From Delayed Referrals to Timely Intervention: Developing a Coordinated Post-Botox Upper Limb Splinting Pathway

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Background

Patients receiving Botox for upper limb spasticity within ABUHB experienced significant delays accessing orthotic assessment and splinting. Following the cessation of ad-hoc post-Botox splinting after COVID-19, referrals often arrived too late to optimise therapeutic benefit. Evidence recommends splinting within 7-14 days of injection (1-3) ; however, administrative delays frequently prevented timely intervention.

Methods

A coordinated post-Botox upper limb splinting pathway was developed through collaboration between the Spasticity Service and Orthotics Department.

Key pathway components included:

- Dedicated electronic referral form enabling direct referral to Orthotics
- Triage **within 48 hours** of referral
- Assessment within the **recommended 2-week** therapeutic window
- **Immediate splint provision** where clinically appropriate
- Written report to the consultant outlining immediate and longer-term management plans
- Acquisition of **specialist equipment** to support rapid custom splint fabrication

A retrospective service evaluation compared time from Botox injection to Orthotics assessment **before** pathway implementation (January 2023 to December 2024) and **after** pathway implementation (January 2025 to June 2026). Outcomes included waiting times and compliance with the recommended 0-14 day therapeutic window.

Outcomes

Retrospective review identified **substantial improvements** in access following pathway implementation **(Figure 3). Prior** to pathway introduction, **only 10%** of patients were assessed by Orthotics within 14 days of Botox injection (n=21). **Following** implementation, **76% of patients** were assessed within 14 days (n=50), with **96% assessed** within 28 days.

