# MODEL OF CARE Baby Steps - Infant Assessment Clinic How we are translating research into practice











Victorian Paediatric Rehabilitation Service Monash Children's Hospital, Clayton, Victoria

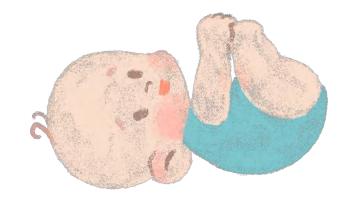




## Workshop Outline

o Learning Objectives

o Part A - Background



 Part B - Evolution of the Infant Assessment Clinic (IAC)

o Part C - Ongoing evaluation & research





## Pre-workshop Questionnaire







1. Translating Clinical Guidelines to Clinical Practice

Participants will be exposed to an example of translating clinical guidelines to establish a structured, service for infants with or at risk of cerebral palsy over a two-year follow-up period.



#### 2. Systematic Pathways

Participants will understand the principles of using timespecific serial assessments from 0-2years to track

progress and guide intervention.









#### 3. Addressing Consumer Needs

Participants will understand how a structured follow up clinic enabled regular service evaluation to facilitate the development of complimentary programs including a Feeding Clinic and a Parent Support Group.



#### 4. Sustainability

Participants will gain confidence in understanding how the quality improvement cycle can be used in clinical practice, within a minimally resourced public service.







## Part A - Background







## Background

o Monash Children's VPRS - a statewide service

 64 bed neonatal unit at Monash Children's with an Early Neurodevelopmental Clinic (ENC)

- o 2017 consensus guidelines (Novak et al., 2017)
  - strong relevance to our rehab infant population

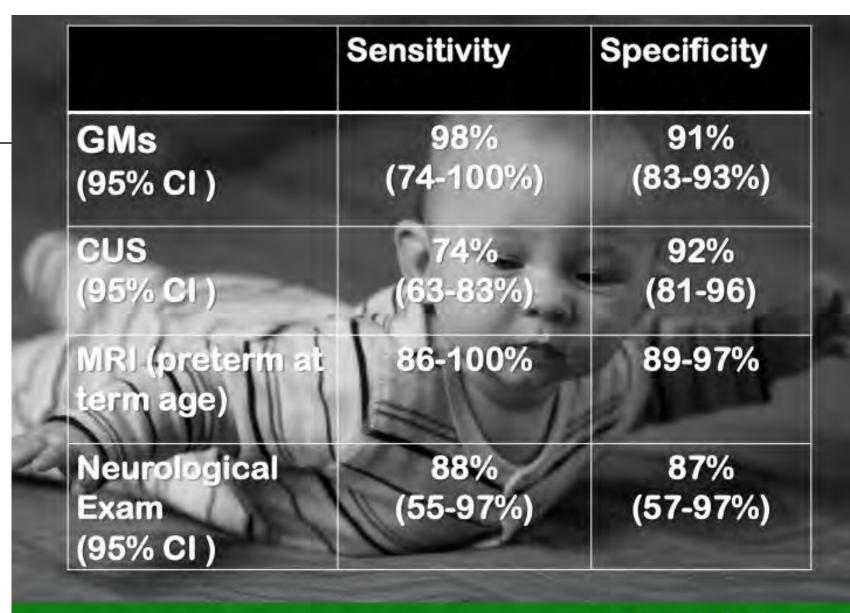












Bosanquet, 2013





Monash Children's Hospital

#### HINE

- score < 57 at 3 months predictive of cerebral palsy (sensitivity 96%; specificity 87%) (Romeo et. al., 2021)
- Scores below 40 predict non-ambulant cerebral palsy.
- o It has good inter-observer reliability for all levels of clinical experience.









## So you want to set up an infant assessment clinic

o What are the key principles?



## Key Principles in Set Up of IAC

- × V
  - Who are our stakes holders?
- How to start what are the key first steps?
- X How to build?
- How to ensure fidelity partnering with research already underway
- How to evaluate as we go?





