



Paediatric Delirium

Dr Sandra Gala-Peralta



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

Risk Factors for development of delirium	
Predisposing Risk Factors <i>(Non-modifiable Risk Factors)</i>	Precipitating Risk Factors <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



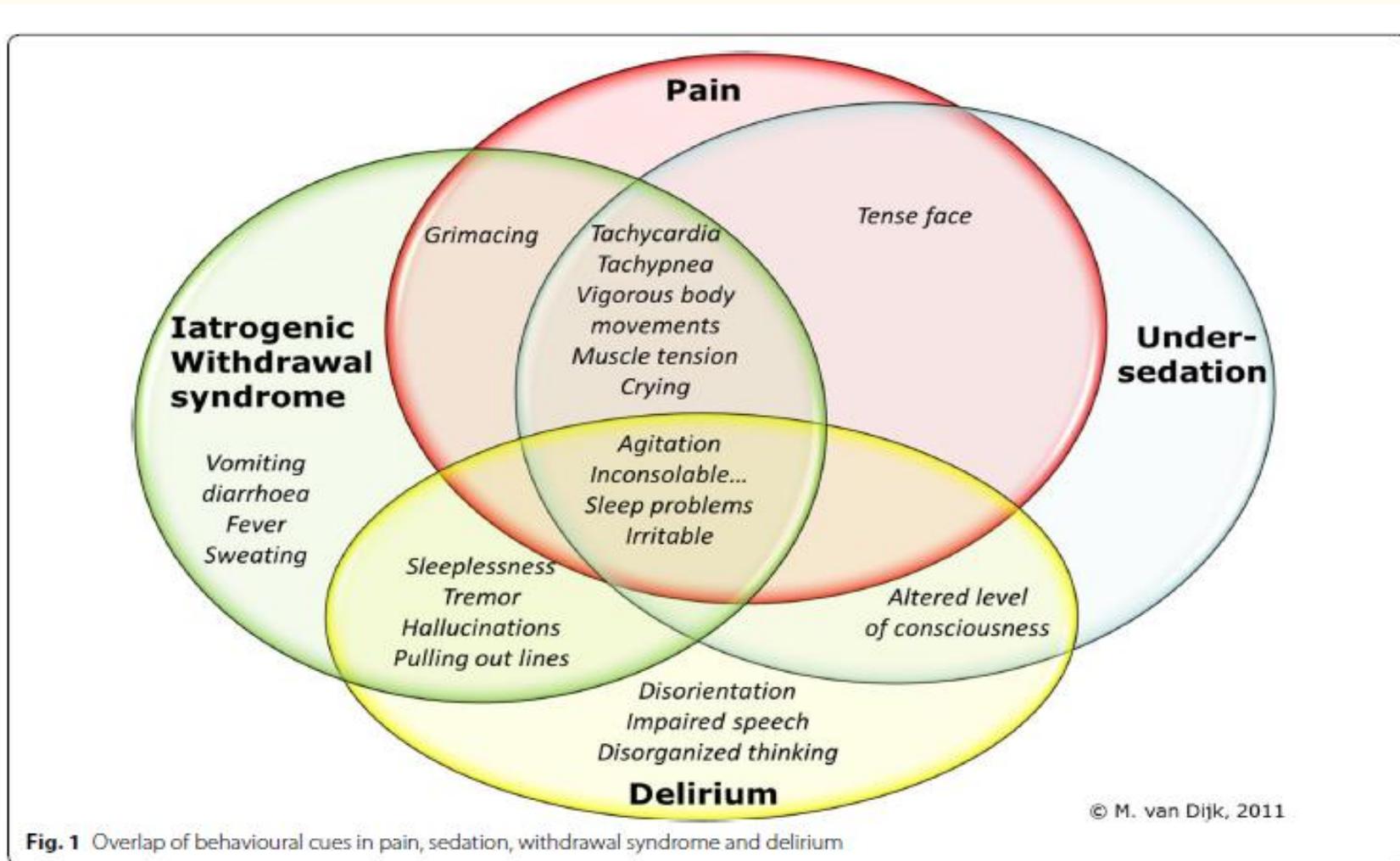
Types of delirium

Type of delirium	Symptoms	Examples
Hyperactive	Agitation Restlessness Combative	Pulling at lines Hallucination
Hypoactive *** misdiagnosed for over sedation or clinical depression in older patients (teenagers) *** most common	Apathetic Withdrawn Unresponsive	Slow movements No interest in toys No response to family
Mixed *** 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

