



## Child Life Services

Barbara Romito, MA, CCLS,<sup>a</sup> Jennifer Jewell, MD, FAAP,<sup>b</sup> Meredith Jackson, MD, FAAP,<sup>b</sup> AAP COMMITTEE ON HOSPITAL CARE; ASSOCIATION OF CHILD LIFE PROFESSIONALS

Child life programs are an important component of pediatric hospital-based care; they address the psychosocial concerns that accompany hospitalization and other health care experiences. Child life specialists focus on the optimal development and well-being of infants, children, adolescents, and young adults while promoting coping skills and minimizing the adverse effects of hospitalization, health care encounters, and/or other potentially stressful experiences. In collaboration with the entire health care team and family, child life specialists provide interventions that include therapeutic play, expressive modalities, and psychological preparation to facilitate coping and normalization at times and under circumstances that might otherwise prove overwhelming for the child. Play and developmentally appropriate communication are used to (1) promote optimal development, (2) educate children and families about health conditions, (3) prepare children and partner with families for medical events or procedures, (4) plan and rehearse useful coping and pain-management strategies with patients and families, (5) help children work through feelings about past or impending experiences, and (6) partner with families to establish therapeutic relationships between patients, siblings, and caregivers. Child life specialists collaborate with the entire interdisciplinary team to promote coping and enhance the overall health care experience for patients and families.

### CHILD LIFE INTERVENTIONS: PSYCHOLOGICAL PREPARATION

Preparing children for hospitalization, clinic visits, surgeries, and diagnostic and/or therapeutic procedures is essential during a child's hospitalization and an important element of a child life program. It is estimated that 50% to 75% of children develop significant fear and anxiety before surgery; recognized risk factors include age, temperament, baseline anxiety, past medical encounters, and caregiver anxiety.<sup>1</sup> Children's anxiety in the perioperative environment is associated with impaired postoperative behavioral and clinical recovery, including increased analgesic requirements and delayed discharge from the recovery room.<sup>2,3</sup> Preparation can reduce anxiety and distress before surgery and/or during mask induction and may also decrease emergence

### abstract

<sup>a</sup>Child Life Program, The Bristol-Myers Squibb Children's Hospital at Robert Wood Johnson University Hospital, New Brunswick, New Jersey; and <sup>b</sup>The Barbara Bush Children's Hospital at Maine Medical Center, Portland, Maine

*Ms Romito provided the benchmarking data and the majority of the writing; Dr Jewell designed the outline for the policy, noted and updated information that was irrelevant since the last revision, provided assistance with the writing, and presented the content to the Committee on Hospital Care; Dr Jackson provided technical assistance, draft review, and content expertise for the portions related to medical education; and all authors approved the final manuscript as submitted.*

*Policy statements from the American Academy of Pediatrics benefit from expertise and resources of liaisons and internal (AAP) and external reviewers. However, policy statements from the American Academy of Pediatrics may not reflect the views of the liaisons or the organizations or government agencies that they represent.*

*The guidance in this statement does not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, taking into account individual circumstances, may be appropriate.*

*All policy statements from the American Academy of Pediatrics automatically expire 5 years after publication unless reaffirmed, revised, or retired at or before that time.*

**DOI:** <https://doi.org/10.1542/peds.2020-040261>

Address correspondence to Barbara Romito, MA, CCLS.  
E-mail: [Barbara.Romito@rwjrh.org](mailto:Barbara.Romito@rwjrh.org)

PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

This document is copyrighted and is property of the American Academy of Pediatrics and its Board of Directors. All authors have filed conflict of interest statements with the American Academy of Pediatrics. Any conflicts have been resolved through a process approved by the Board of Directors. The American Academy of Pediatrics has neither solicited nor accepted any commercial involvement in the development of the content of this publication.

**FINANCIAL DISCLOSURE:** The authors have indicated they have no financial relationships relevant to this article to disclose.

**To cite:** Romito B, Jewell J, Jackson M, AAP COMMITTEE ON HOSPITAL CARE; ASSOCIATION OF CHILD LIFE PROFESSIONALS. Child Life Services. *Pediatrics*. 2021;147(1):e2020040261

delirium after surgery.<sup>4-7</sup> More than 50 years of research and experience supports 3 key elements of the preparation process: (1) the provision of developmentally appropriate information, (2) the encouragement of questions and emotional expression, and (3) the formation of a trusting relationship with a health care professional.<sup>3</sup> A recent systematic review of preparation effectiveness evidence concluded that children who were psychologically prepared for surgery experienced fewer negative symptoms than did children who did not receive formal preparation.<sup>3</sup> Findings included a decrease in posttraumatic stress, lower levels of fear and anxiety, increased cooperative behaviors, and better long-term coping and adjustment to future medical challenges. Research also demonstrates that preparation and coping facilitation interventions decrease the need for sedation in procedures such as MRI and radiotherapy, resulting in lower risks for the child and cost savings in personnel, anesthesia, and throughput-related expenses.<sup>8-12</sup>

Preparation techniques, materials, and language must be adapted to the developmental level, personality, and unique experiences of each child and family. Learning is enhanced with hands-on methods versus exclusively verbal explanations. Photographs, diagrams, tours of surgical or treatment areas, actual and pretend medical equipment, and various models (dolls, puppets) are used to reinforce learning and actively engage the child.<sup>1,13</sup> Caregivers should be included in the preparation process because this can decrease parental anxiety and allow them to provide essential family-centered support.<sup>14,15</sup>

An experimental evaluation of one child life program model revealed that child life interventions resulted in less emotional distress, better overall coping during the hospital

stay, a clearer understanding of procedures, and a more positive physical recovery as well as posthospital adjustment for children enrolled.<sup>16</sup> Patients spent less time on narcotics, the length of stay was slightly reduced, and caregivers were more satisfied. In other studies, researchers have found that child life interventions play a major role in calming children's fears and result in higher parent satisfaction ratings of the entire care experience.<sup>8,17,18</sup>

### **CHILD LIFE INTERVENTIONS: PAIN-MANAGEMENT AND COPING STRATEGIES**

When combined with preparation and appropriate pharmacologic interventions, nonpharmacologic pain- and distress-management strategies have proven successful in terms of patient and family experience, staff experience, and cost-effectiveness.<sup>17,19,20</sup> Strategies such as swaddling, oral sucrose, vibratory stimulation, breathing techniques, relaxation, and guided imagery have been shown to decrease behavioral distress and pain experience in children during invasive medical procedures.<sup>21-25</sup>

