



# Paediatric Delirium

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# Paediatric Delirium: learning objectives

**What** is delirium?

**Who** is the most at risk population to suffer from delirium among paediatric population (risk factors)?

**How** does delirium present?

**When and how** to identify delirium (screening tool)?

**What** are the differential diagnosis?



# Definition

Delirium is a serious global cerebral dysfunction that affects neurocognitive and sensorial functions.

It is characterized by an ACUTE onset and a FLUCTUATING course with disturbances in awareness and cognition as a result of PREDISPOSING and PRECIPITATING FACTORS.

It is associated with poor outcome, mortality, higher health care cost, prolonged length of stay and mechanical ventilation.



# Predisposing and precipitating risks factors

<b>Risk Factors for development of delirium</b>	
<b>Predisposing Risk Factors</b> <i>(Non-modifiable Risk Factors)</i>	<b>Precipitating Risk Factors</b> <i>(Modifiable Risk Factors)</i>
Age <2 years Developmental delay High severity of illness Low albumin Prolonged Mechanical ventilation Pre-existing medical condition Status epilepticus as primary diagnosis*	Anticholinergic medications Benzodiazepines Cardiac bypass surgery Immobilization Prolonged ICU length of stay Restraints Sleep rhythm disruption* Suboptimal pain management*

A.Patel, MJ Bell and C.Traube. *Delirium in Paediatric Critical Care. Pediatr Clin N Am* 64 (2017) 1117–1132

\*Dervan L, Di Gennaro J, Farris R, Scott Watson R. *Delirium in a Tertiary PICU: Risk Factors and Outcomes. Pediatr Crit Care Med* 2020 Jan;21(1):21-32



