
Precision Triage Project: Improving clinical decision-making pathways for children requiring developmental paediatric support

Initiative Type

Model of Care

Service Improvement

Status

Deliver

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Summary

The Precision Triage Project, a collaboration between Griffith University and Gold Coast University Hospital, uses the Tracking Cube, a digital system co-designed with a First Peoples community, to enhance the triage process for children on paediatric waitlists. By gathering detailed information about a child's development, caregiver concerns, and the child's own perspective early in the process, the project aims to prioritise care, assign the right clinicians, and provide tailored support while families wait for appointments. This approach seeks to reduce wait times, improve service delivery, and ensure families receive appropriate resources from the start.

Key dates

Dec 2023

Jul 2025

Implementation sites

Child Development Service, Gold Coast Community Child Health.

Partnerships

Griffith University – Changing Health Systems

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Aim

To enhance the triage process for children requiring neurodevelopmental support by implementing a tiered screening system (the Tracking Cube) that provides comprehensive and early developmental information, improving the accuracy and efficiency of clinical decision-making and service delivery.

Benefits

- Improved quality of clinical intake information before the first appointment
- Enhanced triage accuracy, allowing better prioritization and management
- Ensures children are placed on the best pathway and matched with the most appropriate for their referral concern
- Assesses the need for comprehensive evaluation, gathering additional information (e.g., school reports) for identified concerns, and ensuring this data is available before the first appointment
- Provides tailored support recommendations based on intake findings, ensuring families receive the right resources and guidance while waiting for review
- Increased family satisfaction through proactive support and engagement while waiting for appointments

Background

Over the past 24 months, the Paediatric Development Clinic at Gold Coast University Hospital experienced a 175% surge in new referrals, leading to extended waitlists that exceed 12 months. Such delays result in children missing out on early diagnosis and support, which is crucial for minimizing the impact of neurodevelopmental delays and associated mental health conditions. The current triage system often lacks sufficient information at the time of referral, making it difficult to prioritize cases effectively and leading to children being placed on the wrong pathway initially. This contributes to unnecessary delays and ineffective use of clinician time. Traditional intake processes may not provide a comprehensive view of a child's developmental history or current needs until their first appointment, further delaying access to appropriate care. Additionally, limited access to developmental and behavioural paediatricians and specialist clinics has exacerbated these issues, causing bottlenecks and impacting service delivery.

Solutions Implemented

The Precision Triage Project, using the Tracking Cube, aims to gather critical information earlier in the process. The Tracking Cube is organised into specific tiers, each collecting critical information

early in the intake process. • Tier 1 focuses on obtaining informed consent from caregivers. • Tier 2 gathers an expanded developmental history, exploring developmental, medical, and social risks through caregiver interview/questionnaire completed electronically. • Tier 3 involves a rapid neurodevelopmental assessment (RNDA – Observational assessment), where key developmental areas such as motor skills, speech, and cognition are observed to identify any potential issues. The RNDA can be administered by non-specialists such as trained intake officers, community health workers, nurses or allied health assistants. Completed in person or via telehealth (30 minutes). • Tier 4 collects caregiver concerns using standardized tools - the BASC-3 (Behavior Assessment System for Children) and also includes the child's self-report (BASC-3 Self Report) – completed electronically. • Tier 5 is Feedback and support. Reports are reviewed by a Paediatrician in the team, then individualised recommendations are provided to ensure children and families receive the necessary support while they wait for further appointments. Emailed as a summary to the family and referrer, and with consent the school. • Tier 6 is Specialist Assessment. This is accessed as clinically indicated for those cases where more in-depth information is needed. E.g., diagnostic questionnaires sent out for completion prior to the first assessment. By incorporating expanded developmental histories, neurodevelopmental screenings, and input from caregivers and children, the project seeks to create a more accurate and efficient triage system. The goal is to ensure that children are directed to the appropriate pathway and clinician from the beginning, reducing the number of required appointments, minimizing wait times, and improving overall service efficiency and patient satisfaction.

