

# Implementation of Pressure Ulcer Prevention Guidelines – Where to Start?

## Implementace klinických doporučení – kde začít?

### Abstract

Implementation strategy of preventive and therapeutic interventions in the field of pressure ulcers must be comprehensive and timely and properly prepared. It has to be based on identification of the current situation in the workplace, where the planned implementation of new clinical recommendations will be implemented. The implementation strategy should lead to better care and should enhance professional caregiver's satisfaction. The most important part of the local assessment situation is the evaluation of the type of workplace, human resources and financial resources and costs.

### Souhrn

Implementační strategie preventivních a terapeutických intervencí v oblasti dekubitálních lézí musí být komplexní, vhodně připravené a načasované. Nezbytným základem je identifikace aktuální situace na pracovišti, kde je plánována implementace nových klinických doporučení, které by měly vést ke zkvalitnění péče a zvýšení profesní satisfakce pečujících. Jednou z nejvýznamnějších součástí posouzení je analýza lokální situace, a to zejména rozvaha nad typem pracoviště, personálními a finančními zdroji a náklady.

The authors declare they have no potential conflicts of interest concerning drugs, products, or services used in the study.

Autoři deklarují, že v souvislosti s předmětem studie nemají žádné komerční zájmy.

The Editorial Board declares that the manuscript met the ICMJE "uniform requirements" for biomedical papers.

Redakční rada potvrzuje, že rukopis práce splnil ICMJE kritéria pro publikace zasílané do biomedicínských časopisů.

### J. Black

College of Nursing, University of Nebraska Medical Center, Omaha, USA



Joyce Black, PhD, RN, CWCN, FAAN  
College of Nursing  
University of Nebraska Medical Center  
NE 68198 Omaha  
USA  
e-mail: jblack@unmc.edu

Accepted for review: 9. 8. 2016

Accepted for print: 1. 9. 2016

### Key words

guidelines – implementation – pressure ulcer – prevention

### Klíčová slova

doporučení – implementace – dekubitus – prevence

<http://dx.doi.org/10.14735/amcsnn2016S45>

### What has been the effect of hospitals not getting paid for pressure ulcers that develop in the hospital?

In the study of Adult Nursing Units using National Database of Nursing Quality

Indicators (NDNQI) done by Waters [1] following data and findings were presented. They studied 1,381 hospitals from all 50 states using data from 2008–2010. The research question was: "Since the change in payment, what has been the change in the rates of:

- pressure ulcers,
- injurious falls,
- central line associated bloodstream infections,
- catheter-associated urinary tract infections?"

They found:

- 11% reduction in central line associated blood stream infections – sustained;
- 10% reduction in catheter associated urinary tract infections – sustained;
- 0.5% reduction in rates of falls – flat;
- 1% reduction in rates of stage III and IV pressure ulcers – sustained slow decline [1].

### Why the differences in rates?

The complexity of fall and pressure ulcer prevention in hospitals is complex, requires a team of people and must be repeated and sustained over the course of the hospitalization. This is in sharp contrast to a single or daily intervention to reduce infection rates.

### What is the usual process of pressure ulcer/injury prevention?

On admission to the hospital, the skin of the patient is examined by a nurse. This nurse describes (and perhaps assigns a stage to) a pressure ulcer and decides a treatment for it. The nurse also determines the risk of a patient for further ulceration using a risk assessment scale and/or clinical judgement. However, this nurse seldom carries out the plan. It is assigned to others, such as nurses' aides, to carry out. Delegated tasks can be forgotten when other tasks become important. Delegated tasks may also be poorly understood and not carried out as planned. Finally, when the nurse's shift ends, how is the information communicated to the oncoming staff by the aides [2–8]?

### What is the cost of a pressure ulcer/injury?

Administrators also play an important role in pressure ulcer prevention. They must be aware of the number of cases of ulcers and which ulcers developed during hospitalization. They should be aware of the cost for prevention and treatment. Only when they realize the significance of the problem of pressure ulcers will the nurses

receive adequate education, supplies and staff to address the issue.

Here are some cost figures of pressure ulcers using American dollars:

Stage I and II cost is about \$2,770.54 (depending on complexity of treatments). Stage III and IV = \$71,500.00 to \$127,000.00 (depending on complexity of treatments). Here is an example of the estimate of an annual cost for your unit/hospital. Current hospital rate is 2.5%; 2% stage I/II; 0.5% stage III/IV.

