

COVID-19: Statement Regarding the Management of Minimal, Mild and Moderate Head Injury

As a response to questions from numerous colleagues regarding the management of mild-moderate TBI amidst the Covid pandemic we, the Scandinavian Neurotrauma Committee (SNC), have formulated the following statement:

Due to the huge stress on the health care system under the current pandemic COVID-19, situations may occur where limited resources require triage and prioritizing of patient admissions in a manner normally not seen in the Nordic countries. This will also affect patients with acute traumatic brain injury (TBI). Given that COVID-19 infection in older patients and in those with comorbidities, have a potentially higher mortality rate than the TBI itself, and that the risk of infection in hospitals may be increased, the SNC suggests that during this limited period, the Scandinavian adult TBI guidelines¹ should be weighed against the individual risk of a COVID-19 infection. In this situation we support that temporary deviance from the guidelines can be motivated and guided by risk-benefit.

If the situation caused by the corona pandemic in any Nordic country or hospital is such that limited resources require unusual triage and handling of TBI patients, the SNC suggests the following exemptions from our guidelines as temporary measures:

Certain TBI patient groups can be discharged from the hospital/emergency department instead of admitting them for observation and/or head CT scanning.

Patients who have a normal level of consciousness (=GCS 15) after a TBI belong to a lower risk group for clinically significant intracranial complication and neurodeterioration. We identify and support that selected neurologically intact patients may be, during this period and as extraordinary measures, discharged from hospital/emergency departments with low additional risk and potential gain, despite deviating from current guidelines.

All deviations from Guideline recommendations pertain only to patients that are GCS 15:

If available resources and potential infection risk do not favor full guideline adherence, a limited risk will be taken:

- if GCS is 15, by refraining from performing a head CT and/or admit for observation if the patient is >65 years of age and taking antiplatelet treatment (moderate risk group) (provided no other guideline-based risk factors or symptoms are present).
- if GCS is 15, by refraining from admitting patients on anticoagulant treatment (high risk group) when the head CT is normal (provided no other guideline-based risk factors or symptoms are present). This applies especially to elderly patients.
- if GCS is 15, by refraining from admitting patients who have a ventriculoperitoneal shunt (high risk group) and a normal head CT (provided no other guideline-based risk factors or symptoms are present).
- if GCS is 15, by refraining from admitting patients with minimal traumatic lesions on head CT. These CT-positive lesions should possess a very low risk of neurodeterioration as judged by a neurosurgeon (for example minimal traumatic subarachnoid hemorrhage and undislocated skull fractures, Epidural hematomas may not apply).

If any of the above exceptions from the guideline is effectuated the person(-s) who will observe the discharged/not-admitted patient should be guided as suggested below:

1. In case of any deterioration contact this phone number (at the ER): XXXX
2. When observing at home do following:
 - a. The patient should stay in bed for at least the first 24 hours.
 - b. Paracetamol 1000 mg up to 4 times a day can soothe any headache.
 - c. Be sure to give him/her fluid (non-alcoholic) to drink. Eating is good but not crucial.
 - d. Talk to him/her once every hour the first 12 hours, once every second hour the next 12 hours. Observe for:
 - i. Changes in conscious level (ex.: unusually difficult to wake up).
 - ii. Unwilling to obey commands (ex.: Tell me what has happened! Where are you? Do you have a headache? Do you feel nauseous? Shake my hand! Wiggle your toes!)
 - iii. Changes in speech/ answers incoherently.
 - e. If nothing has changed after 24 hours, observation can be stopped and the general information followed. (The written information normally handed out to discharged patients with mild TBI).

All moderate to severe TBI patients should be managed according to current management protocols.

We urge our colleagues to use their best judgement in these cases and not to deviate from the guidelines unless it is absolutely necessary.

On behalf of the Scandinavian Neurotrauma Committee

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Literature:

1. Undén J, Ingebrigtsen T, Romner B; Scandinavian Neurotrauma Committee (SNC). Scandinavian guidelines for initial management of minimal, mild and moderate head injuries in adults: an evidence and consensus-based update. BMC Med. 2013 Feb 25;11:50. doi: 10.1186/1741-7015-11-50.