

User's Guide to Pediatric Feeding Templates

The pediatric feeding history and clinical assessment electronic medical record (EMR) templates are consensus based and are provided as a resource for members of the American Speech-Language-Hearing Association (ASHA). Information included in these templates does not represent official ASHA policy. The templates were developed by a working group of Special Interest Group 13 (SIG 13) that included Donna Edwards, Memorie Gosa, Heidi S. Liefer, Emily Mayfield, Donna Scarborough, Marni Simon, and Nancy B. Swigert from 2013 to 2014. A public request for template review was posted on the SIG 13 ASHA Online Community page in early 2015. Krisi Brackett, Amy L. Delaney, and Maureen A. Lefton-Greif provided specific feedback for revision of the original templates. In addition, working group members (Donna Edwards, Memorie Gosa, Emily Mayfield, Donna Scarborough, Marni Simon, and Nancy B. Swigert) provided specific feedback for revision of the templates based on their clinical use and experience with the original templates. The collected feedback was used to revise the EMR templates during conference calls with working group members between April 2015 and August 2015. Additional revision, formatting, and supporting work was completed between September 2015 and October 2015. Two templates are available. The first one is for pediatric patients that are only consuming liquids. The second one is for patients who are transitioning to other forms of nutritional intake, such as pureed food from a spoon. The following information is provided to give users a context for the information in these templates and for how the templates were designed to be used. The EMR templates are customizable to individual EMR programs.

Preliminary Information Section

Feedback from the review process revealed that many clinicians do not have ready access to EMRs. Additionally, EMR programs vary widely in their features. Therefore, this first section was included for those clinicians who are unable to access this information in an automatic format from their EMR system. It includes intake information that informs the clinician about the nature of the concern and documents caregiver presence for the assessment. In addition, it documents any barriers to learning and provides a space for clinicians to document what they did to overcome those barriers (e.g., providing visual aids in addition to auditory instruction). If this information is automatically documented in another place within an EMR system, then the clinician may decide not to enter it additionally here.

Background Information Section

This section systematically documents all medical history that may be relevant to the current feeding or swallowing concern. Section B1 is a summary of information that is often best collected by parent interview. The information on previous hospitalizations, surgeries, and medication history may pull forward in some EMR programs. Professionals in other facilities may find that they will need to report this information separately. The working group members acknowledge that allergies and intolerances are more commonly diagnosed in infants and children who are in the transitional feeding period; however, it is possible for even very young

infants who are only bottle feeding to present with a cow's milk allergy or some other form of intolerance; therefore, both templates include a space in which to document this. For further information on food allergies and intolerances, clinicians are encouraged to review the following resources:

Sampson, H. A. (1999). Food allergy. Part 1: Immunopathogenesis and clinical disorders. *Journal of Allergy and Clinical Immunology*, *103*, 717–728.

Sampson, H. A. (1999). Food allergy. Part 2: Diagnosis and management. *Journal of Allergy and Clinical Immunology*, *103*, 981–989.

Sprickelman, A. B., Heymans, H. S. A., & Van Aalderen, W. M. C. (2000). Development of allergic disorders in children with cow's milk protein allergy or intolerance in infancy. *Clinical & Experimental Allergy*, *30*, 1358–1363.

Section B2 documents birth history information. It may pull forward from an initial history and physical intake by the physician, or clinicians may need to document it separately as it is presented in the current templates.

Sections B3–B11 provide space for clinicians to document medical history that is known to have an impact on the success of feeding and swallowing efforts in infants and children. The headings were created from the *2015 International Classification of Diseases, Tenth Revision, Clinical Modification* (ICD-10-CM) codes related to speech, language, and swallowing disorders; this information is available for review on ASHA's website. For further information on what types of disorders and/or conditions might be included under each heading, interested clinicians are directed to the following resource:

<http://www.asha.org/uploadedFiles/ICD-10-Codes-SLP.pdf>

For more information on the types of disorders and/or conditions that might affect the safety and adequacy of oral intake in infants and children, interested clinicians are directed to the following resources:

Arvedson, J. C. (2008). Assessment of pediatric dysphagia and feeding disorders: Clinical and instrumental approaches. *Developmental Disabilities Research Reviews*, *14*, 118–127.

Lefton-Greif, M. A. (2008). Pediatric dysphagia. *Physical Medicine and Rehabilitation Clinics of North America*, *19*, 837–851.

Dodrill, P., & Gosa, M. M. (2015). Pediatric dysphagia: Physiology, assessment, and management. *Annals of Nutrition and Metabolism*, *66*(Suppl. 5), 24–31.

