

Improving Staff Confidence in the Management of Thoracic Fascial Plane Catheters for Rib Fracture Analgesia

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INTRODUCTION

- ❖ Critical care staff—including foundation year doctors, internal medicine trainees, clinical fellows, and trainee nurses—frequently encounter continuous regional anaesthetic blocks delivered via indwelling catheters.
- ❖ This project focuses on the Serratus Anterior Plane (SAP) and Erector Spinae Plane (ESP) catheters.
- ❖ Many of the aforementioned staff lack prior experience and report low confidence in managing these devices.

METHODS

- ❖ An educational leaflet was developed to address this knowledge gap. It includes condensed guideline summaries presented in an easily digestible format, with associated links.
- ❖ The content of the leaflet is summarised in the flow chart to the right. Importantly, the leaflet does not authorise independent troubleshooting, pump adjustments, or catheter removal without senior anaesthetic input.
- ❖ Pre- and post-intervention surveys were conducted to assess subjective confidence levels across various staff groups. Data were collected over one month and analysed by staff role and catheter type encountered.

RESULTS

- ❖ Survey comparisons demonstrated an overall increase in staff-reported confidence and perceived competence in managing patients with continuous regional anaesthetic blocks. Gains were observed across all staff groups and catheter types.

CONCLUSIONS

- ❖ A targeted, educational intervention effectively improved staff confidence in managing continuous anaesthetic catheters in critical care. This highlights the value of structured training resources in bridging knowledge gaps and enhancing patient safety. We will aim to expand on the resources available.

References

References: May L, Hillermann C and Patil S. Rib fracture management. BJA Education 2016, 16(1):26-32. Williams A, Bigham C and Marchbank A. Anaesthetic and surgical management of rib fractures. BJA Education 2020, 20(10):332-340.

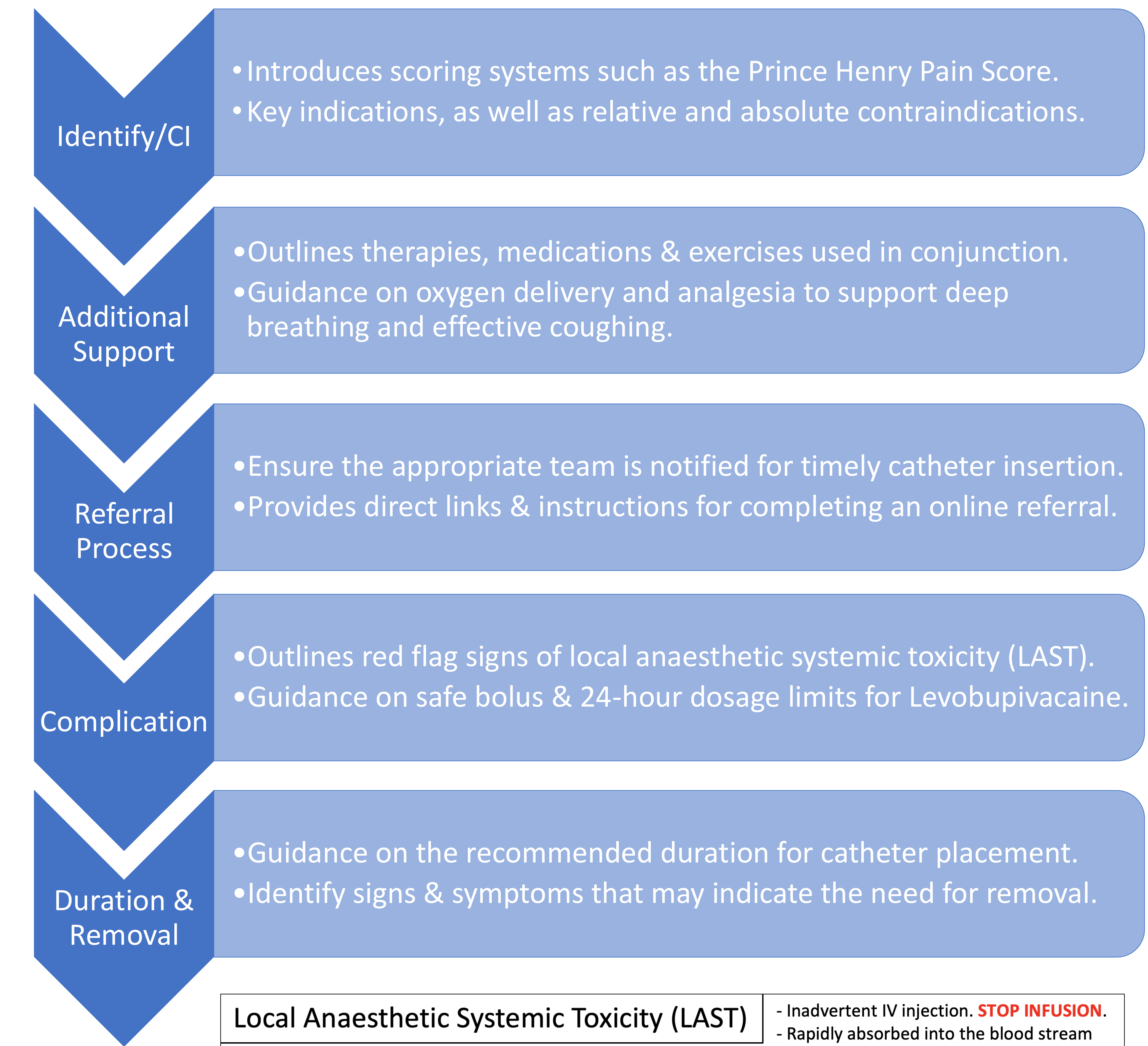


Figure 1 – Excerpt from the educational leaflet: Management of Local Anaesthetic Systemic Toxicity (LAST)

Local Anaesthetic Systemic Toxicity (LAST)			- Inadvertent IV injection. STOP INFUSION.
			- Rapidly absorbed into the blood stream
Mild Symptoms	Moderate Symptoms	Severe Red Flags	<div>Call For Help</div> <div>Life Support</div> <div>Lipid Emulsion</div> <div>CVS Stability</div>
Restlessness	Limb Heaviness	Severe Agitation / Altered GCS	
Numbness/Tingling to Mouth	Muscle Twitching	Convulsions	
Ringling in the Ear		Tachy/Bradyarrhythmia	
Blurred/Double Vision		Hypotension	
Metallic Taste in Mouth		Respiratory/Cardiac Arrest	