The Paediatric Society of New Zealand
Te Kāhui Mātai Arotamariki o Aotearoa

NZCYCN
New Zealand Child & Youth Clinical Network

EVALUATION OF READINESS FOR TRANSITION FROM TUBE FEEDING TO ORAL FEEDING

Name of child: _____ **NHI: _____** **Initial Date of tube insertion: _____**

Lead health professional_____ **Supporting health professionals: _____**

The *family are provided with information regarding the level of services available and understand the process of this evaluation*

MEDICAL GOALS:	**ASSESSMENT TOOLS**	**ASSESSMENT Yes/No/NA**			**STRATEGY to achieve goals**
		Date 1	**Date 2**	**Date 3**	
Does the Primary / Lead clinician agree child is medically fit to commence tube weaning, based on the following key considerations?					
Is there absence of anatomic or functional impairment precluding safe oral feeding?					
Is there any ongoing concern about chest infections related to aspiration in recent months?	No clinical signs of aspiration or aspiration evident on VFSS Has safe feeding plan in place				Refer for VFSS. Link with SLT for safe feeding plan
Is reflux adequately managed?					
Is oral health checked and managed?					
Is constipation adequately managed?					
Are there any pending medical/surgical interventions (that could affect feeding ability or requirements?					

EVALUATION OF READINESS FOR TRANSITION FROM TUBE FEEDING TO ORAL FEEDING

Is timing right? – e.g., delay until after winter if child is susceptible to multiple infections/significant family events pending/consideration of developmental stages					
DIETITIAN GOALS	**ASSESSMENT TOOLS**	**ASSESSMENT Yes/No/NA**			**STRATEGY to achieve goals**
Nutrition and growth		**Date 1**	**Date 2**	**Date 3**	
Has infant/child maintained clinically safe weight? Weight and length/height within 2 major percentiles apart OR Z score weight for length/BMI for age <2	Use age/gender/appropriate growth charts to plot growth history				
Has adequate weight been maintained during tube feeding recently i.e., Growth parameters tracking proportionately	Use age/gender/condition specific growth charts to plot growth history				
Is infant able to maintain weight stability or is an older child able to sustain possible 5-10% weight loss?	Calculate limits of 5-10% weight loss, check that growth remains within 2 major percentiles or z score remains				increase energy density of dietary intake where possible see Strategies for increasing oral nutritional intake

EVALUATION OF READINESS FOR TRANSITION FROM TUBE FEEDING TO ORAL FEEDING

	appropriate				
Has there been an assessment of current oral intake (EBM/formula/food)?	Food diary, food recall, Diet App e.g., EasyDietDiary				See Infant feeding record or Food Intake Record template **See EasyDietDiary App**
Does infant/child have optimal nutritional status?	Analyse fluid, energy, protein, and micronutrient intakes and compare with estimated NRV, aim for 80% RDI/AI or RNI/ LRNI for height age in short stature children				Discuss with Paediatrician appropriateness of micronutrient supplementation as per prescribing guidelines
If a blended diet is used by the family, is enough information provided to evaluate child's nutritional intake?	Analyse nutritional composition of current blended diet using 3-day food record, ideally check nutritional bloods 6-12 monthly or if concerns re intake vs requirements				See Statement and Practice Guidelines for Blenderised Diets and Flow Chart for Blenderised Diet Assessment*
Does the infant/child have ability to tolerate bolus feeds, with 2-3 hours between tube feeds?					Adjust tube feeding regimen where possible
Are feeds currently well tolerated?	Consider current tube feeding regimen				consider ways of improving feed tolerance see Strategies to optimise feed tolerance**
Are there any financial considerations related to food access/funding applications for care support?					Consider Social worker referral
Are there any cultural considerations related to weaning?					Consider referral for Cultural support
SPEECH AND LANGUAGE THERAPIST GOALS:	**ASSESSMENT TOOLS**	**ASSESSMENT Yes/No/NA**			**STRATEGY to achieve goals**
		Date 1	**Date 2**	**Date 3**	

