definite decline in the amount of urinary tract infections.

The awareness in H ward to reduce catheter days brought the amount of catheter days per month down from 152 days to 143 days, in one year.

The value added is that it is a more structured approach. The agency staff can easily fit into a ward routine and be utilized constructively.

Ownership is enhanced; everybody feels part of the team and is responsible for certain nursing outputs.

It minimizes time wasters, a trolley is set and no one needs to run around to get the necessary equipment.

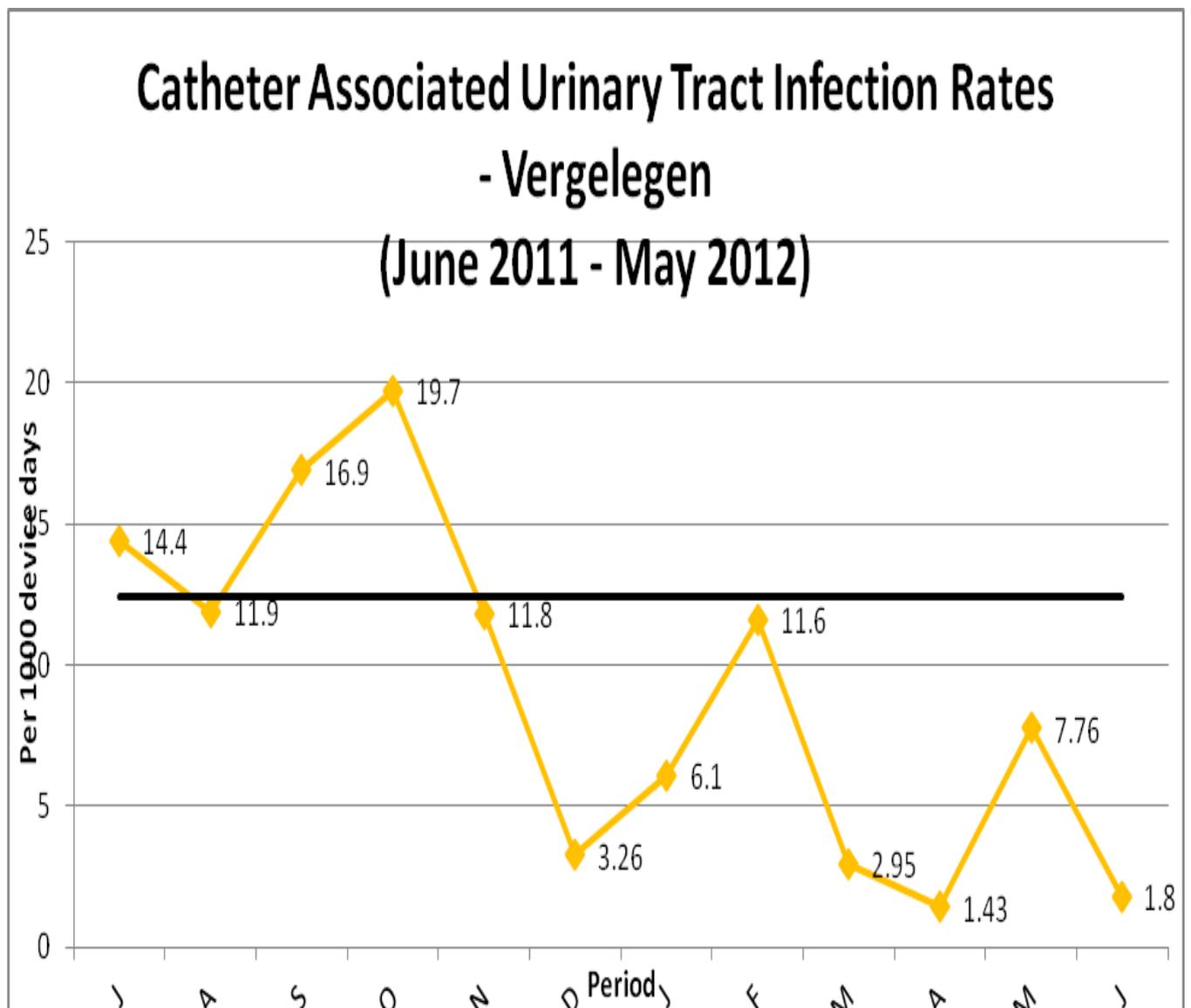
Patient safety is certainly enhanced in the various aspects being taken care of.

Patients comfort level increased and thus are more content and feel cared for.

Infection control is managed by cleaning up the environment, doing catheter care, cleaning hands and checking on the patients wound.

Pressure care is done and minimizes the risk of pressure sores.

Compliance of Pain Management improved because pain is assessed regularly.



## **FIGURE 4: CAUTI rates for Vergelegen**

### **CHALLENGES**

Process measuring to ensure compliance to the bundle remains a challenge. Currently we use an audit tool to see where the pitfalls are and to measure total compliance. A nurse needs to be allocated per shift in the daily allocation book to fill in the audit form, but not all units are adhering to this practise yet. Other pitfalls include:

Physiotherapist lift bags above the bladders when mobilizing or put catheters on beds. We are still working on a practical solution for the problem. The input of physiotherapist is used to identify when a patients is mobile enough, for the catheter to be removed, especially in the orthopaedic patients.

Once the catheter is insitu the routine testing of urine is not always done as it should be.

Patients are still received from theatre with urine bags on the bed, practical solutions are being made.

It has been noted that many of the have +++ or ++++ blood in their urine after catheterization. Of the catheters that are used 62% is size 14 and 37% size 16, we await specialist advice, as BCA states that the smallest catheter possible should be used.

### **CONCLUSION**

We all have challenges: shortage of medical staff, an increase in resistant organisms and pressing economic restraints. We thus have to try and work lean, be practical and changes needs to be sustainable. It is difficult to motivate staff if changes require an extra workload. The combination of the basic needs/fixing rounds which have obvious benefits, and BCA principles of catheter associated urinary tract infections compliment each other. It brings about a system change which is sustainable and practical. However, even with the best system, control is always needed to ensure compliance.

### **REFERENCES**

Basic needs procedure – Attend to patient's basic needs (comfort round) 2012. Mediclinic Head Office. Stellenbosch

Institute for Healthcare Improvement: Leading Toward Better Patient Care. 2011. Available from: [http://www.ihl.org/knowledge/Pages/Improvement stories/LeadingTowardBetterPatientCare](http://www.ihl.org/knowledge/Pages/Improvement%20stories/LeadingTowardBetterPatientCare)

(Accessed 28/6/2012)

MindEdge Monthly: noteworthy Quality insight March 2012. Lean tools and techniques for project management. Available from: <http://quality.atwork-network.com/?p=81>

(Accessed 1 July 2012)

## **ACKNOWLEDGEMENT**

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