Distraction strategies have been highly effective in reducing reported and observed pain and distress in children in inpatient, emergency department (ED), and clinic settings.<sup>26-32</sup> The emergence of virtual reality, Internet technology, and electronic and digital devices has been found to be an effective means of distraction in reducing pain.<sup>7,33-38</sup> Child life specialists may also develop comfort kits for use in treatment areas to include age-appropriate distraction items, such as bubbles, pop-up and sound books, light-up toys, and other visual or auditory tools.<sup>39</sup> Distraction techniques have also been shown to be successful in lowering a parent's fear and distress during an invasive procedure.<sup>27</sup>

Child life specialists can effectively provide developmentally appropriate nonpharmacologic pain management and provide coaching and support to patients and caregivers before, during, and after medical procedures.<sup>40,41</sup> They can also provide valuable education and training to nurses, physicians, students, and other personnel, supporting health care team member competencies in the provision of developmentally appropriate, psychosocially sound care.<sup>42,43</sup> Multifaceted institution-wide protocols, such as the Ouchless Place and other similar programs, incorporate the standard use of both pharmacologic and nonpharmacologic techniques, preparation of the patient and family, environmental considerations, and training of all health care team members.<sup>44,45</sup>

Research has demonstrated that children are less fearful and distressed when positioned for medical procedures in a sitting position rather than supine.<sup>46</sup> Child life specialists are often involved in facilitating the use of "comfort holds," techniques for positioning children in a parent or caregiver's lap or other comforting position. In addition to reducing the child's distress and gaining cooperation, these techniques generally require fewer staff to be present in the room, facilitate safe and effective accomplishment of the medical procedure, decrease parent anxiety, and increase parent satisfaction.<sup>47,48</sup> With a goal to severely limit the use of papoose boards and eliminate the practice of multiple staff members holding a child down, these techniques provide a viable and more humane alternative in most cases.

### **CHILD LIFE INTERVENTIONS: THE THERAPEUTIC VALUE OF PLAY**

Therapeutic play during health care experiences is essential and a major component of a child life program and

of the child life professional's role. Play is crucial to a child's social, emotional, and cognitive development and is even more critical during adversity or stress points in a child's life.<sup>49</sup> In addition to its developmentally supportive benefits and as a normalizing activity for children and youth of all ages, play is particularly valuable for children who are anxious or struggling to cope with stressful circumstances of hospitalization, illness, or grief.<sup>50</sup> Erik Erikson<sup>51</sup> writes, "To play out is the most natural auto-therapeutic measure childhood affords. Whatever other roles play may have in the child's development...the child uses it to make up for defeats, sufferings, and frustrations." Play in the health care setting is adapted to address unique needs on the basis of developmental level, self-directed interests, medical condition and physical abilities, psychosocial vulnerabilities, and setting (eg, bedside, playroom, clinic). Play as a therapeutic modality, including health care play or "medical play," has been found to reduce children's emotional distress and help them cope with medical experiences.<sup>52</sup> Research has revealed that physiologic responses, such as palm sweating, excessive body movement, tachycardia, and hypertension, can be reduced with therapeutic play interventions.<sup>53</sup>

Play can be adapted to address the developmental and psychosocial needs of patients in every pediatric age group. For example, infants and toddlers benefit from exploratory and sensorimotor play, and preschoolers enjoy fantasy play and creative art activities.<sup>54</sup> Opportunities for parents to engage in play activities with their young children are beneficial to both the patient and family, alleviating some feelings of helplessness that can be common in caregivers and assisting in the child's adjustment to the hospital.<sup>55</sup>

School-aged children and adolescents seek play that contributes to feelings of mastery and achievement (one

reason video games are so popular with this age group<sup>56</sup>). Patients in this age group also benefit from activities that allow them to maintain relationships with peers and establish new connections through, for example, online networking and the availability of teen-aged activity rooms in the hospital setting.<sup>57</sup>

Auxiliary programs, such as animal-assisted therapy, infant massage instruction, therapeutic clowning, performing arts, and artist-in-residence programs, often used in conjunction with child life services and incorporated into child life departments, provide additional outlets for patients of all ages and their families.<sup>58-60</sup> Live, interactive programming using closed-circuit television systems and studios can be a particularly effective way to engage patients restricted to their rooms for infection-control or medical reasons. Other interactive technology, such as video conferencing, can help patients engage with people outside the hospital, including their peers, the community, and their schools. The ability to connect with a child's school, community, and home helps normalize the experience by minimizing disruption of usual routines. Expressive therapies, such as those provided by distinctly certified play therapists, music therapists, and art therapists, can be offered to complement child life programs and to provide support for particularly vulnerable patients.<sup>26,61,62</sup>

#### **CHILD LIFE INTERVENTIONS: PARTNERING WITH FAMILIES TO PROVIDE SUPPORT**

The presence and participation of and partnership with family members is a fundamental component of patient- and family-centered care and has a significant positive effect on a child's adjustment to the health care experience.<sup>63</sup> When parents or other family members are highly anxious about the child's illness or diagnostic and treatment regimens, such anxiety

is easily transmitted to the patient.<sup>64</sup> Child life specialists help facilitate the family's adjustment to the child's illness and health care experience by providing psychosocial support and coping strategies for caregivers. They can help family members understand their child's response to treatment and support caregiving roles by promoting parent-child play sessions and sharing strategies for comforting or coaching their children during medical procedures. In addition, child life specialists play a pivotal role in encouraging and facilitating family involvement in the patient's care as well as promoting communication between family members, providers, and the interdisciplinary team.

