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# Facilitation of Nursing Care Delivery for the Prevention of Pressure Ulcers in Older Adults.

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## Editorial

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## INTRODUCTION

A pressure ulcer (PrU) is any skin lesion over a bony prominence resulting from prolonged exposure to pressure that causes capillary occlusion and eventually tissue necrosis. PrUs are associated with complications (e.g., chronic wounds, amputations, septic infections, and premature deaths) with deterioration in overall prognosis [1-3]. Most PrUs are avoidable, however, annual treatment costs (likely $9.1–11.6 billion) are thought to be greater than costs of prevention, making prevention a priority [3-5]. Residence in a NH is a major PrU risk, and the limited mobility prevalent among NH residents increases the intensity and duration of pressure exposure – two factors leading to PrU development [6, 7]. The universally accepted approach to prevention is to minimize pressure exposure through frequent moving/repositioning (hereafter referred to as repositioning) for residents clinically assessed as at-risk (typically Braden Scale score $\leq$ 18) [8,9]. The existing standard-of-care is 2 hour resident repositioning (q2h) for PrU prevention. This standard was derived from a simple observational study and a small experimental study conducted in 1962 [10].

My research team recently completed a 10 NH paired-facility randomized intervention study which tested a cueing intervention that prompted multidisciplinary involvement in moving all residents. The system-wide approach delivered tailored musical cues every 2 hours (12 hrs. /day, 7 days/wk.) cueing ancillary NH staff (e.g., housekeeping, administration, etc.) to encourage mobile, but inactive residents to move, while also reminding nursing staff to reposition bed-bound and less-mobile residents; the rationale for this approach was that ancillary staff encouragement of resident mobility would free nursing staff to reposition those residents who needed assistance. Cueing supports storage of the regularly scheduled task of repositioning in staff memory that is required by the protocol and reinforces timely recall and performance of this task, even in the presence of distracting intrusive events. The result of this trial improved consistency in meeting standards of care and reduction in undesired variation in the occurrence and timing of care delivery. Data from this 10 facility trial showed that residents in treatment NHs were 45% less likely to develop a facility-acquired PrU than residents in comparison NHs. The musical cueing [11,12] reminded staff of the requirements for care delivery, improved consistency in meeting standards of care, and decreased undesired variation in the care delivered [11,12]. Furthermore, results showed the benefits of moving all NH residents regularly, not just residents deemed to be at risk. This trial suggests a need for a paradigm shift in how nursing delivers care because it supports the view that even mobile/lower risk residents can benefit from moving.

Movement, fundamentally linked to health status and quality of life, contributes to the development of PrUs if absent; therefore, nursing care that includes movement/repositioning of residents is instrumental to PrU prevention — but how often is movement required and how can staff be facilitated using cues to decrease variation in prevention approaches? More recently, visco-elastic (VE) (high-density foam) support-surfaces, which redistribute pressure, reducing point pressure, have been used to minimize pressure intensity.VE makes it possible to consider having residents lie in one position for a longer period of time, and thus two recent studies have challenged the q2h repositioning standard [13,14]. However, much work and scientific inquiry remain.

PrU prevention has been especially challenging in NHs, where residents are often more frail, are admitted for longer stays, and usually have limited mobility.

In order to achieve my goals of improved care outcomes from the patient/resident and staff perspectives, it is critical to focus contributions on improving nursing staff's ability to implement best practices for common, yet seemingly intractable geriatric conditions, such as PrUs, by integrating movement of residents into everyday care delivery practices. My theoretical and scientific work effected change in behavior of NH care providers as well as residents, and thus ultimately holds promise to reduce incidence of PrUs, improving care quality and yielding cost savings within the health care sector – dollars that could be allocated to other important care issues or on improving access.

