Appendix; definition of initial variables for data extraction.

Data collection was performed based on information from specialist correspondence and GP documentation. There-fore selected ICPC codes were used (Table I). Data was systematically screened on several variables:

Variable	Categories
Glasgow Coma Scale	1= 15, 2= 14, 3= 13, 4= 9-12, 5= 8 or lower, 9= not reported
Loss of consciousness	0= no, 1= <5min, 2= 5-30min, 3= >30min, 4= duration unclear, 5= Unclear if LOC, 9= not reported
Posttraumatic amnesia	0= no, 1= <24h, 2= 1-7 days, 3= >7 days, 4= unclear if PTA, 9= not documented
TBI classification	1= mild, 2= moderate, 3= severe, 9= no classification possible
Trauma setting	0= not reported 1= home, 2= work, 3= school/daycare 4= recreation/sport, 5= traffic 6= bicycle
Trauma mechanism	0= not reported, 1= fall, 2=HET, 3= blunt trauma, 4= acceleration/deceleration, 5= assault, 6= other 7= not sure
Nausea	0= no, 1= yes, 2= not applicable, 9= not reported
Vomiting	0= no, 1= yes, 9= not reported
Neurological deficit in acute phase	0= no, 1= weakness, 2= loss of balance, 3= change in vision, 4= change in speech, 5= change in motor function, 6= change in sensory function, 7= multiple, 9= not reported
Mental state	0= no change, 1= confusion 2= disorientation, 3= slowed thinking, 4= other, 9= not reported
External injury	0= no, 1= laceration/cut, 2= hematoma, 3= edema, 4= graze/superficial, 5= multiple, 9= not reported
Suspected skull fracture	0= no, 1= yes, 9= not reported
Signs of basal skull fracture	0= no, 1= yes, 9= not reported
Alcohol/drug intoxication	0= no, 1= alcohol, 2= drugs, 3= combined, 9= not reported
First encounter	1= General practitioner, 2= Emergency department, 3= ambulance, 9= not reported

Contacts	1= General practitioner only, 2= General practitioner/hospital, 3= Hospital only
Gender	0= male, 1= female
Age	-
Current anticoagulant therapy	0= no, 1= VitK antagonist, 2= anti platelet, 3= NOAC, 4= multiple
Risk medication: Sedatives	0= no 1= yes
Anti-diabetics	0= no, 1= yes 0= no, 2= metformine, 2= sulfonylureas, 3= insulin, 4= multiple
Anti-epileptics	0= no, 1= yes

The Glasgow Coma Scale (GCS), Initial GCS documented at first medical contact, was documented only if it was reported in the data without calculating scores afterwards.
Based on the standardised Traumatic Brain Injury classification, head injury was classified into mild, moderate or severe brain injury based on initial GCS, PTA and duration of loss of consciousness. If classification was not possible due to lack of data but classification was documented in the specialist letter, this classification was used for analysis. To assess the trauma characteristics, trauma setting and mechanism was documented. We considered a patient to have a head injury at home, work, school and day-care when documented as such or when indicated by context. Recreation and sport was chosen as trauma setting if the accident happened in recreational time not related to traffic. Traffic was chosen as trauma setting if the patient sustained head injury in a traffic setting (car vs. pedestrian/bicycle/car). Falling off a bicycle as cause of trauma was documented apart if no other traffic members were affected in the accident.
Trauma mechanism was divided into several subcategories with high energy trauma defined as fall from elevation, traffic accidents with high velocity and high impact, including acceleration/deceleration trauma.
We defined neurological deficit in the acute phase as any abnormality documented on routine clinical neurological examination that indicated a focal cerebral lesion. Mental state was scored as any documented change in behaviour or deviation of compos mentis. Symptoms of dementia and changed behaviour due to intoxication were scored as “other”. Signs of basal skull fracture were Battle’s sign, Raccoon eyes and/or liquor leakage/bleeding from nose and ear. External injury was defined as any documented discontinuity of the facial skin or head.

Intoxication was scored as ‘yes’ if explicit reported. If overall documentation was limited than intoxication was scored as “not reported”; in all other patients intoxication was score as “no”.

Within ‘contacts’ information about all contacts in the acute posttraumatic period were scored. ‘GP’ indicates that patients were seen by a GP only, ‘GP/hospital’ indicates that patient was referred to the hospital after being seen by a GP, ‘hospital’ indicates that patients are not seen by a GP before. Variables which are not mentioned here but are only displayed in the table were scored as indicated in the table.

Table I. ICPC Codes* indicating Head Injury

A06	Fainting/syncope
A80	Trauma/injury NOS
A81	Multiple trauma/injuries
A82	Secondary effect of trauma
A96	Death
H05	Bleeding ear
L76	Fracture: other
N07	Convulsion/seizure
N79	Concussion
N80	Head injury other
N88	Epilepsy
Z25	Assault/harmful event problem

ICPC Codes	**indicating a Complicated Course**
*** 67**	Referral to Physician/Specialist/ Clinic/Hospital
A96	Death
F05	Visual disturbance other
F14	Eye movements abnormal
H02	Hearing complaint
H28	Limited function/disability ear
H86	Deafness
N07	Convulsion/seizure
N16	Disturbance of smell/taste
N18	Paralysis/weakness
N19	Speech disorder
N28	Limited function/disability (n)
N88	Epilepsy
N91	Facial paralysis/bell's palsy

* ICPC-2 – English International Classification of Primary Care – 2nd Edition, Wonca International Classification Committee (WICC)