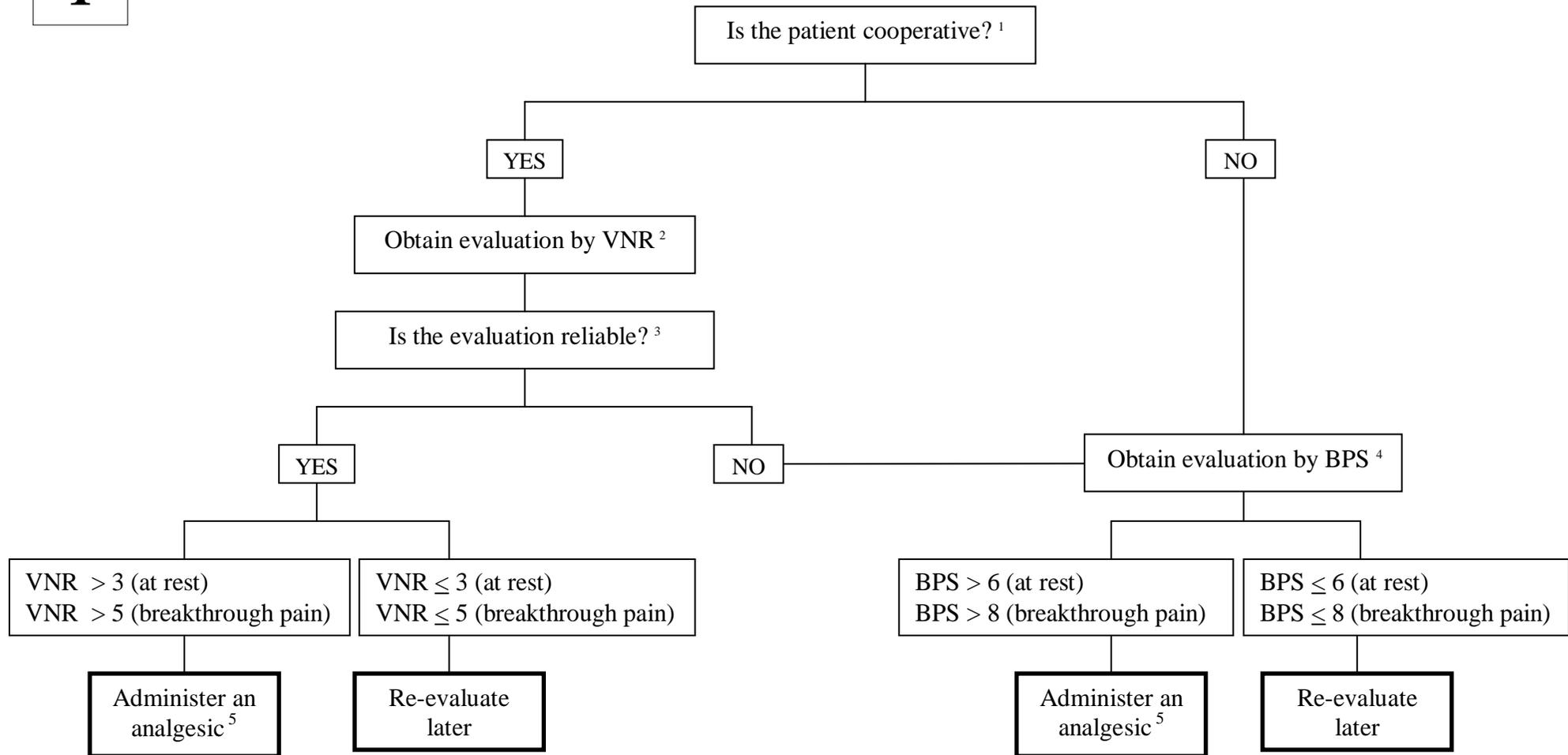


**PAIN MANAGEMENT IN THE ICU**

<sup>1</sup> Consider the patient not cooperative if: RASS < -2 / CAM-ICU $\oplus$  / psychiatric disease / neurological deficit / communication or linguistic barriers / deafness.

<sup>2</sup> *Verbal Numeric Rating (VNR)* 0 = no pain, 10 = maximal conceivable pain.  
Ask: "Can you quantify your pain between 0 and 10?"  
Consider at rest and breakthrough pain (e.g.: coughing, tracheo-bronchial aspiration,...).

<sup>3</sup> Consider the evaluation as reliable if it takes into account the subjective parameters the patients use to evaluate their pain: cultural, religious and familial aspects, expectation for secondary benefits.

<sup>4</sup> *Behavioral Pain Scale (BPS)* 3 = absence of pain, 12 = maximal pain.  
- Facial expression: 1. Relaxed / 2. Partially tightened / 3. Fully tightened / 4. Grimacing  
- Upper limbs: 1. No movement / 2. Partially bent / 3. Fully bent with finger flexion / 4. Permanently retracted.  
- Compliance to ventilation: 1. Toleration movement / 2. Coughing but tolerating ventilation for most of the time / 3. Fighting ventilator / 4. Unable to control ventilation.

<sup>5</sup> **Morphine: intravenous**  
Bolus: 0.03 - 0.05 mg/kg maximal dose 40 mg/die – Continuous infusion: 5-30  $\mu$ g/kg/h.

**Fentanyl: intravenous** (prefer fentanyl if hemodynamic instability/allergy to morphine /renal failure).  
Bolus: 1-2 $\mu$ g/kg maximal dose 500  $\mu$ g/die – continuous infusion: 1-2 $\mu$ g/kg/h (max 150  $\mu$ g/h).

**Remifentanyl: intravenous** (no bolus)  
Bolus: never – Continuous infusion: 0.02-0.5 $\mu$ g/kg/min.

Consider i.v. Acetaminophen (max 15mg/kg every 6 h) / nSAIDS / adjuvants.