Tutor, J. D., & Gosa, M. M. (2012). Dysphagia and aspiration in children. *Pediatric Pulmonology*, *47*, 321–337.

Sections B12–B14 provide space for clinicians to document any known hearing or visual impairment and the results of previous completed tests that might possibly be relevant to the patient’s potential feeding and/or swallowing problem. Again, this may be documented elsewhere in the EMR; in that case, the clinician may choose to reference this information in the EMR and not include it in their report template.

Section B15 provides space for clinicians to document the patient’s relevant feeding, swallowing, and nutritional history. Most EMRs have a digital growth chart that the clinician will want to reference in this section. Clinicians can use this space to check the subsections that are relevant to their specific patient and provides space equivalent to a free text box to document concerns or general information about each stage of feeding development. For further information on typical feeding development as well as the clinical signs and symptoms of dysphagia, interested clinicians are referred to the following resources:

Delaney, A. L., & Arvedson, J. C. (2008). Development of swallowing and feeding: Prenatal through first year of life. *Developmental Disabilities Research Reviews, 14*, 105–117.

Lau, C. (2015). Development of suck and swallow mechanisms in infants. *Annals of Nutrition and Metabolism, 66*(Suppl. 5), 7–14.

Stevenson, R. D., & Allaire, J. H. (1991). The development of normal feeding and swallowing. *Pediatric Clinics of North America, 38*, 1439–1453.

Weir, K., McMahon, S., Barry, L., Masters, I. B., & Chang, A. B. (2009). Clinical signs and symptoms of oropharyngeal aspiration and dysphagia in children. *European Respiratory Journal, 33*, 604–611.

Evaluation Information Section

The published literature contains reports of formal, standardized, and/or norm-referenced oral–motor and feeding assessment instruments. If a clinician has access to those assessments—and if such assessments are appropriate for the patient whom he or she is seeing—then the clinician may choose to use those tools and report the results within a customized version of the EMR template. For clinicians who do not have access to those formal, standardized, and/or norm-referenced instruments, the EMR template provides a format for reporting oral–motor and feeding information from clinical observation. The working group members agreed upon features for reporting based on clinical experience and review of the available literature (see last set of references at the conclusion of this section).

Evaluation information begins by documenting the patient’s current feeding situation. This section is distinct from Section B15 because its purpose is to document the liquids/foods and modalities offered to the patient; the reported number of and length of feedings; number of

caregivers who feed the patient; position or positions that the patient assumes for feeding; reported volume of daily intake; and any sensory preferences/intake of liquid other than breast milk or formula/modifications to fluid, such as thickening or use of additives or supplements. This information was purposefully removed from the history section to reduce confusion between historical reports of difficulties and current functioning status. It also provides a place in which to document the patient's state, physiologic parameters, and pain status (with a developmentally appropriate pain scale) before the evaluation begins. The clinician is encouraged to document pain with their settings adopted to those of the developmentally appropriate pain scale. If the assessment is completed in an outpatient environment where the patient is not monitored, then the clinician may choose to alter this section to reflect his or her practice environment.

The oral–motor/peripheral area provides space in which clinicians can detail features of the clinical exam that were noted as deviant for the patient's age, gender, size, developmental stage, and/or referent culture.

The feeding area provides space in which clinicians can document the type of food offered, the modality of the offering (e.g., bottle, cup, spoon), the patient's response to the food, changes/compensations made during the assessment, and the patient's response to those changes.

The final space in this section documents the patient's state, physiologic parameters, and pain status after the evaluation concludes. Again, modifications to the templates may be necessary, depending on the clinical setting and the use of monitoring.

For further information on the formal oral–motor and feeding assessments that are available, interested clinicians are directed to the following resources:

Oral–Motor Exam References

Hayden, D., & Square, P. (1999). *Verbal Motor Production Assessment for Children [VMPAC]: Examiner's manual*. New York, NY: Pearson Education.

McCauley, R. J., & Strand, E. A. (2008). A review of standardized tests of nonverbal oral and speech motor performance in children. *American Journal of Speech-Language Pathology, 17*, 81–91.

Ortega, A. O., Ciamponi, A. L., Mendes, F. M., & Santos, M. T. (2009). Assessment scale of the oral motor performance of children and adolescents with neurological damages. *Journal of Oral Rehabilitation, 36*, 653–659.

Robbins, J., & Klee, T. (1987). Clinical assessment of oropharyngeal motor development in young children. *Journal of Speech and Hearing Disorders, 52*, 271–277.