Siblings of pediatric patients present with their own unique anxieties and psychosocial needs, not often assessed or addressed. Siblings, much like children of adult patients, can be helped to comprehend a family member's illness via therapeutic play and educational interventions or by offering support during hospital visits, including diagnoses, critical care, and end-of-life situations.<sup>65,66</sup> Although sibling support is essential in all areas, a critical care hospitalization in the neonatal or pediatric ICU presents additional stressors for the entire family, and child life interventions are often focused on the siblings' psychosocial needs. Sibling support may include preparing the sibling(s) for an initial visit and providing ongoing emotional support throughout the patient's hospital stay. Child life specialists are often involved in providing bereavement support to patients as well as siblings and other family members. Grief support and legacy activities, such as hand molds or memory boxes for siblings and family members, are often provided at the end of life for both pediatric and adult patients throughout the hospital. In conjunction with the interdisciplinary team, child life specialists are critical in helping all family members

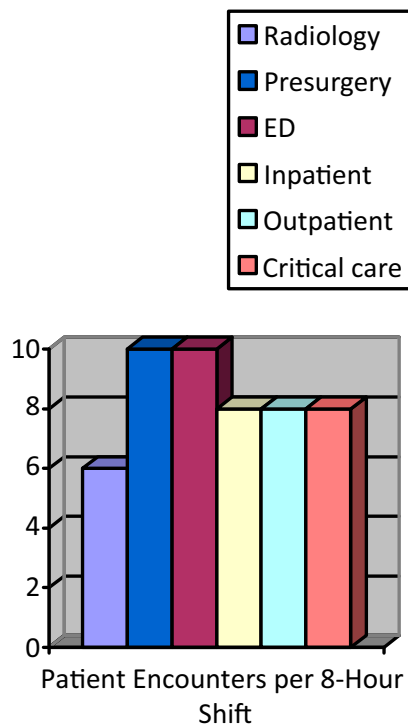
understand how to support children in age-appropriate ways during end-of-life events.

## RECENT BENCHMARKING DATA

In 2016, the Association of Child Life Professionals (ACLP) constructed the Child Life Professional Data Center (CLPDC), an online database to house comprehensive child life program data and metrics, including staffing models, staffing ratios, budget allocation data, and hospital descriptors.<sup>67</sup> Using a systematic and evidence-based approach to measure the impact of psychosocial services provided to pediatric patients and families, this database has synthesized information from more than 160 child life programs. In addition, the ACLP established a productivity metric measuring the number of patient and family encounters a child life specialist provides in a specified setting within the hospital during a shift. Currently, more than 50 programs have participated in the productivity data collection. The productivity metric is a numerical indicator of the number of patient and family encounters that can be expected during the child life specialist's shift. This measure of productivity is collected for 6 distinct areas of service: (1) inpatient acute care units, (2) critical care, (3) radiology, (4) presurgery, (5) outpatient ambulatory care, and (6) the ED. These 6 distinct areas are being used to collect and segment data because the type and length of child life intervention can depend on which medical service is being provided. A patient encounter is defined as a child life specialist-provided interaction with a patient, sibling, or caregiver, and this serves as the numerator of the productivity metric. The denominator is the length of the child life specialist's shift (eg, 8 hours). The final metric given is the measure of patient and family encounters per hour. These metrics account for nondirect patient care activities and direct patient care interventions. By

using the shift length as the denominator, additional nonpatient care responsibilities are accounted for in the productivity calculation, including such things as meetings, committee work, student and staff education, and donor events.<sup>67</sup>

Figure 1 identifies the total number of individual patient and family encounters an individual child life specialist provides in an 8-hour shift in each of the 6 service areas. In radiology, the median productivity is 0.74 patient encounters per hour, or approximately 6 encounters in an 8-hour day. Of all 6 areas of service, radiology encounters trend the longest because radiologic procedures often require significant preparation and support during the procedures, which may be lengthy. Child life specialists in presurgery and the ED have the highest median productivity, with an average of 1.2 patient encounters every hour, roughly 10 patients seen per 8-hour shift in each of these areas.



**FIGURE 1**  
Average patient/family encounters per 8-hour shift for child life specialists in various hospital settings.

The remaining 3 areas, inpatient acute care, outpatient ambulatory clinics, and critical care units, all have similar productivity, with approximately 1 patient encounter per hour, or 8 in an 8-hour shift.

The productivity data allow participating hospitals to clearly identify how their program compares to the national average or similar hospitals on the basis of median scores. The data also serve as a tool to support appropriate staffing during hospital program growth by offering a benchmark to adjust staffing depending on changes in patient volumes.

Although these ratios establish national benchmarking and staffing trends, other factors should influence staffing allocations. Child life services should be available to meet identified patient and family needs 7 days per week. Staffing plans should be sufficient to meet fluctuations in anticipated and unanticipated staff absences, seasonal swings in the patient census, and nonclinical community activities (such as school programming, outreach events, and increased visits and in-kind donations during the holiday season). Child variables (such as age, temperament, coping style, and cognitive abilities), family variables (such as caregiver anxiety, presence, and involvement) and diagnosis and treatment variables (acute versus chronic, repeat admissions, number of invasive procedures) are known to affect psychosocial vulnerability and, thus, influence the child's particular child life needs.<sup>68</sup> A combination of psychosocial risk assessment, medical and/or treatment variables (eg, the proportion of patients on isolation precautions and the volume of patient and family teaching needs), and the time requirements associated with particular interventions directly affect operational staff-to-patient ratios in both inpatient and outpatient settings and could necessitate a lower ratio of patients to child life specialist.<sup>69,70</sup>

In addition to establishing a benchmarking standard for child life specialist and patient encounters, the CLPDC houses multifaceted information, such as types of organizations in which child life specialists work, staffing, program funding, reporting structure, services provided, and special services. The CLPDC should be used as a resource for programs and hospitals in evaluation and continuous performance improvement of child life programming.

### **CHILD LIFE STAFFING AND ROLES**

Child life specialists are part of an interdisciplinary, patient- and family-centered model of care, collaborating with the family, physicians, advanced practice providers, nurses, social workers, and other members of the health care team to develop a comprehensive plan of care. Child life contributions to this plan are based on the patient's and family's psychosocial needs, cultural heritage, and responses to the health care experience. Child life specialists can participate in the care plan by, for example, teaching a child coping strategies for adjusting to a life-changing injury, promoting coping with examinations for alleged abuse, assisting families in talking to their children about death, facilitating nonpharmacologic pain-management techniques, preparing and educating children about their medical care in age-appropriate ways, and communicating the child's developmental and individual needs and perspective to others. These interventions are most effective when delivered in collaboration with the entire health care team.

The credentials of a certified child life specialist (CCLS) currently include the minimum of a bachelor's degree in child life, child development, or a closely related field; the successful completion of a 600-hour child life internship under the supervision of

a CCLS; and passing a standardized certification examination.<sup>71</sup> Ongoing and future requirements for the CCLS credential are determined by the Child Life Certification Commission of the ACLP.