Cueing that facilitates integration of movement/mobility into evidence-based criteria guiding nursing practice could enable more consistent implementation of prevention protocols [11]. Furthermore, in order for nursing staff to engage effectively in achieving meaningful outcomes and for interventions to be successful, prevention approaches should be nurse-led and designed to facilitate the work of staff on the front lines of care delivery. While interpreting the results of the aforementioned trial, our team was the first to postulate the impact of the occupational subculture of nursing on guideline implementation; this led me to collaborate in developing and validating the Nursing Culture Assessment Tool (NCAT) — the first of its kind – to assess this subculture [15]. This scholarship has broadened nursing's understanding of how work context influences intervention implementation and adoption by identifying the nursing subculture as a potentially modifiable factor that either promotes PrU prevention or poses a barrier to program implementation. This method of considering implementation is innovative because the NCAT measure focuses directly on the nursing workgroup rather than measuring the general NH culture. The use of team members' collective knowledge, experiences, and efforts, can lead to an improvement in care delivery processes in which the whole can be greater than the sum of its parts.

## REFERENCES


1. Black JM, Edsberg LE, Baharestani MM, Langemo D, Goldberg M, McNichol L, et al. Pressure ulcers: avoidable or unavoidable? Results of the National Pressure Ulcer Advisory Panel Consensus Conference. Ostomy Wound Manage. 2011 Feb; 57(2); 24-37.
2. Redelings MD, Lee NE and Sorvillo F. Pressure ulcers: more lethal than we thought? Adv. Skin Wound Care. 2005 Sep; 18(7); 367-72.
3. Reddy M and Gill SS. The effectiveness of pressure ulcer risk assessment instruments and associated intervention protocols remains uncertain. Evid. Based Med. 2014 Jun; 19(3); 93.
4. Agency for Healthcare Research and Quality (AHRQ). Preventing pressure ulcers in hospitals: A toolkit for improving quality of care. Rockville, MD.
5. Pham B, Stern A, Chen W, Sander B, John-Baptiste A, Thein HH,et al. Preventing Pressure Ulcers in Long-term Care: A Cost-effectiveness Analysis. Arch. Intern. Med. 2011 Sep 26.
6. Keelaghan E, Margolis D, Zhan M, Baumgarten M. Prevalence of pressure ulcers on hospital admission among nursing home residents transferred to the hospital. Wound Repair Regen. 2008 May-Jun; 16(3); 331-36.
7. Feng Z, Fennell ML, Tyler DA, Clark M, Mor V. The Care Span: Growth of racial and ethnic minorities in US nursing homes driven by demographics and possible disparities in options. Health Aff. (Millwood). 2011 Jul; 30(7): 1358-65.
8. Bolton LL, Girolami S, Corbett L, van Rijswijk L. The Association for the Advancement of Wound Care (AAWC) Venous and Pressure Ulcer Guidelines. Ostomy Wound Manage. Nov 2014; 60(11); 24-66.
9. National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel, Pan Pacific Pressure Injury Alliance, Haesler EE, eds. Prevention and treatment of pressure ulcers: clinical practice guideline. 2nd ed. Perth, Australia.
10. Norton D, McLaren R, Exton-Smith AN. An investigation of geriatric nursing problems in hospital. Edinburgh, Churchill Livingston.
11. Yap TL, Kennerly SM, Bergstrom N, Hudak S, Horn S. Innovations in staff care processes transform long-term care pressure ulcer prevention through cueing. J. Nurs. Care Qual. 2015 (article in press).
12. Yap TL, Kennerly SM, Corazzini K, Porter C, Toles M, Anderson RA. Evaluation of cueing innovation for pressure ulcer prevention using staff focus groups. Healthcare. 2014; 2(3); 299-314.
13. Defloor T, De Bacquer D, Grypdonck MH. The effect of various combinations of turning and pressure reducing devices on the incidence of pressure ulcers. Int. J. Nurs. Stud. 2005 Jan; 42(1); 37-46.
14. Bergstrom N, Horn SD, Rapp MP, Stern A, Barrett R, Watkiss M. Turning for Ulcer ReductioN: A multisite randomized clinical trial in nursing homes. J. Am. Geriatr. Soc. 2013 Sep 19; 61(10); 1705-1713.
15. Kennerly SM, Yap TL, Hemmings A, Beckett G, Schafer JC, Borchers A. Development and psychometric testing of the nursing culture assessment tool. Clin. Nurs. Res. 2012 Nov; 21(4); 467-85.