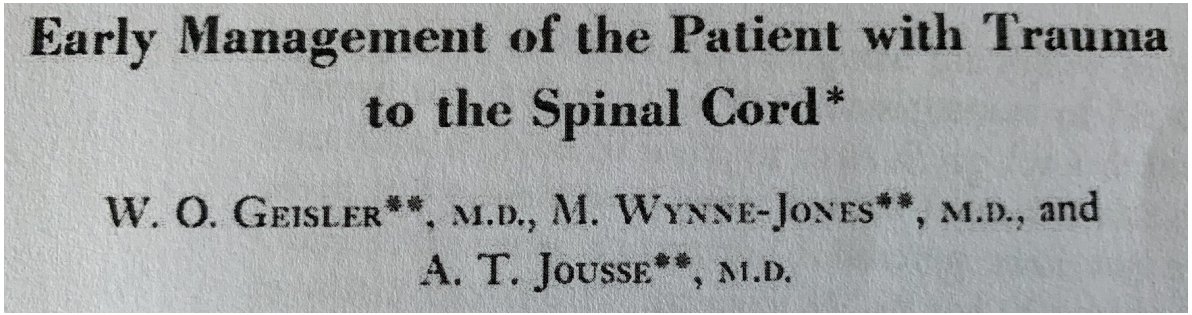
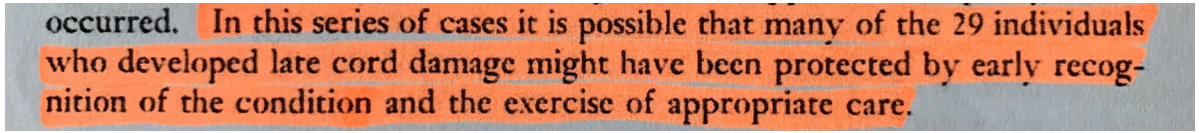
Die “wissenschaftliche” Grundlage:



Early Management of the Patient with Trauma to the Spinal Cord*

W. O. GEISLER**, M.D., M. WYNNE-JONES**, M.D., and A. T. JOUSSE**, M.D.

- Krankenakten von 958 Traumapatienten
  - mit traumatischen Rückenmarksverletzungen
  - im Zeitraum 1945 - 1965
  - 29 Pat. mit Verdacht auf neurol. Verschlechterung:
    - -> sekundäre Rückenmarkschädigung
    - unvorsichtiges Handling der Patienten?



occurred. In this series of cases it is possible that many of the 29 individuals who developed late cord damage might have been protected by early recognition of the condition and the exercise of appropriate care.

Med Serv J Can. 1966 Jul-Aug;22(7):512-23.

1998: erste Skeptiker

Mark Hauswald

University of New Mexico | UNM · Department of Emergency Medicine
M.S, M.D.

Out-of-hospital Spinal Immobilization: Its Effect on Neurologic Injury

Mark Hauswald, MD, Gracie Ong, MBBS, Dan Tandberg, MD, Zaliha Omar, MBBS

Results: There was less neurologic disability in the unimmobilized Malaysian patients (OR 2.03; 95% CI 1.03–3.99; p = 0.04). This corresponds to a <2% chance that immobilization has any beneficial effect. Results were similar when the analysis was limited to patients with cervical injuries (OR 1.52; 95% CI 0.64–3.62; p = 0.34).

Conclusion: Out-of-hospital immobilization has little or no effect on neurologic outcome in patients with blunt spinal injuries.

Acad. Emerg. Med. 1998; 5:214–219.

und 2010…

Elliott Richard Haut
Johns Hopkins Medicine | JHUSOM · Department of Surgery
MD, PhD

Spine Immobilization in Penetrating Trauma: More Harm Than Good?

Elliott R. Haut, MD, Brian T. Kalish, BA, EMT-B, David T. Efron, MD, Adil H. Haider, MD, MPH, Kent A. Stevens, MD, MPH, Alicia N. Kieninger, MD, Edward E. Cornwell, III, MD, and David C. Chang, MBA, MPH, PhD

penetrating injuries to definitive treatment centers. Those who underwent immobilization were more than twice as likely to die. Second, the increased mortality seen in

The number needed to treat with spine immobilization to potentially benefit one penetrating trauma patient was 1,032. The number needed to harm with spine immobilization to potentially contribute to one death was 66.

