Barriers to standardization of sedatives and opioids weaning in pediatric intensive care unit (PICU): a focus group exploration.

T. Rudolf Von Rohr[1,3], C. Fonzo-Christe[1,2], R. Anderson de la Llana[2], A. Bordessoule[2], P. Rimensberger[2], P. Bonnabry[1,3].

[1]Geneva University Hospitals, Pharmacy, Geneva, Switzerland
[2]Geneva University Hospitals, Neonatology and Pediatric Intensive Care Unit, Geneva, Switzerland
[3]School of pharmaceutical sciences, University of Geneva, University of Lausanne, Geneva, Switzerland

Aim

- To evaluate staff perceptions of standardization of the sedatives/opioids weaning process.
- To identify factors leading to an inadequate application of the current protocol.

Conclusion

- Standardization was perceived as improving quality of care and patient follow-up and comfort but as extending the length of PICU stay and being unable to adapt to all patients.
- Main factors against the current protocol were its presentation (software and paper layout) and a lack of confidence in the withdrawal evaluation scale.

Context

- Weaning from sedatives/opioids in PICU is challenging.
- A weaning protocol[1] was implemented 2 years ago but recurrent incidents are still reported.

- The current protocol
  - Includes pediatric patients ≥3 months of corrected age
  - Is focused on the switch:
    - From IV opioids to oral methadone
    - From IV benzodiazepine to oral lorazepam
  - Refers to the SOS-scale for the monitoring of withdrawal symptoms

Methods

- Data were collected through 4 1-hour focus groups (FG) (June-July 2017).
- Participants included **12 physicians and 24 nurses**. One FG included both physicians and nurses while others included only nurses.
- **FG methods:**
  - Five-minutes individual brainstorming using post-it notes (participants had to write 1 idea / post-it note), followed by an open group discussion

- Questions were asked to the participants on two dimensions:

Standardization ➡ What are the advantages and disadvantages of having a standardized procedure for weaning sedatives/opioids?

Current protocol ➡ What works and doesn't work with the current protocol?

University hospital setting:
7 PICU beds (mostly cardiac patients) + 5 intermediate care beds

Results

Main perceived advantages

Standardization

Effectiveness
Improves patient management (EBM)
Harmonizes practices (quality of care)
Increases recognition of withdrawal syndrome

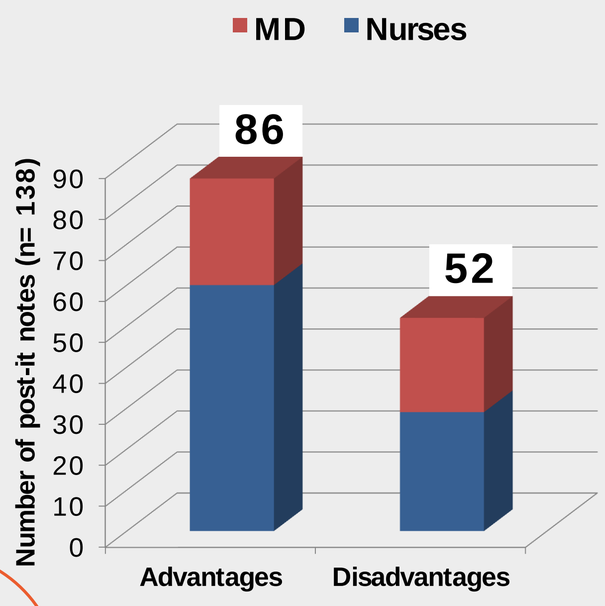
Efficiency
Improves doctor-nurse communication
Clarifies the process

Security
Reduces risk of errors
Reduces IV risks (quicker IV-oral switch)

Well being
Reassures and secures staff who rely on a validated procedure
Enables anticipation for staff and patients
Empowers nurses (know what to do)

Research
Makes evaluation of the actions undertaken easier (eg clinical studies)

