Handling of the Post Traumatic Confusional State (PTCS) in a rehabilitation unit

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Meet "Tom" (a PTCS-prototype)

- 26 year-old male
- Suffered a severe TBI due to fall from considerable height while under the influence of alcohol
- Transferred to Sunnaas Rehabilitation hospital after 3 weeks of care in the acute hospital
- Confused, agitated and with little awareness of own situation and why he is admitted to a hospital
Outline

• Sunnaas rehabilitation hospital – TBI-unit
• The development of knowledge-based guidelines for handling PTCS
• Case presentation to demonstrate some of the procedures
• Dilemmas: autonomy, decision making and capacity for informed consent
Sunnaas Rehabilitation Hospital – TBI-unit

- Sunnaas Rehabilitation Hospital is Norway’s largest hospital specialized in the field of physical medicine and rehabilitation. The hospital provides multidisciplinary rehabilitation for patients with complex functional impairment following illness or injury.
The traumatic brain injury unit

- **The traumatic brain injury unit** handles patients with moderate to severe TBI, who are transferred from a trauma unit once they are medically stabilized.

- Multidisciplinary team consisting of doctors, nurses, occupational therapists, physiotherapists, psychologists/neuropsychologists, special ed. teachers, speech therapists, social worker.

- Transferred at average 3 weeks after injury, usually in PTCS.

- Need for knowledge-based guidelines on how to handle patients going through this phase.
TBI-unit

- New facilities (opened summer 2015)
- The unit has 16 beds
- A “quiet area”, for patients in need of reduced environmental stimuli
- Camera surveillance in patient rooms
- No other patients walking through the quiet area
- Treatment facilities adapted to the patients needs
  - one at a time, no pictures or other visual stimuli to disturb patients during treatment
- Possible to go outside directly from the unit
Development of knowledge-based guidelines for PTCS

• Based on evidence-based rehabilitation principles for severe traumatic injury (Løvstad, Becker, Hauger, Sanders & Schjølberg)

• Multidisciplinary group worked together to use existing scientific knowledge together with experience-based knowledge to form guidelines as specific as we found possible
Guidelines

• The multidisciplinary guidelines were divided into:
  – Routines for admission
  – Assessment procedures
  – Environmental therapeutic guidelines
  – Treatment/management guidelines
  – Guidelines for care of relatives/significant others

• Detailed procedures with checklists and forms for each topic
Guidelines

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Goal of rehabilitation in PTCS

The goal of the rehabilitation of patients in PTCS is to facilitate recovery by using interventions that contribute to the patient’s emergence of PTCS as smoothly and quickly as possible.
Treatment of PTCS

• The major issues in this phase is to enhance recovery by:

  – Providing a quiet, calm environment with strongly reduced sensory stimulation

  – Promoting a feeling of safety, and enhancing memory by routinely providing basic orientational information

  – As far as possible avoid pharmacological treatment
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Tom’s admission

• At admission, a number of standard procedures were effectuated, according to the procedure for admission:
  – 1-1-care
  – Camera surveillance
  – Assessment of PTCS-symptoms with the CAP within 24 hours after admission
  – Assessment of probability of Tom trying to run away
  – Assessment of the need to define whether Tom is able to give informed consent and at which level he is able to be part of decision making in his rehabilitation
  – Guidelines for activity and restrictions from stimuli
  – Information sheet with standardized, orientational information
### Admission procedure

<table>
<thead>
<tr>
<th>Primære tiltak</th>
<th>Fremgangsmåte</th>
<th>Når</th>
<th>Ansvarlig</th>
<th>Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innkomstsamtale med sykepleier</td>
<td>Sykepleier følger samme retningslinjer som lege (se over) for innkomstsamtale ved PTF</td>
<td>Ankomstdagen</td>
<td>Sykepleier</td>
<td></td>
</tr>
<tr>
<td>Vurdering av PTF ved psykolog</td>
<td>Psykolog gjør en standardisert og struktureret undersøkelse av PTF i løpet av første døgn etter innkomst.</td>
<td>Innen et døgn</td>
<td>Psykolog</td>
<td>Link til prosedyre for vurdering av PTF</td>
</tr>
<tr>
<td>1-1-oppfølgelse</td>
<td>Pasient i PTF skal ha 1-1-oppfølgelse. Pasienten registreres med 1-1-oppfølgelse</td>
<td>Umiddelbart</td>
<td>Sykepleier</td>
<td></td>
</tr>
</tbody>
</table>

