

Post ICU Syndrome

What is post ICU syndrome?

Post ICU syndrome (PICS) is a condition that may affect you or your family after they leave ICU. It may involve a change in your relatives:

- Cognitive (brain) function
- Psychiatric (mind) function
- Physical (body) function

Post ICU syndrome can also affect the family of the patient. It is a very stressful time for all involved.

What are the symptoms?

The symptoms can be divided into the three above categories. The patient may experience symptoms in one or more of these categories.

- **Cognitive (brain) function:**

Difficulty with memory is a common symptom. This may make the persons day to day life difficult. For example the patient may notice it is harder to remember when to take medications or to keep track of appointments. Other people report difficulty in concentrating. In the more severe forms, the patient may find also find it difficult to communicate.

- **Psychiatric (mind) function:**

The patient's well being may be affected. The most commonly seen symptoms include that of anxiety, depression, and post traumatic stress disorder. Anxious patients may feel worried, restless, tired. Those who have depression may feel tired, low energy, low mood, a sense of hopelessness and difficulty sleeping. PTSD on the other hand may present as having flashbacks to negative experiences in ICU and anxiety. Some patients also report that they find it difficult being intimate with their significant other after their ICU treatment.

- **Physical (body) function:**

Patients in ICU may get ICU acquired weakness. This may range from having trouble walking to paralysis of the arms and or legs. Patients may find it difficult to walk to the shop. Other people find that they get strictures (stiffness) preventing them from moving the arm or leg as well as they previously could.

The breathing muscles are also affected. Like other muscles in the body, they become weaker when not being used. This is especially true if the patient has been on the ventilator (breathing machine) for a long time. This weakness can be seen on "lung function tests". Most patients will recover their breathing muscles strength over the course of 6 months after

ICU but the ability for the lung to work may be reduced(2). Extra oxygen is rarely required in the long term.

Other symptoms that have been described include weight loss, malnutrition and difficulty sleeping.

Who is at Risk?

Research is still underway to find out if some people are more at risk of PICS than others. The reason why someone gets PICS and another person does not is complicated and likely involves multiple factors.

Risk factors include:

- If the patient suffers from delirium during their ICU stay. The length of time of the delirium also plays a role. See the delirium chapter for more information.
- Previous level of education before the ICU stay. People who have been to higher education are more likely to be PICS free at 3 and 12 months.
- If the patient suffered from sepsis during their ICU stay, they were more likely to get PICS.
- If the patient suffered from ARDS
- If the patient has a history of anxiety, depression, post-traumatic stress disorder before needing ICU.
- A long time on the ventilator (breathing machine) increases the risk of ICU weakness.

What can we do to help those with PICS?

The saying "Prevention is better than cure" is true to PICS. In Beaumont Hospital we aim to reduce the risks to the patient. Where appropriate, the ICU team will reduce sedation and encourage physical activity. Unfortunately, by its nature, some risks may not be fully unavoidable.

The ICU is an unfamiliar and potentially stressful place. As a family member you can help your loved one stay *orientated*. This could involve talking about their favourite places or events or reminding them where they are and why they are in ICU. Placing favourite pictures or photos by their bedside may also help your loved ones remember outside of visiting hours.

You can also consider keeping an ICU diary. This may help you keep a record of your stay in ICU. ICU diaries have been shown to reduce the chance of getting PTSD(3).

How can we treat PICS?

The treatment of PICS involves focusing on the specific area(s) that you or your loved one may be affected. This may include:

- Physiotherapy
- Psychology
- Psychiatry
- Medications
- Dietician referral
- Occupational rehabilitation

Post ICU Syndrome (Family)

Family members can also be affected by their loved ones journey in ICU. Common problems seen and faced include difficulty sleeping, depression, grief, anxiety and Post traumatic Stress disorder. These problems can last for months to years.

Summary

Post ICU syndrome is being increasingly recognised in medical practice. It may affect you as a patient or as a family member. It can affect your brain, body and mental health after your stay in ICU.

If you are concerned that you or your family may be suffering from Post ICU syndrome talk to your primary care team or physician. They will be able to guide you and/or your relative to the appropriate treatment.

References

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2. Elliott CG, Morris AH, Cengiz M. Pulmonary function and exercise gas exchange in survivors of adult respiratory distress syndrome. *Am Rev Respir Dis*. 1981 May;123(5):492–5.
3. Mehlhorn J, Freytag A, Schmidt K, Brunkhorst FM, Graf J, Troitzsch U, et al. Rehabilitation interventions for postintensive care syndrome: a systematic review. *Crit Care Med*. 2014 May;42(5):1263–71.

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