In some settings, child life services are augmented by child life assistants (or activity coordinators, child life technicians, etc). Child life assistants are typically required to have core college coursework, such as an associate degree in child development, and experience with children in group settings. They generally focus on the normalization of the health care experience, providing play activities, coordinating special events (community visitors, holiday celebrations, etc), and maintaining the playroom environment. Both child life specialists and assistants actively participate in the orientation, training, and supervision of volunteers, thereby contributing to volunteer effectiveness, satisfaction, and retention. This collaboration enables the child life specialist to conduct an assessment and delegate as appropriate, allowing patients with varying degrees of psychosocial vulnerability and activity levels to be supported by the team member whose skills and knowledge are most closely aligned with patient and family needs. Although volunteers are a valuable supplement, they can never be considered an adequate replacement for CCLSs.

### **EVOLUTION OF CHILD LIFE SERVICES**

The provision of child life services is a quality benchmark of an integrated patient- and family-centered health care system, a recommended component of medical education, and an indicator of excellence in pediatric care.<sup>72-74</sup> There are more than 430 child life programs in operation in North America<sup>75</sup>; most are located in freestanding children's hospitals, children's hospitals within hospitals, community hospitals with pediatric units, and EDs.

The scope of child life programs has developed beyond pediatric inpatient acute care settings to include outpatient and other areas in which child life expertise can be effectively applied to support children and families in stressful situations. Child life specialists provide services to presurgery and surgical centers, radiology and imaging departments, dialysis centers, ambulatory clinics, NICUs, urgent care centers, psychiatric units, hospice programs, camps for children with chronic illness, rehabilitation settings, and some outpatient dental and physician offices.<sup>76</sup> Because the majority of children with medical complexities are being treated on an outpatient basis, child life services are increasingly common outside the hospital.<sup>77</sup> Increasingly, CCLSs are also part of interdisciplinary health care teams, including palliative care, behavioral health, trauma, and child protective services. In cases of hospitalized or ill adults, child life specialists may be consulted to work with children of adult patients, particularly in end-of-life, trauma, and critical care situations.

Child life programs continue to evolve and adapt to meet the changing health care needs of patients and families. Children with special health care needs now represent 18.8% of all children, up from 12.8% in 2001.<sup>78</sup> Specifically, the increase in patients with a diagnosis of autism spectrum disorder presents opportunities for child life specialization in supporting this population in medical settings.<sup>36,79,80</sup> In addition, the number of children with mental health and developmental disabilities conditions is increasing, either alone or comorbid with a physical health condition.<sup>81,82</sup> Hospitals are also admitting children with more complex medical conditions, with rates doubling between 1991 and 2005, and may need greater individualization of care from the CCLS.<sup>83,84</sup> The numbers of children with disabilities and

medical complexities are increasing, likely because of the increases in technology that ensures the survival of patients with previously lethal conditions.<sup>85</sup> Given the increasing survival rate of patients with cystic fibrosis, cardiac conditions, spina bifida, short gut, cancer, and other chronic illnesses, more teenagers and young adults face the challenging transition to adult health care.<sup>86</sup> Acknowledging team goals to normalize the transition process and address patient and family anxieties or questions, child life specialists can assist in this transition by providing education and helping patients to communicate their needs, fears, hopes, and expectations.<sup>87–89</sup>

In recent years, patient experience and/or patient satisfaction has become a key quality and performance indicator. Although the definition of patient experience continues to be explored and honed by health care leaders, there is common agreement that when evaluating health care quality, patient satisfaction is an important metric that translates to health care ratings and payment.<sup>90</sup> Family-centered care is a core principle for child life specialists; the recent emergence of the patient experience as a key quality indicator has resulted in child life specialists often taking the lead in family-centered care and patient experience initiatives. Research studies have demonstrated the positive impact of child life intervention on patient and parent perception and evaluation of the hospital experience, which is increasingly important for incentive-based reimbursement, accreditation, marketing, and public reporting of outcomes.<sup>8,17,34,67,91</sup> Health care professionals and organizations acknowledge the significant impact child life specialists have on the patient experience as well as the role child life plays in helping the concept of patient experience continue to evolve and grow.<sup>80</sup>

Although evidence supports the value of child life services, financial pressures in many health care settings have threatened the growth and sustainability of child life services. In addition to contributions to the patient experience, the literature has also demonstrated financial benefits of child life interventions, including reduced sedation-related costs, and increased compliance during procedures, resulting in procedure completion.<sup>8–12</sup> A child life program improves quality and decreases costs and, therefore, should be included in the value-added equation and discussion of health care cost, including with payers.

#### **ADDITIONAL CONSIDERATIONS**

Child life services contribute to an organization's efforts to meet the standards set forth by The Joint Commission and other accreditation agencies, including effective communication, patient- and family-centered care, age-specific competencies, and cultural competence.<sup>92</sup> Child life specialists' psychosocial and developmental expertise and their keen awareness of the benefits of patient- and family-centered care provide a useful perspective at a systems level. Child life input is often incorporated into hospital committees, such as ethics, family-centered care, patient experience, safety, environmental design, bereavement, and strategic planning. Child life expertise has applications beyond conventional hospital care. Interventions can help children transition back to their homes, schools, communities, and medical homes.<sup>11,93</sup> Child life specialists often collaborate with local school districts to arrange hospital or homebound education, and hospital-based teachers may be incorporated into child life program administration. These interventions help provide continued normalization and help make the transition to and

from the hospital to the home setting less disruptive. Child life specialists also provide services outside hospital-based settings, including private practice, community agencies, and hospice care, and are becoming increasingly involved in providing support to children and families during catastrophic events.

For hospitals or other health care settings considering the initiation or expansion of child life services, the ACLP offers a consultation service to support existing program review and development, new program startup, interdisciplinary education, and written practice guidelines.<sup>94</sup> In community hospital settings with few pediatric beds and minimal pediatric outpatient or ED visits, the provision of full-time child life services may not be financially feasible. In such cases, part-time or consultative services of a CCLS may be obtained to assist in the ongoing education of staff, students, and volunteers as well as to advise on a psychosocially sound, developmentally appropriate patient- and family-centered approach to care. The advancement of telemedicine also presents an opportunity for child life specialists to intervene when they cannot be on-site. Advocating for child life services as an essential part of the interdisciplinary team is a responsibility of health care organizations to ensure it is a standard of pediatric care and should occur on local and national levels as well as in regulatory and accrediting organizations.