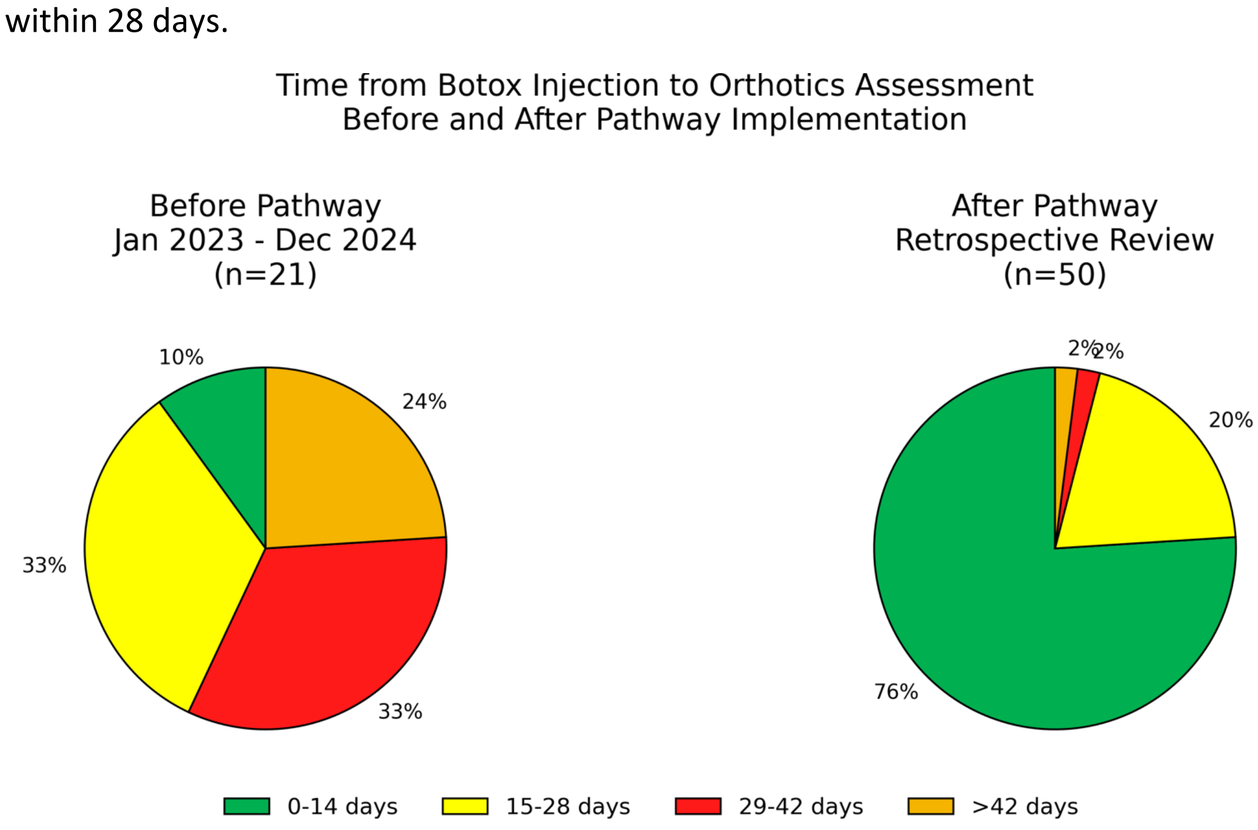
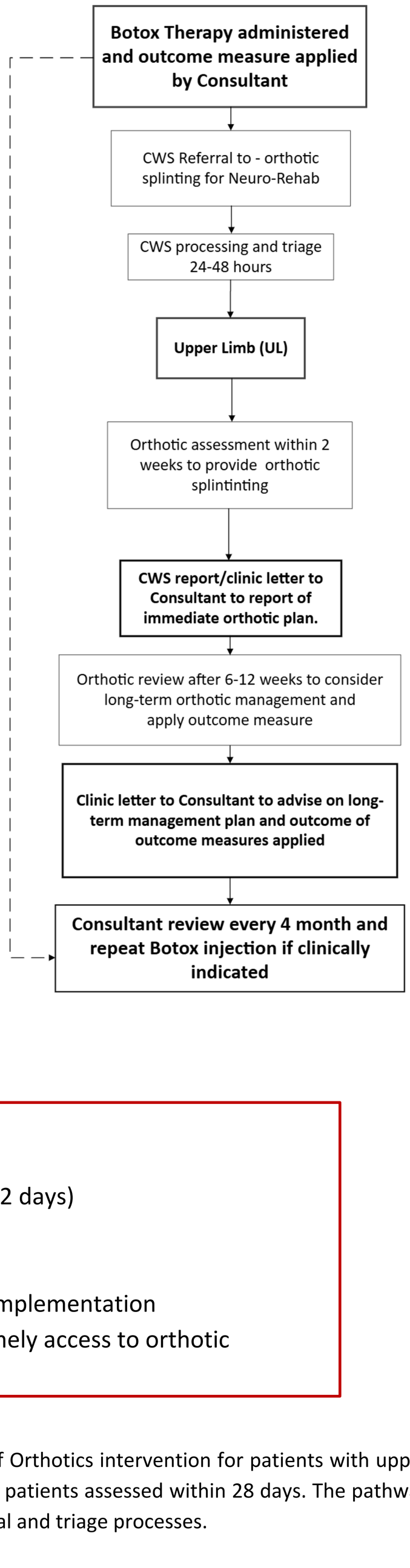


Figure 3: *Comparison of time from botulinum toxin injection to Orthotics assessment before and after implementation of the coordinated upper limb splinting pathway.*

Clinical Pathway for Orthotic Splinting Following Botox



Key outcomes following pathway implementation:

- Mean time from Spasticity Clinic review to Orthotics assessment: **11.9 days** (median 12 days)
- **76%** of patients assessed within the recommended **0-14** day therapeutic window
- **96%** of patients assessed within **28 days**
- Access increased from 0.9 patients/month to 2.8 patients/month following pathway implementation
- These findings demonstrate improved service accessibility, pathway utilisation and timely access to orthotic intervention.

Conclusion

Implementation of a coordinated post-Botox upper limb splinting pathway substantially improved the timeliness of Orthotics intervention for patients with upper limb spasticity. Assessment within the recommended therapeutic window increased from 10% to 76%, with 96% of patients assessed within 28 days. The pathway also increased access to specialist orthotic management and improved service efficiency through streamlined referral and triage processes.

References

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