Comfort in palliative sedation (COMPAS). A transdisciplinary mixed method study protocol for linking objective assessments to subjective experiences (POSTER).

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Towards a better understanding of what unconscious palliative sedated patients experience. A transdisciplinary mixed methods study.

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Background

Goals of **palliative sedation**:

- Reduce consciousness to provide comfort
- Sedation not deeper than required

Risk of **poor assessment** of comfort by caregivers:

- Golden standard in pain assessment is self-report
- In (deep) palliative sedation communication is usually impossible
- Observational scales are based on motor inferences
- Palliative sedation drugs (also) act on motor responsiveness
- Usefullness of observational scales can be put into question

Research **goals**:

- Understand perceptive experience of palliative sedated patients
- Learn how different levels of sedation are perceived by
  - Patients
  - Caregivers
  - Relatives
- evaluate to what degree assessments of comfort based on behavioural observations are in line with the results from two monitoring devices that are often used in operating theatre.

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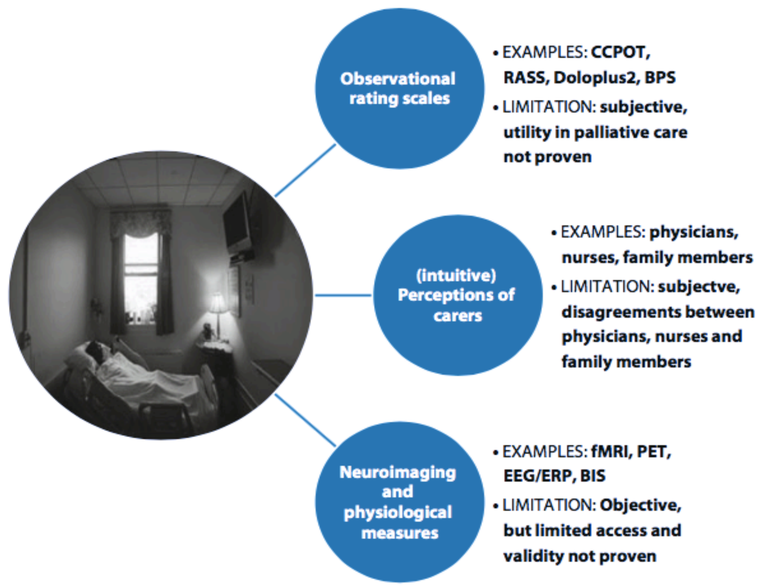
Methods

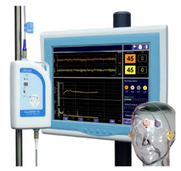
40 patients starting with initiation of palliative sedation until death.

Assessment of comfort;

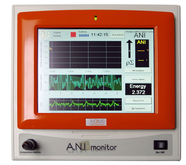
- behavioral observations (observational scales)
- NeuroSense monitor (EEG-based monitor used for evaluation of the adequacy of anesthesia and sedation in the operating room)
- Analgesia Nociception Index (ANI) monitor (ECG-based), which informs about comfort or discomfort condition, based on the parasympathetic tone.
- caregivers' assessment (pain, awareness, communication)
- relatives' perception of the quality of the dying process
- video and audio registration.

Transdisciplinary mixed method design using neurophysiological data *(TMMnpd):* "objective" and "subjective" data will be linked to achieve a complete understanding of the study topic.





NeuroSense monitor



ANI monitor

Preliminary results

Recruitment is still ongoing. A first pilot case showed the feasability of the design and demonstrated the proof of concept.

Although too early to make generalizations, the first case showed the following results:

- The study is ethically acceptable, both for the patient, family members, caregivers and researchers.
- The NeuroSENSE index predicted when the patient would wake up due to insufficient sedation.
- The NeuroSENSE index showed that talking at a normal voice in the presence of the sedated patient diminished her unconsciousness (so it may be hypothesized that for a peaceful and continued sedation it is advisable to talk softly in the presence of the patient).
- When patient was awake, I asked her if she had any pain and she indicated this was not the case. This was confirmed by the ANI-monitor.

Conclusion

Measuring pain and awareness in non-communicative dying patients is both technically and ethically challenging. ANI and EEG have shown to be promising technologies to detect pain that otherwise cannot be detected with the "traditional" methods. Although these technologies have the potential to provide objective quantifiable indicators for distress and awareness in non-communicative patients, strikingly they have not yet been used to check whether the current assessments for non-communicative palliative sedated patients are reliable.