#### **CONCLUSIONS**

Child life services are associated with improved quality, outcomes, and patient and family experiences as well as decrease costs in pediatric care. There is evidence that child life services help to contain costs by reducing the length of stay, decreasing the need for sedation and analgesics, and increasing patient satisfaction ratings. Patient

experience data and interdisciplinary team member feedback further confirm the positive effects of child life programs on children, families, and staff. It remains essential for child life services to adapt and grow with the changing health care delivery system in support of the highest possible quality of care for children and their families.

## RECOMMENDATIONS

1. Child life collaboration with the entire interdisciplinary team is essential to meeting the overall health care needs of children and families.
2. Child life services are part of an integrated patient- and family-centered model of care and can be used as a quality measure in the delivery of health care services for children and families.
3. Child life services, provided directly by CCLSs, are recommended in pediatric inpatient units, EDs, chronic care centers, and other diagnostic and treatment areas to the extent appropriate for the population served. In hospitals with a small number of inpatient or outpatient pediatric visits, ongoing consultation with a CCLS is needed to educate health care team members and support developmentally appropriate patient- and family-centered practice.

4. Child life services staffing must be individualized to address the needs of specific inpatient and outpatient areas. The ratio of child life specialist to patient should be adjusted to account for the patient's medical, psychosocial, and developmental complexity and vulnerability as well as family needs and preferences. Child life services need to continuously evolve to meet the changing needs in pediatric health care, including the significant increases in children with disabilities and medical complexity.
5. Child life services optimize pediatric health care and, therefore, should be included in the hospital operating budget; they cannot solely rely on contingency or philanthropic funding.
6. Legislative advocacy of child life services by pediatricians and other stakeholders is recommended at the state and federal levels.
7. Additional research is needed to further identify the impact of child life services on patient care outcomes, including patient experience, cost-effectiveness, and quality and safety measures.

## LEAD AUTHORS

Barbara Romito, MA, CCLS  
Jennifer Jewell, MD, FAAP  
Meredith Jackson, MD, FAAP

## AAP COMMITTEE ON HOSPITAL CARE, 2018–2019

Jennifer Jewell, MD, FAAP, Chairperson  
Kimberly Ernst, MD, MSMI, FAAP  
Vanessa Hill, MD, FAAP  
Benson Hsu, MD, FAAP – *Section on Critical Care*  
Vinh Lam, MD, FAAP  
Melissa Mauro-Small, MD, FAAP – *Section on Hospital Medicine*  
Charles Vinocur, MD, FAAP

## FORMER COMMITTEE ON HOSPITAL CARE MEMBER, 2017–2018

Daniel A. Rauch, MD, FAAP

## LIAISONS

Karen Castleberry – *Family Representative*  
Nancy Hanson – *Children's Hospital Association*  
Kristin Hittle Gigli, PhD, RN, CPNP-AC, CCRN – *National Association of Pediatric Nurse Practitioners*  
Michael S. Leonard, MD, MS, FAAP – *Representative to The Joint Commission*  
Barbara Romito, MA, CCLS – *Association of Child Life Professionals*

## STAFF

S. Niccole Alexander, MPP

## ABBREVIATIONS

ACLP: Association of Child Life Professionals  
CCLS: certified child life specialist  
CLPDC: Child Life Professional Data Center  
ED: emergency department

**FUNDING:** No external funding.

**POTENTIAL CONFLICT OF INTEREST:** The authors have indicated they have no potential conflicts of interest to disclose.

## REFERENCES

1. William Li HC, Lopez V, Lee TLI. Effects of preoperative therapeutic play on outcomes of school-age children undergoing day surgery. *Res Nurs Health.* 2007;30(3):320–332
2. Kain ZN, Caldwell-Andrews AA. Preoperative psychological preparation of the child for surgery: an update. *Anesthesiol Clin North Am.* 2005;23(4):597–614, vii
3. Koller D. *Child Life Council Evidence-Based Practice Statement: Preparing Children and Adolescents for Medical Procedures.* Rockville, MD: Child Life Council; 2009. Available at: <https://www.childlife.org/docs/default-source/research-ebp/ebp-statements.pdf?sfvrsn=2>. Accessed November 5, 2020
4. Vantaa Benjaminsson M, Thunberg G, Nilsson S. Using picture and text schedules to inform children: effects on distress and pain during needle-related procedures in nitrous oxide sedation. *Pain Res Treat.* 2015;2015:478503

