

## **English Summary:**

### **Title:**

Clinical guideline on assessment of iatrogenic withdrawal syndrome in children from 28 days to 3 years receiving intensive care

### **Background**

Iatrogenic withdrawal syndrome is a condition that may occur when ceasing or weaning drugs with high tolerance and physical dependence such as opioids and benzodiazepines. Iatrogenic withdrawal is a non-pain-related distress condition. Paediatric intensive care patients under three years of age are often treated with infusion of opioids and/or benzodiazepines to achieve analgesia and sedation. Reported prevalence rates of withdrawal syndrome in PICU patients receiving such drugs for more than 5 days range from 9% to 57%. To some extent, symptoms of iatrogenic withdrawal overlap symptoms of pain and paediatric delirium. Hence it is important to identify suitable tools to distinguish between different conditions to initiate relevant treatment. Therefore, identification of validated tools for assessment of iatrogenic withdrawal syndrome in children beyond the neonatal period is needed.

### **Objectives**

To prepare recommendations for the assessment of iatrogenic withdrawal syndrome in children to ensure consistent and systematic identification and assessment of iatrogenic withdrawal syndrome when ceasing or weaning drugs with high tolerance profile in children from 28 days to 3 years of age.

### **Participants**

Children aged 28 days to 3 years, who have undergone treatment with continuous infusion or repeated bolus-injections of opioids and/or benzodiazepines in relation to critical care therapy.

### **Types of intervention(s)**

Tool for assessment of iatrogenic withdrawal syndrome in children

### **Types of studies**

In this clinical guideline, quality assessment of the international guideline 'Clinical recommendation for pain, sedation, withdrawal and delirium in critically ill infants and children – an ESPNIC position statement for healthcare professionals' was conducted as the focused question coincides with our focused question.

This clinical guideline is supplemented with an updated search.

### **Types of outcomes**

Precision in identification of iatrogenic withdrawal symptoms

### **Search strategy**

The following search terms were used in combination with the Boolean operators AND and OR

Substance withdrawal syndrome, substance, withdrawal, syndrome, critical care, critical, care, intensive care, neonatal intensive care, neonatal intensive care nursing, pediatrics, pediatric

### **Methodological quality**

Two persons independently used AGREE II for quality assessment ([WWW.CFKR.DK/skabeloner](http://WWW.CFKR.DK/skabeloner) og manualer).

The guideline 'Clinical recommendation for pain, sedation, withdrawal and delirium in critically ill infants and children – an ESPNIC position statement for healthcare professionals' included literature published up to July 31<sup>st</sup> 2015. The studies used to support recommendations in the guideline 'Clinical recommendation for pain, sedation, withdrawal and delirium in critically ill infants and children – an ESPNIC position statement for healthcare professionals' were assessed for quality by one group member and consistency with the assessments in the international guideline was determined between the group members of our group.

We supplemented with an updated search from August 1<sup>st</sup> 2015 – October 31<sup>st</sup> 2016, where no new studies were identified.

### **Recommendation for clinical practice**

↑Both of the tools SOS and WAT-1, are reliable for assessing iatrogenic withdrawal symptoms in children between 28 days and 3 years (⊕⊕□□)

### **Short elaboration of the recommendation**

The potential risk for development of iatrogenic withdrawal syndrome must be considered after 5 days administration of opioids and/or benzodiazepines. Sophia Observation Withdrawal Symptoms-scale (SOS) (19;20) and the Withdrawal Assessment Tool version-1 (WAT-1) (15; 18) may both be used. WAT-1 and SOS are both translated into Danish (21; 22). We have not been able to find published studies testing validity of these tools in a Danish context, why such an investigation should be carried out.