The National Pressure Ulcer Advisory Panel (NPUAP), an independent, not-for-profit professional organization dedicated to promoting evidenced-based care for pressure ulcers, held its 10th consensus conference on February 9–10, 2007 in San Antonio, Tex. Two concurrent conferences — one on best practice issues related to pressure ulcer care and the other on pressure ulcer staging — focused on establishing consensus for the newly revised NPUAP Pressure Ulcer Staging and Deep Tissue Injury definitions (see “Special to OWM” in this issue).

The Best Practices for Pressure Ulcer Care conference included 20 presentations that addressed the best scientific evidence available on pressure ulcer prevention and treatment. The following are brief summaries of each presentation; additional information regarding the presentations is available at www.npuap.org.

Proposed Staging System for Pressure Ulcers and Deep Tissue Injury

Presenter: Joyce Black, PhD, RN, CWCN, CPSN
University of Nebraska Medical Center
Omaha, Neb

For the past 2 years, the NPUAP has been working to revise both the Pressure Ulcer Staging System and the definition of deep tissue injury. The new proposed definitions were presented and discussed.

Heel Pressure Ulcers

Presenter: Catherine Ratliff, PhD, APRN-BC, CWOCN
Plastic Surgery Research
University of Virginia Health System
Charlottesville, Va

The heel is the second most common location for pressure ulcers on the body. Assessment, prevention, and treatment modalities of heel pressure ulcers were discussed, including eliminating the pressure from the heel.

Doing Prevalence and Incidence Studies the Right Way

Presenter: Barbara Braden, PhD, RN, FAAN
Creighton University
Omaha, Neb

Pressure ulcer prevalence refers to the number of individuals who have a condition such as a pressure ulcer at a given point in time (eg, day of survey). Incidence refers to the number of individuals who are pressure ulcer-free on admission but who develop a pressure ulcer after admission during a specified time frame. Each are expressed as a percent of the population. The fine points of conducting prevalence and incidence studies were discussed.

Regulations in Various Settings

Moderator: George Taler, MD
Washington Hospital Center
Washington, DC

Dr. Taler led a panel that included Nancy Gorman, Field Director of the Joint Commission of Accreditation of Hospitals Organization (JCAHO), and Dr. JoAnne Lynn, Centers for Medicare and Medicaid Services (CMS). Recent and proposed goals of the Joint Commission, including Goal 14, “preventing healthcare-associated pressure ulcers,” were discussed along with recent developments and future directions of the CMS related to pressure ulcer care, particularly in long-term care and home care.
Support Surface Terms and Definitions
Presenter: Mary Ellen Posthauer, RD, CD, LD
Supreme Care West, LLL
Evansville, Ind

Participants in the NPUAP-led Support Surface Initiative (S3I) developed standardized terms and definitions to facilitate a common language and to lay the framework for developing methods to evaluate support surface performance. Pressure ulcer prevention includes tissue load management strategies to control the duration and intensity of pressure, shear, and friction. These extrinsic factors, along with mobility, contribute to pressure ulcer development. As defined by S3I, pressure redistribution (formerly called pressure reduction and pressure relief), is the ability of a support surface to distribute load over the contact areas of the human body, providing the therapeutic benefit of preventing or managing pressure ulcers.

Support surfaces are now categorized by the NPUAP as active and reactive. An active support surface is powered and has the capability to change its load distribution properties only in response to tissue load — eg, an alternating air pressure mattress that removes contact pressure over time. A reactive support surface may be powered or non-powered and has the capability to change its load distribution properties only in response to applied load — eg, a non-powered air overlay that provides constant low pressure over as large an area as possible.

The complete list of terms and definitions can be found at www.npuap.org and elsewhere.

Reference

Support Surface Testing Methods
Presenter: Evan Call, MS
Lab Director
EC Service Inc.
Centerville, Utah

Efforts of the Support Surface Standards Initiative Tissue Integrity Group include assessing methods under development that test for shear; examining heat and water vapor measurement at the body/support surface interface; and studying envelopment as a support surface characteristic. Preliminary results as well as the technical issues were considered. Test methods for friction, life span, and specific performance characteristics of powered support surfaces were discussed.

Measurement of Shear Force Initiative
Presenter: Laura Edsberg, PhD
Daemen College
Amherst, NY

The Devices to Measure Shear Subcommittee of the Shear Force Initiative reported on their accomplishments and ongoing work in three areas: 1) developing a relevant reference list, 2) surveying industry to identify available devices to measure shear and employing a clinical survey to document current methods used to identify and intervene when managing shear-based injuries, and 3) developing a method to validate and calibrate shear-measuring devices.