(*J Trauma.* 2010;68: 115–121)

Was kann die Zervikalstütze?

Marybeth Horodyski
University of Florida | UF · Department of Orthopaedics and Rehabilitation
EdD

The Journal of Emergency Medicine
AAEM

SELECTED TOPICS: PREHOSPITAL CARE | VOLUME 41, ISSUE 5, P513-519, NOVEMBER 01, 2011

Cervical Collars are Insufficient for Immobilizing an Unstable Cervical Spine Injury

MaryBeth Horodyski, EDD • Christian P. DiPaola, MD • Bryan P. Conrad, PhD • Glenn R. Rechtine II, MD

Published: March 14, 2011 • DOI: https://doi.org/10.1016/j.jemermed.2011.02.001

Results

Neither the one- nor the two-piece collar was effective at significantly reducing segmental motion in the stable or unstable condition. There was dramatically more motion in the unstable state, as would be expected.

Das Ergebnis:

Maschmann *et al. Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine* (2019) 27:77
https://doi.org/10.1186/s13049-019-0655-x

Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine

GUIDELINE Open Access

New clinical guidelines on the spinal stabilisation of adult trauma patients – consensus and evidence based

Christian Maschmann[1,2,3*], Elisabeth Jeppesen[4,5], Monika Afzali Rubin[6,7] and Charlotte Barfod[3]

Wo stehen wir heute?

acta Anaesthesiologica Scandinavica
An international journal of anaesthesiology, intensive care, pain, and critical emergency medicine
ssai

REVIEW | Open Access

Clinical practice guideline on spinal stabilisation of adult trauma patients: Endorsement by the Scandinavian Society of Anaesthesiology and Intensive Care Medicine

Arvi Yli-Hankala, Michelle S. Chew, Klaus T. Olkkola, Marius Rehn, Kristinn Ö. Sverrisson, Morten H. Møller,

First published: 28 May 2021 | https://doi.org/10.1111/aas.13933

Sonst noch jemand?

NHS
South East Coast Ambulance Service
NHS Foundation Trust

15 July 2020

SECAmb introduces new spinal care guidelines

The guidance includes the ending of the use of neck braces or semi-rigid collars on spinal injury patients. The ground-breaking approach is only currently in place in three other countries – Australia, Norway and Denmark. While collars are often seen as synonymous with spinal care, there is growing evidence that they could cause further harm, while providing little or no benefit.

Und:

NORTHERN TRAUMA NETWORK NTN

Northumbria University NEWCASTLE

NHS National Institute for Health Research

NHS North East Ambulance Service NHS Foundation Trust

SMRF Study: To Collar or Not to Collar? That is the Question

Purpose and aim

The purpose of this body of work is to highlight the lack of evidence behind current immobilisation practices while concurrently gathering data regarding the consequences of 'traditional' immobilisation in the pre-hospital environment. The Northern Trauma Network and North East Ambulance Service has produced a spinal motion restriction protocol which provides a more pragmatic, patient centred approach. The Spinal Motion Restriction Feasibility (SMRF) study will prospectively compare a new spinal motion restriction protocol with existing immobilisation practices.

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[2] Northumbria University – michael.hill@northumbria.ac.uk,
[3] Northumbria Specialist Emergency Care Hospital – charlotte.bates@northumbria-healthcare.nhs.uk,
[4] City Hospitals Sunderland- christopher.hawkins@chsft.nhs.uk

und noch mehr…

EMA Emergency Medicine Australasia
Emergency Medicine Australasia (2021) **33**, 19–24
doi: 10.1111/1742-6723.13646

Neurologic outcomes following the introduction of a policy for using soft cervical collars in suspected traumatic cervical spine injury: A retrospective chart review

Stephen E ASHA,[1,2] Kate CURTIS,[3,4,5,6,7] Georgina HEALY,[4,7] Lauren NEUHAUS,[1] Alexander TZANNES[1,2,8] and Kelly WRIGHT[9]