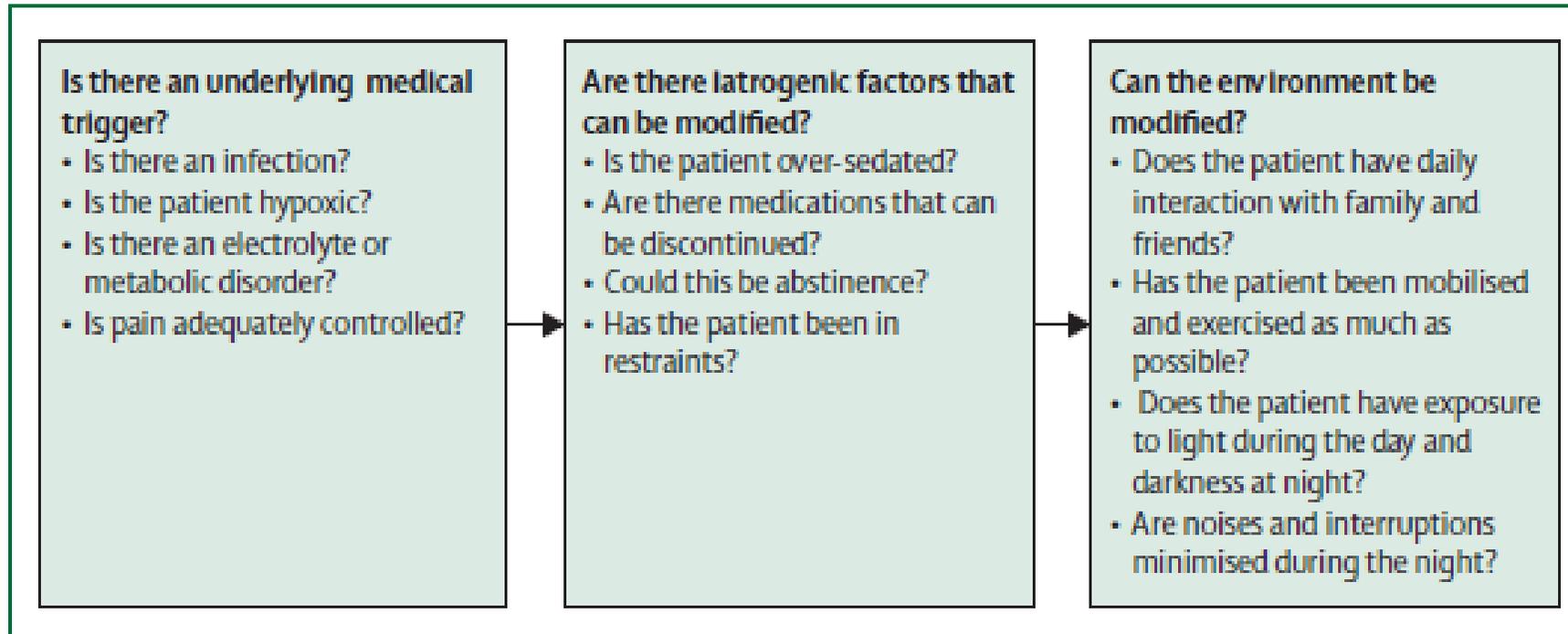


Harris et al. Clinical recommendations for pain, sedation, withdrawal and delirium assessment in critically ill infants and children: an ESPNIC position statement for healthcare professionals. 2016 Jun;42(6):972-86



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