#### The IAC is born - est. 2018

Clinic aim - early assessment and intervention to:

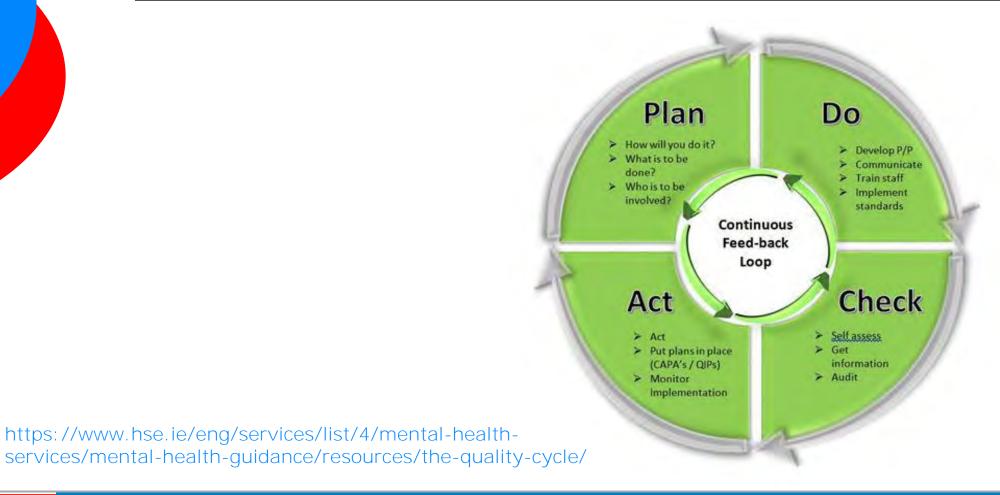
- o Optimise development
- o Prevent secondary impairment
- o Promote care giver empowerment







## Plan, Do, Check, Act cycle









#### The IAC - early days

- From medical lead clinic to MDT
- Identified gaps and solutions
  - Feeding support
  - Parent support
- Challenges
- Strengths







#### Meet the IAC team!



Dr Christine Olesch, Paediatrican



Dr Ai Lynn Wong, Rehab Consultant



Dr Sabine Hennel, Rehab Consultant



Nghi Whelan, Occupational Therapist



Karen Foreman, Physiotherapist



Charlene Braybrooke, Physiotherapist



Elizabeth MacKenzie, Social Worker



Ella Barry, Occupational Therapist



Fiona Wilkinson, Regional Coordinator



Jessica Uilderks, Nurse Coordinator



Yin Chien Kwan, Dietitian



Richa Silva, Speech Pathologist





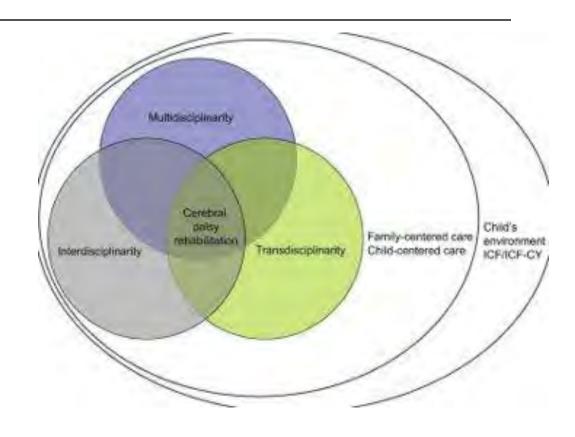
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#### MDT and beyond

#### Strengths of MDT

- Share skills/learning
- Enables innovation
- Family confidence

What if you don't work in an MDT?



Trabacca et. al., (2016)







## Part B - Evolution of the IAC







## How do we make sure we continue to address consumer needs?





## Addressing consumer needs

#### Key principles



Keep asking the question



Engage families, referrers, and staff for feedback



Regular team meetings and stakeholder interactions



Use direct and formal feedback methods (e.g., surveys)





#### The IAC evolves - Nov 2022

- o Review IAC in Nov 2022
  - Clinical audits

o Clinic Details









- o 2021 Clinical audit
  - o 2018 mid 2021
- o Data analysis of practice prior to November 2022
- Review the proportion of patients with 3 criteria for early diagnosis of CP
  - absent fidgety of GMA at 3 months
  - o MRI
  - sub optimal HINE score at 12 weeks corrected age





#### Clinic Details

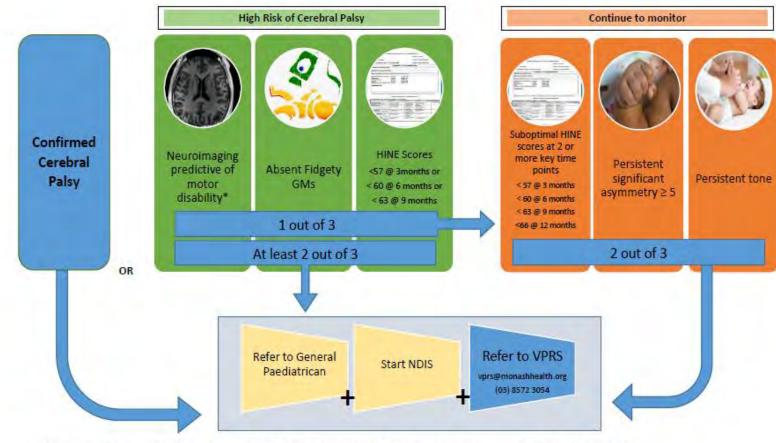
- Referral pathways
- IAC time points
  - Assessments
  - Evaluation
- Resource Development
  - Templates
  - Protocol
- Intervention