[1]Emergency Department, St George Hospital, Sydney, New South Wales, Australia, [2]St George and Sutherland Clinical School, Faculty of Medicine, The University of New South Wales, Sydney, New South Wales, Australia, [3]Sydney Nursing School, The University of Sydney, Sydney, New South Wales, Australia, [4]Emergency Services, Illawarra Shoalhaven Local Health District, Wollongong, New South Wales, Australia, [5]Illawarra Health and Medical Research Institute, Wollongong, New South Wales, Australia, [6]The George Institute for Global Health, Sydney, New South Wales, Australia, [7]Faculty of Science, Medicine and Health, University of Wollongong, Wollongong, New South Wales, Australia, [8]NSW Ambulance Aeromedical Operations, Sydney, New South Wales, Australia, and [9]Emergency Department, The Sutherland Hospital, Sydney, New South Wales, Australia

Key findings

- The use of soft foam cervical collars in patients at risk for a cervical spine injury does not appear to increase the risk for secondary spinal cord injury.
- Secondary spinal cord injury can occur regardless of spinal immobilisation due to progression of spinal cord oedema or haemorrhage.

Aber was mit ATLS®?

ATLS® 10th edition (2018):

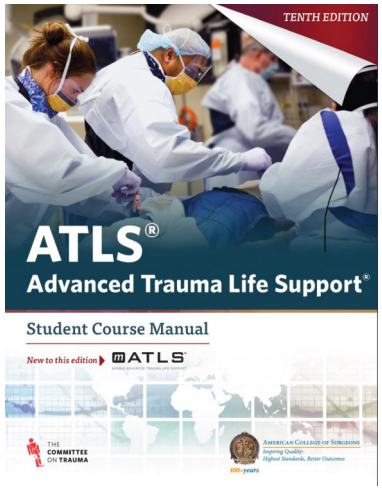
and delirium). Rapid evaluation and, when possible, early liberation from spine boards and cervical collars will minimize the complications.

Although the dangers of excessive spinal motion have been well documented, prolonged positioning of patients on a hard backboard and with a hard cervical collar (c-collar) can also be hazardous. In addition to causing severe discomfort in conscious patients, serious decubitus ulcers can form, and respiratory compromise

is excluded. Occasionally patients present to the ED without a c-collar, in which case the treating physician should follow clinical decision-making guidelines to determine the need for cervical spine imaging and rigid collar placement.

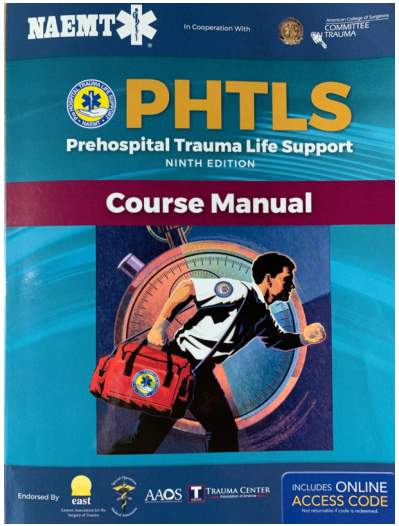
method and duration of administration, and contraindications. It is the responsibility of the licensed practitioner to be informed in all aspects of patient care and determine the best treatment for each individual patient. Note that cervical collars and spinal immobilization remain the current Prehospital Trauma Life Support (PHTLS) standard in transporting patients with spine injury. If the collars and immobilization devices are to be removed in

Many trauma patients have a c-collar placed by emergency medical services (EMS) in the field. Current guidelines for spinal motion restriction in the prehospital setting allow for more flexibility in the use of long spine boards and cervical collars. With



und was sagt PHTLS®?

PHTLS® 9th edition (2020):



It's on You

While there's consensus about the general recommendations made here, current scientific research and understanding of spinal motion restriction is incomplete and imperfect. As evidence grows and recommendations continue to evolve, clinical management is ultimately the responsibility of each EMS provider, and you must understand local protocols and discuss the specific techniques to manage these patients with your supervisor and medical director.

Und ETC®?

ETC course manual® 4th edition:

The effect of spinal immobilisation on mortality, neurological injury, spinal stability and adverse effects in trauma patients remains uncertain. Airway obstruction is a major cause of preventable death in trauma patients, and immobilisation, particularly of the cervical spine, can cause airway compromise, the possibility that immobilisation may increase mortality and morbidity cannot be excluded

- full spinal immobilization, including semi-rigid collars, spinal boards and vacuum mattresses have been the standard of care for decades. However, there is no evidence to support this practice, and procedures around immobilisation have become less rigid as explained below.