EVALUATION OF READINESS FOR TRANSITION FROM TUBE FEEDING TO ORAL FEEDING

Examination of anatomy and physiology for swallowing The child's oral structures (tongue, lips, cheeks, jaw, palate, teeth, and oral phase of the swallow been assessed to ensure that there are no structural or mechanical issues impacting oral feeding? The child can protect their airway during oral feeding **Clinical signs during and after oral feeding indicating possible aspiration and respiratory compromise.** -Wet cry/voice, Coughing -Colour change, cyanosis -Stress cues, e.g., eye tearing, furrowing of the forehead, finger splaying, hypervigilance (staring) -Increased work of breathing -Altered respiratory rate or heart rate -Decreased oxygen saturation	Oral structures have adequate range of motion and to tolerate oral feeding plan. Oral structures are symmetrical, intact and of appropriate size- No referral to specialist service required, e.g., cleft palate service/ENT. Satisfactory swallow safety confirmed by SLT assessment using Clinical Feeding Evaluation (CFE) Refer for VFSS/FEES to assess the pharyngeal phase of the swallow if clinical signs of aspiration observed on CFE.				Progression to oral feeding is not recommended at this stage. Encourage development while child is non-orally fed. **See Strategies for facilitating normal oral motor patterns.** Encourage oral exploration with non-food items. **See Mouthing toys for oral exploratory play** **See Resource: Oral Reflexes table**
Feeding safety Does the child manage and consume an increasing volume of food texture e.g., Level 4 –pureed texture and/or their oral formula safely. **Refer above-clinical signs during and after feeds indicating possible aspiration and respiratory compromise.**	Safe Feeding plan in place (See OT section regarding postural support) Starting the process on one texture can support tolerating more food/fluid textures and volumes over time. Monitor acceptance and tolerance of food and fluid textures. Does the child				Encourage development while child is non-orally fed or having small tastes **See Strategies for Facilitating first tastes** if the transition cannot begin. **See International Dysphagia Diet Standardisation Initiative www.iddsi.org** Refer to SLT with paediatric dysphagia

EVALUATION OF READINESS FOR TRANSITION FROM TUBE FEEDING TO ORAL FEEDING

	fatigue quickly during an oral feed?				experience or contact NZ Speech-Language Therapy Association for more assistance

The Paediatric Society of New Zealand
Te Kāhui Mātai Arotamariki o Aotearoa

NZCYCN
New Zealand Child & Youth Clinical Network

EVALUATION OF READINESS FOR TRANSITION FROM TUBE FEEDING TO ORAL FEEDING

SPEECH AND LANGUAGE THERAPIST GOALS:	ASSESSMENT TOOLS	ASSESSMENT Yes/No/NA			STRATEGY to achieve goals
		Date 1	Date 2	Date 3	
Oral Motor /Sensory Skills with Non-feeding tasks: Have the child's oral sensory skills for non-feeding tasks been established? Have the child's oral motor skills for non-feeding tasks been established?	Observe if the child is in a calm and alert state for the following activities: **Oral Sensory** The child tolerates a variety of sensory input to oral facial region, e.g., sustained touch, kisses from parent/caregiver, songs, and games involving touch around the face, toothbrushing. **Oral motor** The child tolerates other developmentally appropriate activities: e.g., -Able to suck on gloved finger or pacifier. -mouth/chew a teething toy -mouth/chew a toy or non-food item -intelligible speech (older child)				Skills that teach chewing and promote oral intake should be initiated early to promote a shorter duration of tube feeding. **See Strategies** for **oral desensitisation** Child referred for OT sensory processing evaluation if displaying distress/hyper or hyposensitivity. Joint SLT/OT plan to facilitate oral sensory acceptance with non-feeding tasks. **See Strategies for encouraging oral motor development.** If oral motor skills appear inadequate, oral feeding is not yet recommended. **See Mouthing toys for oral exploratory play**