#### Referral pathway



\*If patient only has abnormal imaging consistent with a high risk of a motor disability i.e. stroke, please consider discussing the referral with VPRS intake.

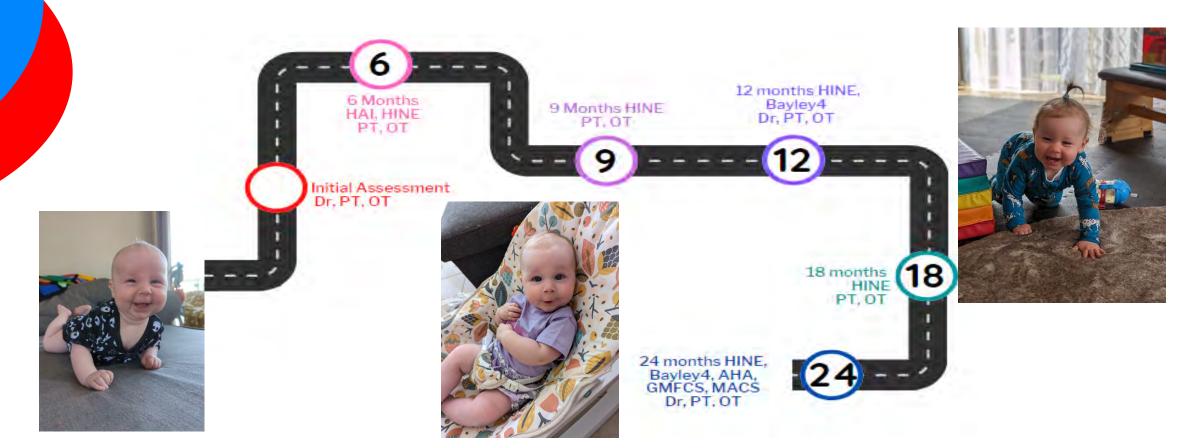






<sup>\*</sup>Any further queries please contact VPRS intake including referral from Newborn.