5. Brewer S, Gleditsch SL, Syblik D, Tietjens ME, Vacik HW. Pediatric anxiety: child life intervention in day surgery. *J Pediatr Nurs*. 2006;21(1):13–22
6. Fortier MA, Bunzli E, Walthall J, et al. Web-based tailored intervention for preparation of parents and children for outpatient surgery (WebTIPS): formative evaluation and randomized controlled trial. *Anesth Analg*. 2015;120(4):915–922
7. Lan YP, Huang ZH, Finley GA, Zuo YX. Effects of the combination of mask preconditioning with midazolam pretreatment on anxiety and mask acceptance during pediatric inhalational induction and postoperative mask fear in children. [published correction appears in *Chin Med J (Engl)*. 2016; 129(12):1463]. *Chin Med J (Engl)*. 2012; 125(11):1908–1914
8. Törnqvist E, Månsson Å, Hallström I. Children having magnetic resonance imaging: a preparatory storybook and audio/visual media are preferable to anesthesia or deep sedation. *J Child Health Care*. 2015;19(3):359–369
9. Khan JJ, Donnelly LF, Koch BL, Curtwright LA, Dickerson JM, Hardin JL. A program to decrease the need for pediatric sedation for CT and MRI. *Appl Radiol*. 2007;36(4):30–33
10. Scott MT, Todd KE, Oakley H, et al. Reducing anesthesia and health care cost through utilization of child life specialists in pediatric radiation oncology. *Int J Radiat Oncol Biol Phys*. 2016;96(2):401–405
11. Grissom S, Boles J, Bailey K, et al. Play-based procedural preparation and support intervention for cranial radiation. *Support Care Cancer*. 2016; 24(6):2421–2427
12. Durand DJ, Young M, Nagy P, Tekes A, Huisman TAGM. Mandatory child life consultation and its impact on pediatric MRI workflow in an academic medical center. *J Am Coll Radiol*. 2015;12(6): 594–598
13. Goldberger J, Mohl AL, Thompson R. Psychological Preparation and Coping. In: Thompson RH, ed. *The Handbook of Child Life: A Guide for Pediatric Psychosocial Care*, 1st ed. Springfield, IL: Charles C Thomas; 2009:160–198
14. Benore E, Enlow T. Improving pediatric compliance with EEG: decreasing procedural anxiety and behavioral distress. *Epilepsy Behav*. 2013;27(1): 169–173
15. He HG, Zhu L, Chan SWC, Klainin-Yobas P, Wang W. The effectiveness of therapeutic play intervention in reducing perioperative anxiety, negative behaviors, and postoperative pain in children undergoing elective surgery: a systematic review. *Pain Manag Nurs*. 2015;16(3):425–439
16. Wolfer J, Gaynard L, Goldberger J, Laidley LN, Thompson R. An experimental evaluation of a model child life program. *Child Health Care*. 1988;16(4):244–254
17. Gursky B, Kestler LP, Lewis M. Psychosocial intervention on procedure-related distress in children being treated for laceration repair. *J Dev Behav Pediatr*. 2010;31(3):217–222
18. Madhok M, Milner D, Teele M, Finkelstein M. Child life services and patient satisfaction in emergency department [abstract]. *Pediatr Emerg Care*. 2007; 23(10):764
19. Cohen LL. Behavioral approaches to anxiety and pain management for pediatric venous access. *Pediatrics*. 2008;122(suppl 3):S134–S139
20. Eldridge C, Kennedy R. Nonpharmacologic techniques for distress reduction during emergency medical care: a review. *Clin Pediatr Emerg Med*. 2010;11(4):244–250
21. Srouji R, Ratnapalan S, Schneeweiss S. Pain in children: assessment and nonpharmacological management. *Int J Pediatr*. 2010;2010:474838
22. Uman LS, Chambers CT, McGrath PJ, Kisely S. Psychological interventions for needle-related procedural pain and distress in children and adolescents. *Cochrane Database Syst Rev*. 2006;(4): CD005179
23. Baxter AL, Cohen LL, McElvery HL, Lawson ML, von Baeyer CL. An integration of vibration and cold relieves venipuncture pain in a pediatric emergency department. *Pediatr Emerg Care*. 2011;27(12):1151–1156
24. Berberich FR, Landman Z. Reducing immunization discomfort in 4- to 6-year-old children: a randomized clinical trial. *Pediatrics*. 2009;124(2). Available at: [www.pediatrics.org/cgi/content/full/124/2/e203](http://www.pediatrics.org/cgi/content/full/124/2/e203)
25. Lipsitz JD, Gur M, Albano AM, Sherman B. A psychological intervention for pediatric chest pain: development and open trial. *J Dev Behav Pediatr*. 2011; 32(2):153–157
26. Nguyen TN, Nilsson S, Hellström AL, Bengtson A. Music therapy to reduce pain and anxiety in children with cancer undergoing lumbar puncture: a randomized clinical trial. *J Pediatr Oncol Nurs*. 2010;27(3):146–155
27. Burgess S, Nativio DG, Penrose JE. Quality improvement project to reduce pain and distress associated with immunization visits in pediatric primary care. *J Pediatr Nurs*. 2015;30(2):294–300
28. Canbulat N, Inal S, Sönmezer H. Efficacy of distraction methods on procedural pain and anxiety by applying distraction cards and kaleidoscope in children. *Asian Nurs Res (Korean Soc Nurs Sci)*. 2014;8(1):23–28
29. Hedén L, VON Essen L, Ljungman G. Randomized interventions for needle procedures in children with cancer. *Eur J Cancer Care (Engl)*. 2009;18(4): 358–363
30. Inal S, Kelleci M. Distracting children during blood draw: looking through distraction cards is effective in pain relief of children during blood draw. *Int J Nurs Pract*. 2012;18(2):210–219
31. Sadeghi T, Mohammadi N, Shamshiri M, Bagherzadeh R, Hossinkhani N. Effect of distraction on children's pain during intravenous catheter insertion. *J Spec Pediatr Nurs*. 2013;18(2):109–114
32. Ha YO, Kim HS. The effects of audiovisual distraction on children's pain during laceration repair. *Int J Nurs Pract*. 2013; 19(suppl 3):20–27
33. Brown NJ, Kimble RM, Rodger S, Ware RS, Cuttle L. Play and heal: randomized controlled trial of Ditto™ intervention efficacy on improving re-epithelialization in pediatric burns. *Burns*. 2014;40(2): 204–213
34. Shahid R, Benedict C, Mishra S, Mulye M, Guo R. Using iPads for distraction to reduce pain during immunizations. *Clin Pediatr (Phila)*. 2015;54(2):145–148
35. Nilsson S, Renning AC. Pain management during wound dressing in children. *Nurs Stand*. 2012;26(32):50–55