The Paediatric Society of New Zealand
Te Kāhui Mātai Arotamariki o Aotearoa

NZCYCN
New Zealand Child & Youth Clinical Network

EVALUATION OF READINESS FOR TRANSITION FROM TUBE FEEDING TO ORAL FEEDING

OCCUPATIONAL THERAPY (OT) GOALS:	ASSESSMENT TOOLS	ASSESSMENT Yes/No/NA			STRATEGY to achieve goals
		Date 1	Date 2	Date 3	
Readiness for mealtime: Have mealtime routines been established to maintain an optimal environment? Does the child demonstrate ability to participate (also see PSYCH); considering cultural needs?	*-Observation -Video of family mealtime reviewed by MDT -Functional assessment				See General Behavioural Strategies Refer to Occupational Therapist (OT) for assessment and strategies
Child Wellbeing/feeding environment: Is the child's posture/positioning/seating effective for safe oral feeding? Can the child be supported in an aligned position for safe eating and drinking and coordination of suck-swallow-breathe synergy? Has the child's meal setting been assessed? Consider the sensory environment and access to feeding equipment, e.g., cutlery, cups, and dish wear.	OT postural /seating assessment in consultation with PT and SLT Assess positioning/seating in all environments – home, & preschool or school Environmental assessment and modifications				See General Behavioural Strategies Refer to OT for seating assessment and equipment provision **See Positioning Recommendations** Contact Occupational Therapy Board of NZ for local contacts
Sensory Responses: Has an assessment of the child's sensory processing abilities and environment been completed? Can the child achieve and maintain a calm but alert state and tolerate different sensory properties of food and mealtime experiences?	Sensory Profile 2 (Infant, Toddler, Child, Short version 2) Sensory Processing Measure				Consider attendance at Food Therapy group Refer to OT for assessment and strategies

EVALUATION OF READINESS FOR TRANSITION FROM TUBE FEEDING TO ORAL FEEDING

EVALUATION OF READINESS FOR TRANSITION FROM TUBE FEEDING TO ORAL FEEDING

SCREENING FOR PSYCHOLOGIST SUPPORT **Note: A Psychologist referral should occur when the following concerns are noted, or if no progress is made within 3 months.**	**ASSESSMENT** **Yes/No/NA**			**STRATEGY** **to achieve goals**
SCREENING QUESTIONS	**Date 1**	**Date 2**	**Date 3**	
Do the family feel confident in managing their child's behaviour during mealtimes?				Provide general behavioural strategies concurrent with referral
Are the family able to follow consistent daily routines (e.g., naps, bath, outings, tube feedings, family mealtimes)?				
Do the family state readiness and availability for mealtime changes and do they feel comfortable with the process of reducing tube feeds?				Refer to psychologist
Does the family have enough resources and time to participate and maintain their child's progress in the longer term (e.g., no major stressors such as illness, care of other children)?				
Does the school or childcare setting have appropriate staffing to support the child's feeding (e.g., for children who require adult support)				Refer to psychologist, consider Social Worker referral also

References:

Brown, J., Kim, C., Lim, A., Brown, S., Desai, H., Volker, L., & Katz, M. (2014). Successful gastrostomy tube weaning program using an intensive multidisciplinary team approach. J Pediatr Gastroenterol Nutr, 58(6), 743-749. doi:10.1097/MPG.0000000000000336

Dodrill, P. (2021). Evaluating feeding and swallowing in infants and children. In M. E. Groher & M. A. Crary (Eds.), *Dysphagia: Clinical management in adults and children.* (3rd ed., pp 305-323). St Louis, MO: Elsevier**.**

Dodrill, P. (2021). Treatment of feeding and swallowing difficulties in infants and children. In M. E. Groher & M. A. Crary (Eds.), *Dysphagia: Clinical management in adults and children.* (3rd ed., pp 325-350). St Louis, MO: Elsevier**.**

Dodrill, P. (2021). Appendix D. In M. E. Groher & M. A. Crary (Eds.), *Dysphagia:Clinical management in adults and children.* (3rd ed., pp 357-358). St Louis, MO: Elsevier**.**

