

"Sore Point"

Situation A 17 year-old male JD was admitted for emergency abdominal surgery. JD has a condition that limits his ability to walk, turn and feel in his lower body. He also has a breathing condition that requires him to sleep with pressurized oxygen through a mask over his face.

On admission, the nurse learned that JD had a history of pressure sores. JD's nurse ordered a pressure redistribution surface to help prevent pressure sores and did a full skin inspection prior to sending him to the operating room. His skin was free of pressure sores.

In the evening, after surgery, he was transferred back to the nursing unit on his pressurized oxygen mask. The doctor explained that JD would not be breathing deeply after the surgery and would require the mask oxygen for a couple of days. JD also had a tube in his nose into his stomach to drain any gas or fluid. After assessing and treating JD for pain, the nurse repeated the skin exam. The bedside nurse was pleased that no pressure points were noted over any of his bony areas and was confident that the special redistribution surface would help prevent any pressure sores. The assessment was completed and the patient was left to rest. The respiratory therapist came in to assess the fit of the oxygen mask and felt the treatment was working well.

The nurses were disappointed when, over the next two days, stage II pressure sores (blisters or ulcers) developed on his heels. His right ear was red and tender and he had some redness on his nose. His heels were floated off the bed with pillows and a special pillow was provided for his ear. A thick dressing was put over the redness on his nose. The patient required the breathing mask for the next two days. When the patient was beginning to wean from the facemask oxygen on the third day, the staff noticed a small, black spot on the bridge of his nose. This was a small, significant pressure sore.

Background Pressure sores are less common in pediatric patients compared to adult patients. If a patient has had one pressure sore, they are at greater risk of developing another. Patients can develop skin damage from being immobile in surgery. Experts know medical devices can cause pressure sores on children. Experts have found that a small amount of pressure to the skin over a long period or high pressure for short time can cause skin death creating a pressure sore. The common sites for skin breakdown in pediatric patients are different than adult patients. The sites include the back of the head, sacrum/coccyx or bony area at the tail of the spine, ear lobes, and heels.

Assessment Heels and ears are at risk for pressure sores. Care was taken to prevent progressive pressure sores in these areas. The breathing mask created continuous pressure over the nasal bridge for two days. There is little muscle or fat over the nasal bridge to pad the bone and protect the skin from pressure. The dressing that was applied prevented direct assessment of the nasal bridge. Staff felt the oxygen mask had to be tight to prevent a leak from the tube in his nose. The staff also felt the mask could not be re-positioned to lessen the pressure.

Recommendations Intact skin helps prevent infection. Although some pressure sores may not be preventable, steps to be taken to lessen the risk and lessen the size and depth of a pressure sore include:

1. **Admission assessment** of risk, including
 - areas **under masks** and other devices
 - **tubes** of any kind from catheters, IVs, chest tubes and monitors can create pressure points on the skin if there is pressure from tape or positioning applied.
2. **Re-assessment** and documentation of risk every shift.
3. Adequate **room lighting** is essential to notice early subtle changes in the skin.
4. Patients must be encouraged to **turn frequently**, even if on pressure redistribution surfaces.
5. Remembering **any patient is at risk** for a pressure sore.