Spinal Cord Injured Patient Research
Presenters: Susan L. Garber, MA, OTR, FAOTA, FACRM, Professor, Department of Physical Medicine and Rehabilitation, Baylor College of Medicine, Houston, Tex; and Mary Lou Guylin, PhD, Health Research Scientist, Midwest Center for Health Services and Policy Research, Department of Veterans Affairs, Hines VA Hospital, Hines, Ill

Factors that predict recurrence of pressure ulcers in a high-risk population of veterans with spinal cord injury were discussed. Data were derived from a randomized, controlled trial of persons who received individualized education and monthly telephone follow-up (versus customary care that included discharge and seeking assistance as needed). The 64 persons included were mostly Caucasian men, mean age 56 years, mean time since spinal cord injury 22 years, with a previously healed Stage III to Stage IV pelvic pressure ulcer admitted to one of six Veterans Administration Spinal Cord Injury Specialty Centers. The strongest predictor of recurrence in a multivariate logistic regression was race (African American; odds = 9.3), while additional predictors included higher scores on the Charlson Co-Morbidity Index (indicating a higher burden of illness) and the Salzburg...
Pressure Ulcer Risk Assessment, as well as longer sitting time at discharge.

Pressure Ulcer Prevention and Treatment:
Implications for the Person with Obesity
Presenter: Barbara Pieper, PhD, RN, FAAN
Professor/Nurse Practitioner
Wayne State University
Detroit, Mich

In the US, 60 million persons are obese and 10 million are morbidly obese. Physiologic changes related to obesity affect the cardiovascular and respiratory systems, fecal and urinary elimination, metabolism and nutrition, pain control, and skin. Risk factors for pressure ulcers in obese persons include decreased vascular supply in adipose tissue, difficulty in turning and repositioning, unsafe equipment, moisture within skin folds, incontinence, skin-on-skin friction, immobility, poor nutrition, and edema from excessive fluid resuscitation. While pressure ulcer prevention goals are the same regardless of a person’s weight, obese patients may have challenging multiple wounds (eg, skin fold ulcers, lower extremity ulcers, incisions).

The healthcare team and family members must be educated regarding the proper technique for moving a person who is obese and be sensitive to the person’s psychosocial needs. In addition to assessing the home environment and addressing family concerns, discharge planning should include the patient’s physical and psychosocial concerns, equipment for the home, payor source, and access to community resources. Care is best provided in an interdisciplinary manner and with established criteria-based protocols.

Palliative Pressure Ulcer Care
Presenter: Diane Langemo, PhD, RN, FAAN
University of North Dakota College of Nursing
Grand Forks, ND

Advances in medical science have resulted in the ability to extend life for many individuals. Increased life span creates many individuals who develop wounds, including pressure ulcers. The skin can fail similar to other body organs. Skin failure, or an event in which the skin and underlying tissue die due to hypoperfusion that occurs concurrent with severe dysfunction or failure of other organ systems, can be acute, chronic, or end-stage. Prevention and treatment issues in these individuals include risk, wound, and pain assessment; management of moisture, skin, immobility, friction and shear forces, nutrition and hydration, wound(s), and pain; and education.

Reference

Care of the Critically Ill Individual
Presenter: Janet Cuddigan, PhD, RN, GWCN, CCCN
Assistant Professor
University of Nebraska Medical Center
Omaha, Neb

The incidence of pressure ulcers in critical care is higher than general medical-surgical areas of a hospital. Multiple risk factors exist, including decreased oxygenation/perfusion, impaired movement, poor nutrition, medical devices, comorbidities, moisture, and edema. Risk assessment, including factors related to oxygenation and perfusion, critical clinical judgment, and an individualized risk-based prevention program, is essential.

Care of Neonates and Children
Presenter: Mona M. Baharestani, PhD, ANP, CWOCN, CWS, FCCWS
Director, Wound Healing
Long Island Jewish Medical Center
Schneider Children’s Hospital
New Hyde Park, NY

As technological advances improve survival rates among critical and chronically ill premature neonates and children, risk increases for pressure ulcer formation. This presentation examined pressure ulcer prevalence and incidence among neonates and children, risk factors, age-appropriate risk assessment tools, and the development of an evidence-linked prevention and treatment program.