Evaluation and Results

Preliminary results, with the study halfway through, show: • Triage Improvements: 21% discharged from the waitlist, 25% upgraded priority, 52% changing the clinician type for their first visit, and 9% being referred to other services. • Enhanced Clinician Preparation: Increased prompting to families to provide useful additional information, including private reports (79%) and school information (88%). While not a diagnostic tool, the additional information gathered can help shorten the diagnostic process for the child and family. • Proactive Family Support: High rates of linking families to mental health plans, behavioural resources, and other community supports. • Increased Family Satisfaction: Qualitative feedback shows high satisfaction among families, noting that the updated information helps clinicians and reduces children's anxiety during assessments. • Staff Satisfaction: Clinicians report that having detailed clinical history and information before appointments is immensely helpful, providing a clear picture of the child and family and allowing them to focus on key clinical questions more effectively.

Lessons Learnt

• Effective clinical intake supports accurate triage and prepares clinicians with essential information for first appointments. • Non-specialist staff can successfully facilitate the majority of the intake process, but dedicated intake officers and a Paediatrician are required to provide clinical oversight on support recommendations, and determine if tier 6 assessments are required • Providing proper training and ongoing support for non-specialist staff involved in the intake process is crucial for maintaining the quality and consistency of information gathered. • Most of the Tracking Cube can be completed electronically by the family, reducing the amount of clinician time needed. A minority will

still require support to complete this. • Offering multiple ways for families to complete intake (e.g., electronically, over the phone, telehealth or in-person) increases accessibility and ensures that more families can engage with the process effectively. • The Tracking Cube has uncovered information about Adverse Childhood Experiences (ACEs) and provided detailed insights into children's living and psychosocial circumstances that may not have been disclosed during initial appointments. • Manual processes are necessary before automation, and building an effective system involves trial and error. It will take time to streamline electronic phases to reduce intake staff workload, as the current indirect time spent with families is higher than sustainable. • Continuously refining the intake and triage system based on clinician and family feedback helps ensure the process remains efficient and responsive to the needs of both staff and families. • It may not always be feasible to complete all elements of the tiers due to difficulties in engaging some families; however, any additional information gathered is valuable for diagnosis and allows for tailored support recommendations.

References

Shanley, D. C. et al. 2019. Protocol for the Yapatjarrathati project: a mixed-method implementation trial of a tiered assessment process for identifying fetal alcohol spectrum disorders in a remote Australian community. BMC Health Services Research, 19(1), 1-11. [Protocol for the Yapatjarrathati project: a mixed-method implementation trial of a tiered assessment process for identifying fetal alcohol spectrum disorders in a remote Australian community | BMC Health Services Research | Full Text \(biomedcentral.com\)](#) Miller, L et al. 2022. Preventing Drift through Continued Co-Design with a First National Community: Refining the Prototype of a Tiered FASD Assessment. Int J Environ Res Public Health, 19(8),11226. [Preventing Drift through Continued Co-Design with a First Nations Community: Refining the Prototype of a Tiered FASD Assessment \(mdpi.com\)](#) Shanley, DC; Zimmer-Gembeck, M; Wheeler, AJ; Byrnes, J; Ware, RS; Liu, W; Simcock, G; White, C; Shelton, D; Till, H; Mills, I; Reid, N; Reilly, S; Rundle-Thiele, S; Hawkins, E; et al., Diagnostic Accuracy and economic value of a Tiered Assessment for Fetal Alcohol Spectrum Disorder (DATAforFASD): Protocol, BMJ Open, 2023, 13 (8), pp. e071004 [Diagnostic Accuracy and economic value of a Tiered Assessment for Fetal Alcohol Spectrum Disorder \(DATAforFASD\): Protocol | BMJ Open](#) Campbell, T, Shanley, DC, Page, M, MacDonald, T, Zimmer-Gembeck, M, Hess, M, Whatney, J, & Hawkins, E. (Under review). Psychometric properties of the Rapid Neurodevelopmental Assessment in detecting social-emotional problems during routine child developmental monitoring in primary healthcare. Submitted to BMC Primary Care [Psychometric properties of the Rapid Neurodevelopmental Assessment in detecting social- emotional problems during routine child developmental monitoring in primary healthcare.](#)

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