Using PECARN in Pediatric Head Injury – Data Collection

The American College of Emergency Physicians (ACEP) is encouraging the use of PECARN in cases of pediatric minor head injury to help inform if a CT scan is needed. CT scans are a great tool for diagnosis. A CT also carries risks of radiation to children. The Washington State Hospital Association is supporting this evidence based decision rule being adopted by ACEP for evaluating minor head trauma in pediatric patient populations.

Facilities may choose either the Foundational or the Innovator pathway.

Population:
Monthly review of charts for evidence of PECARN utilization associated with an ED visit code and a procedural or diagnostic code.

Abstraction Questions:
- Was head CT performed? (Yes = 1 No = 0)
- What was the Glasgow Coma Scale (GCS) score before CT scan? (numerical value 3 through 15 or “not documented”= 0; 3-14 = deficiency noted; 15 = no deficiency)
- Was the indication for head CT based on a specific PECARN clinical decision rule documented in the chart? (list the number of the first indication that applies)
  1. Signs of altered mental status (e.g., agitation, somnolence, repetitive questioning, slow response to verbal communication)
  2. Signs of basilar skull fracture (signs include haemotympanum or blood in middle ear, “raccoon” eyes, cerebrospinal fluid leakage from the ear or nose, Battle’s sign or mastoid ecchymosis)
  3. Loss of Consciousness (LOC)
  4. Vomiting
  5. Severe mechanism of injury (i.e., motor vehicle crash with patient ejection, death of another passenger, or rollover; pedestrian or bicyclist without helmet struck by a motorized vehicle; falls of more than 5 feet; or head struck by a high-impact object)
  6. Severe headache
  7. Mention of the Pediatric Emergency Care Applied Research Network algorithm or PECARN
  8. Deterioration after observation
  9. Provider’s clinical judgement based on experience
  0. No documentation of any of the above elements

Foundational pathway: (focused on pediatric patients who had a head CT)
Patients aged 2 through 17 known to have had a head CT associated with CPT codes for procedure and patient encounter. Facilities are encouraged to pull five charts a month associated with the CPT codes below.
- CT Head without Contrast, 70450
- CT Head with Contrast, 70460
- CT Head with and without Contrast, 70470

AND
- Patient encounter during the performance period (CPT): 99281, 99282, 99283, 99284, 99285

– OR –
Children’s Radiation Safety

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Innovator pathway: (optional if wanting to include pediatric patients who did not have a head CT)

Patients aged 2 through 17 who had minor head trauma with or without a head CT. Facilities are encouraged to pull all charts associated with the ICD-10 codes in Appendix A.

- Associated with one or more diagnostic codes listed in Appendix A whether or not a CT was performed.
- Patient encounter during the performance period (CPT): 99281, 99282, 99283, 99284, 99285

For questions contact Ryan Hosken at 206-577-1821 or ryanh@wsha.org

Appendix A – ICD-10 Codes Applied to Innovator Pathway (corresponding to PQRS Measure #416)

Diagnosis for minor blunt head trauma (ICD-10-CM): One or more diagnostic code from:

S00.03XA, S00.33XA, S00.431A, S00.432A, S00.439A, S00.531A, S00.532A, S00.83XA, S00.93XA, S02.0XXA, S02.10XA, S02.110A, S02.111A, S02.112A, S02.113A, S02.118A, S02.119A, S02.19XA, S02.2XXA, S02.3XXA, S02.400A, S02.401A, S02.402A, S02.411A, S02.412A, S02.413A, S02.42XA, S02.600A, S02.609A, S02.61XA, S02.62XA, S02.63XA, S02.64XA, S02.65XA, S02.66XA, S02.67XA, S02.69XA, S02.8XXA, S02.91XA, S02.92XA, S06.0X0A, S06.0X1A, S06.0X2A, S06.0X3A, S06.0X4A, S06.0X9A, S06.1XOA, S06.1X1A, S06.1X2A, S06.1X3A, S06.1X4A, S06.1X9A, S06.2XXA, S06.2X0A, S06.2X1A, S06.2X2A, S06.2X3A, S06.2X4A, S06.2X9A, S06.300A, S06.301A, S06.302A, S06.303A, S06.304A, S06.309A, S06.340A, S06.341A, S06.342A, S06.343A, S06.344A, S06.349A, S06.350A, S06.351A, S06.352A, S06.353A, S06.354A, S06.359A, S06.360A, S06.361A, S06.362A, S06.363A, S06.364A, S06.369A, S06.4XXA, S06.4X1A, S06.4X2A, S06.4X3A, S06.4X4A, S06.4X9A, S06.5XXA, S06.5X1A, S06.5X2A, S06.5X3A, S06.5X4A, S06.5X9A, S06.6XXA, S06.6X0A, S06.6X1A, S06.6X2A, S06.6X3A, S06.6X4A, S06.6X9A, S06.810A, S06.811A, S06.812A, S06.813A, S06.814A, S06.819A, S06.820A, S06.821A, S06.822A, S06.823A, S06.824A, S06.829A, S06.890A, S06.891A, S06.892A, S06.893A, S06.894A, S06.899A, S06.9X0A, S06.9X1A, S06.9X2A, S06.9X3A, S06.9X4A, S06.9X9A, S09.10XA, S09.11X

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