### Oversikt

| På pasientstaden i LMFU |
|---|---|---|---|---|
| Oversikt | Patient legges på kameraom | Umiddelbart | Sykepleier | Se Prosedyre for skjeringsfor detaljer |
| Vurdering av retningsføre | Grad av forvirring, tidligere atferd (etter skaden), uro/åtagelse samt motorisk funksjon må vurderes i forhold til pasientens retningsføre. Hvis retningsføren vurderes å være stor, må teamet lage retningslinjer for hvordan en retning skal håndteres. Herunder hvilke tiltak de ansatte kan bruke for å hindre pasienten og når man kontakter politiet. | Vurderes umiddelbart | Lege, psykolog og det tverrfaglige teamet | Se beredskap og plan, retningslinjene til Førstehjelp, pasienter ved Sønnars Sykehus klinikk |
| Vurdering av samstøkkekompetanse og grunnlag for tvang | En pasient i PTF vil ofte ha svært stort samstøkkekompetanse. Dette må vurderes i hvert enkelt tilfelle. Der pasienten motsetter seg nødvendig helsebehjelp, må bruk av tvang vurderes etter kapittel 4a i pasientrettighetsloven. | Fortløpende | Lege i samråd med psykolog | Pasientrettighetensloven (kapittel 4a) | Skjema |
| Nyvisitt | Pasienter i PTF deltar ikke på nyvisitt. Pårørende er velkomne til å delta. | Dagen etter innkomst på avdelingen | Teamkoordinator | Link til møterutiner? |
| Timeplan | Timeplan unngår i PTF. Oversikt over teamets oppsett, gjerne med bilder. Terapeut skriver seg inn i timeplan som holdes på vakstrommet. | Kontinuerlig mens pasienten er i PTF | Det tverrfaglige teamet | Link til timeplan-dokument |
| Skjermingsrutiner | Skjema for skjermingsrutiner fylles ut i DIPS | Inne i et døgn etter ankomst | Psykolog, ergoterapeut og sykepleier | Link til skjermingsrutiner |
| Prosessuelepportrettes | Pasienten forankres. | Inne i et døgn etter ankomst | Ergoterapeut og tverrfaglig team | Se Prosedyre for skjeringsfor detaljer |
| Pårørende | Pårørende mottar informasjon om PTF-fasen | Umiddelbart | Sykepleier | Se prosedyre for oppfølgelse av pårørende |
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• Detailed procedures with checklists and forms for each topic
Assessment

• Motor/mobility and sensory functional level
• Pain
• Language and communication
• PTCS-symptoms

• The multidisciplinary team should avoid formal, structured assessments in this phase, but focus on observations in everyday situations.
Assessment of PTCS

• The CAP should be completed within 24 hours after admission.
• Thereby 2-3 times a week the first three months after the injury
• After that: once weekly until the patient emerges from PTCS, or until four weeks of unchanged scores.
• Important to see the symptoms together with information about function during the day from the multidisciplinary team to create an individualized plan for activity and restrictions from stimuli
Tom

CAP-score:

1. Cognitive impairment ✅
2. Disorientation ✅
3. Agitation ✅
4. Fluctuation of symptoms ✅
5. Sleep disturbance
6. Decreased daytime arousal ✅
7. Psychotic type symptoms

– Confused
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Environmental therapeutic guidelines - Reducing environmental stimuli

• The primary goal of reducing stimulation is to avoid overstimulation of a vulnerable, injured brain, which is not able to sort sensory input.

• We aim to avoid an increase in agitation, irritability, sleep disturbances, emotional symptoms and in some cases aggression.
Reducing environmental stimuli

- The patient is mainly kept in his room
- The room is quiet and, if needed, the light is low
- Avoiding too many objects like textiles, pictures, charts etc. in the room
- Limit speech to the necessary – avoid small talk
- Meals, physiotherapy, speech therapy etc. is effectuated in the patient’s room
- Short periods of activity, and a good deal of rest on the patients daily schedule.
- Avoid exposure of tv, radio, music, telephone, tablet
Reducing environmental stimuli

- The amount of stimuli the patient can receive must be evaluated continuously, and routines for stimulation must be considered altered at least once a week as the patient progresses in his rehabilitation.
Guidelines for activities