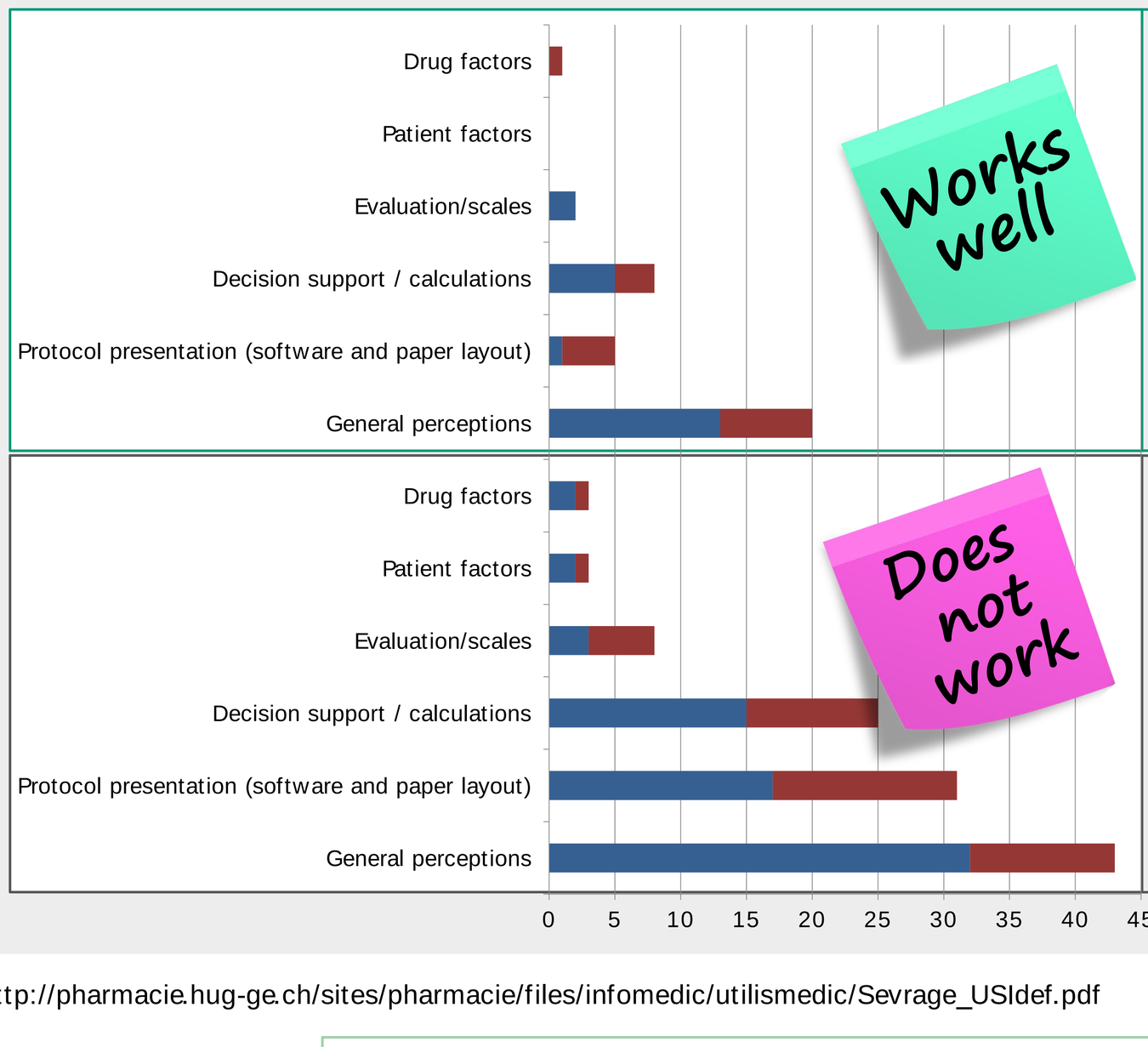
Advantages vs disadvantages



Main perceived disadvantages

Effectiveness
Interindividual variability
Residual subjectivity
Differential diagnosis
Staff adhesion issues
Increased length of stay in NICU
Increased risk of errors
Banalization of sedation
Limits the autonomy of the staff
Propencityto over-medicate patients
Security
Complicated process
Increased nurses workload
Costly (increases the number of drugs used)
Need to advertize the procedure
Efficiency

Number of post-it notes by thematics



Comments made by participants

- Clarifies the molecules to be weaned.
- Improves follow-up and documentation.
- Increases accuracy and rigor of calculations and conversions, facilitates calculations.
- Enables care planification, improves follow-up and interprofessional communication
- **Exhaustive**, effective and clear. **Works well when respected.** Based on a systematic and Evidence-Based Medicine (EBM) approach

- Increased risk of errors because of the use of various oral solutions with different concentrations.
- Not adapted to complicated patients (eg. Patients with neurologic disorders).
- **Insufficient precision and reliability of the SOS scale (delirium not included)**
- **Difficulties to integrate the rescue doses in the adaptation scheme**, Difficulties with IV to oral conversion.
- **Prescription software not adapted** (esp. diagram of dose reduction), **lack of a synthetic overview**, protocol partially computerized (double patient record).
- **Poor adhesion to protocol, necessity of a great rigor in its application,** protocol not established in other units (transition of care).

[1]http://pharmacie.hug-ge.ch/sites/pharmacie/files/infomedic/utilismedic/Sevrage_USIdef.pdf

The 5th European Conference on Paediatric and Neonatal Cardiac Intensive Care (EPNCIC)

EP-01

Author contact

Weaning protocol

Authors report no conflict of interest

pharmacie.hug-ge.ch/rd/posters.html