Feeding Difficulties in Children. A Guide for Allied Health Professionals. NSW Government Australia/Health, 2016 Office of Kids and Families

Griffiths, G. Stapleton D. 2013. Sensational Mealtimes. Making Sense of Tricky Mealtime behaviour. www.sense-ational Mealtimes.com.au

International Dysphagia Diet Standardisation Initiative (IDDSI) www.iddsi.org

Kerwin, M. E., & Eicher, P. S. (2004). Behavioral Intervention and Prevention of Feeding Difficulties in Infants and Toddlers. Journal of Early and Intensive Behavior Intervention, 1(2), 129-140. doi:10.1037/h0100285

Morris, S.E, Klein, M.D. (2000) Pre-Feeding Skills: A comprehensive resource for mealtime development. (2nd ed.) Tucson, AZ: Therapy Skill Builders.

Piazza, C. C., Milnes, S. M., & Shalev, R. A. (2015). A Behavior-Analytic Approach to the Assessment and Treatment of Pediatric Feeding Disorders A2 - Roane, Henry S. In J. L. Ringdahl & T. S. Falcomata (Eds.), Clinical and Organizational Applications of Applied Behavior Analysis (pp. 69-94). San Diego: Academic Press.

Piazza, C. C., & Roane, H. S. (2009). Assessment of Pediatric Feeding Disorders. In J. L. Matson, F. Andrasik, & M. L. Matson (Eds.), Assessing Childhood Psychopathology and Developmental Disabilities (pp. 471-490). New York, NY: Springer New York.

Silverman, A. H., Kirby, M., Clifford, L. M., Fischer, E., Berlin, K. S., Rudolph, C. D., & Noel, R. J. (2013). Nutritional and psychosocial outcomes of gastrostomy tube-dependent children completing an intensive inpatient behavioral treatment program. J Pediatr Gastroenterol Nutr, 57(5), 668-672. doi:10.1097/MPG.0b013e3182a027a3

Taylor, S. A., Virues-Ortega, J., & Anderson, R. (2019). Transitioning children from tube to oral feeding: a systematic review of current treatment approaches. *Speech, Language and Hearing*, 1-14. 10.1080/2050571X.2019.1684068

Vittner, D. Resource Handbook for Parents (and Professionals) of Young Children with Autism (or Autistic-like tendencies) who struggle at Mealtimes. University of Arizona

Weir K., McMahon S., Barry L., et al (2009). Clinical signs and symptoms of oropharyngeal aspiration and dysphagia in children. European Respiratory Journal 33(3):604–611

Williams, K. E. (2007). Treating eating problems of children with autism spectrum disorders and developmental disabilities : interventions for professionals and parents. Austin, Tex.: Austin, Tex. : PRO-ED c2007.

Williams, K. E., Riegel, K., Gibbons, B., & Field, D. G. (2007). Intensive Behavioral Treatment for Severe Feeding Problems: A Cost-effective Alternative to Tube Feeding? Journal of Developmental and Physical Disabilities, 19(3), 227-235. doi:10.1007/s10882-007-9051-y

Wolf, L.S. & Glass, R.P (1992) Feeding and swallowing disorders in infancy. Tucson, AZ: Therapy Skill Builders

EVALUATION OF READINESS FOR TRANSITION FROM TUBE FEEDING TO ORAL FEEDING

GOALS and REVIEW:

NAME:_____ **NHI:**_____

ASSESSMENT 1 (DATE): _____

Next Steps Identified	Supporting Health Professional	
	Name	Role
1.		
2.		
3.		

ASSESSMENT 2 (DATE): _____

Next Steps Identified	Supporting Health Professional	
	Name	Role
1.		
2.		
3.		

ASSESSMENT 3 (DATE): _____

Next Steps Identified	Supporting Health Professional	
	Name	Role

EVALUATION OF READINESS FOR TRANSITION FROM TUBE FEEDING TO ORAL FEEDING

1.		
2.		
3.		