Post-Intensive Care Unit Syndrome: An Overview

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Goals
- Understand the types of PICS
- Understand what makes up PICS
- Understand the “burden of survivorship”
- Understand some novel interventions for treatment of PICS
Definition of post-intensive care unit syndrome (PICS) and post-intensive care unit syndrome-family (PICS-F)

- Post Intensive Care Syndrome (PICS)
  - Family (PICS-F)
  - Survivor (PICS)

Mental Health
- Anxiety/ADHD
- Depression
- Complicated Grief

Mental Health
- Anxiety/ADHD
- PTSD
- Depression

Cognitive Impairments
- Executive function
- Memory
- Attention
- Visuo-spatial
- Motor processing/spread

Physical Impairments
- Pulmonary
- Nutritional
- Physical Function

Common
- Up to 33% of families for PTSD alone
- Can last for years

Risk factors include:
- Distance from the hospital
- Female gender
- Younger relative and patient age
- Critically ill spouse
- Lower educational level
- Being an unmarried parent of a critically ill child
- Low social support
- Lack of communication with nurses
- Lack of empathy for care team

Post Intensive Care Unit Syndrome Family

- Prevention
  - ICU staff should receive education related to assessing and meeting family needs
  - Communication
  - Understand preferred level of involvement
  - Facilitated Sense Making
  - "VALUE"
    - Value Family contributions to discussions
    - Acknowledge family emotions
    - Listen
    - Understand the patient as a human
    - Elicit questions from the family
Delirium in the ICU and Subsequent Long-Term Disability Among Survivors of Mechanical Ventilation

Mental Health

Post Traumatic Stress Disorder

- DSM IV-R American Psychiatric Association
  - Exposure to a traumatic event in which the individual experiences, witnesses or is confronted by actual or threatened death, serious injury or threat to the physical integrity of self or others AND responded with intense fear, helplessness or horror.
  - 3 symptom groups
    - Intrusion (nightmares, flashbacks)
    - Avoidance (avoiding reminders)
    - Hyper-arousal (not sleeping)
  - Symptoms are experienced for more than one month
  - Clinically significant distress or impairment in social, occupational or other areas of functioning
Studies - ICU psychological recovery

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<th>Study</th>
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<th>Depression</th>
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<td>Hopkins et al 2005 Am J Resp Crit Care Med 2003;171;340-347</td>
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The ICU Experience

- **In the ICU**
  - 24% reported sleep deprivation.
  - 44% said that analgesics requested did not yield the expected pain relief.
  - 43% recalled feeling thirsty.
  - 13% had been hungry.
  - 37% and 28% had been uncomfortably hot and cold respectively.
  - 43% patients had been afraid or anxious.
  - 46% had felt lonely or isolated.
  - 33% lacked information about their treatment and procedures.

- **Post ICU**
  - Anxiety 25% - 30% of patients attending ICU outpatient clinic
    - Appears to be related to hallucinations and delusional decisions.
  - Panic attacks, agoraphobia
    - Patients can feel anxious in crowded places e.g. shops.
    - Don't want to be alone in case they will fall ill again.
  - Post traumatic stress disorder (PTSD)

Mental Health

Delusional ICU Dreams and Memories

- An ICU patient thought they were sexual assaulted.
- Patients may fear telling anyone about the rape or assault they recall.
- An ICU patient imagined he had to drive to a sushi bar where he had to swim through a pool of man-eating fish before he could dine.
- An ICU patient had flashbacks of hospital walls covered in blood.
- An ICU patient had visions of big spiders riding bicycles in her room.
- An ICU patient thought that his penis had been cut off and that doctors would not sew it back on unless he paid $8,000.
- An ICU patient thought he was on a conveyor belt feeding into an oven (the patient had gotten an MRI).
- The most common delusion is that "a nurse is trying to kill you." It turns out that is even more upsetting than almost dying.
Mental Health
Delusional vs. Factual Memories
Critical Care Medicine Issue: Volume 29(3), March 2001, pp 573-580

ICU Diaries
http://www.icu-diary.org/

- Idea originated in Scandinavia
- Written for ICU patients during their time of sedation and ventilation.
  - Daily account of ICU stay in everyday language
  - It is written by relatives, nurses and others in plain language
  - Photograph of patient taken at start and points of change
- The patient can read his or her diary afterwards and is more able to understand what has happened.
- Aim to fill in memory gaps and help patients understand their illness
- With staff support to go through the diary and photos
- UK National Institute for Health and Clinical Excellence recommend cognitive behavioural therapy (CBT for PTSD). Changing how clients think about their traumatic experience is one of the aims of CBT.

ICU Diaries

- The diary proved to reduce the incidence of:
  - PTSD for patients (Jones et al. 2010)
    - RACHEL II 13.1% vs. 5% when reviewed at 3 months
  - Depression & anxiety (Knowles & Tarrier 2010)
  - Depression, anxiety and PTSD for Families (Jones et al 2012) & (Bergbom et al 1999) and (Garrouste-Oregas et al 2012)
    - In families the impact was greater than in patients
  - This may be because diaries counteract perceptions that staff do not listen, do not care or did not give patient attention.
ICU Diaries
Starting a Diary Program

- **Key requirements for starting**
- Legal Team / Guardian approval
- Diary notebooks
- Polaroid camera or digital camera with printer - Memory card wiped after printing
- Diary register
- Enable tracking of which patients have a diary and where the diary currently is located
- Secure, lockable storage
- Storage of diaries between patient discharge and follow-up
- Diary guidelines at every bed space
- Diary champions

Early ICU Psychological Intervention
Careggi University Hospital, Florence, Italy

- Clinical Psychologist provide emotional support, educational interventions, & stress management coping strategies to trauma patients & families
- Available 24 hours
- Observational study of those with and without a clinical psychologist
- A trend towards less depression and anxiety
- A statistically significant decrease in PTSD (21.1% vs. 57%)
ICU Clinics

Post Traumatic Stress Disorder

Conclusions

- Post ICU syndrome is common
- Can happen in families and survivors
- Depression and anxiety predominate mental health problems
- PTSD can be as high as 1 in 4
- Delusional memories seem to play a role
- ICU diaries may help remove delusional memories
- In ICU psychology support and post ICU clinics show promise for reducing PICS symptoms

References