Annual acute admissions are 24,557. From them 491 stage I/II at 2,771 = \$1,360,561 and 122 in stage III/IV  $\times$  71,500 = \$8,723,000 up to \$15,494,000 [9,10].

### So where do I begin?

First determine where your pressure ulcers are starting. In ICU – examine the support surface, turning schedules and ability to turn patient adequately off of their sacrum. Consider using support wedges or positioning devices because pillows become flat very quickly.

In OR – examine how old the OR table mattress is. Many of them are very old and very thin or worn out. Consider the use of additional foam padding to high risk areas. For example, silicone bordered foam has been shown to reduce ulcers on the buttocks when applied before surgery for patients having open heart surgery [3,6,8].

Beneath medical devices (i.e. continuous positive airway pressure masks for oxygen?). Examine how the use of additional thin dressing that wick sweat from under devices or pad bony noses or cheeks can reduce ulcers from face masks [4].

Second determine the most likely area of the hospital that will be a good place to start a prevention program. Consider the attitudes of the nursing staff and risk level of patients. Start where your outcomes will be obvious to all [2,3,5,6,8].

Next develop an early plan. Plans often include assessments of the age of beds, pressure maps are commonly used. Then education of staff on how and when to

examine the skin, how and when to move and turn patients on bedside, and how and when to apply preventive dressings. These steps should be written out clearly so that you can do the next important step – get the administrators to approve your plan.

### Conclusion

Now that you know the origin of the ulcers in your hospital, you can approach administration with a prevention plan. You will be able to examine the cost of prevention and compare it to the cost savings if pressure ulcers continue to develop at their current rate.

### References

1. Waters TM, Daniels MJ, Bazzoli GJ, et al. Effect of Medicare's nonpayment for Hospital-Acquired Conditions: lessons for future policy. *JAMA Intern Med* 2015;175(3):347–54. doi: 10.1001/jamainternmed.2014.5486.
2. Black JM, Brindle CT, Honaker J. Differential diagnosis of suspected deep tissue injury. *Int Wound J* 2016;13(4):531–9. doi: 10.1111/iwj.12471.
3. Black J, Fawcett D, Scott S. Ten Top Tips: preventing pressure ulcers in the surgical patient. *Wounds Int* 2014;5(4):14–8.
4. Black, J. Kalowes, P. Medical Device Related Pressure Ulcers. *Chronic Wound Care Management and Research*. In press 2016.
5. Brindle CT, Creehan S, Black J, et al. The VCU Pressure Ulcer Summit: Collaboration to Operationalize Hospital-Acquired Pressure Ulcer Prevention Best Practice Recommendations. *J Wound Ostomy and Continence Nurs* 2015;42(4):331–7. doi: 10.1097/WON.000000000000051.
6. Emily Haesler. National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel and Pan Pacific Pressure Injury Alliance. *Prevention and Treatment of Pressure Ulcers: Clinical Practice Guideline*. Osborne Park: Cambridge Media, Western Australia 2014.
7. Padula WV, Makic MB, Wald HL, et al. Hospital-Acquired Pressure Ulcers at Academic Medical Centers in the United States, 2008–2012: Tracking Changes Since the CMS Nonpayment Policy. *Jt Comm J Qual Patient Saf* 2015;41(6):257–63.
8. Santamaria N, Liu W, Gerdtz M, et al. The cost-benefit of using soft silicone multilayered foam dressings to prevent sacral and heel pressure ulcers in trauma and critically ill patients: a within-trial analysis of the Border Trial. *Int Wound J* 2013;12(3):344–50. doi: 10.1111/iwj.12160.
9. Padula WV, Mishra MK, Makic MB, et al. Improving the quality of pressure ulcer care with prevention: a cost-effectiveness analysis. *Med Care*. 2011;49(4):385–92. doi: 10.1097/MLR.0b013e31820292b3.
10. Brem H, Maggi J, Nierman D, et al. High cost of stage IV pressure ulcers. *Am J Surg* 2010;200(4):473–7. doi: 10.1016/j.amjsurg.2009.12.021.