

### 1. Festlegungen

Patient wach, ansprechbar, keine Intoxikation	NEXUS-Rule, Canadian C-Spine Rule oder beides kombiniert
Nackenschmerz und harmloser Unfallmechanismus	HWS-Röntgen in drei Ebenen
Inadäquate HWS-Aufnahme CT HWS	CT HWS
Nackenschmerz und gefährlicher Unfallmechanismus	CT HWS
Geriatrischer Patient	Großzügig CT HWS
Neurologische Ausfälle oder CT zeigt eine Fraktur	MRT HWS

### 2. Literatur

- [1] Herbert M, Swadron S: CT and the C-Spine. EM:RAP – Emergency Medicine: Reviews and Perspectives. Audio Program, Dec 2009: <http://www.emrap.org>
- [2] Hoffman JR et al.: Validity of a set of clinical criteria to rule out injury to the cervical spine in patients with blunt trauma. National Emergency X-Radiography Utilization Study Group. N Engl J Med 343 (2) (2000) 94–99.
- [3] Stiell IG et al.: The Canadian C-spine rule for radiography in alert and stable trauma patients. JAMA 286 (15) (2001) 1841–1848.
- [4] Vaillancourt C et al.: The out-of-hospital validation of the Canadian C-Spine Rule by paramedics. Ann Emerg Med 54 (5) (2009) 663–671 e1.
- [5] Bailitz J et al.: CT should replace three-view radiographs as the initial screening test in patients at high, moderate, and low risk for blunt cervical spine injury: a prospective comparison. J Trauma 66 (6) (2009) 1605–1609.
- [6] Lin JT, Lee JL, Lee ST: Evaluation of occult cervical spine fractures on radiographs and CT. Emerg Radiol 10 (3) (2003) 128–134.
- [7] Mathen R et al.: Prospective evaluation of multislice computed tomography versus plain radiographic cervical spine clearance in trauma patients. J Trauma 62 (6) (2007) 1427–1431.
- [8] Daffner RH et al.: Imaging for evaluation of suspected cervical spine trauma: a 2-year analysis. Injury 37 (7) (2006) 652–658.
- [9] Hanson JA et al.: Cervical spine injury: a clinical decision rule to identify high-risk patients for helical CT screening. AJR Am J Roentgenol 174 (3) (2000) 713–717.
- [10] Ong AW et al.: Detection of cervical spine injuries in alert, asymptomatic geriatric blunt trauma patients: who benefits from radiologic imaging? Am Surg 72 (9) (2006) 773–776; discussion 776–777.
- [11] Schrag SP, Toedter LJ, McQuay N Jr.: Cervical spine fractures in geriatric blunt trauma patients with low-energy mechanism: are clinical predictors adequate? Am J Surg 195 (2) (2008) 170–173.
- [12] Touger M et al.: Validity of a decision rule to reduce cervical spine radiography in elderly patients with blunt trauma. Ann Emerg Med 40 (3) (2002) 287–293.
- [13] Cornelius RS: Imaging of acute cervical spine trauma. Semin Ultrasound CT MR 22 (2) (2001) 108–124.
- [14] Holmes JF et al.: Variability in computed tomography and magnetic resonance imaging in patients with cervical spine injuries. J Trauma 53 (3) (2002) 524–529; discussion 530.
- [15] Katzberg RW et al.: Acute cervical spine injuries: prospective MR imaging assessment at a level 1 trauma center. Radiology 213 (1) (1999) 203–212.
- [16] Stiell JG et al.: The Canadian C-Spine Rule versus the NEXUS Low-Risk Criteria in patients with Trauma. N Engl J Med 349 (2003) 2510–2518.