36. Isong IA, Rao SR, Holifield C, et al. Addressing dental fear in children with autism spectrum disorders: a randomized controlled pilot study using electronic screen media. *Clin Pediatr (Phila)*. 2014;53(3):230–237
37. Borges L, Huber D, Lugo S. Harnessing the power of digital devices. *Pediatr Nurs*. 2011;37(2):88
38. Nilsson S, Finnström B, Kokinsky E, Enskär K. The use of virtual reality for needle-related procedural pain and distress in children and adolescents in a paediatric oncology unit. *Eur J Oncol Nurs*. 2009;13(2):102–109
39. Blaine S. The where, why and how: coping kits and distraction. *Child Life Focus*. 1999;1(1):1–6
40. Bandstra NF, Skinner L, Leblanc C, et al. The role of child life in pediatric pain management: a survey of child life specialists. *J Pain*. 2008;9(4):320–329
41. Heckler-Medina GA. The importance of child life and pain management during vascular access procedures in pediatrics. *Journal of the Association for Vascular Access*. 2006;11(3):144–151
42. Lawes C, Sawyer L, Amos S, Kandiah M, Pearce L, Symons J. Impact of an education programme for staff working with children undergoing painful procedures. *Paediatr Nurs*. 2008;20(2):33–37
43. Pederson C. Nonpharmacologic interventions to manage children's pain: immediate and short-term effects of a continuing education program. *J Contin Educ Nurs*. 1996;27(3):131–140
44. Schechter NL. From the ouchless place to comfort central: the evolution of a concept. *Pediatrics*. 2008;122(suppl 3):S154–S160
45. Leahy S, Kennedy RM, Hesselgrave J, Gurwitch K, Barkey M, Millar TF. On the front lines: lessons learned in implementing multidisciplinary peripheral venous access pain-management programs in pediatric hospitals. *Pediatrics*. 2008;122(suppl 3):S161–S170
46. Lacey CM, Finkelstein M, Thygeson MV. The impact of positioning on fear during immunizations: supine versus sitting up. *J Pediatr Nurs*. 2008;23(3):195–200
47. Stephens BK, Barkey ME, Hall HR. Techniques to comfort children during stressful procedures. *Adv Mind Body Med*. 1999;15(1):49–60
48. Sparks LA, Setlik J, Luhman J. Parental holding and positioning to decrease IV distress in young children: a randomized controlled trial. *J Pediatr Nurs*. 2007;22(6):440–447
49. Yogman M, Garner A, Hutchinson J, Hirsh-Pasek K, Golinkoff RM; Committee on Psychosocial Aspects of Child and Family Health; Council on Communications and Media. The power of play: a pediatric role in enhancing development in young children. *Pediatrics*. 2018;142(3):e20182058
50. Brown CD. Therapeutic Play and Creative Arts: Helping Children Cope with Illness, Death, and Grief. In: Armstrong-Dailey A, Zarbock S, eds. *Hospice Care for Children*, 3rd ed. New York, NY: Oxford University Press; 2009:305–338
51. Erikson EH. Studies in the interpretation of play: clinical observation of play disruption in young children. *Genet Psychol Monogr*. 1940;22:557–671
52. Fereday J, Darbyshire P. Making the wait easier: evaluating the role of supervised play in a surgical admission area. *Neonatal, Paediatric and Child Health Nursing*. 2008;11(1):4–9
53. Koller D. *Child Life Council Evidence-Based Practice Statement: Therapeutic Play in Pediatric Health Care: The Essence of Child Life Practice*. Rockville, MD: Child Life Council; 2009. Available at: <https://www.childlife.org/docs/default-source/research-ebp/ebp-statements.pdf?sfvrsn=2>. Accessed November 5, 2020
54. Hughes FP. *Children, Play, and Development*, 4th ed. Thousand Oaks, CA: SAGE Publications, Inc; 2010
55. Melnyk BM, Alpert-Gillis L, Feinstein NF, et al. Creating opportunities for parent empowerment: program effects on the mental health/coping outcomes of critically ill young children and their mothers. *Pediatrics*. 2004;113(6). Available at: [www.pediatrics.org/cgi/content/full/113/6/e597](http://www.pediatrics.org/cgi/content/full/113/6/e597)
56. Olson CK. Children's motivations for video game play in the context of normal development. *Rev Gen Psychol*. 2010;14(2):180–187
57. Nicholas DB, Darch J, McNeill T, et al. Perceptions of online support for hospitalized children and adolescents. *Soc Work Health Care*. 2007;44(3):205–223
58. Rollins JA. The Arts in Children's Health-Care Settings. In: Rollins JA, Bolig R, Mahan C, eds. *Meeting Children's Psychosocial Needs Across the Health-Care Continuum*, 1st ed. Austin, TX: Pro-Ed; 2005:119–174
59. Kaminski M, Pellino T, Wish J. Play and pets: the physical and emotional impact of child-life and pet therapy on hospitalized children. *Child Health Care*. 2002;31(4):321–335
60. Heilbrunn BR, Wittern RE, Lee JB, Pham PK, Hamilton AH, Nager AL. Reducing anxiety in the pediatric emergency department: a comparative trial. *J Emerg Med*. 2014;47(6):623–631
61. Avers L, Mathur A, Kamat D. Music therapy in pediatrics. *Clin Pediatr (Phila)*. 2007;46(7):575–579
62. Councill T. Medical Art Therapy with Children. In: Malchiodi C, ed. *Handbook of Art Therapy*, 1st ed. New York, NY: Guilford Press; 2003:207–219
63. Committee on Hospital Care, American Academy of Pediatrics. Family-centered care and the pediatrician's role. *Pediatrics*. 2003;112(3, pt 1):691–697
64. Lewindowski L, Baranowski MV. Psychological aspects of acute trauma: intervening with children and families in the inpatient setting. *Child Adolesc Psychiatr Clin N Am*. 1994;3(3):513–529
65. Gursky B. The effect of educational interventions with siblings of hospitalized children. *J Dev Behav Pediatr*. 2007;28(5):392–398
66. Prchal A, Graf A, Bergstraesser E, Landolt MA. A two-session psychological intervention for siblings of pediatric cancer patients: a randomized controlled pilot trial. *Child Adolesc Psychiatry Ment Health*. 2012;6(1):3
67. Association of Child Life Professionals. Child Life Professional Data Center. Available at: <https://www.childlife.org/resources/for-child-life-specialists/child-life-professional-data-center>. Accessed May 1, 2018
68. Koller D. *Child Life Council Evidence-Based Practice Statement: Child Life*