International Pressure Ulcer Prevention and Treatment Guideline Development
Presenter: Diane Langemo, PhD, RN, FAAN
University of North Dakota College of Nursing
Grand Forks, ND
The European and National Pressure Ulcer Advisory Panels have been working since 2005 on revising pressure ulcer prevention and treatment guidelines with the goal of having International Pressure Ulcer Prevention and Treatment Guidelines completed by June 2008. An overview of the methodology, including a gap analysis of current guidelines and projected time frame for completion, was discussed.

Wound Photography and Assessment
Presenter: Richard Salcido, MD
University of Pennsylvania Health System
Philadelphia, Pa

Historical and current perspectives of wound area and volume measurement techniques were presented, including digital stereophotogrammetry and other computerized and digitized systems. Reliability and validity of techniques were discussed, along with legal implications.

Pressure Ulcer Pain
Presenter: Laurie McNichol, MSN, RN, GNP, CWOCN
Advanced Home Care
High Point, NC

In 2000, JCAHO mandated assessment of pain as the “fifth vital sign”; these standards have been endorsed by the American Pain Society. The goal for wound pain control is to reduce or eliminate pain so the patient may resume or perform his/her activities. To achieve this goal, pain must be appropriately assessed and managed. Techniques for each were discussed, including pharmacologic and non-pharmacologic methods.

Application of Bench Research to the Bedside
Presenter: Laura E. Edsberg, PhD
Daemen College
Amherst, NY

Current clinical practice follows an evidence-based model, yet many examples in practice have low-level evidence. In addition, although the impact of research on practice often is discussed, the significant impact of practice on research, especially regarding pressure ulcer management, warrants additional illustration. Evidence for the categories of pressure ulcer treatment in the currently available guidelines were discussed. Potential reasons for lack of evidence, including ethical implications and funding, were explored.

Management of Pressure Ulcers across Settings
Presenter: Teresa Conner-Kerr, PhD, PT, CWS, CLT
Winston-Salem University
Winston-Salem, NC

The Canadian Association of Wound Care’s 12 Recommendations for Best Practice for Pressure Ulcer Care framed this presentation. The areas discussed included risk assessment, care assessment and modification, pain assessment and control, maximizing nutritional status, controlling moisture and incontinence, maximizing mobility, assessing and assisting with psychosocial needs, wound management, adjunctive modalities, surgical interventions, interdisciplinary care, and education.

Coding and Pay for Performance
Presenter: Pamela Unger, PT, CWS
American Physical Therapy Association
Reading, Pa

Historical implications of CMS Tags F-309 and F-314 were discussed along with related expectations involving transition into acute care. The US Congress is currently in the process of revising the Medicare System with the goal of basing payments on safe, efficient, and effective delivery of care (ie, pay for performance). Implications of these changes were discussed.

Documenting Defensively
Presenter: Becky Dorner, RD, LD
Becky Dorner & Associates
Akron, Ohio

Documenting defensively has become essential for practitioners in all healthcare settings. This is especially true for those in long-term care and is a growing concern in acute care, home care, and assisted living. Litigation involving pressure ulcers has become a challenging issue in healthcare — practitioners must document appropriately to avoid lawsuits. Reasons for malpractice suits, importance of accurate and
timely documentation, guidelines for documentation, and how to reduce risk to protect against litigation were discussed.

**Staging across the Decades**

Presenters: Laura Edsberg, PhD, Daemen College, Amherst, NY; George Taler, MD, Washington Hospital Center, Washington, DC; and Mona M. Baharestani, PhD, NP, CWOCN, FCCWS, Long Island Jewish Medical Center, Schneider Children's Hospital, New Hyde Park, NY

This presentation included a historical overview of various staging systems and reviewed the newly revised NPUAP system. Suspected deep tissue injury, Stage I to Stage IV ulcers, and unstageable pressure ulcers were examined from histological, clinical, and differential diagnostic perspectives.

**High Demands, Low Resources, Stretched Professionals**

Presenter: Mona M. Baharestani, PhD, NP, CWOCN, CWS, FCCWS, FAPWCA
Long Island Jewish Medical Center
Schneider Children's Hospital
New Hyde Park, NY

With patients to see, lectures to prepare, report deadlines to meet, meetings to attend, and voicemail and email messages to answer, clinicians often feel the pressure time imposes.

This interactive presentation explored common day-to-day demands faced by healthcare professionals, the ever-changing landscape of healthcare, resource-related issues, and creative ways of achieving empowerment and positive patient-care outcomes. - OWM