

Case Study:

Telemedicine Brings Travel Relief to Pediatric Patients in Montana with Head Injuries

Pediatric patients and their families are breathing a sigh of relief. St. Vincent Healthcare has launched a pediatric tele-neurosurgery consultation project which allows some pediatric patients who have received a head injury to stay in Montana without transport to a metro area for care.

The American Academy of Pediatrics mandates that all head injuries be evaluated by a pediatric neurosurgeon. The standard of care for pediatric head injuries requires the patient to receive a computerized tomography scan (CT Scan), be observed for 24 hours and then to repeat the CT scan. For Billings Montana, that means that the nearest Pediatric Neurosurgeon is at a minimum 500 miles away. We found that in the majority of the cases the child never has to have an intervention done. Therefore these pediatric patients get evaluated in our emergency department, the CT Scan is done and the patient is transported to the Children's Hospital of Colorado in Denver for observation. By the time the parents go there (about a 9 hour drive), the patient is ready for discharge.

Prior to the implementation of this program, one to two children a month were being transported to Denver and discharged in less than 24 hours. Cost analysis for this type of transport is valued at \$15,000 or more per transport. With the advent of this program, the child gets the CT Scan, the neurosurgeon reviews the CT and conducts a video assessment of the child. The Pediatric Neurosurgeon, who is providing oversight for this patient, in conjunction with the local trauma surgeon determines that the children are at low risk for emergent complications and are able to safely stay in their home community; or in Billings if they are from a regional rural community.

For those pediatric patients requiring transport to the Children's Hospital of Colorado, once the child is discharged, follow up visits can be conducted via telemedicine. The telemedicine services provided is more convenient for our Montana pediatric patients, and saves travel costs for them without compromising the quality of care.

For more information about this case study, please contact:

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