Date: at admission

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rest</td>
<td>The patient has reduced overall capacity, and while he is considered to be in a post-traumatic confusional state (PTC) it is important that he can rest whenever he needs to. Always clarify with the nurses whether he is resting or sleeping before entering his room. If he is resting/sleeping he should not be disturbed.</td>
</tr>
<tr>
<td>Bed-time</td>
<td>He needs to quiet down for the evening around eight o’clock. He should be back in his room and visitors should leave at 1930, so that he can go to bed before he may get overly tired and agitated.</td>
</tr>
<tr>
<td>Visitors</td>
<td>Visits should not last more than 30 minutes, and preferably not more than one person should stay in the patient’s room at a time. Visitors can take a break of minimum 30 min. Before they return for another half hours visit. His parents can stay for longer periods of time. They are encouraged to sit quietly and not small-talk or engage him in activities all the time.</td>
</tr>
<tr>
<td>Telephone, TV and computers</td>
<td>Avoid the use of these for now.</td>
</tr>
</tbody>
</table>

| Music             | The patient may listen to calm music 3 X 5 minutes during the day. Keep in mind that music is an activity and not rest for the patient. Music should not be turned on if the staff leaves the patient alone in his room to rest. Avoid radio. |
| Meals             | The patients should eat his meals in his room or alone with a staff member in the sheltered dining room/dining room in the quiet area of the ward. |
| Common areas      | He should not stay in common areas with other patients. Treatment sessions and activities should for now take place in his room or in the quiet areas of the ward. He can go for walks outside accompanied by a staff member. Avoid wandering in the corridors of the unit. |
| Activities        | When we get to know him and his abilities, we will make a list of activities he can engage in for short periods of time (5-10 minutes) in his room. |

Tom’s guidelines for activities at admission (”Skjermingsrutiner”)
Communication

• The staff presents themselves every time they enter the room. Prepare the patient by giving information before activities.

• Avoid asking questions. Present information in simple language. Make sure you have the patient’s attention when addressing him.

• Don’t be afraid of silence!

• Avoid complex instructions. Show and lead the patient through the activity.
Orientation

• The patients are given information on basic personal facts, time, place and situation in addition to the current team member’s name regularly throughout the day
  - to increase memory, feeling of security and thereby reducing symptoms of confusion that may lead to aggression

Orientational information for Tom: (prosessperm)

Today is January 22. 2014.
You live in Oslo.
You are now at Sunnaas Rehabilitation Hospital at Nesodden, outside of Oslo.
You are here to get better after you suffered a brain injury in December 2013.
You were admitted to the hospital January 15. 2014.
We´ll help you to get better. We will take good care of you.
Guidelines

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  – **Treatment/management guidelines**
  – Guidelines for care of relatives/significant others

• Detailed procedures with checklists and forms for each topic
Treatment/management guidelines

- Prevention of motor complications
- Motor functions and activities of daily life
- Aggressive behavior
- Guidelines for the personnel in case of aggressive behavior
Tom’s aggressive behavior

• Agitation
• Threats to the personnel
• Some physical situations – pushing and punching
Aggressive behavior - guidelines

• Documentation and registration of aggressive episodes
  – To look for a pattern – i.e. Tom gets aggressive in situations where he feels personally invaded, like hygienic care. He also gets aggressive when he doesn’t understand or remember
  – To avoid that a few aggressive episodes may create unnecessary uncertainty and fear in the staff

• Adaptation of physical environment
  – Avoid dangerous objects in the room, 2-1-care if necessary, use of alarm

• Guidelines for personnel
  – Regular meetings, training in self-defence, placement in the room with the patient
  – Change of personnel with the patient may help to get out of an aggressive situation
  – Use diversion – change activity or topic

• Pharmacological treatment
Dilemmas

• Several issues concerning the patients ability to make his own decisions commonly occur:
  – Willingness to cooperate with treatment and medication
  – Use of social media, phone, visiting restrictions:
    • issues of autonomy vs how to secure the patient from saying and doing things he will regret when emerging from PTC
    – Sometimes conflicts of interest between for instance the patient´s parents and a partner - what would the patient have wanted?

• The patient´s capacity for informed consent (samtykkekompetanse) sometimes has to be decided on / evaluated
  – Guidelines on how to approach this: Pasientrettighetsloven kapittel 4a (Law of patent rights chapter 4a)
Dilemmas

• Exceptions from standard guidelines:
  
  – Patient that was allowed to visit his newborn child in the hospital
  
  – Home-visits for a patient with aphasia and considerable confusion that struggled with understanding his situation
  
  – Sometimes patients (especially children) need more activity than we ideally would want, to diminish their stress of craving more stimuli
How did Tom do?

- Emerged from PTCS after a few weeks

- Guidelines for handling aggressive behavior, agitation and overstimulation helped him and the staff through this challenging phase

- The relatives appreciated information on what PTCS is, and how to handle the symptoms
Summary

• An example of how we use our guidelines for handling PTCS

• We have tried to make guidelines as detailed as possible based on existing evidence and knowledge

• Always room for improvements and changes, but it is a basis for more structured care in PTCS that we find useful.