## IAC Timepoints

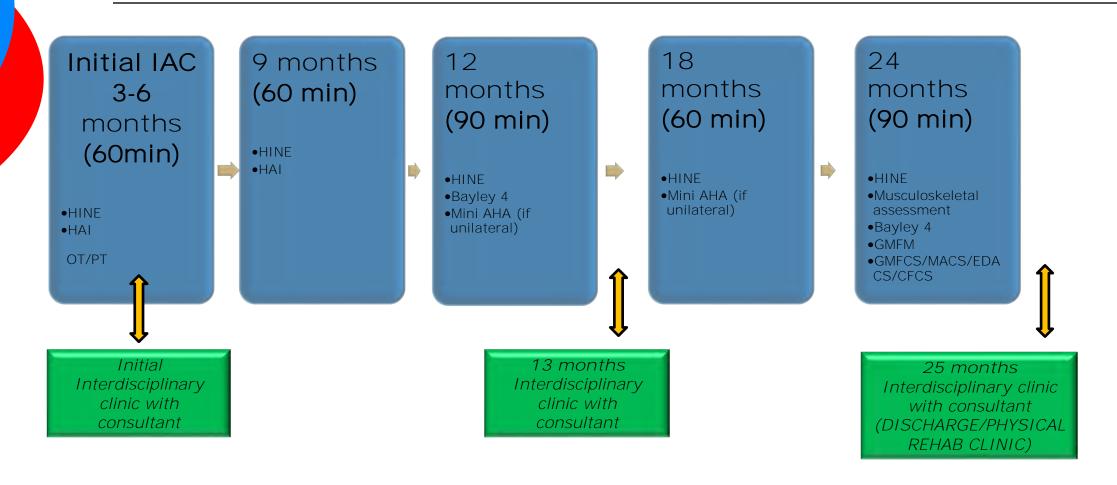








## IAC Assessments Timepoints

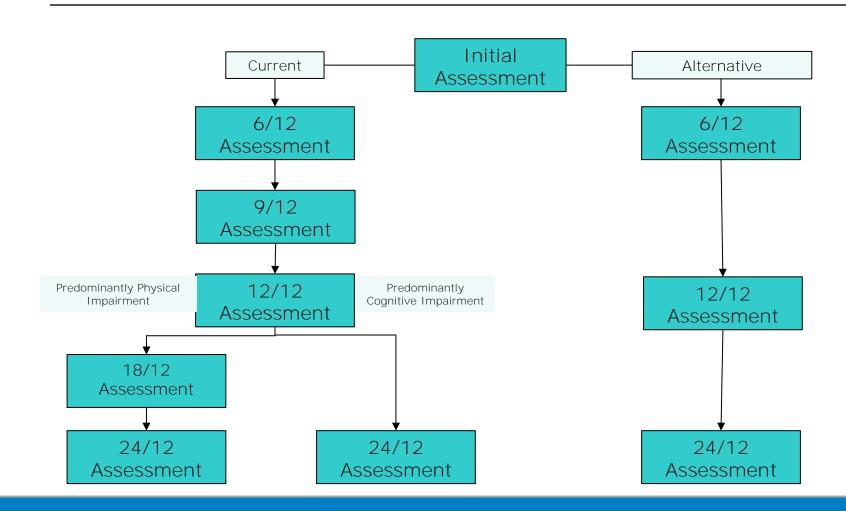








#### IAC Pathways









#### Feeding and Nutrition Screener

#### Feeding screener:

☐ Breast feed	□Bottle	□NGT	□ Peg		□ Sol	ids
Does your baby/ child let you know when he is hungry					□ No	
Do you think your baby/ child eats enough?					□ No	
How many minutes does it usually take to feed your baby/ child?					□ 5-30	□ >30
Do you have to do anything special to help your baby/ child eat?					□ No	
Does your baby/ child let you know when he is full?					□ No	
Does you baby cough, splutter, or gag excessively when eating or drinking?					□ No	
Based on the questions above, do you have concerns about your baby/ child's feeding?				□ Yes	□ No	

#### Growth record at MCHN (Green book)

	4 months	8 months	12 months	18 months	24 months
Weight					
Length					
Head Circumference					
Any growth conce Further comment		N 🗆			





<sup>\*</sup> If 2 or more bold ticked, refer to SP.

#### IAC Assessments

#### Assessments

- UL function HAI
  - mini-AHA, AHA if unilateral
- Neurological function HINE
- Play, early cognition, communication, motor skills – Bayley4
- Feeding and Nutrition screener













#### Resource Development

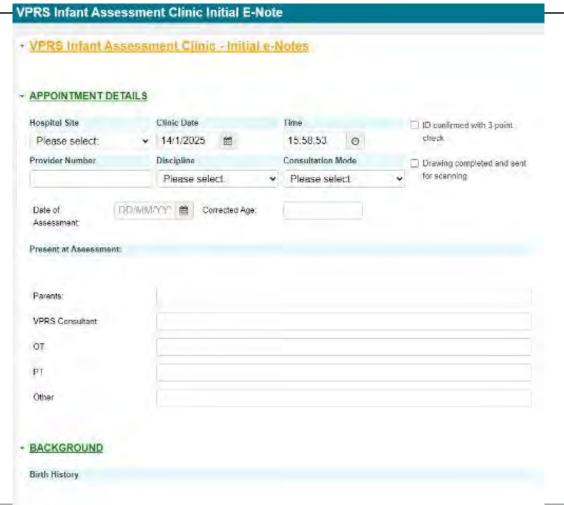
 Corrected age time tracker (age calculator and assessment tracker)





#### Resource development

o Initial assessment and review assessment templates on electronic notes





#### Resource development

- o Assessment folder
- o Toy box
- o IAC protocol
  - Sharing of knowledge







## Resource Development

o 12- and 24-months report template

List of NDIS early intervention providers







## Intervention Principles

- o Commencement of timely early intervention (Morgan et al., 2021)
- Multi-disciplinary team approach
- o Task-specific motor training
  - Context-specific motor tasks (Hubbard et al., 2009)
  - Environmental exploration and problem-solving
  - just right' challenge
  - Repetition
  - Enriched environment (Morgan et al., 2013)





## Intervention Principles

- o Family Centred Practice
  - Equal partners
  - Individualised intervention
  - Strengthening family functioning (Espe-Sherwindt, 2009)
- o Parent education
  - Diagnosis-related education
  - Introduction to NDIS
  - Navigating therapies and what to look for in providers