Rogers, B., & Arvedson, J. C. (2005). Assessment of infant oral sensorimotor and swallowing function. *Mental Retardation and Developmental Disabilities Research Review, 11*, 74–82.

Feeding Assessment Tool References

Association of Women's Health, Obstetric, and Neonatal Nurses. (1989). *Systematic Assessments of the Infant at the Breast (SAIB)*. Washington, DC: Author.

Crist, W., Dobbelsteyn, C., Brousseau, A. M., & Napier-Phillips, A. (2004). Pediatric assessment scale for severe feeding problems: Validity and reliability of a new scale for tube-fed children. *Nutrition in Clinical Practice, 19*, 403–408.

Da Costa, S., & van der Schans, C. P. (2008). The reliability of the Neonatal Oral-Motor Assessment Scale. *Acta Paediatrica, 97*, 21–26.

Ingram, J., Johnson, D., Copeland, M., Churchill, C., & Taylor, H. (2014). The development of a new breast feeding assessment tool and the relationship with breast feeding self-efficacy. *Midwifery, 31*, 132–137.

Jensen, D., Wallace, S., & Kelsay, P. (1994). LATCH: A breastfeeding charting system and documentation tool. *Journal of Obstetric, Gynecologic & Neonatal Nursing, 23*, 27–32.

Matthews, M. (1988). Developing an instrument to assess infant breastfeeding behaviour in the early neonatal period. *Midwifery, 4*, 154–165.

Nyvquist, K., Rubertsson, C., Ewald, U., & Sjoden, P. (1996). Development of the Preterm Infant Breastfeeding Behavior Scale (PIBBS): A study of nurse-mother agreement. *Journal of Human Lactation, 12*, 207–219.

Palmer, M., Crawley, K., & Blanco, I. (1993). Neonatal Oral-Motor Assessment Scale: A reliability study. *Journal of Perinatology, 13*, 28–35.

Pitcher, J., Crandall, M., & Goodrich, S. J. (2008). Pediatric clinical feeding assessment. In Leonard, L., & Kendall, K. (Ed.), *Dysphagia assessment and treatment planning: A team approach* (pp. 117–136). San Diego, CA: Plural.

Sheppard, J. J., Hochman, R., & Baer, C. (2014). The Dysphagia Disorder Survey: Validation of an assessment for swallowing and feeding function in developmental disability. *Research in Developmental Disabilities, 35*, 929–942.

Thoyre, S. M., Pados, B. F., Park, J., Estrem, H., Hodges, E. A., McComish, C., . . . Murdoch, K. (2014). Development and content validation of the Pediatric Eating Assessment Tool (Pedi-EAT). *American Journal of Speech-Language Pathology, 23*, 46–59.

Thoyre, S. M., Shaker, C. S., & Pridham, K. F. (2005). The Early Feeding Skills Assessment for Preterm Infants. *Neonatal Network, 24*(3), 7–16.

Clinical Assessment References

Arvedson, J. C. (2008). Assessment of pediatric dysphagia and feeding disorders: Clinical and instrumental approaches. *Developmental Disabilities Research Reviews, 14*, 118–127.

Arvedson, J. C., & Brodsky, L. (2002). *Pediatric swallowing and feeding: Assessment and management*. Independence, KY: Cengage Learning.

DeMatteo, C., Matovich, D., & Hjartarson, A. (2005). Comparison of clinical and videofluoroscopic evaluation of children with feeding and swallowing difficulties. *Developmental Medicine & Child Neurology, 47*, 149–157.

Morris, S. E., & Klein, M. D. (2000). *Pre-feeding skills: A comprehensive resource for mealtime development*. San Antonio, TX: Pro-ed.

Rommel, N. (2006). Assessment techniques for babies, infants and children. In J. Cichero & B. Murdoch (Eds.), *Dysphagia: Foundation, theory and practice* (pp. 466–486). New York, NY: Wiley.

Clinical Summary Section

This final section provides a format in which the clinician can summarize findings from his or her assessment and provide a prognosis statement for both safe and adequate oral intake based on his or her oral–motor and feeding observations. The common diagnosis/*ICD-10* codes for dysphagia are provided in the next space. Individual EMR formats may require that this information be reported in a different way—in that case, removing the option for coding with *ICD-10* could modify the template.

A section in which the clinician can document recommendations is also provided. This information could be marked from a dropdown menu in an EMR format.

Finally, a plan-of-care section is included, in which the clinician can document goals and education provided to patient and/or patient’s family or caregivers.