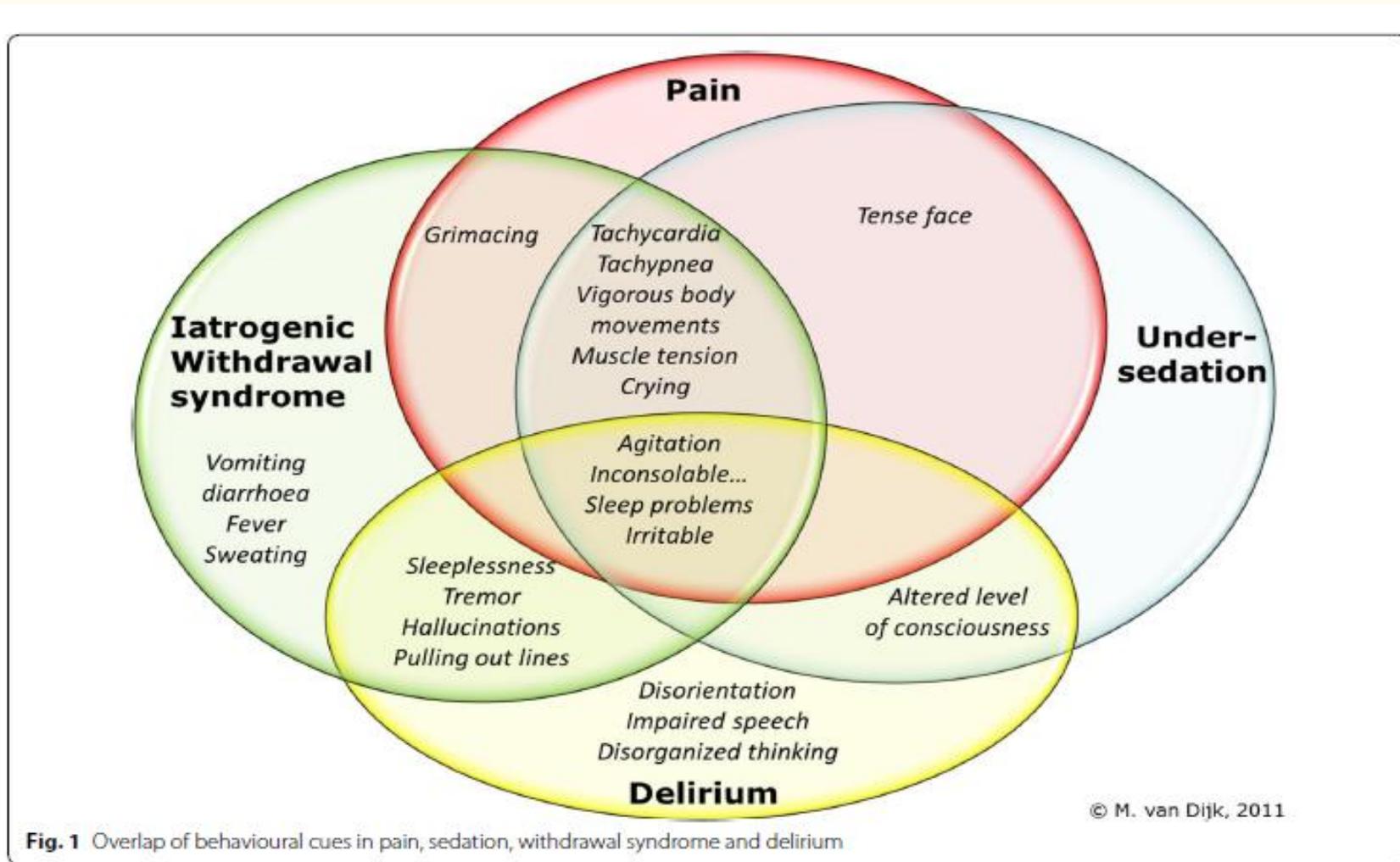
# Types of delirium

Type of delirium	Symptoms	Examples
<b>Hyperactive</b>	Agitation Restlessness Combative	Pulling at lines Hallucination
<b>Hypoactive</b> ***misdiagnosed for over sedation or clinical depression in older patients (teenagers) *** most common	Apathetic Withdrawn Unresponsive	Slow movements No interest in toys No response to family
<b>Mixed</b> *** second most common	Signs of both hyperactive and hypoactive	Fluctuation between both types

A.Patel, MJ Bell and C.Traube. *Delirium in Paediatric Critical Care. Pediatr Clin N Am* 64 (2017) 1117–1132



# Differential diagnosis

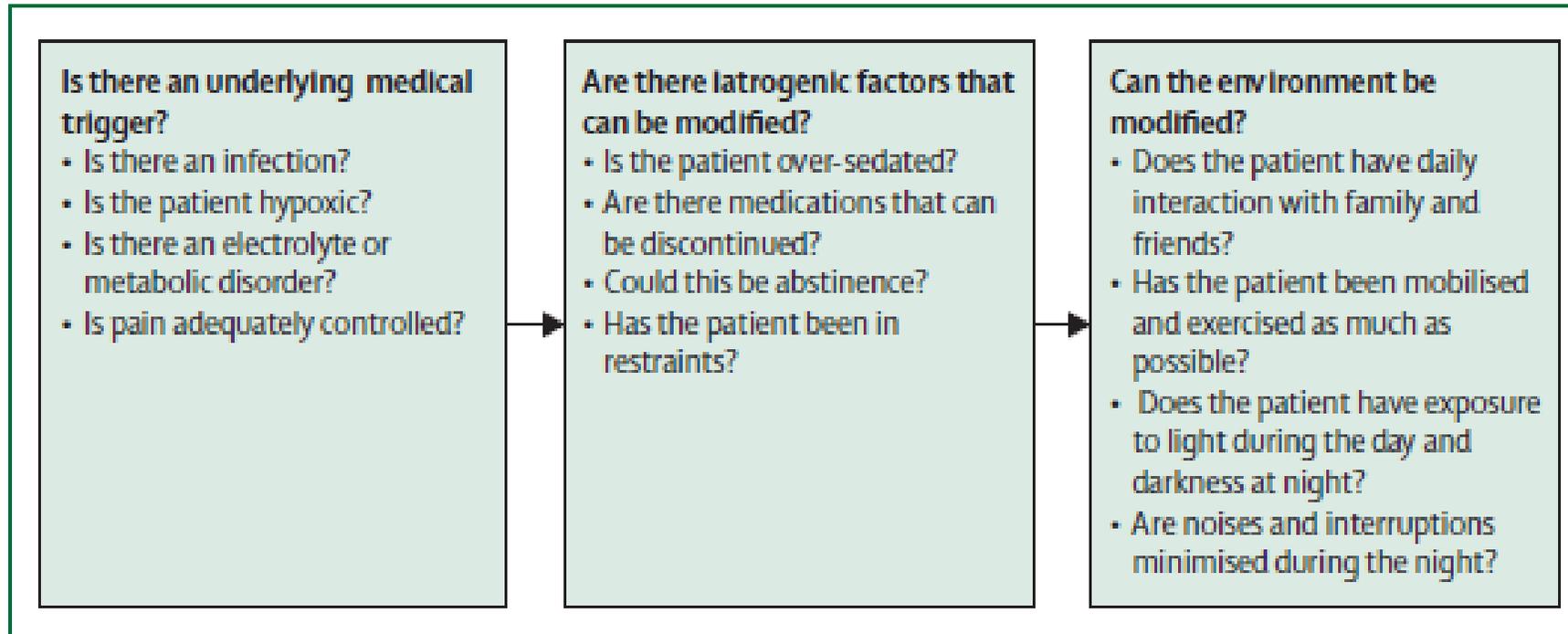


Harris et al. Clinical recommendations for pain, sedation, withdrawal and delirium assessment in critically ill infants and children: an ESPNIC position statement for healthcare professionals. 2016 Jun;42(6):972-86



# Differential Diagnosis and triggering factors

FIRST STEP is to investigate for a medical trigger  
SECOND STEP is to identify modifiable iatrogenic factors  
THIRD STEP is to assess modifiable environmental factors



Dechnik A, Traube C. Delirium in hospitalised children. *Lancet Child Adolesc Health*. 2020 April; 4(4): 312-321



# Conclusions

Delirium is a common and under-recognised problem in critically ill children

Early recognition is key to successful intervention

Widespread screening for paediatric delirium is a necessary first step

Detecting and treating paediatric delirium may improve short and long-term outcome for children



Thank you very much

