Prepare to Fail? The impact of developing an institutional protocol on improving confidence in the management of the failing epidural.

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Prepare to Fail? Developing an Institutional Protocol for Managing the Failing Epidural

Pre/Post-Intervention Study · Education · Neuraxial Labour Analgesia

EJA

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GUIDELINES

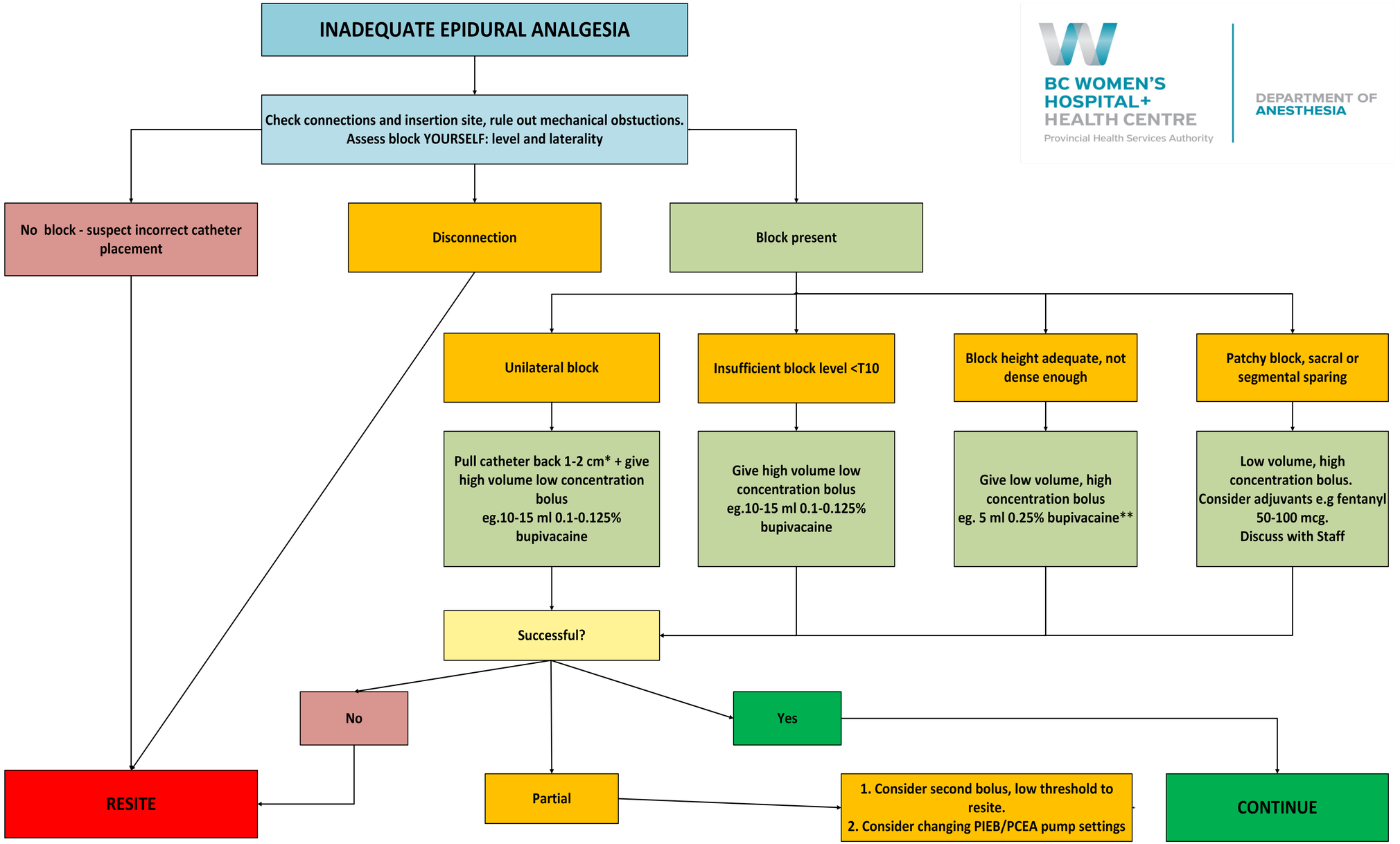
ESAIC focused guidelines for the management of the failing epidural during labour epidural analgesia

Background

- Epidural analgesia is used by **73% of parturients**; failure rates reach up to **25%**
- Management has traditionally relied on expert opinion and clinical experience — lacking structured guidance for junior providers
- **ESAIC guidelines** recommend institution-specific protocols with example algorithms

Hypothesis

- The introduction of an **institutional protocol based on ESAIC guidelines** will improve resident confidence in managing the failing epidural



BC WOMEN'S HOSPITAL+ HEALTH CENTRE
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DEPARTMENT OF ANESTHESIA

Study Overview: Methods & Results

METHODS

Study Design

- Pre/post-intervention study
- Residents stratified: junior vs. senior

Intervention

- Locally developed **failing epidural algorithm**
- Based on **ESAIC guidelines**, local practice & expert consultation

Survey & Analysis

- 21 questions, 5-point Likert scale
- Troubleshooting scenarios & non-technical factors
- Descriptive: means & frequency, pre vs. post

RESULTS

FULL COHORT (n=36 pre→ n=25 post)

- Improved confidence in **all domains** bar one neutral result
- Exception: low block — neutral (mean 4.08/5)
- Resource awareness: **+1.22/5** (2.74 → 3.96)

SUBGROUP ANALYSIS

Junior cohort

- Improved across most domains
- Unilateral block: **mean +0.72/5**

Senior cohort

- Sacral sparing: **mean +1.21/5**

50% → 100%

very/extremely confident

Conclusion & Discussion

- **Education:** Using our guideline during targeted teaching increased residents' confidence in managing failing epidurals.
- **Senior residents improved less** — likely due to greater clinical experience at baseline and informal bedside teaching during junior rotations.
- **Our results** support using structured, algorithm-based teaching tailored to the institution.
- **We hope** this work contributes to improving overall epidural analgesia quality and patient experience.