#### IAC Interventions

#### Early intervention

Baby-CIMT, bimanual, goal directed therapy

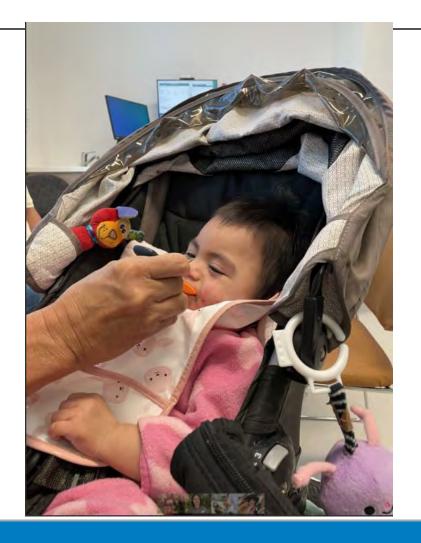
- Time limited blocks of therapy
- Tone management
  - BoNT-A
  - Splinting
  - AFO







## Infant Feeding Clinic









# Parent Support Group







## Parent Support Group

- Parent/Carer Support Group
  - Quarterly session
  - Social Work and allied health/medical students assisted
  - Parent survey and direct feedback encouraged at every session



WHEN: Friday 6th December 2024 10am-12pm

WHERE: Ronald McDonald House 33-37 Kanooka Grove, Clayton VIC 3168 Dear Parent/Carer,

Please join us for a Support Group morning tea for parents/carers with infants who attend the VPRS Infant Assessment Clinic at Monash Children's Hospital.



Babies and Siblings are welcome.

Please let us know if you require an interpreter or have special dietary requirements.





Any questions email vprs@monashhealth.org or call Allied Health Assistant Mel on (03) 8572 3054







#### Parent Survey

"What a great idea! We loved it today"

"Thank you so much we really enjoyed chatting with you all and meeting other families"

"I think it was better
having space for everyone
to sit on the floor with
their children, easier than
trying to sit around a
table. More casual and
easier to talk"

"Would just love to thank you all for organising these days, they are greatly appreciated!"







# PART C Ongoing evaluation and research







# Case study 1 - Assessment









## Case study 1 - Interventions







## Case study 2 - Assessment



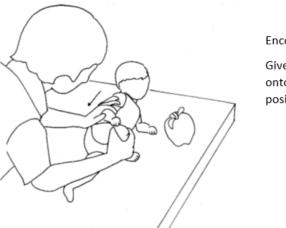


#### Case study 2 - Interventions

- o Block of OT/PT
- Positioning and equipment support
- o Education
- o No NDIS yet



#### F's Positions for Play Activities on side



Encouraging playing while on side.

Given F the opportunity to roll onto her tummy & back from this position, or come up into sitting



## Case study 3 - Assessment









#### Case study 3 - Interventions

- o Mini-AHA and AHA
- o Baby-CIMT, BoNT-A and bimanual therapy
- Splinting and orthosis
- NDIS funding supports









#### HINE - clinical serial use

Timepoint	Case A	Case B
3 months	41	36.5
6 months	70	53
9 months	77	64.5
12 months	76	61.5
18 months	78	58
24 months	77	69.5





## Ongoing Evolution and Sustainability

- o Use of medical and allied health students
  - Retrospective data analysis
  - Cognitive assessment tool
  - CVI





## Ongoing Evolution and Sustainability

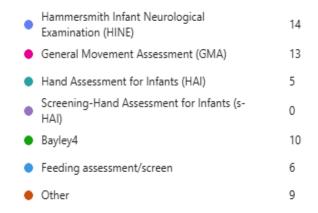
- o Principles of sustainability
- o Plan, Do, Check, Act cycle
  - Ongoing re-evaluation of service
- Embedding research principles into re-evaluation.
- Challenges

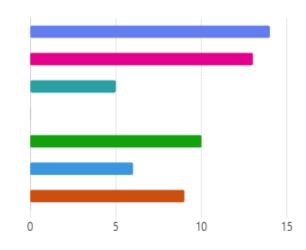




## How does our IAC compare?

- Benchmarking completed early 2025
- Responses from Victoria, NSW, Queensland, SA, NZ
- Predominantly allied health clinicians
- Range of assessments and timepoints







#### The future of IAC

- Alternative pathway
- Publishing findings
- VPRS IAC statewide
- Passport system
- Extend to 5 years





#### Monash Health 2024 Team of the Year







## Post Workshop Questionnaire







#### Questions and Discussion

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