- Assessment: Variables Associated With a Child's Ability to Cope with Hospitalization*. Rockville, MD: Child Life Council; 2009. Available at: <https://www.childlife.org/docs/default-source/research-ebp/ebp-statements.pdf?sfvrsn=2>. Accessed November 5, 2020
69. Turner JC, Fralic J. Making explicit the implicit: child life specialists talk about their assessment process. *Child Youth Care Forum*. 2009;38:39–54
70. Hollon E, Skinner L. Assessment and Documentation in Child Life. In: Thompson R, ed. *The Handbook of Child Life: A Guide for Pediatric Psychosocial Care*, 1st ed. Springfield, IL: Charles C Thomas; 2009:116–135
71. Child Life Council, Child Life Certifying Committee. *Child Life Professional Certification Candidate Manual*. Rockville, MD: Child Life Council; 2011. Available at: <https://www.childlife.org/docs/default-source/certification/candidate-manual.pdf?sfvrsn=10>. Accessed November 5, 2020
72. National Association of Children's Hospitals and Related Institutions. *Pediatric Excellence in Health Delivery Systems*. Alexandria, VA: National Association of Children's Hospitals and Related Institutions; 1996:9–10
73. Accreditation Council for Graduate Medical Education. *Program Requirements for Graduate Medical Education in Pediatrics*. Chicago, IL: Accreditation Council for Graduate Medical Education; 2007. Available at: [https://www.acgme.org/Portals/0/PFAssets/ProgramRequirements/320\\_Pediatrics\\_2020.pdf?ver=2020-06-29-162726-647](https://www.acgme.org/Portals/0/PFAssets/ProgramRequirements/320_Pediatrics_2020.pdf?ver=2020-06-29-162726-647). Accessed November 5, 2020
74. Olmstead MG, Powell R, Murphy J, et al. *Methodology: US News & World Report Best Children's Hospitals 2019–2020*. Research Triangle Park, NC: RTI International; 2019. Available at: [https://www.usnews.com/static/documents/health/best-hospitals/BCH\\_Methodology\\_2019-20.pdf](https://www.usnews.com/static/documents/health/best-hospitals/BCH_Methodology_2019-20.pdf). Accessed November 5, 2020
75. Association of Child Life Professionals. Directory of child life programs. Available at: <http://community.childlife.org>. Accessed May 1, 2018
76. Hicks M, ed. *Child Life Beyond the Hospital*, 1st ed. Rockville, MD: Child Life Council; 2008
77. Berry JG, Hall M, Neff J, et al. Children with medical complexity and Medicaid: spending and cost savings. *Health Aff (Millwood)*. 2014;33(12):2199–2206
78. Centers for Disease Control and Prevention. National survey of children with special health care needs. Available at: <https://www.cdc.gov/nchs/slaits/cshcn.htm>. Accessed October, 2018
79. Seid M, Sherman M, Seid AB. Perioperative psychosocial interventions for autistic children undergoing ENT surgery. *Int J Pediatr Otorhinolaryngol*. 1997;40(2–3):107–113
80. The Beryl Institute. What patient experience can learn from child life. Available at: <https://www.theberylinstitute.org/store/ViewProduct.aspx?id=11084124>. Accessed May 1, 2018
81. Perou R, Bitsko RH, Blumberg SJ, et al.; Centers for Disease Control and Prevention (CDC). Mental health surveillance among children—United States, 2005–2011. *MMWR Suppl*. 2013; 62(2):1–35
82. Houtrow AJ, Larson K, Olson LM, Newacheck PW, Halfon N. Changing trends of childhood disability, 2001–2011. *Pediatrics*. 2014;134(3):530–538
83. Burns KH, Casey PH, Lyle RE, Bird TM, Fussell JJ, Robbins JM. Increasing prevalence of medically complex children in US hospitals. *Pediatrics*. 2010;126(4):638–646
84. Simon TD, Berry J, Feudtner C, et al. Children with complex chronic conditions in inpatient hospital settings in the United States. *Pediatrics*. 2010; 126(4):647–655
85. Kuo DZ, Houtrow AJ; Council on Children With Disabilities. Recognition and management of medical complexity. *Pediatrics*. 2016;138(6):e20163021
86. Scal P. Transition for youth with chronic conditions: primary care physicians' approaches. *Pediatrics*. 2002;110(6, pt 2):1315–1321
87. Cooley WC, Sagerman PJ; American Academy of Pediatrics; American Academy of Family Physicians; American College of Physicians; Transitions Clinical Report Authoring Group. Supporting the health care transition from adolescence to adulthood in the medical home. *Pediatrics*. 2011;128(1): 182–200
88. Transitioning Youth to an Adult Health Care Clinician. Available at: <https://gottransition.org/six-core-elements/transitioning-youth-to-adult/>. Accessed November 5, 2020
89. Orkoskey N. *Transitioning Patients with Cystic Fibrosis from Pediatric to Adult Care: A Lifelong Process*. Rockville, MD: Child Life Council; 2009
90. Wolf JA, Niederhauser V, Marshburn D, LaVela SL. Defining patient experience. *Patient Exp J*. 2014;1(1):7–19
91. Tyson ME, Bohl DD, Blickman JG. A randomized controlled trial: child life services in pediatric imaging. *Pediatr Radiol*. 2014;44(11):1426–1432
92. The Joint Commission. *Advancing Effective Communication, Cultural Competence, and Patient- and Family-Centered Care: A Roadmap for Hospitals*. Oakbrook Terrace, IL: The Joint Commission; 2010. Available at: [www.jointcommission.org/Advancing\\_Effective\\_Communication/](http://www.jointcommission.org/Advancing_Effective_Communication/). Accessed May 1, 2018
93. Medical Home Initiatives for Children With Special Needs Project Advisory Committee, American Academy of Pediatrics. The medical home. *Pediatrics*. 2002;110(1, pt 1): 184–186
94. Association of Child Life Professionals. Program review and development services. Available at: <https://www.childlife.org/resources/for-child-life-specialists/program-review>. Accessed November 5, 2020

## Child Life Services

Barbara Romito, Jennifer Jewell, Meredith Jackson and AAP COMMITTEE ON HOSPITAL CARE; ASSOCIATION OF CHILD LIFE PROFESSIONALS

*Pediatrics* 2021;147;

DOI: 10.1542/peds.2020-040261 originally published online December 28, 2020;

### Updated Information & Services

including high resolution figures, can be found at:  
<http://pediatrics.aappublications.org/content/147/1/e2020040261>

### References

This article cites 69 articles, 13 of which you can access for free at:  
<http://pediatrics.aappublications.org/content/147/1/e2020040261#BL>

### Permissions & Licensing

Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:  
<http://www.aappublications.org/site/misc/Permissions.xhtml>

### Reprints

Information about ordering reprints can be found online:  
<http://www.aappublications.org/site/misc/reprints.xhtml>

# American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN®



# PEDIATRICS<sup>®</sup>

OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

## Child Life Services

Barbara Romito, Jennifer Jewell, Meredith Jackson and AAP COMMITTEE ON  
HOSPITAL CARE; ASSOCIATION OF CHILD LIFE PROFESSIONALS

*Pediatrics* 2021;147;

DOI: 10.1542/peds.2020-040261 originally published online December 28, 2020;

The online version of this article, along with updated information and services, is  
located on the World Wide Web at:

<http://pediatrics.aappublications.org/content/147/1/e2020040261>

Pediatrics is the official journal of the American Academy of Pediatrics. A monthly publication, it has been published continuously since 1948. Pediatrics is owned, published, and trademarked by the American Academy of Pediatrics, 345 Park Avenue, Itasca, Illinois, 60143. Copyright © 2021 by the American Academy of Pediatrics. All rights reserved. Print ISSN: 1073-0397.

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN<sup>®</sup>

