R is for risk assessment. Nurses perform risk assessments for multiple safety issues related to patient care. This newsletter focuses on risk assessments for decubitus ulcers (also known as pressure ulcers and bedsores).

Prolonged exposure to pressure just slightly above capillary filling pressure initiates a series of events leading to tissue injury and death. The provocative event is compression or deformation of the tissues (due to shear forces) by a surface such as a mattress, wheelchair, bed rail, etc. Pressure, shear, and friction cause microcirculatory occlusion resulting in ischemia, which leads to inflammation, and tissue anoxia. Tissue anoxia can then lead to cell death, tissue injury , and ulceration. Irreversible changes may occur during as little as two hours of uninterrupted pressure, depending on the individual's risk and co-morbidities (Fleck, 2000). Routine turning of patients every two hours continues to be the standard of care for prevention of pressure ulcers.

It is also standard of care for nursing to perform a risk assessment for development of pressure ulcers at the time upon the patient's admission to a facility. It is revised with each change in the patient's condition.

The **Braden Scale** requires the assessment of six (6) broad categories which are known to contribute to the development of pressure ulcers. A score of 1 – 4 is assigned to each risk factor. The Braden Scale is as follows:

- **Sensory Perception**
  1- Completely limited – unresponsive to painful stimuli
  2 – Very limited – cannot communicate discomfort except by moaning, etc.
  3 – Slightly limited –responds to verbal commands but cannot always communicate discomfort or the need to be turned.
  4- No impairment – Can feel and voice pain.

- **Moisture**
  1- Constantly Moist – perspiration or urine.
  2 - Very moist – linen must be changed at least once per shift due to moisture.
  3 - Occasionally moist – extra linen change once a day.
  4 - Rarely moist.

- **Activity**
  1- Bedfast.
  2 - Chairfast –cannot bear own weight and must be assisted into chair or wheelchair.
  3 - Walks occasionally - short distances
  4 – Walks frequently.

- **Mobility**
  1 – Completely immobile.
  2 – Very limited – unable to make frequent or significant change in position independently.
  3- Slightly limited – makes frequent though slight position changes.
  4 – No limitation.

- **Nutrition**
  1 – Very poor – eats 2 servings or less of protein/day, takes fluids poorly or is NPO (nothing by mouth), or has IVs for more than 5 days.
  2 – Probably inadequate – eats 3 servings of protein/day. Less than optimum amount of liquid or tube feeding.
  3 – Adequate – 4 servings of protein/day or on tube feedings which meets needs.
  4 – Excellent – eats most of every meal.

- **Friction or Shear**
  1 – Problem -Requires maximum assistance in moving. Complete lifting without sliding against the sheets is impossible.
  2 – Potential problem - Requires minimum assistance. During a move slides some against the sheets, chair or other devices.
  3 – No problem

Total scores range from 6 – 23 with lower scores indicating a lower level of functioning and inversely a higher risk of developing a pressure ulcer. A score of 18 or below indicates a high risk for developing a pressure ulcer.

Determining a patient's risk for development of decubitus ulcers is a crucial assessment by nurses. Patients at risk for pressure ulcers are at higher risk of morbidity and mortality with infection, osteomyelitis, and sepsis being the most common major complications.

Contact me for evaluation of your cases regarding risk assessment, prevention and treatment strategies concerning decubitus ulcers.