Posterior Cervical Fusion with Instrumentation

University Neurosurgery Information Sheet

General Indications for the Procedure:
A posterior cervical fusion with instrumentation is performed to stabilize the cervical spine. It may be performed alone or in combination with a laminectomy or laminoplasty.

Description of the Procedure:
An incision coursing along the midline of the spine in the back of the neck is made. The two columns of muscles which lie along either side of the spine are separated from one another and the back portion of the spine is exposed. Small screws are placed into the bones of the spine which are to be fused. A rod is connected to the screws. Bone graft material is placed over the spine. Although the screws and rods the surgeon will utilize are properly sized for use in the cervical spine and they are used world-wide in this manner, the FDA considers this indication to be "off label". The surgeon can explain this issue in more depth if the patient desires. The muscles are sewn together and the skin is closed.

Risks of Procedure:
The risks and possible complications include infection and bleeding. These risks are very small. Even rarer is the possibility that one of the nerves coming from the neck may not work properly following surgery which may lead to pain, numbness, and /or weakness of the arm(s) and/or hand(s). Similar to all operative procedures, there is no guarantee the surgery will alleviate the patient's symptoms. Although not a risk or complication, this procedure will result in some loss of motion of the spine.

Procedure Alternatives, if any:
The spine could be fused without instrumentation or using wires or cables. The overall success rate when employing these older technologies is less than that realized with screws and rods.

Probable Consequences of Refusing the Procedure:
Spinal instability will persist or develop. Spinal instability can cause pain, deformity, and neurological injury.

Person(s) Performing the Procedure:
The surgical team for this procedure is large. This involves, but is not limited to, the attending surgeons, resident surgeons, surgical nurses, physician assistants, surgical technologists and anesthesiologists. Everyone involved will be performing important tasks related to the surgery in accordance with the hospital policies, and based on their skill set and under the supervision of the responsible practitioners..